

Kick-Off Meeting

Electric School Bus and Charging Infrastructure Grants



School Bus Team
Fuels and Transportation Division
California Energy Commission



Agenda

1. Introduction
2. Agreement Term
3. Scope of Work
 - Administrative Tasks (Task 1)
 - Charging Infrastructure and Utilities (Task 2-5)
 - School Bus Procurement (Task 6)
 - Scrap Replaced School Bus(es) (Task 7)
 - Data Collection (Task 8)
4. Agreement Changes
5. Budget and Major Subcontractor
6. Invoices and Payment Requests
7. Next Steps
8. Questions



Agreement Term

Agreement Term = Effective Date to End Term Date.

- Effective Date is the date the Energy Commission executes the grant agreement.
 - Earliest date to incur reimbursable costs.
- End Term Date
 - Found in the agreement term box on signature page
 - Last date to incur costs
- All expenditures must occur within the approved term of the agreement.



Scope of Work

Task 1 Administrative

- Attend Kick-off Meeting, Task 1.1
- Critical Project Review Meetings, Task 1.2
 - Conducted after Engineering & Design of Infrastructure
- Final Meeting, Task 1.3
- Quarterly Progress Reports, Task 1.4
 - Template will be provided
- Final Report, Task 1.5
 - 12 months of data collection from bus delivery]
- Identify and Obtain Matching Funds, Task 1.6
- Identify and Obtain Required Permits, Task 1.7
- Obtain and Execute Subcontracts, Task 1.8
- Media Communications, Task 1.9
 - Exhibit A- Attachment 2



Task 2- 5 Charging Infrastructure

- Utility Company Coordination, Task 2
 - Recipients located within PG&E, So Cal Edison, and SDG&E may be eligible to receive funding for infrastructure
- Engineering and Design, Task 3
- Purchase Equipment & Execute Service Agreements, Task 4
 - EV charger at a minimum must:
 - Be level 2 smart charger
 - Have a 2 year networking agreement
 - Be capable of delivering electricity at 6.2 KW
 - Be Energy Star Certified
- Installation and Implementation, Task 5
 - Infrastructure should be installed and operating before buses are delivered



Eligible Infrastructure Costs

- Must be directly related to and support the EV school buses funded under this Agreement. These costs can include, but are not limited to:
 - Electric vehicle supply equipment (EVSE)
 - Transformer
 - Electric Panels
 - Energy storage equipment
 - Photovoltaic solar panels
 - Installation costs (labor and materials)
 - Utility service upgrades
 - Planning and engineering design costs
 - Network agreement with network provider
 - Extended warranties
 - Stub-outs
 - Demand management equipment
- Provide Equipment list to CAM for pre-approval

SDG&E's Medium-Duty | Heavy-Duty Charging Infrastructure Program

Program Design

- SDG&E provides funding and project management for charging infrastructure development
- Program goal is to support a minimum of 3,000 MD/HD vehicles (trucks, buses, forklifts, etc.)
- No limit on number of school buses in program

Program Schedule

*schedule is preliminary

- Final Decision from California Public Utilities Commission anticipated by early 4th Quarter '19
- Full program launch by 4th Quarter '20
- Five year enrollment period after program launch
- But reach out now!



Charge Ready Transport Program

For more information:

ChargeReadyTransport@sce.com
sce.com/chargereadytransport



Energy for What's AheadSM





PG&E's EV Fleet Program

Program highlights –

- \$236M budget over 5 years 2019-2023
- 700+ sites supporting 6,500 new EVs
- Easier and more cost effective way to install Charging Infrastructure
 - PG&E Designs and builds TTM (To The Meter) Infrastructure
 - PG&E pays BTM (Beyond the meter) Infrastructure incentives
 - PG&E pays Schools EV Charger rebates for qualified EVSE.

