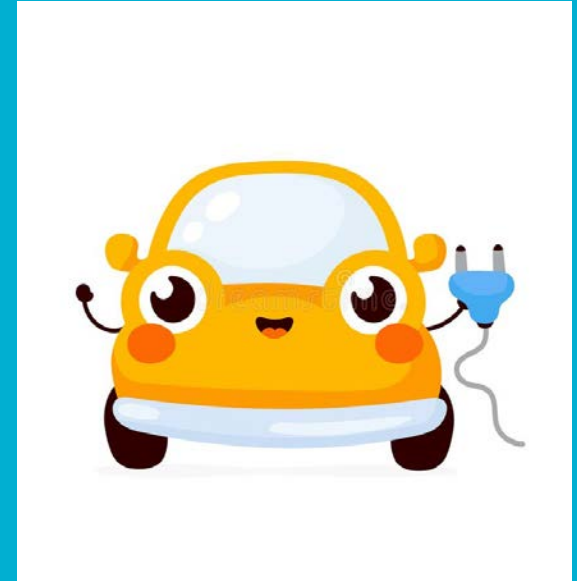


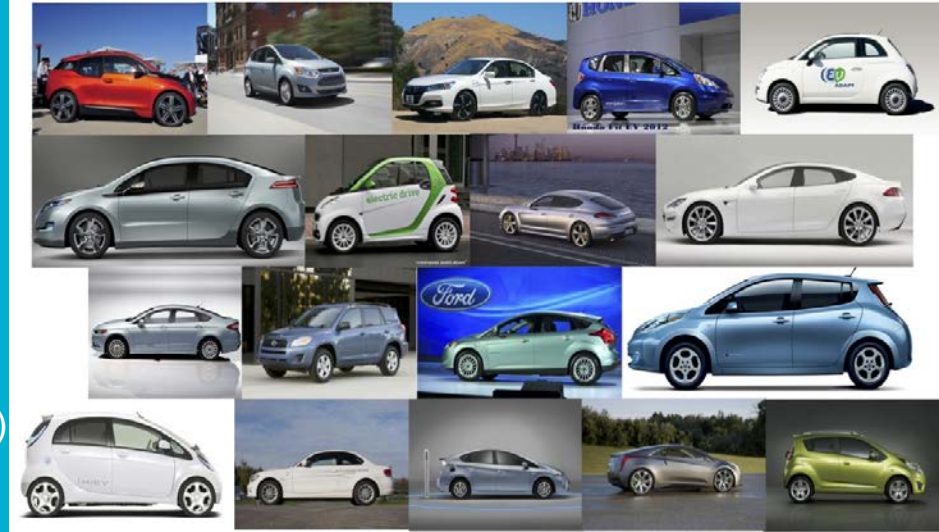
# Electric Vehicle (EV) Chargers at AHS



Brought to you by AHS Environmental Club

# Why EV?

- **Reduce greenhouse gas emissions:**
  - Reduce the effects of climate change
  - Improve public health
  - Reduce acid rain (from NO<sub>2</sub> from vehicles)
- EVs require less maintenance
- EVs are cost competitive
- EVs are responsive and have good torque (fun to drive)
- Chargers can help increase the range of an electric vehicle
- **More information** - AHS student, Claire Dolan's EV block post:  
<https://andoverwecan.org/take-action/take-action-evs>

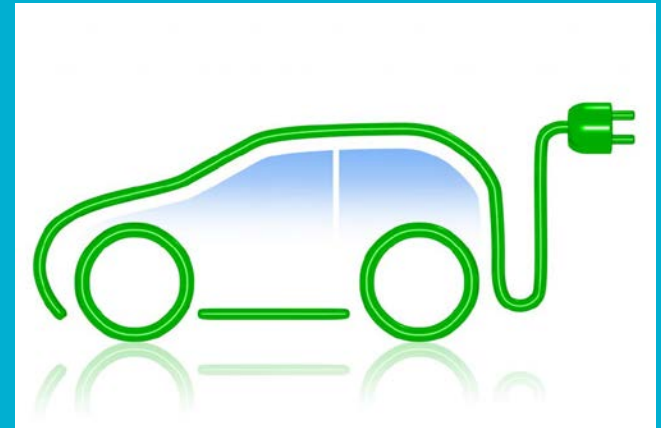




# Benefits of Installing Charging Stations at AHS

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- Offers **alternatives to fossil fuel** based transport
- **AHS is on 100% renewable grid** (100% carbon offset credits, solar energy)
- Charger installation **free** or at a discounted price due to potential grant
- Setting a good **example**
- **Educational** value
- EVs expected to increase in popularity

