PROMOTING ELECTRIC VEHICLE CHARGING STATION INSTALLATIONS

Increasing Planner’s & Municipal Planning Board’s Involvement

Genesee Finger Lakes Regional Planning Council Regional Local Government Workshop
May 19th, 2017
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KEY ACRONYMS

**EV** Electric Vehicle (charges its batteries by plugging in)

**BEV** Battery Electric Vehicle (only electric motor and battery)

**PHEV** Plugin Hybrid Electric Vehicle (electric motor and gas engine)

**kWh** Kilowatt-hours (electrical energy stored by batteries)

**EVSE** Electric Vehicle Supply Equipment or EV Charging Station

**AC** Alternating Current (electrical grid)

**DC** Direct Current (batteries)

**kW** Kilowatt (electrical power of motors or chargers)

**NYSERDA** New York State Energy Research and Development Authority

**NYSDEC** New York State Department of Environmental Conservation

**NYPA** New York Power Authority

**TCI** Transportation and Climate Initiative (Northeast & Mid-Atlantic)

**U.S. DOE** United States Department of Energy
As a public benefit corporation, **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.

Energetics Incorporated 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.
Staff have assisted with the deployment of EV and EV charging stations across NYS.
The purpose of this resource is to help facilitate EV charging station installations

1. Who is this resource for?
   Developed primarily for planning board members throughout New York State, this may also be helpful for zoning board members, planners, and developers.

2. How can this resource be used?
   View the entire presentation for an educational overview on EVs and charging stations, then keep and use as a reference when addressing these topics in your community.

3. What does the resource cover?
   Information and reports on EVs and EV charging stations, municipal planning tools, and case studies with real-life examples of EV infrastructure deployments.
USING THIS RESOURCE

Recommended Adobe PDF Reader Settings
This document contains embedded PDFs. Download file to access embedded documents. Follow these instructions to open PDFs full-size in a new window:

1. Edit > Preferences

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Introduction to EVs & EV Charging

1.1 Benefits of EVs
1.2 EV Technology Overview
1.3 EV Charging Stations (EVSE)
1.4 EVs & EVSE in NYS
1.5 Importance of EVs for Municipalities
**BENEFITS OF EVs**

*EVs offer local, regional, and global environmental and economic benefits*

**Fuel Efficient**

With an efficiency of about 90%, electric motors are about **three times more efficient** than a gas engine. EVs recover energy while decelerating.

**Environmental Benefits**

Electric driving creates **zero tailpipe emissions**. Much of New York State’s electricity comes from low-carbon sources (hydro, nuclear, wind, solar).

**Cost Savings**

Electricity is **less expensive** than gasoline based on energy content and EVs require less maintenance.

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Vehicle Cost Calculator (U.S. DOE)  
More EV Benefits (NYSERDA)  
eGallon Calculator (U.S. DOE)
EV TECHNOLOGY OVERVIEW

Several EV models are available that meet many driver’s needs

Plug-in Hybrid Electric Vehicles (PHEV)
- Battery-powered electric motor (smaller battery) with an internal combustion engine powered by another fuel (ex. gas or diesel)
- 15-100 electric miles / 80-20 kWh
- 18 offered in NYS, including:
  - Audi A3 Sportback e-tron (16 e-miles)
  - Ford C-Max Energi (20 e-miles)
  - Toyota Prius Prime (25 e-miles)
  - Chevrolet Volt (53 e-miles)
  - BMW i3 w/ Range Extender (81 e-miles)

Battery Electric Vehicles (BEV)
- Battery-powered electric motor (larger battery)
- Battery charged by plugging into charging outlet
- 60-200 electric miles / 16-80 kWh
- 12 offered in NYS, including:
  - Kia Soul EV (93 e-miles)
  - Nissan Leaf (107 e-miles)
  - Volkswagen e-Golf (125 e-miles)
  - Chevrolet Bolt (238 e-miles)
  - Tesla Model S (265 e-miles)

