EVSE Proposals – HB 44 Sec 3.4 Tentative Code

Western Weights and Measures Association Annual Meeting

September 28, 2020

Submitters

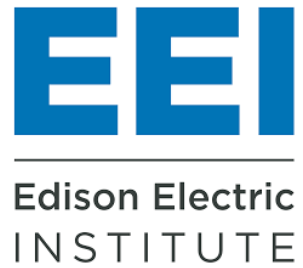

RIVIAN


greenlots
A Member of the Shell Group


TRITIUM


ABB


electrify
america


EEI
Edison Electric
INSTITUTE


BTCPOWER


SIEMENS


evconnect
Charge Forward


TESLA

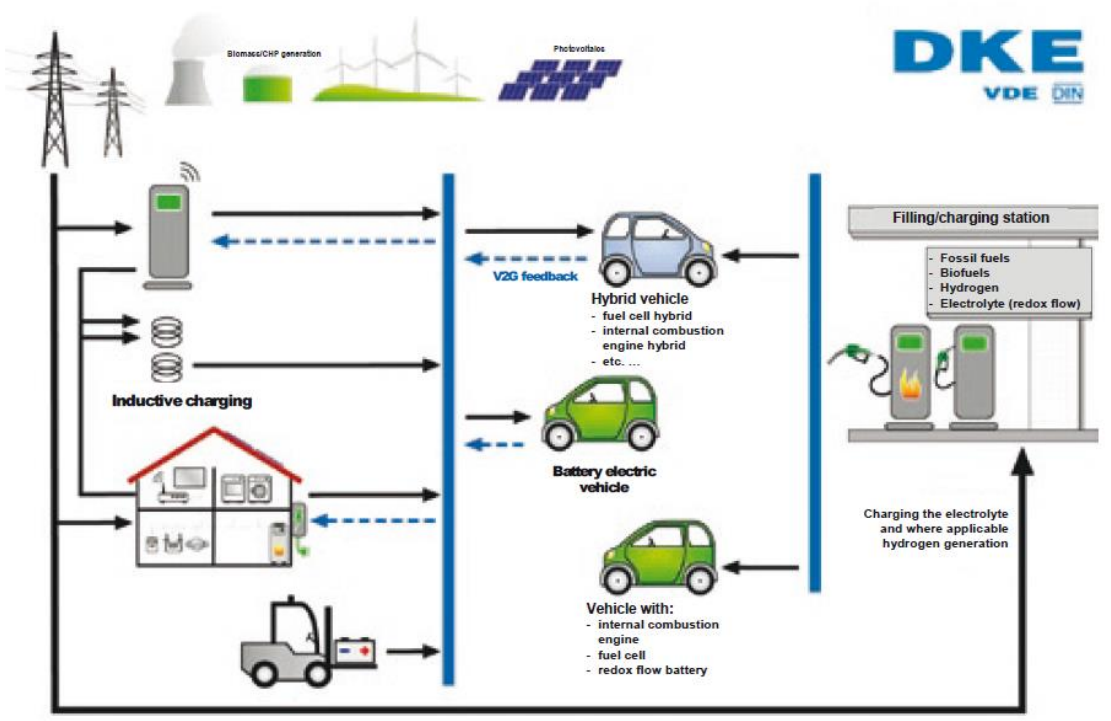

EVgo
FAST CHARGING

Purpose

- Discuss **how EV charging infrastructure technology has evolved** since development of first draft of HB 44 Sec 3.4 tentative code
- Review **Form 15 proposals**
  - Phase in for existing stations and DC metering timeline
  - Private stations
  - Primary indicating element
  - Tolerance levels AC vs. DC
- **Shared goal** is to ensure **accuracy and transparency** for consumer

EV Charging User Experience – Not Replicating Gas Station Model

- **Levels of Charging** – Level 1, Level 2, Direct Current Fast Charging
- **Charging Use Cases** – home, work, around town (retail center), highway corridor
- **High Tech Automated Process -** consumer experience first priority

