

TOWNSHIP OF LOWER MERION

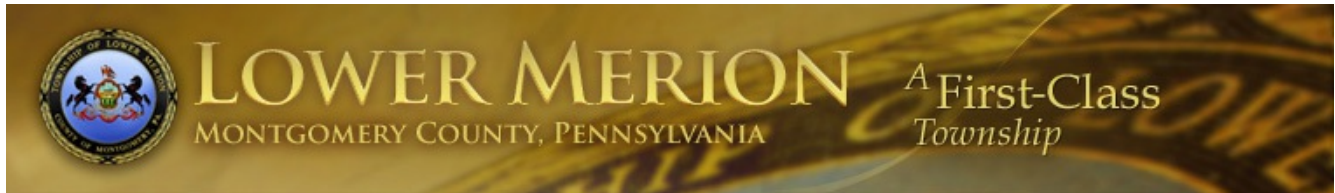
SUSTAINABILITY COMMITTEE

**Wednesday, May 1, 2024
7:00 PM (Approximately)**

Chairperson: Ray Courtney
Vice Chairperson: Gilda Kramer, Jeremiah Woodring

AGENDA

1. **AUTHORIZATION TO ISSUE A REQUEST FOR PROPOSALS TO INSTALL
ELECTRIC VEHICLE SUPPLY EQUIPMENT AT TOWNSHIP PARKING LOT 7 -
BRYN MAWR STATION**



AGENDA ITEM INFORMATION

ITEM: AUTHORIZATION TO ISSUE A REQUEST FOR PROPOSALS TO INSTALL ELECTRIC VEHICLE SUPPLY EQUIPMENT AT TOWNSHIP PARKING LOT 7 - BRYN MAWR STATION

Consider for recommendation to the Board of Commissioners authorizing staff to issue a request for proposals to install electric vehicle supply equipment (EVSE) at Bryn Mawr Station (Lot 7), approve charging a fee of \$0.20/kWh from 7:00 a.m. to 11:00 p.m. and \$0.15/kWh from 11:00 p.m. to 7:00 a.m. and waiving parking fees for vehicles using the EVSE.

PUBLIC COMMENT

ATTACHMENTS:

Description	Type
<input type="checkbox"/> Issue Briefing - EV Chargers	Issue Briefing
<input type="checkbox"/> Presentation - EV Chargers	Presentation

TOWNSHIP OF LOWER MERION

Sustainability Committee

Issue Briefing

Topic: Public Electric Vehicle Supply Equipment (EVSE)

Prepared By: Paloma Vila, PE, Sustainability Manager

Date: April 26, 2024

I. Action To Be Considered By The Board:

Authorize staff to issue a request for proposals to install electric vehicle supply equipment (EVSE) at Bryn Mawr Station (Lot 7), approve pricing structure for use of the EVSE and provide guidance regarding parking fees for vehicles utilizing the EVSE.

II. Why This Issue Requires Board Consideration:

At their meeting on September 27, 2023, the Sustainability Committee authorized staff to explore installing Level 2, networked chargers in municipal lots or garages; pursue the public-private partnership (PPP) and charging-as-a-service (CaaS) models of ownership; identify locations for the EVSE using objective criteria; and explore options for EV parking enforcement. Staff has performed the requested exploration and is prepared with recommendations for authorization by the Sustainability Committee.

III. Current Policy Or Practice (If Applicable):

In Resolution 2021-16, the Board of Commissioners resolved to promote transition by the Lower Merion Community to carbon-free vehicles by 2045. The Board of Commissioners received the Township's first Sustainability Plan on June 7, 2023 (www.lowermerion.org/SustainPlan), which included public vehicle charging as a recommended strategy to support community-wide adoption of electric vehicles (EVs). Energy Transition was identified as one of five focus areas for implementing the Sustainability Plan in 2024, with EV charging stations for public use identified as one of ten projects to pursue in 2024.

