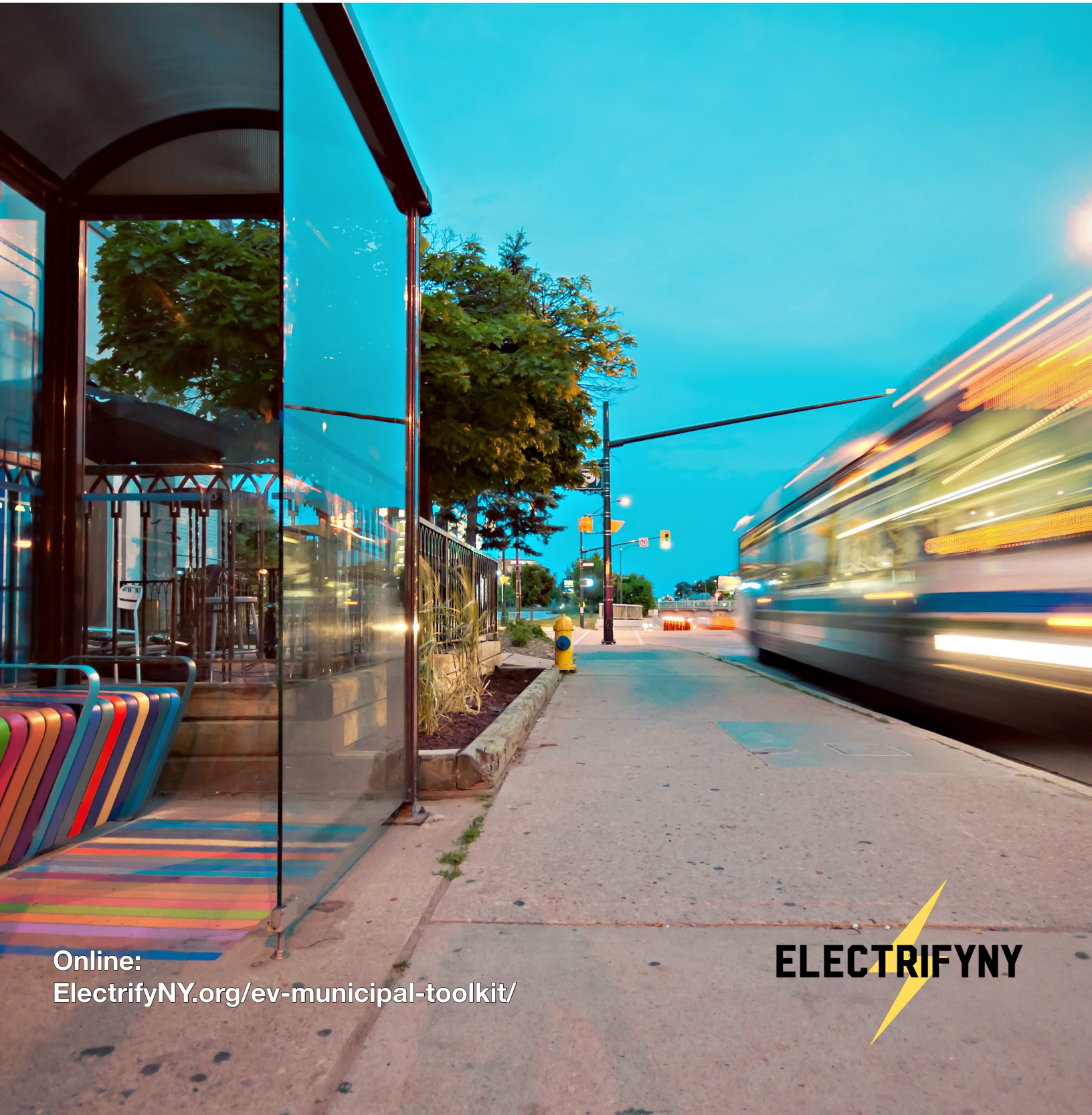
ELECTRIC VEHICLE MUNICIPAL TOOLKIT

A Clean Transit Future for All



Online:
ElectrifyNY.org/ev-municipal-toolkit/

ELECTRIFYNY

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Introduction

The internal combustion engine has seen its day. Electric vehicles are not just here to stay, they are the future. The transportation sector is the largest source of climate pollution in New York, representing 34 percent of the state's greenhouse gas emissions. Emissions from tailpipes are also responsible for smog, soot, and other toxics that contribute to adverse health outcomes, particularly in children and those suffering from chronic illness.