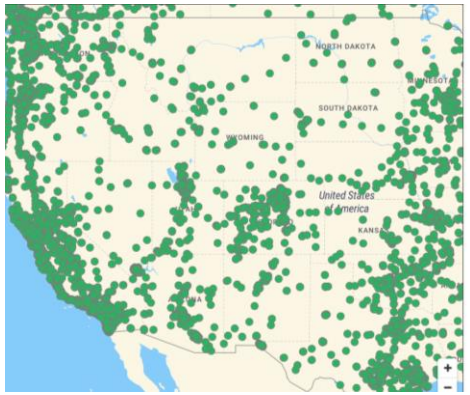


Phase In for Existing Stations

- **Purpose:**
  - To provide clarity on how HB 44 Sec. 3.4 tentative code will apply to existing EVSE that are in the ground before it becomes effective by identifying which elements are non-retroactive.

- **Justification:**
  - Timeline of commercial availability of DC metering technology
  - Interim options to ensure accuracy from consumer standpoint
  - Unused or underused investment of state and local funding
  - Extensive retrofit costs or lack of utilization of existing sites

- **Precedent:**
  - CA Division of Measurement Standards has adopted ten-year phase in timeline for existing stations.



Private Stations

- **Purpose:**
  - To clarify that this code does not apply to EVSE that are not available for public use.

- **Justification:**
  - Difficult to implement field verification uniformly as EV charging station deployment scales if incorporate private stations

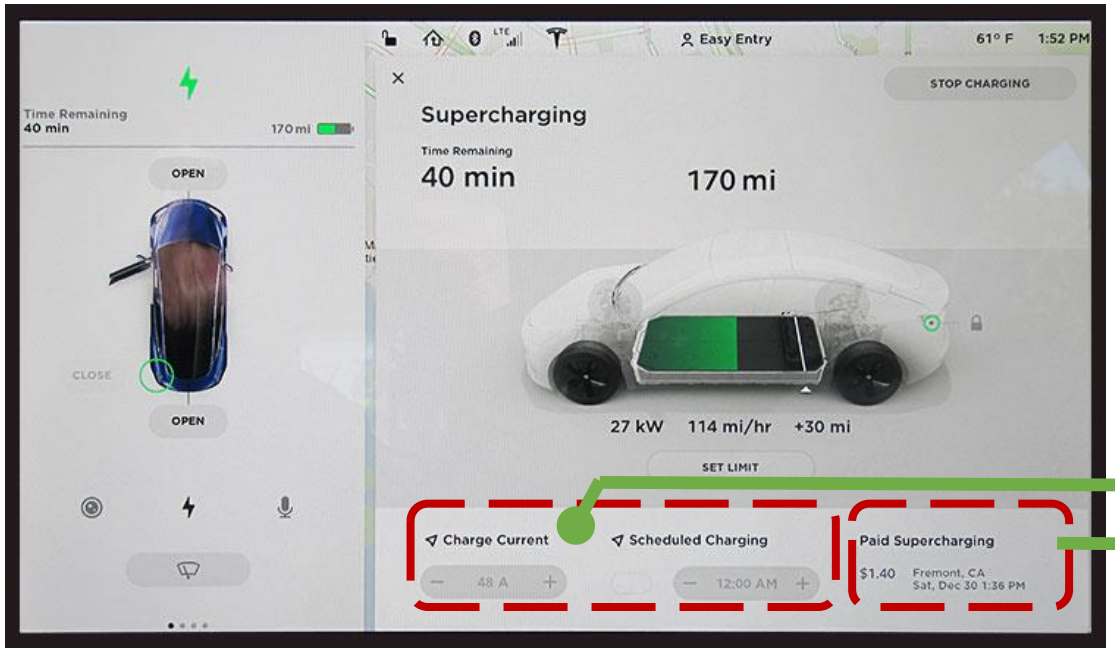
- **Precedent:**
  - May already be implied under definition of commercial transaction but additional clarity is necessary

Primary Indicating Element

- **Purpose:**
  - Provide clarity for options available for the primary indicating element to display commercial transactions for EVSE to the consumer and utilized during the inspection of the measurement system for EVSE.

