

#### **NEW YORK STATE ASSOCIATION OF MPOS**

# CLIMATE CHANGE AND SUSTAINABILITY WORKING GROUP

October 17, 2019 Webinar Meeting 1:00 PM - 2:00 PM

#### **MEETING NOTES**

#### **Participating**

- CDTC, Jennifer Ceponis (Chair)
- AGFTC, Jack Mance
- CDTC, Chris O'Neill
- · CS, Rich Denbow
- DCTC, Dylan Tuttle
- ECTC, Courtney Taylor
- Energetics, Victoria McGarril
- GTC, Joe Bovenzi
- NYMTC, Manish Shah
- NYSDEC, Myra Fedyniak
- NYSDEC, Maureen Leddy
- NYSDEC, Lois New
- NYSDEC, Jason Pandich
- NYSDOT, Elisabeth Lennon
- NYSDOT, Colleen Smith-Lemmon
- NYSERDA, Robyn Marquis
- OCTC, Zach Coleman
- SMTC, Kevin Busa

#### 1. Climate Leadership and Community Protection Act

Lois New, NYSDEC, provided information about New York's Climate Leadership and Community Protection Act (CLCPA). Highlights include:

- CLCPA establishes GHG reduction goals and sets them in statute. It sets goals of 70 percent renewable energy by 2030 and 100 percent clean electricity by 2040.
- Creates a Climate Action Council to develop the plan for achieving these goals. The
  Climate Action Council has two years to develop a draft plan of recommendations for
  achieving the GHG reductions and an additional year to finalize the plan. The Council
  will be co-chaired by DEC and NYSERDA, and will appoint several advisory panels to
  develop recommendations for strategies to reduce emissions in various areas.
- Includes commitments to disadvantaged communities and environmental justice during the transition to a low-carbon economy. Resources will be directed in a manner designed to achieve goals for disadvantaged communities to receive a percentage of the benefits of spending on programs or projects.

Maureen Leddy, NYSDEC, presented information about the Transportation & Climate Initiative of the Northeast and Mid-Atlantic States (TCI).

- TCI is a collaboration of state energy, environment and transportation agencies in 13
  jurisdictions from Maine to Virginia, with the goal of tackling transportation
  challenges regionally and reducing emissions. The Georgetown Climate Center
  serves as the facilitator for the TCI members.
- In 2018, the states held listening sessions where about 800 people provided input on transportation needs and opportunities, goals for a future low carbon-transportation system, and how different types of policies and actions can help meet those goals.
- Maureen summarized the policy actions identified most often by stakeholders: price
  pollution transparently and reinvest proceeds; electrify all travel modes; incorporate
  smart growth, zoning changes, transit-oriented development and affordable housing
  in plans; encourage all modes of transportation; support alternative fuel use; and
  improve ports and other freight facilities.
- The outcome of the listening sessions led to a commitment to design a policy proposal that would cap and reduce carbon emissions from transportation fuels and allow each TCI jurisdiction to invest proceeds into low-carbon and more resilient transportation infrastructure. The cap would get smaller over time, resulting in a reduction in pollution across the region.
- The states are developing the program through multi-state workgroups, with engagement by stakeholders.
- TCI released a draft regional policy proposal framework in October 2019.
- TCI is looking for input on the policy proposal, including what should be considered
  as a covered fuel, what entities should be required to participate in the program,
  how a regional cap should be set, and how reductions of the cap should be
  structured.
- Looking forward, TCI will develop a model rule and legislative steps that may be needed to implement the regional program. Jurisdictions may then conduct the rulemaking process to adopt regulations and begin implementation as early as 2022.

Jen Ceponis will follow-up with NYSAMPO regarding CLCPA and providing input to the process.