Program Requirements –

- ✓ Must be a PG&E Electric Customer
- ✓ Procure 2 Med/HD EVs in first year, and at least 2 more in next 4 years
- ✓ Own or Lease the property where chargers are installed
- ✓ Operate and maintain vehicles and chargers for minimum of 10 years
- ✓ Provide data related to charger usage for a minimum of 5 years

Resources and Contact information -

<https://www.pge.com/evfleet>

- Grant funding finding tool
- Submit an On-line Interest form to request information
- See Case studies and review Questions and Answers to the program

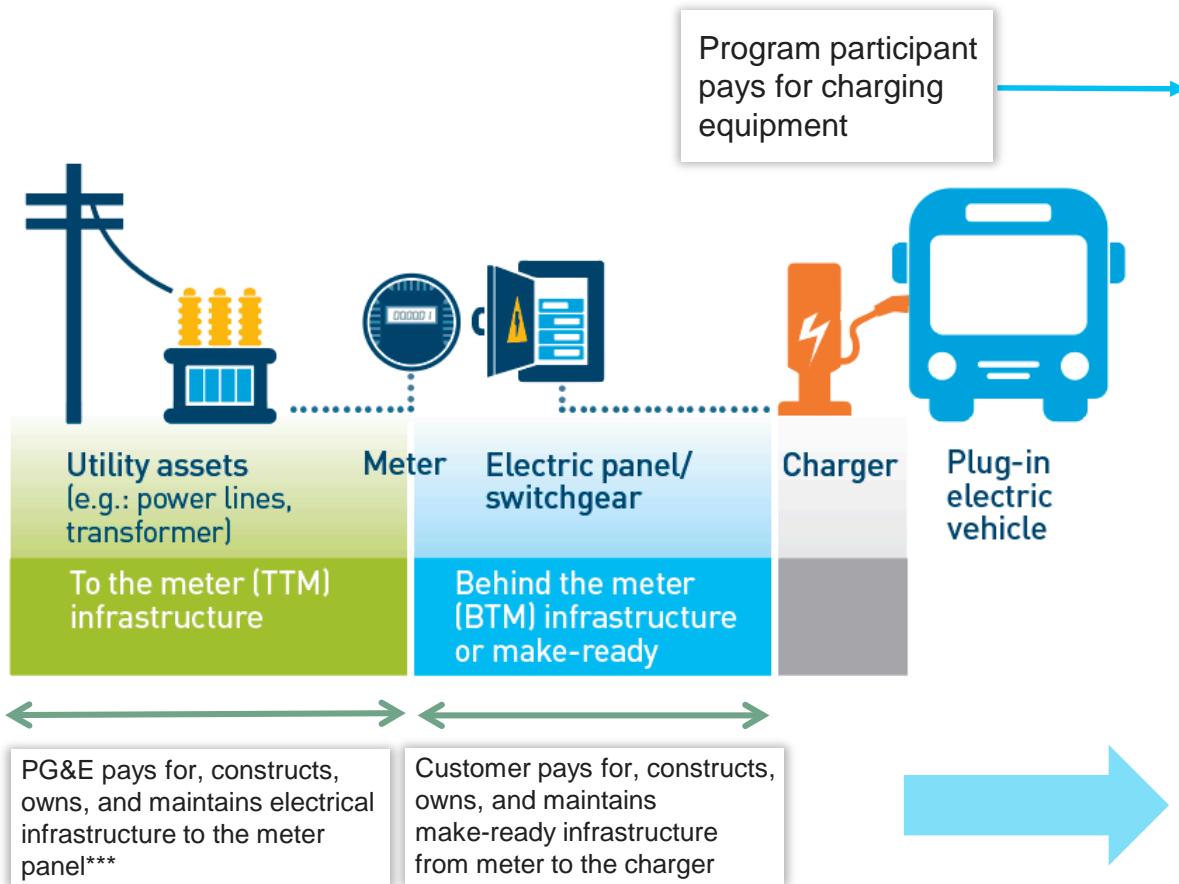
Tim O'Neill – EV Fleet, tko2@pge.com 209-401-8189