Drive Clean Rebate (NYSERDA)

12 May 2017
**EVs IN NEW YORK STATE**

*EV ownership is increasing*

**16,600** registered EVs in NYS as of January, 2017

- More than 60% are in Long Island, Westchester & NYC
- Most other EVs are near larger cities

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**EVs Registered by County**

- **1 - 19**
- **20 - 99**
- **100 - 699**
- **700 – 1,499**
- **1,500 +**

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12 May 2017

NYSERDA | Energetics Incorporated | WXY architecture + urban design
## 1.4 EV Charging Stations (EVSE)

The level of charge determines the duration of charging.

### DC Fast Charge
- Direct Current (DC) provided at 40-100 kW
- 80% charge in 20 minutes
- Requires 480V supply at 80-200 A
- Station cost is $7,000-$40,000 per port
- J1772 Combo, CHAdeMO, or Tesla connector

### AC Level 2
- Alternating Current (AC) provided at 3.3-19.2 kW (6.6 kW most common)
- 10-20 electric miles per hour
- Requires 208/240V supply at 20-80 A
- Station cost is $600-$5,000 per port
- J1772 or Tesla connector

### AC Level 1
- Alternating Current (AC) provided at 1.4-1.9 kW
- 2-5 electric miles per hour
- Requires 120V supply at 12-16 A
- Station cost is $500-$1,000 per port
- J1772 or Tesla connector

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### Charging Times for a 30 kWh BEV

<table>
<thead>
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<th>Charging Duration from 0% - 80%</th>
<th>Charging Duration from 80% - 100%</th>
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<td>AC Level 2</td>
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<tr>
<td>AC Level 1</td>
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Charging Station Options (NYSERDA)
The installation context helps determine the appropriate level of charge

- **DC fast charge** stations are for faster charging of multiple vehicles, such as fleet or for public use in a metro area.
- **Level 2** stations are for dwell times between two and six hours, such as retail, municipal parking lots, businesses, and tourist or leisure destinations.
- **Level 1** stations are for very long dwell times, such as overnight charging at a residence or all day charging at a workplace.
EV drivers are finding more opportunities to charge away from home and extend the use of their BEV or put more electric miles on their PHEV.

There are **754 public charging stations** and **1,562 charging outlets** in NYS.*

* Source: AFDC, April 2017
There are environmental, health, and economic benefits with increased use of EVs and EV charging station installations.

Making EV charging available will attract EV drivers and prepare communities for the electrified future of transportation.

EV Drivers tend to be...
- Tech savvy and eco-conscious
- Highly educated

EV Charging stations...
- Attract EV drivers and encourage local spending, a potential to boost local economies
- Enhance “green” status & promote “green” tourism

Electric Vehicles...
- Have zero or low tailpipe emissions and improve air quality
- Lead to reduced reliance on imported fuels
- Use electricity generated from domestic and renewable sources
- Reduce reliance on oil and adds resiliency to our communities
Tools to Facilitate EV Adoption

2.1 EV Planning & Policy Tools
2.2 Zoning
2.3 Codes and Permitting
2.4 Parking
2.5 Partnership & Procurement
2.6 Local Examples
2.7 Action Items for EV Ready Communities
2.1 EV PLANNING & POLICY TOOLS

Planning and policy tools can
1. Allow,
2. Incentivize,
3. Require, or
4. Regulate
EV charging stations. These tools can **lower the cost** and **streamline** the administrative process.

Planning and policy tools can also be used to **set design standards**. This **simplifies installations** for both municipalities and developers and ensures **safe installation and operation** of EV charging stations.

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**EV Resources for Planners and Municipalities (NYSERDA)**
Preliminary steps to ensure EV charging deployment is not restricted

**Allow**
- Define EV and EV charging stations in local planning and land use contexts
- List EV charging stations in Zoning Use Tables
- Review zoning ordinances to ensure EV charging stations are permitted in logical locations

**Incentivize**
- Add incentive zoning: EV charging station pre-wiring or installation in exchange for a developer incentive (fewer required parking spaces, or density bonus, for example).