In summary, Lois New asked the WG to review materials and invited comments and input. She provided the following links:

- For questions or comments, email climateandtransportation@dec.ny.gov
- Information on the regional process including webinars and regional workshops: <a href="https://www.transportationandclimate.org/main-menu/tcis-regional-policy-design-process-2019">https://www.transportationandclimate.org/main-menu/tcis-regional-policy-design-process-2019</a>
- Information on upcoming meetings around the state: <a href="http://www.dec.ny.gov/energy/99223.html">http://www.dec.ny.gov/energy/99223.html</a>

#### 2. EV Installation Resources for Planners and Developers

Victoria McGarril, Energetics, briefed the WG on a *Developers and Planners Guide to Electric Vehicles and Charging Stations*. The Guide was developed by Energetics, with support from NYSERDA. It provides information to support EV charging station deployment, including incentives and installation guidelines for residential and commercial property owners and developers in New York.

Victoria emphasized that EV charging offers benefits for developers, including qualifying for LEED points and helping with tenant retention. In addition, planning and preparing for EV charging during design and construction can significantly reduce future EV station installation costs.

The Guide includes several modules:

- EV Planning and Policy Tool Summary.
- Action Items for EV-Ready Communities.
- Communities Taking Action: New York State Local Examples.
- Site Selection Guide for EV Charging Stations.

Training resources and recorded webinars are also available. Victoria discussed incentive programs and funding sources available in New York and provided examples of EV-related building codes by county.

The following link navigates to the Guide and includes additional information: <a href="http://www.energetics.com/our-work-4/2018/2/22/municipal-planning-board-guide-to-electric-vehicles-and-charging-stations">http://www.energetics.com/our-work-4/2018/2/22/municipal-planning-board-guide-to-electric-vehicles-and-charging-stations</a>.

#### 3. NY Truck Voucher Incentive Program / VW Settlement Update

Jen Ceponis briefed the CCWG on the New York Truck Voucher Incentive Program (NYTVIP), which provides \$20 million for a diesel truck and bus replacement program to improve air quality and reduce greenhouse gas emissions. NYTVIP vouchers reduce the cost for businesses and municipalities that purchase or lease new, clean electric vehicles or repower commercial trucks and buses (all-electric (BEV), plug-in hybrid electric (PHEV), conventional hybrid electric (HEV), compressed natural gas (CNG), or propane medium- and heavy-duty vehicles) and scrap a similar older diesel vehicle that is part of their fleet. Voucher amounts are based on the incremental cost of the vehicle, which is the difference in cost between the alternative fuel vehicle and a comparable diesel vehicle, up to a pervehicle cap. Voucher incentive amounts may differ by vehicle technology, vehicle weight class, and location where the vehicle is housed. The WG will continue to monitor this program.

Information about the Truck Voucher Incentive program is available at: <a href="https://www.nyserda.ny.gov/All-Programs/Programs/Truck-Voucher-Program">https://www.nyserda.ny.gov/All-Programs/Programs/Truck-Voucher-Program</a>

#### 4. NYSDEC ZEV Rebate

Myra Fedyniak, NYSDEC, discussed the Municipal ZEV Clean Vehicle Rebate Program, which provides rebates to cities, towns, villages, and counties (including New York City boroughs) to purchase or lease new clean vehicles for fleet use. Eligible vehicles must be purchased or leased on or after July 1, 2019 and placed into service at a dealership located in New York State. Plug-in hybrid electric, all-electric, and hydrogen fuel cell vehicles with a 10- to 50-mile electric range are eligible for a rebate of \$2,500 and vehicles with 51 or greater miles of electric range are eligible for a rebate of \$5,000. Municipalities may purchase and receive rebates for multiple vehicles. Grant funds totaling \$500,000 are available, and no more than 50 percent of the total amount will be awarded to any one municipality. Applications are reviewed and rebates awarded on a first come, first served basis in the order they are received.

Myra also discussed the Municipal ZEV Infrastructure Grant Program, which provides grants to cities, towns, villages, and counties (including New York City boroughs) to purchase and install electric vehicle supply equipment (EVSE) or hydrogen fuel cell filling stations for public use. At least 20 percent of the total project cost must be provided as local match. A total of \$2,500,000 is available under the program, with a maximum award limit per facility and another per municipality. Applications are reviewed and grants awarded on a first come, first served basis until May 29, 2020.

Information about both municipal grant funding opportunities is available at <a href="http://www.dec.ny.gov/energy/109181.html">http://www.dec.ny.gov/energy/109181.html</a>.

