

# EV Task Force Findings

2022



## EV Task Force Members

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*Thank  
you*



## Purpose of the task force

To determine what policies, standards and best practices should be implemented in the development of EV charging stations in the city.



## Items studied by the task force

- State EV Master Plan
- EV plans of other cities
- Types and levels of EV charging stations
- Power requirements of EV charging stations
- Types of EV users
- Locations for EV charging stations
- Own or lease – Fee or free
- Would a common platform serve all needs



## Task force findings

- The State of Utah Electric Vehicle Master Plan has a mission statement that reads
  - Create and implement a unified electric vehicle infrastructure strategy for enhanced transportation and better air quality for Utah.
- Priorities include charging stations at strategic locations, incremental distances no greater than 50 miles along the highway system and along other appropriate major highways.
- No planned projects listed south of Provo

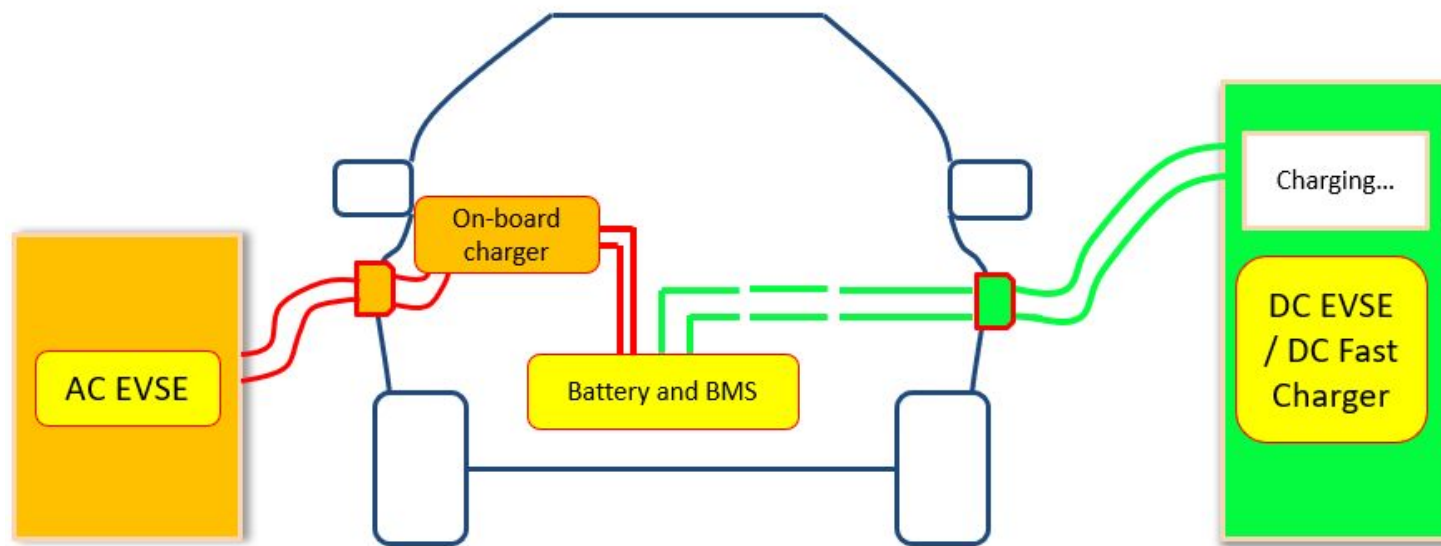


## Task force findings

- Level 1 - Trickle charger. Could take 10-20 hours for a full charge
- Level 2 - Medium charger. 3-8 hours
- Level 3 - DCFC. To 80% in under 30 minutes
- Level 4 - DCUFC. (Tesla Supercharge station) Relatively new, 80% in 15-30 minutes



## Task force findings



## Task force findings

# Easy as ...

1



2



3





## Task force findings

- Level 1 - Trickle charger. 120 VAC 20A
- Level 2 - Medium charger. 240 VAC 40A
- Level 3 & 4 - 480-900 3 phase VAC up to 500A



## Task force findings

- Level 1 - \$150 - \$500
- Level 2 - \$400 - \$1,700
- Level 3 - DCFC. \$30,000 - \$50,000
- Level 4 - DCUFC. \$45,000 and up



## Task force findings

There are 3 main types of EV users

1. Interstate - These are the users that are travelling long distances cross country. Level 3 or 4 chargers are what they want for a quick pit stop.
2. Event - These are users who travel from the surrounding areas to events or destinations in Spanish Fork. These users would be looking for Level 2 or 3 chargers.
3. Workforce - These are the Spanish Fork residents who travel primarily locally for work and routine errands. Level 2 chargers at the workplace, but typically no charging needed for errands.



## Task force findings

Level 3 chargers would be best located at areas such as

- Commercial areas near freeway/highway
- 2550 E (Smallmart area)
- Benjamin or Center Street interchanges
- Costco / HWY-6
- Little Acorn area?
- Golf Course?



## Task force findings

Level 2 chargers would be best located at areas such as

- Fairgrounds
- Sports park / Rec center
- Park-n-Ride
- Golf course
- Adventure Heights
- North park
- City park
- City office buildings



## Task force findings

With the inevitable addition of EVs to the city's fleet, where those vehicles will charge should be considered. New buildings and fleet facilities should plan infrastructure to support addition of EV chargers as needed.

Ideal spots would be those dual purpose locations where fleet vehicles would park and charge overnight, but employee personal vehicles could charge during the day.



## Task force findings

No real advantages to owning over leasing charging stations were identified. Leasing the charging stations would ensure that the software is kept up to date and the equipment is maintained in good working order. The replacement costs of an owned charging station would be similar if not more than ongoing maintenance.



## Task force findings

A common platform across all city owned and operated charging stations would allow for a common management interface and a consistent user experience. The clear leader in this space is ChargePoint. This platform would allow for all types of Free vs. Fee options to be considered and implemented.





## 6 Recommendations of the Task force

1. At this time, the task force believes that any policies should come only when and if the city wants to promote and subsidize clean air or similar initiatives.
2. We recommend that the city standardize on a single system - ChargePoint - whenever city owned or operated charging stations are installed.
3. We recommend that level 3 (DCFC) charging stations be left to those businesses and entities with needs and funding to install them, at least until the prices become more reasonable.



## 6 Recommendations of the Task force

4. We recommend that the primary fleet buildings begin investigating space and power to add level 2 chargers for the addition of electric fleet vehicles in the very near future, prioritizing those dual purpose locations discussed earlier.
5. We recommend that higher capacity city destinations such as the sports park, fairgrounds and Adventure Heights evaluate the feasibility of adding level 2 charging stations to the current facilities.
6. And finally, we recommend that any new city construction projects include at a minimum conduit and power capacity for ease of adding charging stations in the future.



# Q & A



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