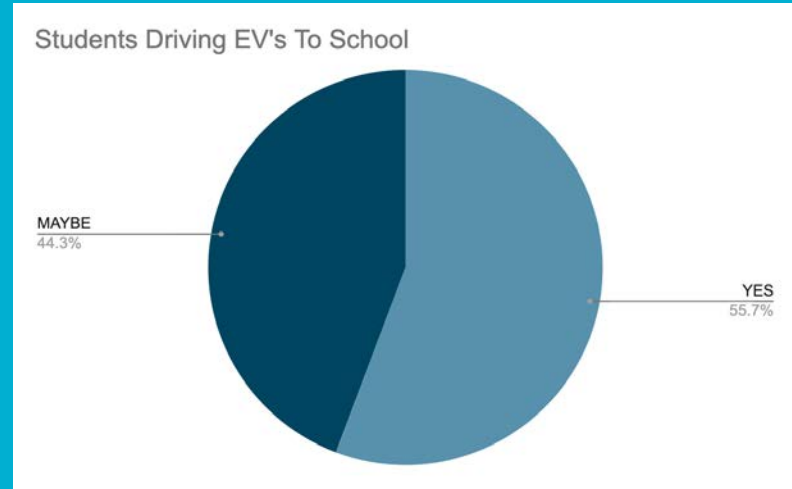




# Our Goals

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- For environmental benefits, we recommend buying **2 dual port chargers**
- If cost-prohibitive, we recommend 1 dual port charger while preparing for a second one in the future.
- Fundraising - local car companies?  
Allowed to advertise?



54  
students  
MAYBE

68  
students  
YES

# Capacity / Pricing Assumptions

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- Single port accommodates 5.5 EVs
- Dual port accommodates 11 EVs
- 4 ports (2 dual ports) accommodates 22 EVs



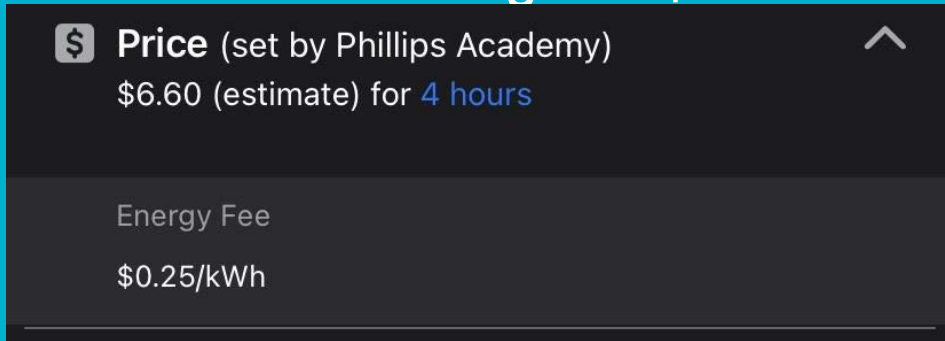


# Pricing

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- Charge users to cover yearly O&M costs
- Working with the Town, AHS Administration, and School Committee on pricing
- Will use Chargepoint app for money management

## Pricing is at \$0.66/ hour to break even



Chargepoint pricing estimate feature. Users are able to select the duration of their charge, and see the approximate cost for using the charger for that amount of time.

# Who would pay for this?

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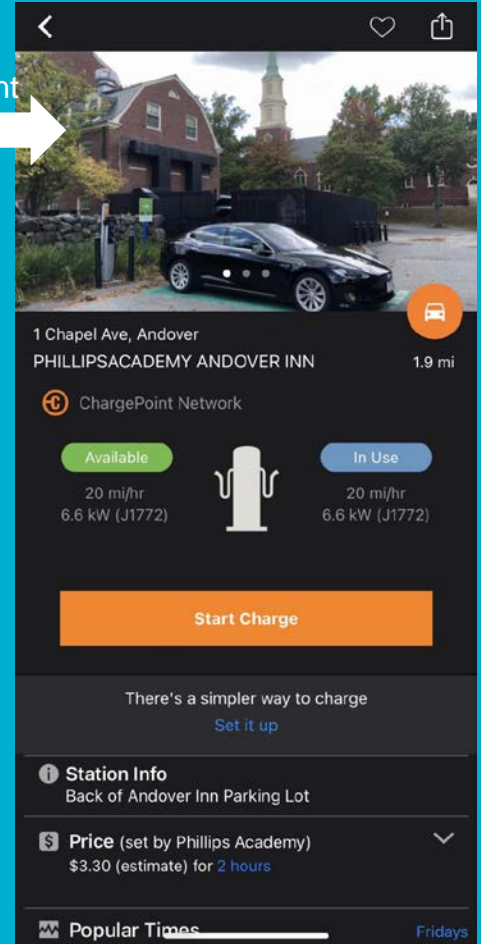


- The **faster we apply for the grant**, the more likely we are to get approved
  - The MassEVIP grant runs out of money quickly so time is of the essence
- If we are approved by this grant, **100% of the charger installation cost** will be covered
- If not approved, **National Grid incentives will cover 75%** of the cost
- Set **charging price** so users **cover the yearly O&M costs**
- AHS Environmental Club would like to help with fundraising for O&M costs, but this is not a guarantee
- Discussed with Mr. Nembirkow, seems reasonable

# Chargepoint app

The information provided by the Chargepoint app about the PA charging station

- To Start Charging - hold your phone by the card reader on the station
  - Otherwise need RFID card
- Click on station in app to see charging status of car + how many miles have been added
- Get notifications when your car is done charging
- Keeps track of who has been using the charger and as a way for faculty/ staff to know when their car has been fully charged