#### 5. Micromobility Fact Sheet Update

Jen provided an update on development of the micromobility fact sheet. The Bike-Ped Working Group continues to work on the fact sheet. The legislature passed legislation and is waiting for the Governor's signature. Once the status is available the Bike-Ped WG will complete a new draft of the fact sheet.

#### 6. Partner Agency Updates

NYSERDA provided an update on current funding opportunities.

#### 7. Next Meeting/Adjourn

The meeting will be scheduled for January 2020.



# A Potential Regional Approach to Transportation and Climate

# Climate Leadership and Community Protection Act

Most aggressive GHG reduction goals of any major economy: 40X30, 85X50

70% renewable energy by 2030, 100% clean electricity by 2040

Path to carbon neutrality

Codifies clean energy targets

Commitments to environmental justice, disadvantaged communities, and just transition

First statutory Climate Action Council





### **Climate Action Council**

2 years: Draft Scoping Plan of recommendations for achieving GHG limits, final in 3 years

Co-chaired by DEC and NYSERDA

Agencies: DOT, DOH, ESD, DAM, HCR, DOL, PSC, NYPA, LIPA, DOS

- 2 Governor appointments
- 8 Legislative appointments

#### Advisory panels:

- transportation
- land use and local government
- housing and energy efficiency
- energy intensive industries
- power generation
- agriculture and forestry



## **Investing in Disadvantaged Communities**

Invest or direct available and relevant programmatic resources in a manner designed to achieve a goal for disadvantaged communities to receive 40% of overall benefits of spending on:

- clean energy and energy efficiency programs
- projects or investments in the areas of housing, workforce development, pollution reduction, low income energy assistance, energy, transportation and economic development

Receive no less than 35% of the overall benefits of spending on clean energy and energy efficiency programs, projects or investments (does not alter funds already committed)



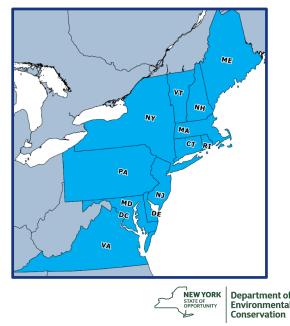
## **Transportation & Climate Initiative**

12 northeast and mid-Atlantic states and the District of Columbia

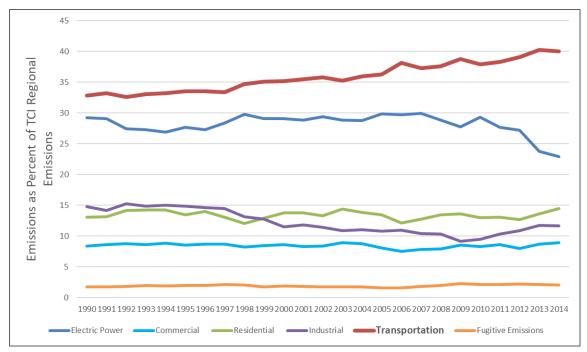
Working together to reduce GHG emissions from transportation

Georgetown Climate Center provides facilitation, conducts research, and supports the states





# Transportation is the Largest and Growing Share of GHG Emissions in NYS & TCI Region



Data Source: WRI CAIT, 2018



# In 2018 TCI States Engaged Stakeholders and Communities through Listening Sessions





Through six regional listening sessions, and an additional 5 in NYS, over 800 stakeholders discussed:

- Transportation needs and opportunities
- Goals for a future, low carbontransportation system for our region
- How different types of policies and actions can help meet those goals



## Policy Actions Identified Most Often by Stakeholders

- Price pollution transparently and reinvest proceeds
- 2. Electrify all travel modes
- Incorporate smart growth, zoning changes, transit-oriented development and affordable housing in plans
- 4. Encourage all modes of transportation
- 5. Support alternative fuel use
- Improve ports and other freight facilities





### 2018 TCI Regional Policy Announcement

- Announcement in December 2018
- "design a regional low-carbon transportation policy proposal that would cap and reduce carbon emissions from the combustion of transportation fuels... and allow each TCI jurisdiction to invest proceeds from the into lowcarbon and more resilient transportation infrastructure"
- All 13 jurisdictions are participating in the process



