UCAN DATA REQUEST
UCAN-SDG&E-DR-01
SDG&E SB 350 TRANSPORTATION ELECTRIFICATION PROPOSALS (A.17-01-020)
SDG&E RESPONSE
DATE RECEIVED: May 25, 2017
DATE RESPONDED: June 9, 2017

INSTRUCTIONS:

Pursuant to rule 10.1 of the California Public Utilities Commission's Rules of Practice and Procedure UCAN hereby submits this data request for information from SDG&E. If you will be unable to meet the above deadline, or need to discuss the content of this request, please call UCAN counsel at the number(s) shown above before the due date.

If you are unable to provide the information by the due date, have an objection to any request, or plan to assert a privilege to any request, please provide a written explanation to UCAN's counsel seven calendar days before the due date as to why the response date cannot be met and your best estimate of when the information can be provided.

If you are asserting an objection or privilege please provide the specific nature of that objection or privilege claimed and the facts upon which such claim is based. If any document is redacted, please clearly identify and describe any information that is redacted from the document and provide an explanation for the redaction. Please identify the person who provides the response and his (her) phone number. Provide electronic responses if possible.

If a document is available in Word or Excel format, do not send it as a PDF file. All data responses need to have each page numbered, referenced, and indexed so worksheets can be followed. If any number is calculated, include a copy of all electronic files so the formula and their sources can be reviewed.

These data requests shall be deemed continuing in nature so that you shall produce any additional or more current information that come to your attention after your initial responses have been sent up to the time of hearing or settlement.

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DATA REQUEST

On September 14, 2016 Commissioner Carla Peterman issued an Assigned Commissioners' Ruling (ACR) in rulemaking R.13-11-007 directing Investor Owned Utilities to present applications for projects to address transportation electrification (TE) pursuant to Senate Bill 350. The ACR, citing to Pub. Util. Code §740.12(b), noted that:

> *"The commission, in consultation with the [CARB] and the [CEC], shall direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, achieve the goals set forth in the Charge Ahead California Initiative …, and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent ... below 1990 levels by 2050.* ***Programs proposed by electrical corporations shall seek to minimize overall costs and maximize overall benefits."[1] (Emphasis added)***

Pursuant to this statutory directive the ACR required investor owned electric utilities to produce applications by January 20, 2017 that proposed both non-controversial programs of short duration that would receive priority review from the Commission with a budget cap of no more than $4 million per program and a total cap of $20 million. In addition, the ACR called for the IOUs to propose programs of longer duration that would require a budget greater than $4 million. Specifically, the ACR holds:

"TE Applications should designate for each proposed program the mechanism for the Commission's review, given the characteristics of the program:

> *1. Priority Review – Non-controversial, short term (e.g. 1 year) investments Budget is limited to no more than $4 million in costs per project, with a total funding limit of $20 million for each utility.*
>
> *2. Standard Review – Programs that do not meet the above criteria (e.g. 2-5 years or greater budget)"[2]*

On January 20, 2017 SDG&E along with PG&E and SCE filed their TE applications. After reviewing SDG&E's application UCAN has concerns about both the proposed costs of SDG&E's priority review projects which exceeds the ACR's cost caps, as well as their standard

[1] Assigned Commissioner's Ruling Regarding the Filing of the Transportation Electrification Applications Pursuant to Senate Bill 350 (ACR), September 14, 2016, p. 6
[2] ACR, Appendix A, p. 2

review project for home charging. While UCAN supports the state's goal of widespread transportation electrification, UCAN also has concerns regarding ratepayer funding and utility ownership of the projects described in the current SDG&E application. The following questions, therefore, relate to the costs of the projects, utility ownership of the projects, and whether any alternatives to ratepayer funding have been pursued by SDG&E.