**Require**
- Restrict, permit, or require EV charging infrastructure based on zoning districts
- Establish minimum number and type (level) of EV charging stations
2.3 CODES AND PERMITTING

Requiring EV infrastructure significantly increases adoption rates

Allow

• Set high-level design, accessibility and parking enforcement criteria
• Provide information to municipal inspectors and staff on EV requirements
• Standardize EV charging station permitting procedures
• Lower EV charging station permitting costs

Require

• Require conduit in new parking lot projects
• Set numerical or percentage-based goals or limits for EV charging stations in new construction
• Establish standards for safety of EV charging stations
Support for EV drivers to charge ensures successful implementation

**Incentivize**
- Provide preferential parking spots for EV drivers

**Regulate**
- Use standardized signage to mark EV-only spots
- Enforce fees when non-EVs occupy EV-only spots

Without proper signage and regulation, non-EVs may block EV users from charging

Signage and clear marking can be used to communicate EV parking policy
PARTNERSHIPS & PROCUREMENT

Incentives support EV charging station installations and encouraging EV use

Incentivize

- Work closely with private or quasi-public partners to implement infrastructure in the public realm

Regulate

- Enforcing EV-only spaces requires partnership with EVSE hosts and potentially local law enforcement

Discounts, incentives & programs for public and private entities to:

- **Purchase** and operate EVs
- **Install** EV charging stations
- **Streamline** permitting and ordinance
- **Promote** EV adoption
Municipalities tailor EV charging policy to the needs of their community

- **Define EV charging technology**
- **Add EV charging equipment to use table**
- **Permit EV charging in all zoning districts**
- **Define permitted locations and permitting process**
- **Define design standards for permitted locations**
- **Worked with the County to install 9 charging stations**
- **Participates in aggregate purchasing program to add EVs to the City fleet**
- **Set EV charging parking space requirement**
- **Authorize planning board to simplify site plan procedure**
- **Authorize planning board to implement design standard regulations**
2.7

ACTION ITEMS FOR EV READY COMMUNITIES

Electric vehicles (EVs) are becoming an important part of our transportation landscape. Municipalities are in a unique position to use planning and policy tools to encourage a simple and successful transition to EVs.

CLIMATE SMART COMMUNITIES
A network of New York communities engaged in reducing greenhouse gas emissions and improving climate resilience. Climate Smart Communities includes a certification program, one element of which is EV charging stations. The Climate Smart Communities program is jointly sponsored by six New York State agencies: Energy Research and Development Authority; Department of Environmental Conservation; Public Service Commission; Department of State; Department of Transportation; and the Department of Health.

www.dec.ny.gov/energy/76483.html

ADD EV CHARGING LANGUAGE TO THE MUNICIPAL ZONING
Update zoning laws to include EV charging equipment definitions, list EV charging infrastructure in Use Tables, and ensure zoning resolutions and ordinances allow EV charging in logical locations.

SUPPORT EV INFRASTRUCTURE DEPLOYMENTS
Incorporate EV readiness into the Comprehensive Plan’s sustainability goals, or create an EV Infrastructure Plan to make charging readily available which encourages EV use and helps improve air quality.

ESTABLISH REGULATIONS FOR EV CHARGING USE
Regulations on EV charging station use clarifies the expectations for EV drivers and non-EV drivers. Regulations can impose fines or tow non-EVs parking in EV charging station spaces.

REQUIRE EV CHARGING STATIONS OR PREPARATIONS THROUGH CODE
Require conduit and sufficient electrical capacity for EV charging in parking lot projects, set numerical or percentage-based goals or limits for EV infrastructure in new construction, or establish standards for safety and scope of EV charging stations.

STANDARDIZED EV SIGNAGE
Establish a standard for EV charging station signage so both EV and non-EV drivers can identify charging station locations and understand any applicable regulations.