#### TRANSPORTATION & CLIMATE INITIATIVE STATEMENT

December 18, 2018

The Northeast and Mid Atlantic states are taking steps to develop cleaner transportation systems that reduce registerion prices was registered by the reduce registerion prices with registerior that reduce in extraction and economic growth, improve air quality, help communities become resilient to extreme himself of the prices of the registerior to extreme the registerior to extract the registerior of the registerior to extract the registerior of the registerior of

TCI member jurisdictions recognize that a regional low-carbon transportation policy would enable us to out carbon pollution in line with our emission recluding past in 2013, several TCI jurisdictions committed to engage with the public in a conversation about the "coportunities" and challenges, the selective would all like to see in the transportation system of the future, and the public sha will ensemble us to realize this future tagether. Over the past year, dozencarbon transportation goals, needs, and policy solutions. A devere group of stateholders in the region have expressed strong interest in the potential for establishing a market-based policy analyses underscore the potential economic, environmental, and public health benefits of reviewshight the proceeds from such a propagam into more clean transportation options, such as strategies, and other solutions that move people and goods more efficiently while generating less pollution, including in environmental pastice communities.

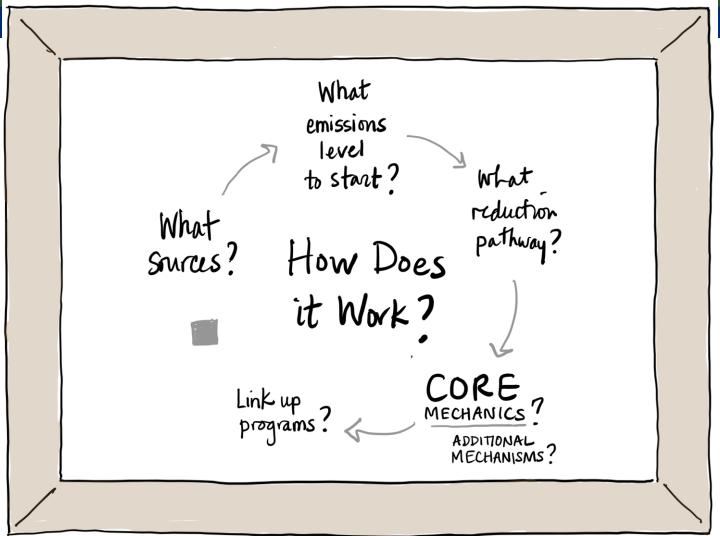
Informed by input from hundreds of stateholders and expert analysis, the participating TCI jurisdictions will either a regional four-ceitor transportation policy proposal that would cap and reduce carbon emissions from the combustion of transportation fuels through a cap-and-investigation program or other pricing mechanism, and allow even TCI jurisdiction to invest proceeds from the program into low-carbon and more resilient transportation infrastructure. This proposed program, when combined with desiting programs and complementary policies, will be designed to achieve substantial reductions in transportation sector emissions and provide net economic and social benefit for periticipating states.

www.transportationandclimate.org

www.transportationandclimate.org/nine-states-and-dc-design-regional-approach-cap-greenhouse-gas-pollution-transportation