I. Costs

In the Assigned Commissioner's Ruling (ACR) on p. 31, Commissioner Peterman directed the utilities to propose "priority review projects [that] should be non-controversial in nature and limited to no more than $4 million in costs per project, with a total funding limit of $20 million for each utility."

a. Question: In SDG&E's proposals they put forward project that do not include escalation and overhead loader costs which when added to the costs of SDG&E's priority review projects increases the cost to over $26 million dollars. Has SDG&E determined how it would reduce the costs for their priority projects if the Commission determines that the overall total costs of the priority review projects will be no more than $4 million per project, no more than $20 million in overall funding?

- If so, please explain.

SDG&E Response:

SDG&E proposed projects with Direct Costs that totaled $18.2M, which met the requirements of the ACR. The ACR did not include a mandate to include escalation and overhead loader costs (which are included in calculating a revenue requirement) or provide specific guidance as to how the project/overall costs are to be calculated. If the Commission directs the utilities to include escalation and/or loader costs in the $4M priority review project goal and $20M overall priority review submittal goal, SDG&E will look at any Commission decision in totality to determine whether any changes need to be made to the projects. However, to date, SDG&E has not determined how its proposals would change if this were to happen.

b. Question: In your application, you have proposed six priority projects that after adjustments total $26,428 million, all ratepayer funded. Please explain if SDG&E

has identified any source of grants or industry funding to offset some of the costs to the ratepayers for the six priority projects?

- If so, please describe what funding sources SDG&E has identified. If not, please describe the efforts SDG&E has made to identify any additional funding sources that can be leveraged to reduce ratepayer costs.

SDG&E Response:

SDG&E is asking for ratepayer funds for six priority review projects that will jumpstart nascent industries, accelerate transportation electrification and most importantly reduce GHG emissions. In order to do that, most of the projects will be built with a combination of these ratepayer funds as well as other aspects of the projects that the project partners will bring to the table (such as the vehicles themselves, space to park and charge them, access for SDG&E to maintain the infrastructure, and data about the vehicle's usage and energy consumption that can be used to inform CPUC policy in the future). More information about the contributions of the project partners will be outlined in the responses below about each project.

II. Modifications

In the Assigned Commissioner's Ruling (ACR) on p.9, fn.1, Commissioner Peterman notes that "the Legislature has not authorized the Commission to use a separately authorized source of monies to fund the TE projects and investments contemplated in Pub. Util. Code §740.12. Instead, the monies to fund these TE projects and investments are to come from the ratepayers of the electrical corporations, *or from other funding sources that may exist*." (Emphasis added.)

Question: For each of the six priority review projects please answer the following questions:

Project 1: SDG&E's Airport Ground Support Equipment Project

Objective – Addition of 45 new charging ports at airport and retrofit 15 existing chargers.

A. If the objective were changed to provide the necessary infrastructure up to "the stub" only (make ready work) how much would it reduce the installation costs to ratepayers for this project from what is proposed?

SDG&E Response:

If the objective were changed to provide make ready work, the project would not include SDG&E's collection of charging and vehicle data that will allow charging behavior to be studied as well as data that will be used for SDIA load management recommendations that will include SDIA's 5.5 MW solar PV system.

The estimated direct cost to provide make ready infrastructure is $506,060. That estimated amount does not include the charging hardware, installation, electrical infrastructure from the meter to the charging stations, data loggers and metering, and being able to study the charging and vehicle data, which SDG&E believes are valuable components of the project. Moreover, to be clear, the equipment necessary to perform these functions, even if not owned by SDG&E, would still need to be purchased from third parties using ratepayer funds, assuming third parties are not willing to purchase such equipment with their own funds. Also, without the functions performed by such equipment, there would be no working project.

B. Has SDG&E considered or had talks with the users of the airport chargers, or third party market participants of EV charging infrastructure, of them providing any funding for the installation of this infrastructure?

- If so, please explain, if not, why not?

SDG&E Response:

No, not with regards to infrastructure. However, the commitments by airport partners to procure and operate electric ground support equipment is fundamental to the program and an example of their significant contribution to the funding of the program (as mentioned above). In addition, access to airport property will be granted to SDG&E to facilitate the program.

C. If the project were changed to provide make ready work only, how much funding would the airport users of this infrastructure have to pay to make the charging ports operational?