IV. Other Relevant Background Information:

Proposed Location

The proposed location is Bryn Mawr Station (Lot 7). Staff proposes installing four, 19.2 kW stations. This location has a total of seventy (70) metered spaces and 114 permit spaces. EVSEs at this location would allow residents of nearby apartments and townhomes, who would not otherwise have the ability to install EVSE at home, to utilize these EVSE to fuel EVs overnight. Employees and patrons of the nearby businesses and Ludington Library as well as transit users can utilize the EVSE during the day. Outreach to the local business community and civic associations is recommended prior to installation.

Ownership Model

The Public-Private Partnership (PPP) model gives the Township ownership over the equipment while outsourcing operations, maintenance, and payment processing. The Township may determine the pricing for EVSE use and retain most of the revenue from charging sessions.

Proposed Pricing Structure for EVSE Use

Staff recommends imposing an energy-based rate that charges users based on the kWh of electricity used to fuel the vehicle. This model is more equitable than a time-based rate because different models of vehicles can use different amounts of electricity within the same length of time. The rate should cover the Township's cost of electricity plus service fees to ensure that operation of the EVSE is user-funded. The Township may choose to impose a slight time-of-use increase or decrease in the per-kWh rate to incentivize off-peak charging.

A time-based overstay fee may be imposed to encourage space turnover. The fee would begin to be incurred after a vehicle has completed a charging session and/or if it remains plugged into the station over a set amount of time. Overstay fees may be waived overnight. One downside of overstay fees is that it may deter transit users from utilizing the EVSE if they will be away from the area for most of the day.

Staff recommends a fee of \$0.20/kWh from 7am – 11 pm and \$0.15/kWh from 11 pm – 7am. Staff does not recommend imposing an overstay fee at this time but recommends re-evaluating after 1 year based on utilization of the EVSE.

Parking Fee Options

Lot 7 in Bryn Mawr contains both permit and metered parking, which is a source of revenue for the Township. The Township's average parking revenue in 2023 was \$515 per meter. While the Township may continue imposing parking fees for vehicles parked in EVSE spaces, the inconvenience of making two payments – one for parking and one for charging – may be a deterrent, and free parking may incentivize greater use of the EVSE. Direction is requested as to which option to pursue for parking fees at EVSE locations:

- Option 1 – Parking fee imposed and paid separately via kiosk or meter
- Option 2 – Parking fee of \$0.50/hr incorporated into EVSE fee
- Option 3 – Parking fee waived for EVSE users

Sustainability staff recommends waiving parking fees in the first year after EVSE installation to incentivize use of the EVSE, and then re-evaluating parking fees based on EVSE utilization.

Project Timeline

If authorized by the Board of Commissioners, the electric make-ready work would be contracted within the third quarter of 2024, an installer and network provider for EVSE would be selected, and the EVSE would be ordered. In the fourth quarter of 2024, the EVSE parking spaces would be striped and signage would be added and the EVSE would be installed and energized.

EV Parking Enforcement

A common issue with EVSE is nonelectric vehicles parking in EVSE charging spaces, blocking EV users' ability to utilize the EVSE. Staff recommends developing an ordinance which would discourage this behavior by imposing fines for noncompliance.

V. Impact On Township Finances:

The Township budgeted \$20,000 in the Capital Budget (Project# 4246) to cover the cost of installation and \$9,000 in the Operating Budget for software costs. The installation of four EVSE at Lot 7 in Bryn Mawr has an estimated cost of \$26,000, which is 10% below what the Township has budgeted for this project.

