



Connecting EV fast chargers to the grid requires coordination with the local utility throughout the site design and installation process. There are many steps along the way, starting with work requests to assess power, through collaborative design iterations, and culminating with scheduling of the utility-side construction and interconnection. Project timelines can be negatively impacted by long response times to requests, utility engineering cycle times, lead time for utility equipment (e.g. transformers), a lengthy scheduling process for utility construction, outage timing, inclement weather, and interruptions to the utility workflow due to things like storm response obligations. Many of these challenges can be mitigated by utility incorporation of some field-tested best practices described below.

The **Connect the Watts™** team, including utility representation and input, has identified 5 areas for utilities to focus on as they design and staff their EV charger project support processes: 1) Easement Process Streamlining, 2) Utility Equipment Inventory Maintenance, 3) Design and Construction Staffing, 4) Study Phase Streamlining, and 5) Utility Design Approvals Streamlining.



Improve the Easement Process

✓ Best Practices:

- ▶ Utilities should make **easement language available to the public** and should dedicate right of way resources to EV developers for work on public property.
- ▶ To significantly reduce delays, utilities should model after PG&E's **lease language**, which can be inserted in site host agreements instead of the easement process.

✗ Practices to Improve:

- ▶ The **long turnaround time for initial easement documents**, including templates and final documents, can create multi-month delays.
- ▶ **Other causes of delays include:** refusal to allow for quit claims, language that includes permanent access rights, and long and/or complicated processes for negotiating easement document language.



Sample Language for Utility Adoption

Utility easements are a significant source of delays, **adding approximately two months to a project schedule on average** (it takes three to four weeks for the utility to produce the easement and up to four months for the host to execute). **Access agreements can eliminate the burden** for utilities, site hosts and/or landlords, counties, electric vehicle service providers, etc.

_____ (e.g. Lessor, Landlord, etc.) grants to _____ (e.g. Lessee, Tenant, etc.) the right to receive utility services including but not limited to electric, and the right for the utility service supplier to construct, reconstruct, install, inspect, maintain, replace, remove, and use said utility services to serve _____ (e.g. tenant facilities, EV Charging Stations, etc.) together with the right for the utility service supplier to ingress to and egress from said utility service facilities across the _____ (e.g. Property, Premises, etc.). _____ (e.g. Lessor, Landlord, etc.) grants the right for the utility service supplier to trim, cut down, and clear away or otherwise control any trees or brush within five (5) feet of said route. In addition, _____ (e.g. Lessor, Landlord, etc.) shall not erect or construct any building or other structure or drill or operate any well under or within five (5) feet of said route.



Maintain an Inventory of Utility Equipment

✓ Best Practices:

- ▶ **Maintain an inventory of transformers instead of having each “made to order.”** AHJ permitting must typically be completed within one year of being approved. However, long lead items such as transformers that are the responsibility of the utility may take up to 20 weeks to obtain, thus putting the project in jeopardy.
- ▶ Ordering utility equipment once the project has been assigned allows for a **faster timeline.**

✗ Practices to Improve:

- ▶ **Lacking an inventory** of transformers can delay projects for more than six weeks.
- ▶ Utility equipment issues can delay projects 6-9 months. **Deviating from their utility standards** can lead to further delays and complications.
- ▶ Differences in site host requirements vs. utility power availability create inefficiencies. Utilities can help by providing a capacity constraint map or similar tool for utility assessments.



Improve the Feasibility Study Phase

✓ Best Practices:

- ▶ Meet with an EV team specialist to provide an **assessment of interconnect options.**
- ▶ SCE has dedicated resources to conduct field verification reviews, which take approximately 14 days. PG&E has a dedicated assessment process to outline capacity constraints and point of interconnect, which takes approximately 30 days.
- ▶ Make **capacity planning and GIS map tools available** to EVCS developers.

✗ Practices to Improve:

- ▶ Utilities that **lack an EV assessment process** (and require designs by the applicant) are at risk of redesign once reviewed by the utility, which can take an additional 8-10 weeks.
- ▶ Feasibility studies that **only account for worst-case scenarios** do not inform the applicant design process.



Dedicated Design and Construction Staff

✓ Best Practices:

- ▶ **EV-dedicated design and construction resources** can lead to a 40-day design cycle time and 4-week utility construction timeframe.
- ▶ PG&E provides a dedicated representative who manages the EVgo project portfolio, as does Dominion Energy in Virginia.

✗ Practices to Improve:

- ▶ **Non-dedicated resources** that lead to a whomever-picks-up-the-phone approach.
- ▶ Processing applications through **regional reps** causes delays by treating projects like a ‘stick-and-frame.’



Streamline Utility Design Approvals

✓ Best Practices:

- ▶ Have **dedicated EV staff** that is already familiar with fast charger installation projects, self-imposed deadlines for turn-around, and enough staff to be able to handle project volume.
- ▶ While on average, utility design takes 4-5 weeks, approvals can happen as quickly as 3-4 weeks with utilities like Dominion Energy.

✗ Practices to Improve:

- ▶ Approvals can take as long as **8 weeks** or be considered “ongoing.”
- ▶ For one particular utility, design can take 4-6 months.