SDG&E Response:

As noted above, if SDG&E provided only the make ready infrastructure, the project would not be operational when construction is complete. To make charging ports operational, third-parties would have to supply or purchase the appropriate charging station hardware and install it with the appropriate electrical connections to the meter pedestal, as well as provide any other operational features that would be required (such as striping, wheel stops, bollards, and signage).

Since these third-party costs for charging stations and installation are unknown to SDG&E, we can't estimate what those costs would be to a third-party.

D. In terms of Operation and Maintenance (O&M) costs going forward, if a third party owned the EV equipment called for in this project, how much per year would SDG&E save from avoided O&M costs?

SDG&E Response:

SDG&E estimated direct costs of $22,000 for O&M Service call labor for the first year for make-ready infrastructure and

charging station hardware. In addition, SDG&E estimated direct costs of $10,000 for O&M non-labor maintenance on those same items for the first year. Further estimating that 75% of those costs are charging station related and 25% of the costs are make-ready related, SDG&E would avoid approximately $24,000 per year in those O&M costs if a third party owned and maintained the charging stations. SDG&E also budgeted $15,900 annually for pro-rated EVSE replacement, which would bring the total estimated O&M costs to $39,900.

However, SDG&E believes that end-to-end ownership of the infrastructure and charging stations provides value in keeping the equipment operational and available for drivers to use. There are no such requirements for any third party to maintain the charging stations. Examples of equipment that is no longer reliable or operational are described in Footnote 47 in Randy Schimka's Chapter 4 testimony.

- How many years does SDG&E anticipate the infrastructure in this proposal will be operational?

SDG&E Response:

Michael Calabrese's Chapter 6 testimony, table MAC-13, lists the FERC useful life of the different assets.

E. Project Partners – has SDG&E contacted any project partner (San Diego International Airport; Delta Airlines, American Airlines, et al; IBEW) about providing additional funding for the 45 charging ports and retrofit of 15 existing ports?

SDG&E Response:

In order to participate in the project, SDIA tenants will have to procure and operate the necessary ground support equipment electric vehicles before the charging equipment will be

installed as part of this project. SDG&E and SDIA have discussed that infrastructure will be deployed concurrently with incremental electric GSE commitments.

F. Leveraged Funding – has SDG&E approached any person, agency, airport tenant and/or airport personnel to see if there is any additional funding they would provide for the funding of the proposed charging ports?

SDG&E Response:

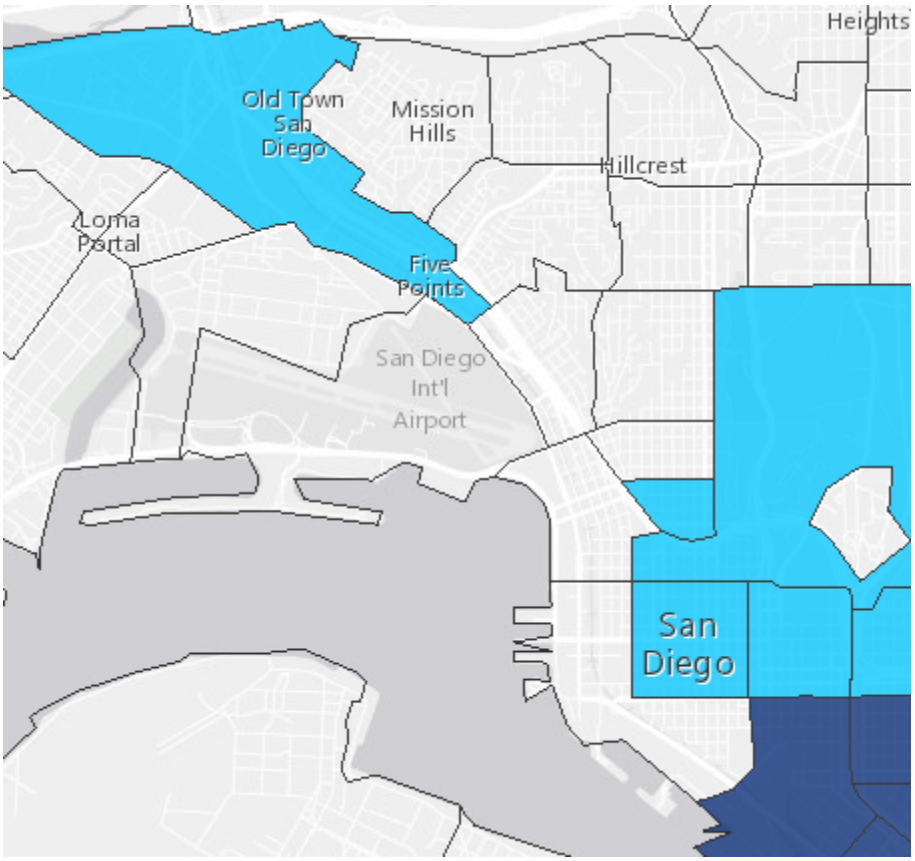
SDG&E has discussed additional sources of funding through potential grants and incentives with SDIA. Examples of potential additional funding include Federal Environmental Protection Agency ("EPA") funding[3] and VW Settlement funds.