CIP (2024)

- Electric make-ready: - \$7,000
- EVSE: - \$15,000
- Subtotal: - \$22,000 vs \$20,000 budgeted

Operating Budget (2024)

- Software (5 yrs prepaid) - \$3,000
- Warranty (4 yrs prepaid) - \$1,000
- Subtotal: - \$4,000 vs \$9,000 budgeted

- **Total Estimated Cost - \$26,000 vs \$29,000 budgeted**

Operating Budget (Annually Recurring)

- Software (2030+) - \$600
- Projected Revenue \$1,150
- Total: \$550

VI. Staff Recommendation:

Staff recommends installing EVSE at Bryn Mawr Station (Lot 7), charging a fee of \$0.20/kWh from 7am – 11 pm and \$0.15/kWh from 11 pm – 7am and waiving parking fees for vehicles using the EVSE.



Public Electric Vehicle Supply Equipment (EVSE)

Sustainability Committee
May 1, 2024





Action to be Considered by the Committee

- Authorize staff to contract installation of EVSE in at Bryn Mawr Station Lot (Lot 7)
- Approve pricing structure for use of EVSE
- Provide guidance regarding parking fees for vehicles utilizing the EVSE



Overview of Presentation

- I. Summary of September 27, 2023 Discussion**
- II. Proposed Location**
- III. Ownership Model**
- IV. Proposed Pricing Structure for EVSE Use**
- V. Parking Fee Options**
- VI. Project timeline**
- VII. EV Parking Enforcement**
- VIII. Impact on Township Finances**
- IX. Staff Recommendation**



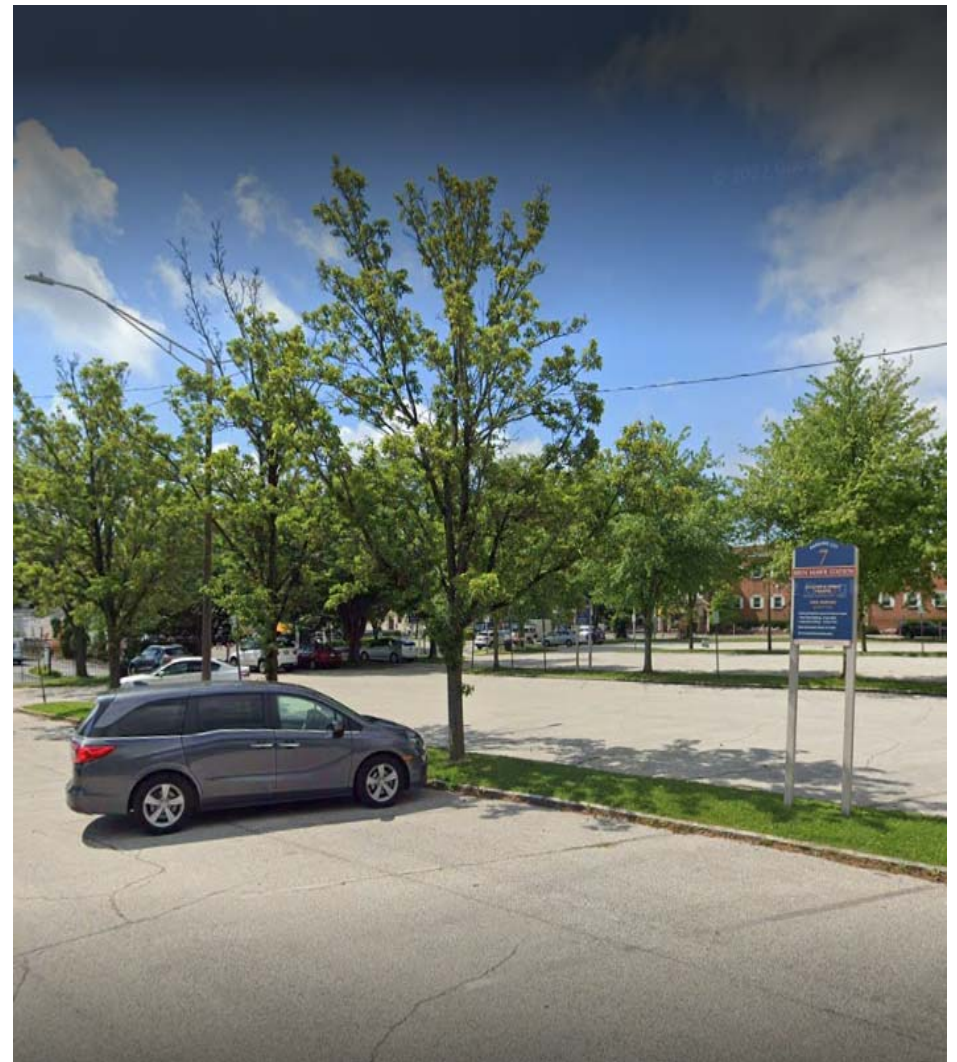
Summary of September 27, 2023 Discussion