The good news is, change is coming. Nearly all of the major global automakers have made commitments to transform their platforms to focus on new lines of electric vehicles over the course of the next few years. Transitioning from vehicles powered by internal combustion engines to a transportation system powered by electricity will take careful planning and preparation.

There are over 11 million cars and light-duty trucks registered in New York State, less than 50,000 of those are electric vehicles. New York State, which follows California's Zero Emission Vehicle (ZEV) mandate, has committed to a goal of 800,000 zero-emission vehicles by 2025. New York has a long road ahead.

Local governments are vital in achieving this goal and well positioned to lead by example to help propel New York's transition to a clean transportation future. This policy handbook offers a menu of actions municipalities can take to help move New York closer to achieving its electric vehicle goals and future.

Aside from the health and environmental benefits that come with reductions in air pollution, transitioning to electric vehicles will bring significant economic benefits to households, businesses, and governments. Electric vehicles are simply more efficient than their gas-guzzling counterparts, costing 50 to 70 percent less to operate. Electric vehicles have fewer moving parts than those powered by internal combustion engines, meaning a reduction in maintenance costs, which can be significant when it comes to managing municipal fleets. Fuel savings over the life of an electric vehicle can add up to thousands of dollars.

As you will see throughout this handbook, local governments across the country are leading the way in facilitating the transition to a clean, electric transportation future. The time has come for local leaders to do the same for New Yorkers. We hope this handbook serves as a helpful guide as your community moves forward.

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I. Lead by Example: Establish Policy Commitments and Goals

New York State has set bold goals when it comes to Electric Vehicles (EVs), but the only way those goals translate into action is at the local level. Local leaders have the ability to drive progress by fostering an environment that demonstrates not only are EVs a viable alternative to gas and diesel fueled vehicles, they are a wise investment that will only serve to benefit the economic bottom line of local governments, businesses, and households. That leadership starts by committing local government to an EV transition and pushing the state and federal governments for the resources to succeed.

I-a. Commitments / Goals

The first step for local governments committing to EVs is to adopt a law directing a transition to an all electric municipal fleet by a date certain. Local laws should mandate the development of a comprehensive transition plan that includes an assessment of the existing fleet, EV procurement schedules by vehicle class, special considerations for emergency and heavy duty vehicles, and infrastructure and maintenance investments.

Example:
In 2018, the Mayor of the City of Seattle issued an Executive Order committing to a phase out of fossil fuel powered municipal vehicles by 2030. A sample ordinance modeled on the Seattle Executive Order is included in the appendix.

I-b. Advocate for electric vehicle policies and incentives

Municipal leaders can play an important role in advocating for electric vehicle policies and incentives at the state and federal level that assist local government efforts. Municipalities can lobby for enhanced rebates and tax credits for electric vehicles and charging infrastructure, funding for municipal and public transit fleet conversions, and policies promoting vehicle to grid utility tariffs and electric vehicle ready building codes. State and federal initiatives can help to drive action at the local level.

II. Electrify Municipal Fleets

Transitioning to an all electric vehicle fleet requires thoughtful long-term planning and the ability to tap into resources to facilitate the transition. This section highlights some of the tactics and tools to help ensure successful conversions.

II-a. Comprehensive fleet assessment

Developing a baseline of the existing municipal fleet is critical. Local governments should conduct a comprehensive fleet assessment of all light, medium and heavy duty vehicles to inform the development and implementation of a strategic multi-year fleet replacement plan. The plan can

be used to establish annual electric vehicle procurement benchmarks allowing the municipality to develop sustainable funding plans for vehicle purchases, charging infrastructure, and fleet maintenance.

Example:
The Drive Clean Seattle Implementation Strategy is an example of a roadmap for local governments to follow for a successful transition to an all electric vehicle fleet.

II-b. New York State Drive Clean and ZEV Clean Vehicle Program

New York State offers rebates for investments in zero emission vehicles (ZEV). Municipalities that purchase or lease a new ZEV are eligible for rebates of up to $5,000 per vehicle, depending on the vehicle's battery range. State funding has previously been made available to municipalities for charging infrastructure through rebates at varying levels for investments in Level 2 networked chargers and Direct Current Fast Chargers (DCFC). Municipalities expressing a renewed interest in such a program could result in additional rounds of funding for charging infrastructure rebates.