G. Disadvantaged Communities – please describe how, if at all, the addition of 45 new charging ports at airport and retrofit 15 existing chargers at the San Diego International Airport targets Disadvantaged Communities.

SDG&E Response:

SDIA, itself, is not in a Disadvantaged Community, but it is adjacent to the Five Points DAC area and nearby the Old Town DAC area, as outlined by the map below.

[3] "Recently, SDIA and United Airlines applied for grant funding through the Federal Environmental Protection Agency ("EPA") to convert a portion of United's GSE from ICE to electric. The project was titled "San Diego International Airport Diesel-to-Electric Ground Support Equipment (GSE) Replacement Program. Unfortunately, the grant was not awarded to SDIA and United Airlines." (RS-9)



Project 2: Electrify Local Highways Project

Objective –Install Level 2 (L2) and DC fast chargers (DCFC's) at four Caltrans owned Park and Ride locations

A. If the objective were changed to provide the necessary infrastructure up to "the stub" only (make ready work) how much would it reduce the installation costs to ratepayers for this project from what is proposed?

SDG&E Response:

The estimated direct cost to provide make ready infrastructure to the meter pedestal for the four sites in this project is $671,288.

If a make ready solution were to be pursued at these Caltrans sites with no utility end-to-end ownership of the charging stations, a third party would have to agree to fund the charging stations, pay for the installation, fulfill the ADA requirements, and be the utility customer of record on the Commercial Grid Integrated Rate as proposed by SDG&E for other commercial sites.

As mentioned above, SDG&E believes that end-to-end ownership of the infrastructure and charging stations provides value in keeping the equipment operational and available for drivers to use. There are no such requirements for any third party to maintain the charging stations. Examples of equipment that is no longer reliable or operational are described in Footnote 47 in Randy Schimka's Chapter 4 testimony.

B. Has SDG&E considered or had talks with any third party providers of electric vehicle charging infrastructure to see if partnering with these third party providers would yield a project that costs less than presently proposed?
   - If so, please explain, if not, why not?

SDG&E Response:

No, SDG&E has not had discussions with third party providers of EV charging infrastructure. Under SDG&E's proposal, SDG&E would utilize a competitive RFP process to select the solution that best met the requirements of the project at the best price for SDG&E's ratepayers.

C. If the project were changed to provide make ready work only, how much funding would third party providers, for example ChargePoint, have to pay to make the proposed charging infrastructure operational?

SDG&E Response:

If SDG&E provided only the make ready infrastructure, the project would not be operational when construction is complete. In order to make charging ports operational, third-party providers would have to supply or purchase the appropriate charging station hardware and install it, connect the charging stations to the meter pedestal, as well as provide any other operational features that would be required. Since third-party costs for charging stations and installation are unknown to SDG&E, we can't estimate what those costs would be.