EV Fleet Ownership—Customer-owned

PG&E pays for infrastructure cost up to the customer meter

Program participant pays for charging equipment



Charging equipment rebates for Schools, Transit Agencies and Disadvantaged communities

EVSE power	Max. rebate amount**
Up to 50kW	\$15,000 per charger
51-149kW	\$25,000 per charger
150kW+	\$42,000 per charger

Customer-owned infrastructure

Eligible for incentive up to capped amount based on vehicle sector

Vehicle type	Per vehicle incentive cap [†]
Transit buses & Class 8 trucks	\$9,000 per vehicle
Transportation refrigeration units, truck stop electrification, ground support equipment & forklifts	\$3,000 per vehicle
School buses, local delivery trucks, and other vehicles	\$4,000 per vehicle

* Some exceptions may apply to customers who hold Primary Service with PG&E

** EVSE rebate amounts subject to change later in 2019 based upon EVSE RFQ. Rebate not to exceed 50% of charger equipment and installation costs. EVSE must meet minimum and standard requirements to be eligible for rebate

*** Customer-owned eligibility at PG&E discretion based on project scope and associated costs

† Limited to 25 vehicles per site; sites with more vehicles to be considered on an individual basis



Utilities

Questions



Task 6 Electric Bus Procurement

- Encouraged to procure bus(es) from awarded bus manufacturer/dealer from Solicitation GFO-18-604.

OR

- May conduct own bid to select an electric bus manufacturer/dealer.
 - Must use own established procurement procedures while adhering to all applicable state and local laws and the terms and conditions of agreement.
 - All electric buses being procured must include the specifications listed in the Scope of Work.
 - Unit bus amount listed in Agreement Budget is the maximum reimbursable amount paid per bus type.



Task 7 Scrap Replaced School Bus(es)

- Remove from service and scrap each old diesel bus being replaced within 12 months from delivery of the new electric replacement school bus.
- Provide a copy of the Dismantler Certification Form to the CAM, completed and signed by dismantler and dated within 12 months from delivery of the new electric replacement school bus



Task 8 Data Collection

12 months of throughput, usage, and operations data from the project including, but not limited to:

- Maximum capacity of the new charging infrastructure vs. miles per gallon of diesel bus(es) being replaced
- Duty cycle of the current fleet and the expected duty cycle of future electric bus acquisitions
- Specific jobs and economic development resulting from this project
- Vehicle miles traveled by each new school bus
- Maintenance and fueling costs for new bus(es) and infrastructure.
- Maintenance and fueling costs of replaced diesel bus(es) and infrastructure
- Number of students served by new bus(es)
- Electricity use by infrastructure



Agreement Changes

- Informal Amendments:
 - Changes to schedule within agreement term
 - Small dollar budget reallocations
 - Changes to contacts
 - Usually handled via email communication with CAM
- Formal Amendments:
 - SOW changes
 - Term extension
 - Large dollar budget reallocations
 - Requires the Agreement to be formally amended and resigned by both parties



Budget

Major Subcontractor

Major Subcontractor:

- Receiving \$100,000 or more.
- Must complete a detailed budget.
 - Labor rates
 - Other direct operating costs
 - Indirect costs - fringe and overhead
 - Profit



Invoicing – Templates

- CAM will provide you with invoice template
- Must submit required back-up in addition to the template
- Submit Quarterly
 - Consistent with the frequency of the Progress Reports
 - Submit invoice electronically to CAM prior to submitting hard copy

Energy Commission Reimbursable

Category	Agreement Reimbursable Budget	Reimbursable Expenses This Period	Cumulative Expenses Billed to Date	% of Reimbursable Spent to Date	Reimbursable Balance
Direct Labor	\$ -	\$ -	\$ -	#DIV/0!	\$ -
Fringe Benefits	\$ -	\$ -	\$ -	#DIV/0!	\$ -
Travel	\$ -	\$ -	\$ -	#DIV/0!	\$ -
Equipment	\$ -	\$ -	\$ -	#DIV/0!	\$ -
Materials/Misc.	\$ -	\$ -	\$ -	#DIV/0!	\$ -
Subcontractors	\$ -	\$ -	\$ -	#DIV/0!	\$ -
Indirect Costs	\$ -	\$ -	\$ -	#DIV/0!	\$ -
Total	\$ -	\$ -	\$ -	#DIV/0!	\$ -