# 1()(/ CAP. AND. INVEST WORKS

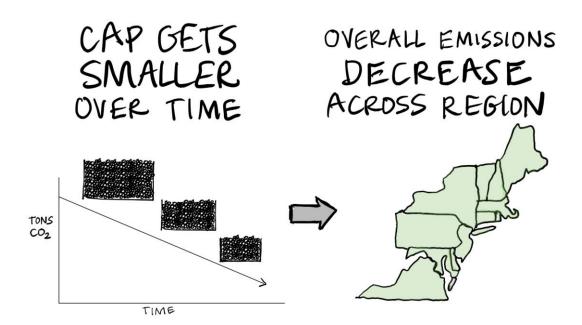


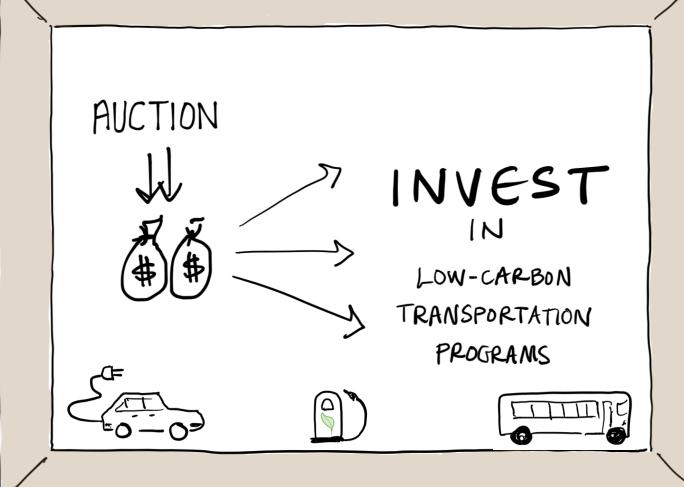
# HOW CAP. AND. INVEST WORKS

EMISSIONS BUDGET

&= ALLOWANCES

ALLOWANCES ARE DISTRIBUTED INTO THE MARKETPLACE









# TCI States Engaging Communities and Stakeholders and Conducting Analysis



Stakeholder Engagement

Modeling and Analysis

**State Working Groups** 



## 2019 TCI Regional Policy Design Overview

| Phase   | Timing             | Milestones   |
|---------|--------------------|--|
| Phase 1 | January-March 2019 | <ul> <li>Identify milestones</li> <li>Finalize workplan, schedule, and processes</li> </ul>  |
| Phase 2 | April-July 2019    | <ul> <li>Conduct modeling and policy analysis</li> <li>Conduct further stakeholder engagement</li> <li>Coordinate activities to inform decision-making, including public input portal</li> </ul> |



## 2019 TCI Public Workshops and Updates

TCI Workshop: Regional Cap and Invest for Transportation - Key Design Elements (April 30, Boston)

TCI Workshop and Roundtable Discussion: Advancing Equity & Creating Opportunities for All Communities (May 15, Newark)

Webinar: Reference Case Assumptions for Policy Program Design

TCI Workshop: Low-Carbon Transportation Investments, Strategies and Outcomes (July 30, Baltimore)

Webinar: Reference Case Results

Release of Framework for a Draft Regional Policy Proposal (October

1)

Release of Framework for a Draft Regional Policy Proposal (October

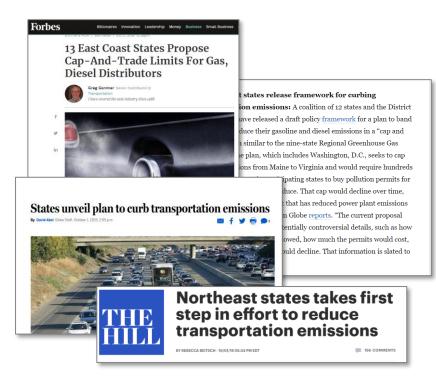
| NEWYORK | Department | Departmen

## 2019 TCI Regional Policy Design Overview

| Phase   | Timing                    | Milestones   |
|---------|---------------------------|--|
| Phase 3 | August -<br>November 2019 | <ul> <li>Review input from stakeholders and<br/>analysis to develop specific regional policy<br/>options to share with the public, inviting<br/>feedback.</li> </ul> |
|         |                           | <ul> <li>October 1, 2019 – Release of framework<br/>for a draft regional policy proposal</li> </ul>  |
|         |                           | October/November 2019 – Gather and<br>consider public input on framework   |



# Framework for a Draft Regional Policy Proposal



October 1 Public Release

Program Framework

Detailed timeline

Modeling memo

'What We've Heard'



## **Key Program Design Elements**

Selection of Covered Fuels

Determine Regulated Entities

Setting a Cap and Reducing Emissions



## **TCI Program Development Timeline**

**Spring – Fall 2020** – Participating jurisdictions develop a "model rule" and take any legislative steps that could be needed to implement the regional program.