This document was developed for a project supported by the New York State Energy Research and Development Authority.
For more information on EVs visit: www.nyserda.ny.gov/Researchers-and-Policymakers/Electric-Vehicles
3 Other Options for Encouraging EV Adoption

3.1 Comprehensive Plans
3.2 Executive Action
3.3 Participation in Initiatives
3.4 Leading by Example
3.5 Special Programs
A Comprehensive Plan:

1. Provides guidance for regulation
2. Provides a basis for other actions affecting the development of the community
3. Helps establish policies relating to the creation and enhancement of community assets

When developing the Comprehensive Plan:

- **Suggesting EV or EV** charging can catalyze installations
- **Identifying sustainability** as an issue and goal can guide future development to include EV policy
3.1 COMPREHENSIVE PLAN EXAMPLES

New York City and New Rochelle call for EV support in Multiple Plans

PlaNYC's Exploring EV Adoption investigates how to facilitate early adoption of EV technology that support the goal of reducing transportation greenhouse gases by 44%.

The NYC EV-Readiness Plan advances EV implementation potential through public outreach to raise EV awareness.


Recommendations include an expansion of the City’s Green Fleet initiative, installing more EV charging stations, and establishing an EV shuttle service.
EXECUTIVE ACTION

Official executive action or expressed support can encourage EV adoption

Sustainability standards are governed by an overlapping set of state laws and Executive Orders.

New York State
Executive Order No. 4 (2008)

State Green Procurement and Agency Sustainability Program directs state agencies, public authorities and public benefit corporations to green their procurements and to implement sustainability initiatives.

Ulster County
Local Law #3 (2015)

County and local executives can encourage EV/EVSE installations using Executive Orders.

A Sustainable Green Fleet Policy sets a goal of having 5% of the fleet be Green Vehicles by 2020, and after 2020, 20% of new passenger purchases will be Green Vehicles.

- 9 EV charging stations at municipal locations with 6 more to be installed in 2017
- 8 EVs in the fleet with 12 to be added in 2017
Recognizing, endorsing, and engaging in EV efforts demonstrates commitment.

Understand and follow developments in large EV efforts to identify opportunities to replicate actions locally or leverage for funding technology deployments.

- Zero-Emission Vehicle (ZEV) Action
- ChargeNY
- Volkswagen Settlement Funds for EVs

Participate in programs specifically designed for municipalities to implement clean energy actions, address climate change, and improve the environment.

- Climate Smart Communities
- Clean Energy Communities
- Clean Cities
- Municipal Electric-Drive Vehicle and Public Sector Charging Station Program
3.3 National Drive Electric Week

- Annual national outreach initiative to heighten EV awareness
- Events showcase EV products, with some offering ride and drives
- Organized by local co-sponsors with support from Plug-In America, Sierra Club, and Electric Auto Association
- 2016 NY participants included Delmar, Freeport, Ithaca, Kingston, Pleasantville, Rochester, Syracuse, Jones Beach, and White Plains

PARTICIPATION EXAMPLE

Participation in national or state initiatives can help raise EV awareness

National Drive Electric Week Resources

Syracuse EV and PV Expo in 2016

Delmar’s 2016 National Drive Electric Event (Image provided by Bethlehem Chamber)
3.4

LEADING BY EXAMPLE

Demonstrating EV use or installing EVSE encourages others.

Municipalities and organizations can install charging stations and use EVs in their fleet to promote EV adoption.

Standard signage helps EV drivers locate stations, but are also very effective at fostering EV adoption by increasing awareness and advertising the local municipality’s commitment to sustainability.

Hauppauge municipal EV charging

Town of Southold municipal EV charging

EVSE Signage Guidance (NYSERDA)
Aggregate purchasing campaigns can secure discounted prices on EVs and EV charging stations for groups of buyers. U.S. DOE’s Workplace Charging Challenge, NYSERDA and Calstart’s Charge to Work NYC, and other workplace outreach programs target employees who can commute with an EV and employers that allow them to charge at work.