- Committee authorized staff to explore:
 - Installing Level 2, networked chargers in municipal lots or garages
 - Public-private partnership and charging-as-a-service models of ownership
 - Locations using objective criteria
 - EV parking enforcement



Proposed Location

- Bryn Mawr Station (Lot 7)
- Four 19.2 kW stations
- Plenty of available parking spaces
- Proximity to:
 - Apartments and townhomes for overnight charging
 - Commercial area for workplace and destination charging
 - Train station
- Community outreach prior to installation





Ownership Model

Public-private partnership (PPP) model

	Network provider	Township
Make-Ready Costs		X
Equipment Costs		X
Operations and Maintenance	X	
Payment Processing	X	
Revenue	10%	90%



Proposed Pricing Structure for EVSE Use

- Energy-based rate: cost is based on kWh of electricity used to fuel the vehicle
 - More equitable, “pay what you use” structure that accounts for different energy draws for different vehicles
 - Can have a time of use increase/decrease to incentivize off-peak charging
- Overstay fees can encourage space turnover
 - Example: \$5/hour, prorated by the minute, going into effect after a vehicle has been plugged in for 4 consecutive hours
 - May deter transit users from utilizing the EVSE
- Proposed Pricing Structure:
 - \$0.20/kWh from 7 am – 11 pm and \$0.15/kWh from 11 pm – 7 am
 - No overstay fees, re-evaluate after 1 year based on utilization



Parking Fee Options

- 2023 Average meter revenue: \$515.00 per meter
 - 4 meters per location = \$2,060/year each
- Option 1 – Parking fee paid separately via kiosk or meter
- Option 2 – Incorporate \$0.50/hr into EVSE fee
- Option 3 – Parking fee is waived for EV charging spaces

Staff recommendation: Option 3 for at least 1 year to incentivize use of chargers, then re-evaluate based on utilization



Project Timeline

- 3Q2024:
 - Electric make-ready work
 - Select EVSE installer and network provider
 - Order EVSE
- 4Q2024
 - Stripe and add signage to parking spaces
 - Install and energize EVSE



EV Parking Enforcement

- Staff recommends developing an ordinance, which:
 - Ensures accessible EVSE spaces are not signed or enforced as disability access only
 - Prohibits parking nonelectric vehicles in designated electric vehicle charging station spaces
 - Limits parking electric vehicles in a publicly designated electric vehicle charging station space when not charging
 - Authorizes parking enforcement to cite vehicles parked in violation of the ordinance



Impact on Township Finances

- CIP (2024)
 - Electric make-ready: - \$7,000
 - EVSE: - \$15,000
 - Total: - \$22,000 vs \$20,000 budget
- Operating Budget (2024)
 - Software (5 yrs prepaid) - \$3,000
 - Warranty (4 yrs prepaid) - \$1,000
 - Total: - \$4,000 vs \$9,000 budget
- Operating Budget (Annually)
 - Software (2030+) - \$600
 - Projected Revenue \$1,150
 - Total: \$550



Staff Recommendation

Staff recommends installing EVSE at the proposed locations, charging the proposed rates, and waiving parking fees for vehicles using the EVSE