Information on the ZEV Clean Vehicle Program can be accessed through the Department of Environmental Conservation and at the following links:

NYS DEC's Grant Funding for Municipalities

NYS DEC's Guidelines and Application Instructions for the Zero-Emission Vehicle (ZEV) Rebate Grant Opportunity

II-c. Aggregate purchasing and shared services

One strategy that can help with the transition is partnering with other government entities to examine the feasibility of obtaining more favorable terms on electric vehicle purchases and leases. Municipalities can also look for cost saving opportunities through centralized fleet maintenance operations with shared service agreements.

II-d. New York State Vehicle Marketplace (OGS)

The New York State Vehicle Marketplace offers state and local government entities the opportunity to purchase or lease electric vehicles for dealers under contract with the Office of General Services. Partnering with the state has the potential to offer a wider range of electric vehicle options and lower prices. The Office of General Services occasionally partners with the Department of Environmental Conservation on aggregate purchasing of zero emission vehicles on behalf of state agencies and local governments.

II-e. The Climate Mayors Electric Vehicles Purchasing Collaborative

The Climate Mayors Electric Vehicles Purchasing Collaborative, a group of over 400 municipal leaders committed to climate action, works to leverage the buying power of the Climate Mayors

cities to reduce the costs for EVs and charging station acquisition for all cities in the U.S. to accelerate city fleet transition. The Collaborative is a resource for training, best practices, educational materials, and analysis support for your municipality's EV transition.

III. Public Transit

Mass transit is an integral component to a clean transportation future. The role of local governments in public transit and school transportation operations vary by municipality. While there is no one size fits all approach, local leaders can play a role in promoting and advocating for clean transit solutions in their communities.

III-a. Electrify Public Transportation

Public transit agencies and school districts, following in the footsteps of California, can commit to all electric bus fleets by 2040. Electric buses, while more costly upfront, offer significant savings over time due to reduced fuel and maintenance expenses. Communities will enjoy additional benefits with local air quality improvements. New York State has funding available to replace diesel buses with electric buses through its share of the Volkswagen Diesel Emissions Settlement. The Federal Transit Administration has a "Lo or No Emission Bus Program" under which the Rochester Genesee Regional Transportation Authority was awarded a $1 million grant for the purchase of electric buses, related maintenance equipment, and the installation of a charging system.

Examples:
The Metropolitan Transportation Authority has committed to an all electric New York City Transit bus fleet by 2040.

The Capital District Transportation Authority is planning an All-Electric Bus Line.

III-b. EV Car-share Partnerships

Car-share companies present an opportunity to expand access to electric vehicles, particularly for low-income households. Municipalities can partner with ride-share organizations on pilot programs to test the most effective and efficient methods to offer the community EV ride sharing options. Programs that focus on serving multi-family buildings can help to break down barriers to EV use by providing access to convenient and affordable charging opportunities and vehicles. Examples of municipalities with ride-share partnerships include Chattanooga, TN and Sacramento, CA.

III-c. First / Last Mile Solutions

Not every household is situated within a reasonable walking distance to public transit options,

this is commonly referred to as the last mile problem. Municipalities can partner with local transit agencies to develop non-fossil last mile solutions utilizing electric vehicles, e-bikes, e-scooters and other modes of transport.

The American Public Transportation Association offers a resource of examples of local first/last mile solutions.

IV. Ensure EV Charging Access and Infrastructure is Robust

The key to a successful transition to electric vehicles is a robust network of charging infrastructure. Accessible charging points increases consumer confidence in the reliability of EVs. Publicly available stations also offer alternatives to drivers that may not have the option of charging at home. Local governments can take a lead role in promoting EV infrastructure investments through building and parking ordinances, streamlined permitting, utility partnerships, and public access initiatives.

The New York State Energy Research and Development Authority (NYSERDA) serves as a resource for planners and municipalities working to make their communities EV-ready, including a best practices guides for EV charging stations. This section takes a look at opportunities for local government action on charging access.