- **Justification:**
  - Better consumer experience for real time accurate and transparent information
  - Technology moving in this direction
  - Consistent with evolving global measurement regulations

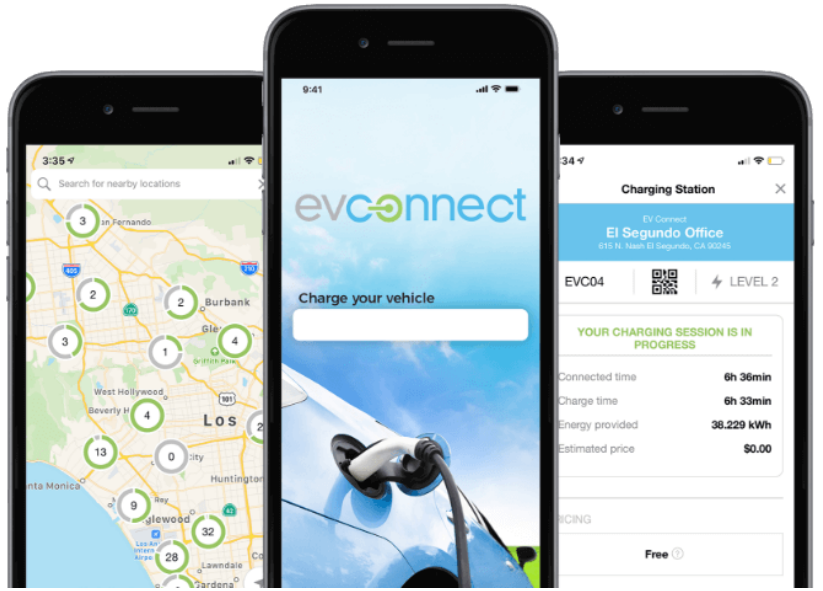
- **Precedent:**
  - TNC HB 44 Sec. 5.6 tentative code



User Interface

AC Charging info.