**2021** – Jurisdictions conduct rulemaking process to adopt regulations.

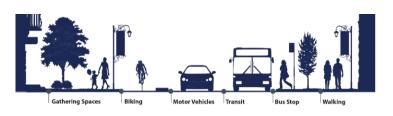
As early as 2022 – Program implementation begins.



# Policy Could Raise Significant Proceeds to Fund Emissions Reductions and Improved Transportation Services









### **Thank You**

- Please send any questions or comments to: climateandtransportation@dec.ny.gov
- For more information on the regional process including webinars and regional workshops, visit: <a href="https://www.transportationandclimate.org/main-menu/tcis-regional-policy-design-process-2019">https://www.transportationandclimate.org/main-menu/tcis-regional-policy-design-process-2019</a>
- More information on upcoming meetings around the state see our website: <a href="http://www.dec.ny.gov/energy/99223.html">http://www.dec.ny.gov/energy/99223.html</a>



# PROMOTING EV CHARGING STATIONS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS

Information, Incentives, and Installation Guidelines for New York Property Owners & Developers

New York State Energy Research and Development Authority





# NOTICE

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# ABOUT US



Energetics, a division of Akimeka, LLC, is an engineering and management consulting firm assisting government and industry in developing new solutions in energy, climate, transportation, and security.



WXY architecture + urban design is a planning and design firm focused on social and environmental transformation of the public realm at multiple scales.



As a <u>public benefit corporation</u>, **NYSERDA** offers objective information and analysis, innovative programs, technical expertise, and support to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce reliance on fossil fuels. NYSERDA advances energy solutions while working to protect the environment.

# CONTENTS

- 1 Intro to EV Charging
- 2 Developer Incentives
- 3 EV Building Codes & Guidelines
- **A** Appendix

# HIGHLIGHTS

- EV registrations are increasing as EV makes and models continue to diversify and expand
- EV charging offers benefits for developers, including qualifying for LEED points and tenant retention
- Municipalities are establishing standards and codes around EV charging
- Planning and preparing for EV charging during design and construction reduces future installation costs

## **ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE) COMPARISON**

# LEVEL OF CHARGE IMPACTS THE DURATION OF CHARGING

#### **LEVEL OF CHARGE**

#### **SUITABLE INSTALLATION CONTEXTS**

#### **AC LEVEL 1**

- · Best for 6 hour+ or overnight charging
- Requires 120 volt supply at 12–16 amps
- Alternating Current (AC) provided at 1.4–1.9 kW
- Station hardware \$500-\$1,000 per port





Single-Family

**Multi-Family** 

#### **AC LEVEL 2**

- Best for 2-6 hour dwell times
- Requires 208/240V supply at 20–80 amps
- AC provided at 3.3–19.2 kW (6.6 kW most common)
- Station hardware \$600-\$5,000 per port



Single-Family







DC FAST CHARGE

- Best for fast charging and high turnover contexts (30 minute charge)
- Requires 3-phase 480 volt supply at 80-200 Amps
- Direct Current (DC) provided at 40-100 kW
- Station hardware \$7,000-\$50,000 per port



