

Here are a few comments following last week's call on the Energy Star program for EVSEs.

There are some EVSEs that work on both Level 1 and Level 2. The Energy Star program for EVSEs should accommodate products like this for eligibility for Energy Star rating.

Examples:

<http://store.evsolutions.com/turbocord-dual-240v120v-p28.aspx>

<http://store.evsolutions.com/turbodock---module-p61.aspx>

Note that Level 1 charging can be much less efficient overall than Level 2, due to losses external to the EVSE. It would be good to get some actual total charging system efficiency data on Level 1 charging. It could turn out that widespread usage of Level 1 charging would significantly increase overall energy consumption -- even if the L1 EVSE was Energy Star rated. The vehicle onboard chargers can be less efficiency on 120V than on 208 or 240V, and the non-charging loads such as cooling could consume more energy in L1 charging due to the longer on-time. One example is from the GM EV1. The Nickel-metal hydride version ran the air conditioning during charge to cool the batteries. On Level 1 charging, there was almost nothing left over to charge the battery - the overall charging efficiency was essentially zero. Because of this, GM did not include a L1 charger with that version of the car.

Alec Brooks