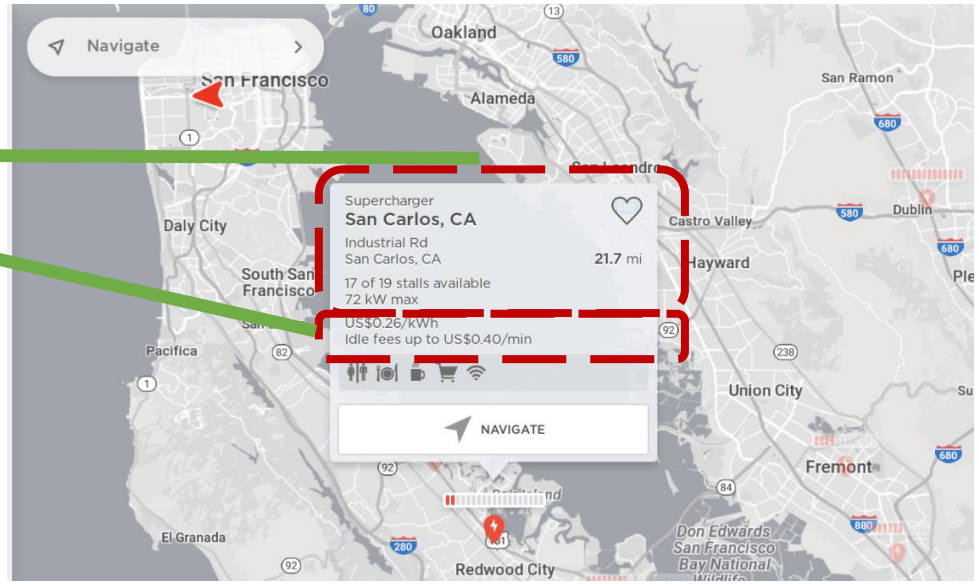
DC Charging Billing

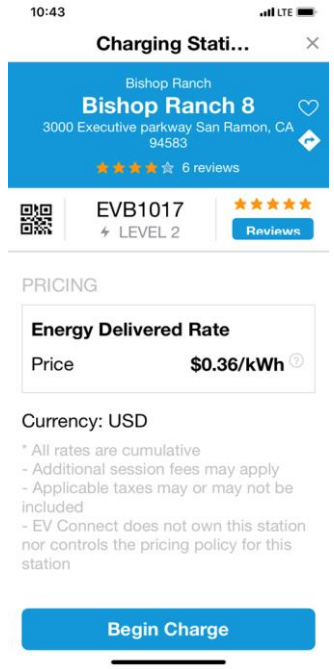


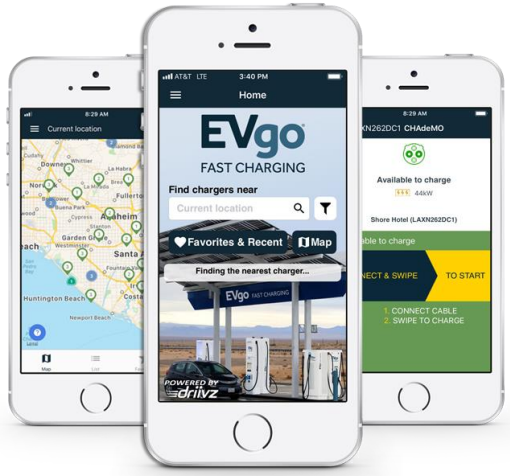
User Interface

Site information

Pricing and fees

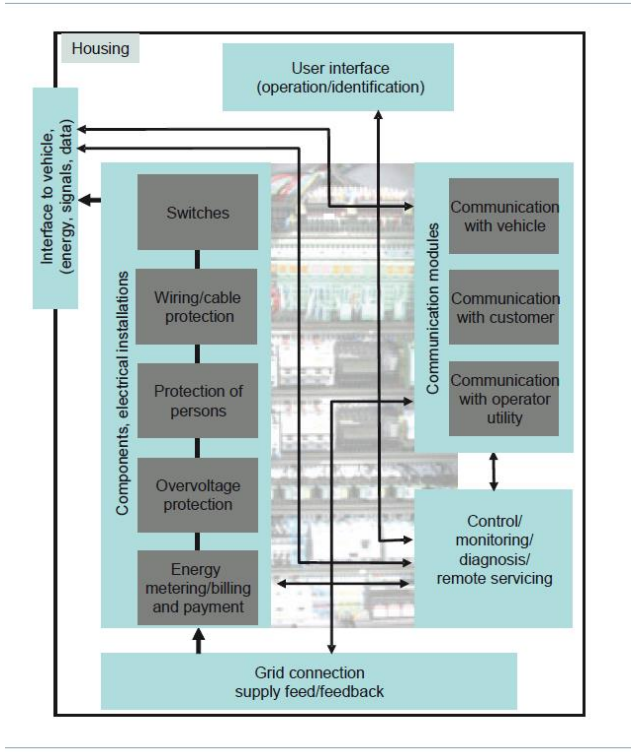






Acceptance and Maintenance Tolerances

- **Purpose:**
  - To create separate load test tolerance requirements for DC EVSE due to significant technology differences and challenges between AC and DC systems
- **Justification:**
  - Timeline for commercial availability of DC metering technology
- **Precedent:**
  - CA Division of Measurement Standards adopted these requirements in their regulation.



Key Takeaways

- **Objective** is to ensure **accuracy and transparency** for the consumer
- **Collaborate** now to ensure tentative code aligns with technological advancements
- **Adopt four proposals**
  - Existing stations should be phased in over time
  - Private stations are not subject to commercial transactions
  - Primary indicating element can be external to EV charging station
  - Acceptance and maintenance tolerances for DC metering should match CA