Invoicing – Templates

- Reimbursable Expenses by Category
- Enter Budget, Expenses this Period and Cumulative Expenses Billed to Date
- Percent of Budget Spent and Reimbursable Balance will automatically calculate



Reimbursement Total This Period	\$	-
Retention Amount:	\$	-
Total To Be Paid This Invoice:	\$	-

Retention Release Invoice
 Retention Release Amount: \$
 Final Invoice

Certification

I certify under penalty of perjury that this invoice is accurate, correct, and proper for payment in all respects, and reimbursement for these costs has not and will not be received from any other sources, including but not limited to a government entity contract, subcontract or other procurement method. I further certify under penalty of perjury that I have carefully reviewed the terms and conditions for this Agreement and have determined that, for work covered by this invoice, the Contractor/Recipient and all subcontractors have complied with all Agreement terms, including the requirement of compliance with public works and prevailing wage laws, which when applicable require the payment of prevailing wages to eligible workers.

Signature of Authorized Representative

Date

Invoicing – Templates

- Reimbursable Total will automatically calculate
- Contractor/Recipient must enter Retention amount
 - 10% of total reimbursable invoice amount unless otherwise approved in the agreement or by CAM
 - Submit School Bus invoice separately, no retention required
- Certification and Signature





Reimbursement for Subcontractors

- Labor rates must be based on what the employee is actually paid (not including fringe benefits or other mark-ups).
- Reimburse for actual labor and fringe rates up to the budgeted rate cap.
- Contractor/Recipient must be able to support the claimed rates in an audit.
- Materials, Miscellaneous and Equipment:
 - Invoice back-up must include receipts for each item.



Retention

- 10% of the total reimbursement amount of each infrastructure invoice.
- Withheld until the completion of the project, data collection and final report.
- Release of retention must be invoiced separate from any reimbursement invoice.



Invoice Process

Energy Commission
30-Days

- Recipient mails all products to Accounting Office.
- Accounting Office forwards to CAM who will review and either approve or dispute.
- Once approved by CAM, will be forwarded to Contracts, Grants & Loans (CGL) for administrative review.
- Once approved by CGL, CGL will forward to Accounting for payment processing with the State Controller's Office (SCO).

State Controllers
Office
15-Days

- State Controller's Office receives request for payment from Energy Commission.
- SCO will send check/warrant via USPS. No electronic payments.



Next Steps

- Execute and return agreements.
- Send updated Schedule of Products and Due Dates if time line has shifted.
- Provide letter documenting the permits or stating that no permits are required.
- Letter describing the subcontracts needed.
- Provide a detailed budget for all subcontracts greater than \$100,000.
- Provide a list of questions you may have regarding driving an electric bus and/or bus maintenance.



CAM Contact List

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School e-Bus Workshop

Aug 30, 2019 9am-12pm - *Rosenfeld Hearing Room*

Robin Goodhand – EPIC Program

- Share lessons learned from two EPIC funded eBus projects
 - Diesel vs electric – what to expect
 - Driving an eBus 101,
 - The importance of driver energy efficiency,
 - eBus driver training resources
 - caring for your eBus,
 - maintenance requirements,
 - technician training resources
 - battery health and battery state of charge
 - smart charging and saving electricity bills
 - Added value mobile energy storage and e-Bus vehicle-to-grid potential opportunities
 - eBus owner resources and support forums
 - collaborative opportunities
- Are there any schools that can share their experiences with implementation of previous eBus projects?
- Are there any specific topics, questions or themes you would like the workshop to cover?

Questions