# Rules and Regulations

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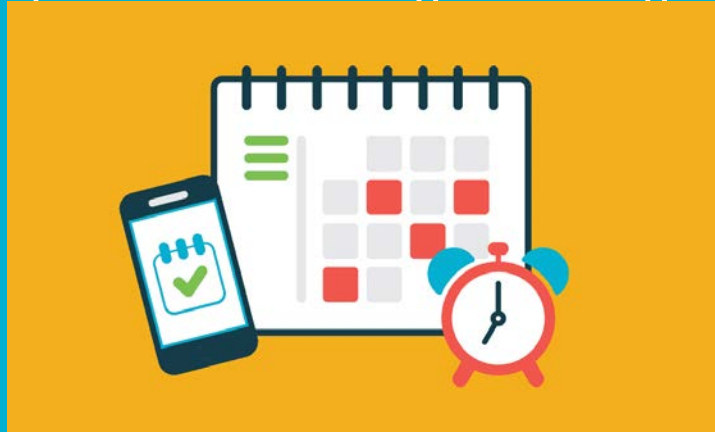
- Work with AHS Administration to develop rules that are fair to students and faculty
- Users will register into the charging group and agree to the formal rules
- Lack of respect for this privilege, and/or the equipment may ultimately result in a user losing their ability to charge and park in the charging spaces



# Scheduling

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- The charging schedule will be sent out at the beginning of each week
- Users are responsible for communicating their personal schedules to coordinators
- Once registered into the charging group, users will create Chargepoint accounts and are responsible for using the chargers respectfully and efficiently





# Key Takeaways

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- Installation of electric car chargers would make AHS a green school leader
- User costs could cover O&M
- Students, administration, and town are working together
- If MassEVIP grant is approved, the cost of the chargers would be covered
  - The money from this grant is first come, first serve, so the window of opportunity for being accepted is limited.





# We would like to thank



- Dr. Losick-Yang
- Ms. Nicosia
- Mr. Darlington
- Mr. Nembirkow
- Mr. Jannetti
- Mrs. Cutler
- Dr. Bach and the School Committee Members for their time and consideration

# AHS Environmental Club EV Charger Committee

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**Eva McKone, AHS'22**

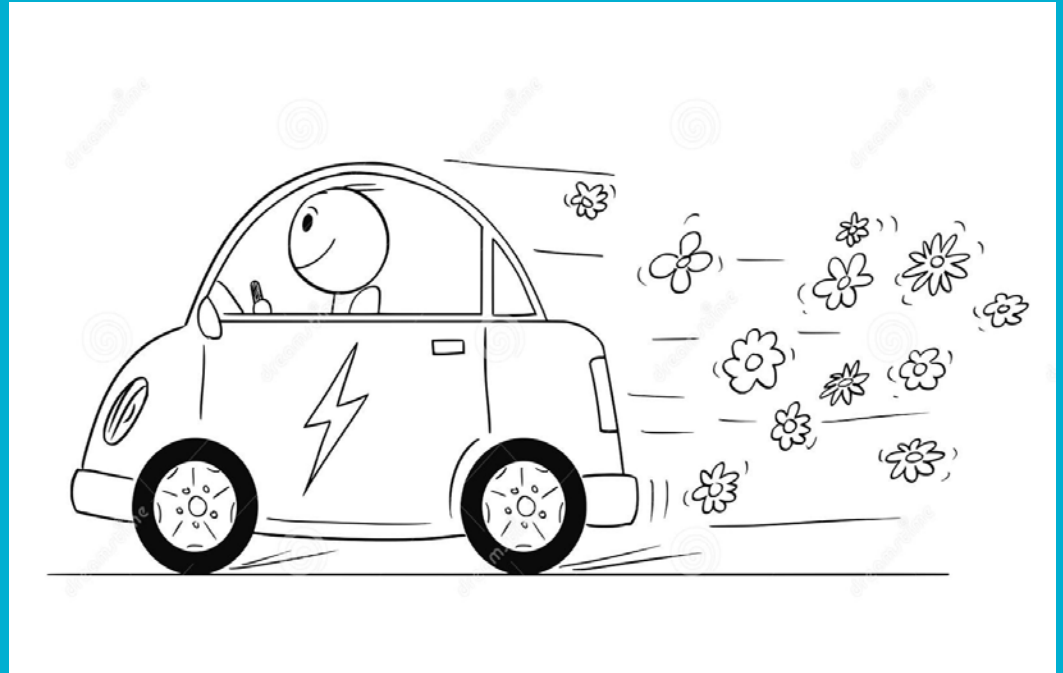
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# Other Environmental Club Initiatives

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## April 24 - Tree Plenish Event (10 am - 2pm, AHSparking lot)

E Club members will plant 300 trees to more than offset AHS paper use in 1 year

## April 30 - Drive Electric Earth Day Event (4:30 - 6:00 pm, downtown)

Electric vehicles will drive down Main Street and park in the Park Street Lot to share information

Ongoing - Trail clean up work

Ongoing - AHS Sustainable Garden Work