Sustainable weekend tourism models promote EV use through comprehensive tourism and devoted partnerships with electric car rental companies.
4 Planner & Planning Board Actions

4.1 When to Suggest EV Charging Stations
4.2 Facilitating Installations in the Planning Process
4.3 Bargaining EV Charger Use in Exchange for Variances
4.4 Include Conduit in New Parking Lot Projects
4.1 EV SITE CONSIDERATIONS

Recognize opportunities to incorporate EV charging stations in new developments

Charging stations in key EV Clusters (medical campuses, higher education, retail complexes, and multi-use downtown parking areas) are more likely to be used and will help foster increased use of EVs.

Look for site characteristics that facilitate cost effective installations and increase value to EV drivers:
- Dwell times between 2-4 hours
- 240V power available near parking spaces
- Easily accessible and open 24 hours with lighting
- Larger parking lots with excess spaces
- Offer image value to host or community
- Easy to find along major roadways
- Protected from harsh environment conditions
4.2 FACILITATING EVSE INSTALLATIONS

Many elements influence cost and utilization of EV charging

Every EV charging station installation context is unique, but all should use certified equipment and a licensed electrician. Complying with industry best practices for siting, design, and installation will help lower costs and increase value to EV drivers.

Site elements to consider:

1. **Location:** visibility/preferred parking, parking lot management, station mounting, wire run
2. **Wire run:** distance and obstructions between panel and station, need for boring/trenching
3. **Electrical Supply:** power capacity, panel up to code, potential to use an existing subpanel
4. **EVSE:** mounting type (wall or pedestal), cord management, networking, certification, make
5. **Permitting:** process, cost, local experience
6. **Other:** protection, signs, maintenance

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Mount to existing structures to reduce cost
Albany, NY

Bollards for protection and extra spaces
Rochester, NY

Best Practice Guides (NYSERDA)
4.3 INCLUDING CONDUIT IN PARKING LOTS

Preparing for future EVSE installations can significantly lower costs

The average Level 2 dual-port station costs $20,000. Properly preparing a site for EVSE can reduce total installation costs by about 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
SITE SELECTION GUIDE FOR EV CHARGING STATIONS

Considering an electric vehicle (EV) charging station installation?
This guide will help determine if to recommend an EV charging station for a particular location. More information on why these factors contribute to a good EV charging site is found on the other side.

CATALYZING EV CHARGING STATION DEPLOYMENT
A desire, need, or requirement for EV charging can justify the installation of a station.

- Are there mandates or requirements set by the state, regional, or local government requiring EV charging or alternate fuel vehicle technology use?
- Are there EV drivers who regularly park at this location?
- Have there been requests for EV charging by employees, patrons, or visitors?
- Would enhancing sustainability or portraying a “green” image be beneficial to the site host?

Answering “yes” to any of these questions indicates a potential need and benefit for installing EV charging stations.

PARKING DEMOGRAPHICS
Alternative current (AC) Level 1 stations provide 2-5 miles of electric range per hour of charging. AC Level 2 stations provide 10-20 miles of electric range per hour of charging, and direct current fast charging (DCFC) can fully charge most EVs in less than one hour. Station costs increase significantly with faster charging capabilities.

- Is the average parking event more than two hours?
- Does the proposed site location have excess parking spaces available?

An AC Level 2 station is suitable if answering “yes” to both of these questions, otherwise DCFC is likely needed. In locations where vehicles park for extended periods of 9 hours or more, AC Level 1 stations could be considered.

SITE CHARACTERISTICS
Charging stations at workplaces, higher education, medical campuses, larger retail centers (malls), and multi-use lots are typically used more often.

- Is there parking within 200 feet of the electrical panel and no major obstructions to run power to the station?
- Is sufficient power available (120V/20A for AC Level 1, 240V/40A for AC Level 2, 480V/60A for DCFC)?

