

Example: Breakdown of Installing Level 2 EV Chargers

Please see below, an example of cost details for installing a single public Level 2 charger in Northern California. The associated costs can vary significantly based on several factors such as site conditions, the need for electrical upgrades, and specific equipment choices. An example for one installation can be broken down as follows:

Cost Breakdown

1. **Charger Equipment Costs:**
 - **Level 2 Charger Unit:** \$500 - \$2,500 per unit
2. **Installation Costs:**
 - **Electrical Work and Labor:** \$1,000 - \$3,000
 - **Trenching and Conduit Work:** \$500 - \$2,000
 - **Mounting and Hardware:** \$200 - \$500
3. **Site Preparation and Permitting:**
 - **Site Assessment and Design:** \$500 - \$1,500
 - **Permits and Approvals:** \$500 - \$1,000
4. **Additional Costs:**
 - **Utility Upgrades:** \$1,000 - \$5,000 (if required)
 - **Signage and Accessibility Improvements:** \$200 - \$500
 - **Payment Gateway System:** \$500 - \$2,000

Example Total Cost per Charger

Considering these components, the example total cost for installing a single public Level 2 in Northern California can range from approximately \$4,200 to \$12,500 (\$6,000 to \$8,000 per charger for straightforward installations).

Example Calculation

- **Charger Unit:** \$2,000
- **Electrical Work and Labor:** \$2,500
- **Trenching and Conduit Work:** \$1,000
- **Mounting and Hardware:** \$300
- **Site Assessment and Design:** \$1,000
- **Permits and Approvals:** \$700
- **Utility Upgrades:** \$2,000
- **Signage and Accessibility:** \$300
- **Payment Gateway System:** \$1,000

Total Estimated Cost: \$10,800

Cost Reduction Strategies

1. **Incentives and Rebates:**
 - Utilize available federal, state, and local incentives and rebates for EV infrastructure, which can significantly reduce costs.
 - PG&E's EV Charge Network and the California Electric Vehicle Infrastructure Project (CALeVIP) offer various incentives.
2. **Bulk Installation:**
 - Installing multiple chargers at once can reduce the per-unit installation cost through economies of scale.
3. **Efficient Site Selection:**
 - Choose sites with existing electrical capacity to minimize utility upgrade costs.

By leveraging these strategies and understanding the cost components, nonprofit and public community sites can better plan and budget for the installation of public Level 2 chargers in Northern California.

Example:

3-Year Budget for the Implementation of EV Charging

Creating a comprehensive budget for the implementation of public EV charging sites in Northern California, involves considering several key cost components: equipment, installation, site preparation, payment gateway fees, ongoing maintenance, and other operational expenses. Below is a detailed 3-year budget estimate, with an annual budget of \$100,000, totaling \$300,000.

Year 1: Initial Setup and Installation

Site Preparation and Permitting

1. **Site Assessment and Design:** \$10,000
2. **Permits and Approvals:** \$5,000
3. **Utility Upgrades and Infrastructure:** \$15,000

Equipment

1. **Level 2 Chargers (15 units):** \$45,000 (at \$3,000 per unit)
2. **Payment Gateway System:** \$10,000

Installation Costs

1. **Electrical Work and Installation:** \$20,000
2. **Construction and Site Preparation:** \$10,000

Initial Operational Setup

1. **Marketing and Launch:** \$5,000

Total Year 1 Costs: \$120,000

Given the \$100,000 annual budget, we will allocate \$20,000 of the Year 2 budget to cover the Year 1 overage.

Year 2: Additional Installations and Operations

Additional Equipment (if budget allows)

1. **Level 2 Chargers (additional 5 units):** \$15,000
2. **Additional Installation and Site Prep:** \$10,000

Payment Gateway and IT

1. **Software Licenses and Fees:** \$5,000

Maintenance and Operations

1. **Routine Maintenance:** \$10,000
2. **Customer Support and Operations:** \$5,000
3. **Utility Costs:** \$5,000

Total Year 2 Costs: \$50,000 (plus \$20,000 carried over from Year 1, making it **\$70,000**)

Year 3: Expansion and Sustained Operations

Expansion

1. **Additional Level 2 Chargers (additional 5 units):** \$15,000
2. **Installation and Site Prep:** \$10,000

Ongoing Costs

1. **Routine Maintenance:** \$10,000
2. **Customer Support and Operations:** \$5,000
3. **Utility Costs:** \$5,000
4. **Payment Gateway Fees and Software Updates:** \$5,000

Total Year 3 Costs: \$50,000

Summary of Total Costs, Over 3 Years

1. **Year 1:** \$120,000 (with \$20,000 carried to Year 2)
2. **Year 2:** \$70,000 (\$50,000 + \$20,000 carryover)
3. **Year 3:** \$50,000

Total Cost for 3 Years: \$240,000

Additional Considerations and Contingencies

- **Contingency Fund:** \$60,000 over 3 years (20% of total budget) for unexpected costs such as additional site preparation, higher-than-expected utility upgrades, or unforeseen maintenance issues.

Final Budget Allocation Over 3 Years

- **Year 1:** \$100,000 + \$20,000 carryover to Year 2
- **Year 2:** \$100,000 - \$20,000 (carried over) + \$20,000 for ongoing costs
- **Year 3:** \$100,000

This budget allocation ensures a sustainable setup, with some flexibility to handle unexpected costs while aiming to establish 15-20 Level 2 chargers over three sites in Northern California.
