Table 7: Number of Public and Shared Private Level 2 Chargers Serving Work and Nonwork Charging Events Away From Home Under the AATE3 Scenario

Access	Location	2025	2030	2035
Shared Private	Office	102,091	206,123	293,692
Shared Private	Retail	6,283	34,354	129,225
Shared Private	Other	7,853	47,237	164,468
Public	Office	31,413	85,885	195,795
Public	Retail	23,161	139,146	323,516
Public	Other	23,161	143,440	347,011

Source: National Renewable Energy Lab

Table 8 shows the number of DCFC chargers needed by power level. Because DCFC charging events usually take place during trips rather than at the destination, EVI-Pro 3 assumes drivers prefer speed and assign vehicles to the highest-powered charger that their vehicles can accept. Improving vehicle technology means that more vehicles will be able to accept higher-powered charging, and the declining number of lower-powered (150 kW or less) DC fast chargers after 2025 reflects an increased share of vehicles able to accept higher charging speeds, rather than an absolute decreased demand for lower-powered DCFC. Demand for lower-powered chargers may persist if they offer less costly charging than higher-powered DC fast chargers and if some drivers do not require the extra charging speed.

EVI-Pro 3 estimates the number of DCFC chargers to support routine intraregional travel by BEVs. However, the total number of DCFC chargers needed in California also includes the results of the EVI-RoadTrip and WIRED models, which estimated DCFC needs for long-distance travel and transportation network company vehicles, respectively. DCFC needs from EVI-RoadTrip, WIRED, and the combination of all three models are covered later in this chapter.

Table 8: Number of DC Fast Chargers of Different Power Levels Needed to Support Routine Intraregional Travel Under the AATE3 Scenario

DCFC Power Level	2025	2030	2035
150 kW or less	2,482	4,268	4,910
250 kW	5,429	10,731	21,462
350 kW	4,433	17,833	46,396

Source: National Renewable Energy Lab

Grid-Friendly Charging

As PEV ownership expands, vehicle charging will comprise an increasing share of California's energy demand. Coordinated investments in the grid and charging infrastructure will support charging and community needs locally and statewide. EVI-Pro 3 produces load curves covering all charging of privately owned light-duty PEVs based on the assumption that drivers will