Answering “no” to either of these questions will likely result in costly installations.

OTHER CONSIDERATIONS
Many factors influence the installation costs, as well as the expected use of the station by EV drivers.

- Is the parking space covered and does it have lights?
- Can electrical power be run to the station without crossing an impervious surface (sidewalk or pavement)?
- Can the station be placed where it does not impact snow removal or other parking lot maintenance?
- Can EV drivers access the station 24 hours a day and 7 days a week without a permit or fee to park?

Answering “no” to any of these questions will likely increase the cost of installation or decrease utilization by EV drivers.

INFLUENCING FACTORS AFFECTING EV CHARGING

LOCAL AND REGIONAL POLICY
Local or regional governments may establish requirements for new developments to include EV charging stations. Facilitating more EV use can help to achieve the sustainability goals of the local Comprehensive Plan and improve local air quality. EV charging stations support Climate Smart and Clean Energy Community Initiatives.

GO GREEN
New developments can use EV charging stations to achieve higher LEED levels or other green building certifications. It also conveys an interest in sustainability.

EMBRACE THIS EVOLVING MODE OF TRANSPORTATION
A network of charging stations will make travel easier for local EV drivers and attract EV tourists. There are a growing number of EV drivers in most NY communities. By 2017 there were 15,800 EVs registered in New York.

LOCATION MATTERS
EVs are typically found in clusters with neighbors or colleagues that have similar demographics. EV charging stations have been most used at workplaces, higher education, medical campuses, larger retail centers (malls), and multi-use lots.

PARKING AVAILABILITY
Large parking lots that are regularly used will most likely have some EVs that often use the charging station. However, if parking lots are always full, but end up with vacant EV charging spaces, it can be irritating for non-EV drivers.

STATION PLACEMENT
An EV charging station in prime parking spaces provides good visibility, but could also draw attention to when it is not being used or the special treatment given to EV drivers. Comply with ADA requirements by leaving sufficient passageways on sidewalks when installing stations and consider its potential impact on snow removal or maintenance.

INSTALLATION COSTS
Installation costs can be equal to, or even greater than, the station hardware. Well mounted stations near the electrical room of a building are least expensive to install. A pedestal station in a parking lot that requires an electrical run under or through pavement will be more expensive. Electrical upgrades also add significant cost.

EQUIPMENT SELECTION
DC fast chargers are costly and intended to mimic conventional vehicle refueling at a convenient store where they can charge numerous EVs per day. In parking lots, AC Level 2 stations are used for charging durations between 2 and 6 hours. AC Level 1 stations may be considered for longer term parking situations. Networked stations track use and allow payments, but require the host site to pay for a subscription.

SIGNAGE AND MANAGEMENT
Signage should be used to clearly mark parking spaces for “EV Charging Only”, which can be enforced by regulations that ticket or tow non-EVs that park there. Networked stations that can impose fees for EVs parked in these spaces excessively long will help encourage EV drivers to move after fully charging so another EV can charge.

PREPARING FOR FUTURE STATIONS
When renovating a parking lot, encourage the installation of one 1/3rd rigid conduit for each potential dual-port EV charging station. New electrical panels that service parking lots should include additional capacity for future EV charging station installations.

For more information visit: www.nyserda.ny.gov/Researchers-and-Policymakers/Electric-Vehicles/Info/Charging-Station-Hosts
EV charging can be considered a bargaining tool in negotiations for variances given the **public benefit** EV charging provides.

- Support for EVs or EV charging stations should be expressed by the municipality to justify its use in negotiations.

- EV charging may be **leveraged in exchange** for variances on parking requirements, open space, or other criteria on a case-by-case basis.
Green Building certificates showcase a commitment to sustainability and are often leveraged for marketing or publicity purposes.

Several building certification programs require or provide points for installing EV charging stations.