Municipal/ Private Fleet



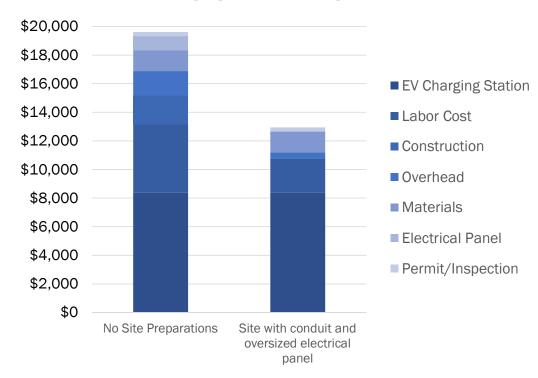
Public Metro Areas

## **LEVEL 2 EVSE COST CONSIDERATIONS**

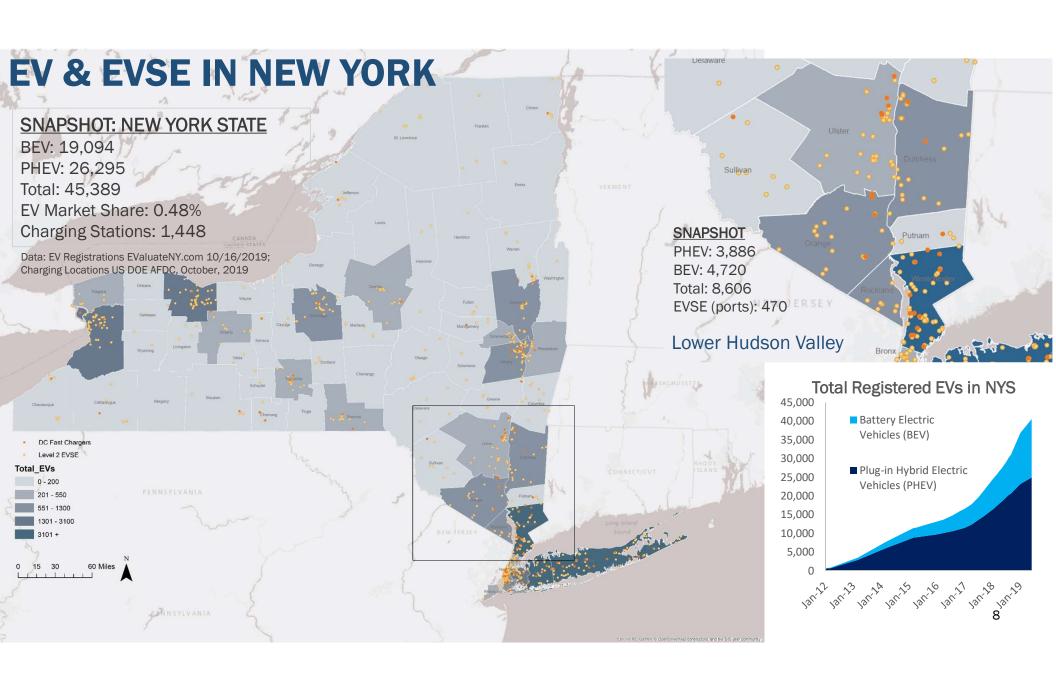
# PREPARING FOR FUTURE EVSE INSTALLATIONS CAN SIGNIFICANTLY LOWER COSTS

- Average dual-port Level 2 station costs \$20,000 (2012-2016 NYSERDA Charging Station Deployment Program)
- Preparing site can reduce total installation costs by 33% or \$6,700
  - 1"-1.5" conduit run from the electrical panel to the potential EV charging station location
  - Electrical panel with additional capacity and available breaker slots

#### **Dual Port Charging Station Average Costs**

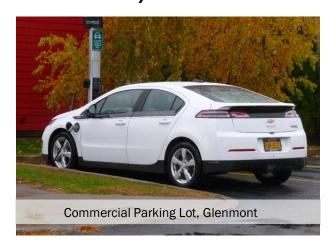


**2018-present NYSERDA Charge Ready NY Program:** Average dual-port Level 2 station costs \$14,000 (ranges from \$7,000-\$25,000) with hardware \$7,000 (\$3,000-\$9,000) and installation \$7,000 (\$2,000-\$17,000).



## **BENEFITS OF EVSE**

#### **OWNER/DEVELOPER**



LEED points and other sustainability bonuses

Greater tenant retention

Stronger garage lease negotiating power

#### **TENANT**



Attractive amenity

Ease of access and reliability of exclusive use

Enables EV ownership for those without other charging options

#### **GARAGE OPERATOR**



Higher revenue potential for charging

Futureproofed for emerging vehicle technology

# **INCENTIVES & FUNDING RESOURCES**

| PROGRAM  | INCENTIVE  |
|--|--|
| NYSERDA Charge Ready NY  | Rebates of \$8,000 for a dual-port charging station installation   |
| Department of Taxation and Finance Alternative Fuels and Electric Vehicle Recharging Property Credit | Tax credit for installation of charging stations equal to the lesser of \$5,000 or 50% of the cost of property, less any cost paid from the proceeds of grants |
| New York Power Authority Charge NY   | Assistance and incentives for EV Charging stations for municipalities  |
| Department of Energy Alternative Fuels  Data Center  | Laws and Incentive resources by State  |
| Joint DOT & DOE Guide to Federal Funding & Financing EV/EVSE   | Federal financing, funding, and other incentive opportunities  |
| Clean Cities Coalition Network   | Part of DOE Vehicle Technologies Office – local coalitions can be a resource for more information  |
| Municipal Zero-emission Vehicle Clean Vehicle Rebate and Infrastructure Program                      | Rebates for municipalities to install public EVSE. Rebates also available for the purchase or lease clean vehicles for fleet use.                              |