D. In terms of Operation and Maintenance (O&M) costs going forward, if a third party owned the EV equipment called for in this project, how much per year would SDG&E save from avoided O&M costs?

SDG&E Response:

SDG&E estimated direct costs of $15,000 for O&M Service called labor for the first year for make-ready infrastructure and charging station hardware. In addition, SDG&E estimated direct costs of $10,000 for O&M non-labor maintenance on those same items for the first year. Further estimating that 75% of those costs are charging station related and 25% of the costs are make-ready related, SDG&E would avoid approximately $6,250 per year in those O&M costs if a third party owned the charging stations. SDG&E also budgeted $13,240 annually for pro-rated EVSE replacement, which would bring the total estimated O&M costs to $19,490.

However, SDG&E believes that end-to-end ownership of the infrastructure and charging stations provides value in keeping the equipment operational and available for drivers to use. There are no such requirements for any third party to maintain the charging stations. Examples of equipment that is no longer reliable or operational are described in Footnote 47 in Randall Schimka's Chapter 4 testimony.

- How many years does SDG&E anticipate the infrastructure in this proposal will be operational?

SDG&E Response:

Michael Calabrese's Chapter 6 testimony, table MAC-13, lists the FERC useful life of the different assets.

E. Project Partners – have any project partners (SANDAG; IBEW contractors; Electric Vehicle Service Providers (EVSP)) been asked to provide funding for the Level 2 ("L2") and DC fast chargers ("DCFC's") at the four Caltrans-owned Park-and-Ride locations that would reduce the costs to the ratepayers?

If so, please explain, if not, why not?

SDG&E Response:

Yes, Caltrans was asked to provide funding for the charging stations; however, Caltrans has no available funding at this time. The other partners noted were not asked.

Under SDG&E's proposal, SDG&E will utilize a competitive RFP process to procure charging stations from a single qualified EVSP that best meets the requirements of the project at the best price for SDG&E's ratepayers.

As described on RS-25, Caltrans will provide the land where the infrastructure will be located, parking spaces, easement and expertise to streamline the design, permitting and installation efforts.

F. Leveraged Funding – Has SDG&E explored if Caltrans or any other agency can provide any additional funding for the charging stations that would reduce ratepayer costs?

SDG&E Response:
Yes, SDG&E spoke to Caltrans about providing additional

funding, however Caltrans has no available funding at this time.

G. Disadvantaged Communities – please describe the locations of the Park-and-Rides and how, if at all, placing L2 and DCFC's at these Park-and-Rides targets Disadvantaged Communities.

SDG&E Response:

In Randy Schimka's Chapter 3 testimony on page RS-22, the four proposed Caltrans Park and Ride locations are named. Caltrans has prioritized four ideal locations for this project, two located within a DAC and two adjacent to a DAC.

Project 3: Medium Duty/Heavy Duty and Forklift Port Electrification Project

Objective – install, operate, maintain and own 30-40 installations to include EV supply equipment, an electric circuit, a load research meter and a data logger.

A. If the objective were changed to provide the necessary infrastructure up to "the stub" only (make ready work) how much would it reduce the installation costs to ratepayers for this project from what is proposed?

SDG&E Response:

The estimated direct cost to provide make ready infrastructure for this project is $899,630.

If a make ready solution were to be pursued at these sites with no utility end-to-end ownership of the charging stations, a third party would have to agree to fund the charging stations, and pay for the installation.

As mentioned above, SDG&E believes that end-to-end utility ownership of the infrastructure and charging stations provides value in ensuring the equipment is operational and available for

drivers to use. There are no such requirements for any third party to maintain the charging stations. Examples of equipment that is no longer reliable or operational are described in Footnote 47 in Randy Schimka's Chapter 4 testimony.

B. Has SDG&E considered or had talks with any third party providers of electric vehicle charging infrastructure to see if partnering with these third party providers would yield a project that costs less than presently proposed, i.e., SDG&E would subsidize make ready work and the third party provider would pay for and operate the 30-40 installations of EV supply equipment?

- If so, please explain, if not, why not?