**LEED** (Leadership in Energy & Environmental Design) certification designates points to new buildings that designate 5% of parking spaces as preferred parking for green vehicles and EV charging stations.

**STARS** (Sustainability Tracking, Assessment, & Rating System) allows for colleges and universities to measure their sustainability performance. EV chargers can contribute to points through the “Support for Sustainable Transportation" category.

**ENERGY STAR** for Buildings and Plants consider EV charging as an energy use that can be excluded from total energy consumption, so that EV charging doesn’t lower the overall ENERGY STAR score.

**GREEN GLOBES** is an environmental assessment and certification program for commercial buildings. It offers five points toward new construction for installing EV charging stations.
Appendix

A. Resources Cited
B. Embedded Documents
## Resources Cited

### EV & EV Charging Station Information

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<td>ChargeNY</td>
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### Grants, Rebates & Programs

| Clean Cities | Website | https://cleancities.energy.gov/coalitions/ | Clean Cities |
| Clean Energy Communities | Website | https://www.nyserda.ny.gov/Contractors/Find-a-Contractor/Clean-Energy-Community-Coordinators | NYSERDA |
| Climate Smart Communities | Website | http://www.dec.ny.gov/energy/76910.html | DEC |
| Drive Clean Rebate | Website | https://www.nyserda.ny.gov/Programs/ChargeNY/Drive-Clean-Rebate | NYSERDA |
| Volkswagen Settlement Funds for EV | Website | https://www.epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement | EPA |
| EV Green Building Charging Credits | Website | https://energy.gov/eere/vehicles/workplace-charging-credit-green-building-certification | U.S. DOE |
| Ulster County Alive! EV Tourism Program | Website | http://www.ulstercountyalive.com/electric-vehicle-tourism | Ulster County |
| Ulster County Green Fleet Initiative | Website | http://ulstercounty.ny.gov/environment/environment/sustainability-energy/green-fleet-initiative | Ulster County |

### Reports & Best Practices

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<td>EVSE Signage Guidance</td>
<td>PDF</td>
<td><a href="https://www.nyserda.ny.gov/Programs/ChargeNY/EVSE-Signage-Overview.pdf">https://www.nyserda.ny.gov/Programs/ChargeNY/EVSE-Signage-Overview.pdf</a></td>
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<tr>
<td>The NYC Electric Vehicle Readiness Plan</td>
<td>PDF</td>
<td><a href="https://cleancities.energy.gov/files/u/projects_and_partnerships/project_material/supporting_material/232/nyc_readiness_plan.pdf">https://cleancities.energy.gov/files/u/projects_and_partnerships/project_material/supporting_material/232/nyc_readiness_plan.pdf</a></td>
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<tr>
<td>EV Resources for Planners and Municipalities</td>
<td>Website</td>
<td><a href="https://www.nyserda.ny.gov/Researchers-and-Policymakers/Electric-Vehicles/Resources/Electric-Vehicle-Charging-Station-Data">https://www.nyserda.ny.gov/Researchers-and-Policymakers/Electric-Vehicles/Resources/Electric-Vehicle-Charging-Station-Data</a></td>
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<tr>
<td>NYS EV and EV Charging Station Data Reports</td>
<td>Website</td>
<td><a href="https://www.nyserda.ny.gov/Researchers-and-Policymakers/Electric-Vehicles/Resources/Electric-Vehicle-Charging-Station-Data">https://www.nyserda.ny.gov/Researchers-and-Policymakers/Electric-Vehicles/Resources/Electric-Vehicle-Charging-Station-Data</a></td>
</tr>
</tbody>
</table>
B. Embedded Resources

- Plug-In EVs Available in NYS
- Electric Vehicle Charging Stations
- EV Planning & Policy Tool Summary
- NYS Incentives & Discounts for EV & EVSE
- Site Selection Guide for EV Charging Stations
- Action Items for EV Ready Communities
- Communities Taking Action: New York State Local Examples
Questions?

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