IV-a. EV-Ready Building Codes

Municipalities can play an effective role in helping to facilitate the adoption of electric vehicles in their communities through updates to the local building code; requiring all new building construction to be EV-ready. This will ensure that new buildings are properly equipped to handle the installation and operation of EV charging infrastructure. The knowledge that a residence or workplace will have the capacity to accommodate charging stations eliminates a potential consumer deterrent from the purchase or lease of an electric vehicle.

Municipalities that have adopted EV-ready building construction codes include:
Atlanta, GA;
Boulder, CO; and
Palo Alto, CA.

IV-b. EV Parking

Similar to new building construction, municipalities can require new parking facilities be designed to accommodate the installation of charging infrastructure. Parking enforcement rules can also be amended to discourage the use of EV designated parking spaces by drivers of gasoline and diesel fueled vehicles. Public parking facilities can offer free or discounted parking for electric vehicles.

Examples:
The City of Cincinnati, OH, offers free parking for all electric vehicles.

The Cities of Redmond, WA and San Diego, CA have adopted regulations governing the use of EV-designated parking spaces.

IV-c. Streamlined Permitting

Permitting for the installation of electric vehicle charging infrastructure can streamlined to encourage rapid deployment. A task force can be assembled to examine potential roadblocks that may exist in the permitting process and make recommendations on improvements to expedite the process. Priority could be given to installations that co-locate with renewable generation. Municipalities can work with their local electric utility to ensure a seamless process from installation to operation at public and private locations.

Examples:
NYSERDA guidelines on proper installation of public charging stations.

San Jose, CA and Loma Linda, CA are examples of municipalities that have adopted streamline EV charging infrastructure ordinances.

IV-d. Curbside Charging

Thanks to a 2014 New York law, municipalities now have the option of purchasing the streetlight infrastructure from their electric utility. There are many potential benefits to municipal ownership including cost savings from efficient lighting, and increased access to public WiFi. Another potential community benefit could come in the form of curbside EV charging. Municipalities can modify certain streetlights to serve as charging ports in neighborhoods where residents rely predominantly on street parking.

Example:
Berkeley, CA was the first municipality in the nation to offer a curbside EV charging program.

IV-e. Public Access to Charging

One barrier to increased EV ownership is a lack of visible and accessible charging infrastructure, which in turn can contribute to range anxiety for consumers. Municipalities can help to address this problem by installing publicly accessible charging stations on government property. They can take advantage of incentives and grants offered by the state and their electric utility to help cover the costs of installation and operation. Municipalities can also encourage the installation of charging infrastructure at commercial properties and multifamily residences through property tax exemptions.

Resources:
NYSERDA's Charge Ready NY program offers public and private entities $4,000 rebates per publically accessible charging port installed at public parking facilities, multi-family buildings, and workplaces.

IV-f. Signage
Signage is an important consideration wherever an electric vehicle charging station is located. Appropriate signage can help EV drivers locate charging stations, optimize use of charging stations by designating parking spaces as EV-only, and provide information about charging station regulations.

Resources:
The U.S. Department of Energy offers a guide for EV charging station signage.

V. Education and Awareness

Local governments can play an important role in supporting public education efforts on the technology, cost, and environmental benefits of EVs. Direct communication with constituents, public outreach events, and partnerships with auto dealers, manufacturers, and community groups are avenues local governments can explore.

V-a. Electric vehicle information clearinghouse
Keeping track of all the various EV incentives and initiatives at the federal, state and local level can be challenging. Municipalities can serve as a clearinghouse for information on electric vehicles. A one-stop shop for information on rebates, federal tax credits for EVs, state charging infrastructure tax credits, available state funds, utility programs, dealership partnerships, and local initiatives. By collecting, updating, and making this information accessible, local governments can help educate the public and help residents and businesses transition to clean transportation.

Resources:
Plug In America maintains a database, searchable by state, of EV incentives.

NYSERDA offers a detailed electric versus internal combustion engine vehicle cost comparison tool that factors in available incentives and localized energy and fuel costs.

V-b. Utility cost comparison tool
Utility cost comparison tools allow consumers to compare electric vehicles models with internal combustion engine vehicles of similar classes based on based on fuel efficiency, available

incentives, and total cost of ownership. Consolidated Edison and National Grid currently offer utility cost comparison tools.