SDG&E Response:

No, SDG&E has not had discussions with third party providers of EV charging infrastructure. Once SDG&E has an approved project we would follow our RFP process and pick the solution that best met the requirements of the project while keeping costs down.

C. If the project were changed for SDG&E to provide make ready work only, how much funding would third party providers have to pay to make the proposed charging infrastructure operational?

SDG&E Response:

If SDG&E provided the make ready infrastructure work for the project, it would not be operational when construction was complete. Third-party providers would have to provide the appropriate charging station hardware and installation, as well as any other operational features that would be required. Since third-party costs for charging stations and installation would be different than what SDG&E's proposed project cost estimate

included, SDG&E can't estimate what those third-party costs would be.

D. In terms of Operation and Maintenance (O&M) costs going forward, if a third party owned the EV equipment called for in this project, how much per year would SDG&E save from avoided O&M costs?

SDG&E Response:

SDG&E estimated direct costs of $15,000 for O&M Service call labor for the first year for make-ready infrastructure and charging station hardware. In addition, SDG&E estimated direct costs of $10,000 for O&M non-labor maintenance on those same items for the first year. Further estimating that 75% of those costs are charging station related and 25% of the costs are make-ready related, SDG&E would avoid approximately $6,250 per year in those O&M costs if a third party owned the charging stations. SDG&E also budgeted $13,500 annually for pro-rated EVSE replacement, which would bring the total estimated O&M costs to $19,750.

However, SDG&E believes that end-to-end utility ownership of the infrastructure and charging stations provides value in keeping the equipment operational and available for MD/HD vehicle and forklifts to use. There are no such requirements for any third party to maintain the charging stations. Examples of equipment that is no longer reliable or operational are described in Footnote 47 in Randy Schimka's Chapter 4 testimony.

- How many years does SDG&E anticipate the infrastructure in this proposal will be operational?

SDG&E Response:

Michael Calabrese's Chapter 6 testimony, table MAC-13, lists the FERC useful life of the different assets.

E. Project Partners – have any of the project partners (San Diego Unified Port District; San Diego Port Tenant's Association; San Diego Air Pollution Control District; Terminalift LLC; CEMEC; and Dole Food Company been asked to provide any funding for the 30-40 installations which will include a combination of components including electric vehicle supply equipment, an electric circuit, a load research meter and a data logger?

SDG&E Response:

Yes. Certain project partners have applied and/or receiving grants that are, in most cases, paying for the chargers and circuits, but not the load research meter.

Project partners not participating in grants will provide funding through investing in new electric vehicles, purchased at higher incremental cost than conventional vehicles, and in staff training on operating and fueling these new vehicles. This project will incentivize customers thereby enabling transportation electrification by reducing barriers.

F. Leveraged Funding – can the project partners listed above provide additional leveraged funding for charging facilities?

SDG&E Response:

As listed in Randy Schimka's Chapter 3 testimony on page RS-37 at line 5, there are three grants in progress that partners have applied for that will help them overcome the barriers of procuring electric vehicles. SDG&E is supportive of their efforts to secure these grants, which will provide $14M in funding from the State of California. SDG&E believes asking partners to contribute additional funding beyond these grants would be a barrier for TE adoption.

G. Disadvantaged Communities – Please describe how, if at all, installing, operating, and maintaining 30-40 installations with aforementioned partners targets Disadvantaged Communities.

SDG&E Response:

As stated in Randy Schimka's Chapter 3 testimony on page RS-38 starting at lines 22, "Project partners such as Terminalift LLC, CEMEX and Dole Food Company all reside within Barrio Logan, one of the highest scoring DACs in San Diego County."

Project 4: Fleet Delivery Services Project

Objective – Install charging infrastructure (Level 2 and DCFC) to serve approximately 90 new electric vehicle delivery vehicles

A. If the objective were changed to provide the necessary infrastructure up to "the stub" only (make ready work) how much would it reduce the installation costs to ratepayers for this project from what is proposed?