Note: All programs are subject to change and funding may be resource or time limited

# **EXAMPLES OF EV/EVSE BUILDING CODES BY COUNTY (NY)**

| Municipality                | County      | Local Law   | Defines EVSE<br>in local code |   | Designates<br>EVSE as<br>traditional<br>parking | Sets design<br>standards for<br>EVSE<br>installations | Sets installation requirements based on site space |
|-----------------------------|-------------|---|-------------------------------|---|---|---|--|
| Cohoes                      | Ainany      | Chapter 285 Zoning and Land Use § 285 - 176                     |                               |   | X   |   |  |
| Otto                        | Cattaraugus | §6.6 Electric Vehicle Supply Equipment (EVSE)                   | X                             | X |   |   |  |
| Brutus                      | Cayuga      | § 125-110: Electric Vehicle Supply Equipment Regulations        | x                             | x |   | x   |  |
| Redhook                     | Dutchess    | Local Law No. 1-2014  |                               |   |   |   | X  |
| Brockport                   | Monroe      | Local Law No. 2 of 2016 - Electric<br>Vehicle Charging Stations |                               |   |   | x   | x  |
| Port<br>Washington<br>North | Massan      | § 176-213 Electric Vehicle Charging<br>Systems                  |                               |   |   | x   | X  |
| <b>New York City</b>        | New York    | Local Law No. 130   |                               |   |   |   | X  |
| Onelda                      | Oneida      | Local Law No. 2 Of 2016 - EV<br>Resolution 16-115               |                               |   |   |   | X  |
| Ithaca                      | Tompkins    | § 271 - 16 Planned Development<br>Zone No. 15                   |                               |   | X   |   | X  |
| New Paltz                   | Ulster      | § 140-52 - Site Plan Review                                     |                               |   |   |   | X  |

11/20/2019 Energetics | WXY 11

# **FACILITATING INSTALLATION**

CONSIDER THE FOLLOWING IN PLANNING OR INSTALLING EVSE

| Site Prep   | Monitoring   | Operations   |
|---|--|--|
| <ul> <li>Consult with licensed<br/>electrician and notify your<br/>local utility</li> </ul>           | <ul> <li>Electricity can be<br/>monitored by EVSE<br/>software, available</li> </ul>                           | <ul> <li>Valet parking reduces<br/>access issues</li> </ul>  |
| Place EVSE close to electrical panel  | through network subscription   | <ul> <li>Monthly parking<br/>reservation system could<br/>manage access and</li> </ul>                                   |
| <ul> <li>Use electrical panel with<br/>additional capacity and<br/>available breaker slots</li> </ul> | <ul> <li>Network subscriptions are<br/>necessary for station<br/>pricing</li> </ul>                            | <ul> <li>Establish system or policy<br/>to move fully charged</li> </ul>   |
| Fit design to the required electrical capacity  | <ul> <li>Meter accuracy should<br/>meet utility billing<br/>standard</li> </ul>                                | vehicles to regular parking spots  |
| Energy management<br>systems can split power<br>among multiple circuits                               | Place new meters close to<br>power source to reduce<br>trenching costs   | <ul> <li>Use visible signage and<br/>pavement markings<br/>dictating EVSE user<br/>etiquette and terms of use</li> </ul> |
| Source: US DOE, ChargeNY  | <ul> <li>Incentives offered by<br/>utilities (i.e. ConEd)<br/>may reduce cost of<br/>separate meter</li> </ul> |  |

# Thank You

Contact for more information and full resource

Victoria McGarril

(315) 749-9932

vmcgarril@energetics.com