V-c. Mapping publicly accessible charging stations

Maps of publicly accessible charging stations allow EV drivers to easily identify the location, availability, and type of chargers.

Resources:
NYSERDA Electric Vehicle Station Locator.

Plug In America Electric Vehicle Charging Station Map.

PlugShare Charging Location Database and Map.

V-d. Outreach events

Electric vehicle outreach events can be powerful tools to engage and educate people in your community. Local community based organizations and clean energy advocates can be great partners. These groups can help by featuring stories, cultivating media, hosting informational workshops, EV drive programs, promotional events, social media, and more.

Examples:
New Yorkers for Clean Power is an organization focused on partnering with municipalities and businesses to promote EVs through workshops, webinars, media and other outreach events.

Sponsor an event for National Drive Electric Week in September.

Sustainable Westchester is a coalition of local governments in Westchester County that partner on clean and sustainable energy initiatives, including the promotion of EVs and charging infrastructure.

V-e. Dealer partnerships

Explore partnerships with community groups and dealerships to create programs offering local residents and businesses discounts and other benefits for EV purchases. Drive Green Westchester is an electric vehicle education & group-buy program cosponsored by Sustainable Westchester and Green Energy Consumers Alliance. The program has EV educational information and a network of dealers who offer fixed monthly discounts on electric vehicles to program participants.

Appendix 1

Sample Local Ordinance

Section 1: Fleet Electrification Action Plan.
A. The INSERT DEPARTMENT(S) is directed to prepare a new Fleet Electrification Action Plan ("plan") to accelerate the electrification of the municipal fleet and phase out fossil fuel use in municipal vehicles by 2040. The plan will outline implementation strategies, actions and policy recommendations to meet the requirements of this ordinance.

B. The plan will include a strategy to rapidly electrify the COUNTY / TOWN / CITY / VILLAGE fleet. Plug-in battery electric vehicles will be purchased for the municipal fleet when a cost effective, market-ready vehicle is available which matches the planned operations for that vehicle. "Cost effective" will be defined to include the acquisition and operational costs of the vehicle as well as the external costs associated with its operation and maintenance.

C. The plan will include a strategy to right-size all vehicle replacements at end of life with the most compact, cost effective, and lowest engine displacement vehicle for the driver's job and provide an assessment of the greenest vehicle for common job types across the COUNTY / TOWN / CITY / VILLAGE. Further, the plan will establish fleet reduction goals to limit or reduce the size of the fleet and a strategy for employee mobility to reduce dependence on government owned vehicles.

D. Recognizing the unique needs of emergency management and first response vehicles, the plan will include a strategy to provide emergency management services with electric and fossil fuel-free vehicles wherever possible. The strategy will include an assessment of the challenges or opportunities presented by different vehicle fuel types on emergency management and response and allow for exemptions where alternative vehicles are not readily available.

E. The plan will include a strategy for infrastructure deployment to support the electrification of the municipal fleet. This strategy will include recommendations for a long-term funding approach for EV charging infrastructure, an analysis of the impact of potential EV Readiness policies on fleet operations, and potential partnerships with publicly accessible charging networks.

F. The plan will identify pathways for heavy duty electrification and advanced vehicle technology which include pilot projects and public-private partnerships to use or test electric vehicles in the municipal fleet before the vehicles are cost-effective for full deployment.

G. INSERT DEPARTMENT(S) are directed to advance public-private partnerships in our efforts to meet our aggressive EV infrastructure goals.

Section 2: Reporting
A. The Fleet Electrification Action Plan will be completed no later than December 31, 2020.
B. INSERT DEPARTMENT(S) will provide an annual report to INSERT OFFICE(S), which will include:
a. Progress toward the goals identified in the plan, including a fossil fuel-free fleet by 2040, including department specific data.
b. Exceptions made to fleet procurement standards and other green feet policies.
c. Policy recommendations to continue progress toward 2040 goal.

C. INSERT DEPARTMENT(S) will provide quarterly fuel reports to municipal fleet coordinators documenting fuel use by vehicle. Lower than average fuel economy (miles per gallon) will be highlighted to document excessive fuel use.

Section 3. INSERT DEPARTMENT(S) / OFFICE(S) will study the potential for partnerships with regional governments for shared uses of our fleets and will work together to share best practices in fleet electrification with our regional partners.