SDG&E Response:

The estimated direct cost to provide make ready infrastructure to the meter pedestal for the sites in this project is $921,979.

If a make ready solution were to be pursued at these sites with no utility ownership of the charging stations, a third party would have to agree to fund the charging stations, and pay for the installation.

As mentioned above, SDG&E believes that end-to-end utility ownership of the infrastructure and charging stations provides value in keeping the equipment operational and available for drivers to use. There are no such requirements for any third party to maintain the charging stations. Examples of equipment that is no longer reliable or operational are described in Footnote 47 in Randy's Schimka's Chapter 4 testimony.

B. Has SDG&E considered or had talks with any third party providers of electric vehicle charging infrastructure to see if partnering with these third party providers would yield a project that costs less than presently proposed, i.e., SDG&E would subsidize make ready work and the third party provider would pay for and operate the level 2 and DC fast chargers?

- If so, please explain, if not, why not?

SDG&E Response:

No. Under SDG&E's proposal, SDG&E will utilize a competitive RFP process to select the solution that best met the requirements of the project at the best price for SDG&E's ratepayers.

C. If the project were changed for SDG&E to provide make ready work only, how much funding would third party providers have to pay to make the proposed charging infrastructure operational?

SDG&E Response:

If SDG&E provided the make ready infrastructure work for the project, it would not be operational when construction was complete. Third-party providers would have to provide the appropriate charging station hardware and installation, as well as any other operational features that would be required. Since third-party costs for charging stations and installation would be different than what SDG&E's proposed project cost estimate included, SDG&E can't estimate what those third-party costs would be.

D. In terms of Operation and Maintenance (O&M) costs going forward, if a third party owned the EV equipment called for in this project, how much per year would SDG&E save from avoided O&M costs?

SDG&E Response:

SDG&E estimated direct costs of $15,000 for O&M Service call labor for the first year for make-ready infrastructure and charging station hardware. In addition, SDG&E estimated direct costs of $25,000 for O&M non-labor maintenance on those same items for the first year. Further estimating that 75% of those costs are charging station related and 25% of the costs are make-ready related, SDG&E would avoid approximately $10,000 per year in those O&M costs if a third party owned the charging stations. SDG&E also budgeted $12,700 annually for pro-rated EVSE replacement, which would bring the total O&M costs to $22,700.

However, SDG&E believes that end-to-end utility ownership of the infrastructure and charging stations provides value in keeping the equipment operational and available for Fleet Delivery vehicles to use. There are no such requirements for any third party to maintain the charging stations. Examples of equipment that is no longer reliable or operational are described in Footnote 47 in Randy Schimka's Chapter 4 testimony.

- How many years does SDG&E anticipate the infrastructure in this proposal will be operational?

SDG&E Response:

Michael Calabrese's Chapter 6 testimony, table MAC-13, lists the FERC useful life of the different assets.

E. Project Partners – have any of the project partners (UPS; CALSTART; other third parties) been asked to provide funding for the Level 2 and DCFC's to serve approximately 90 new electric delivery vehicles?

SDG&E Response:

No. The commitments by fleet delivery partners to procure and operate electric vehicles is fundamental to the program and an aspect of partner funding of the program. As stated in Randy

Schimka's testimony on RS-53, "For illustrative purposes, in 2012, the California Energy Commission ("CEC") assisted UPS in deploying 17 electric delivery vans with a $2.5 million grant to Electric Vehicles International ("EVI") to modernize their state-of-the-art technology. The CEC-funded vans that were deployed in the UPS fleet cost approximately $143,000 per truck. The upfront cost of an electric delivery truck can be approximately three times more expensive than an equivalent ICE vehicle. UPS and all project partners are making a large investment in electric delivery vehicles."

F. Leveraged Funding – can UPS, CALSTART and other third parties provide funding for charging facilities?

SDG&E Response:

SDG&E is not privy to the financial capabilities of these third parties.

G. Disadvantaged Communities - please describe how, if at all, installing Level 2 and DCFC charging infrastructure for 90 new electric vehicle delivery vehicles targets Disadvantaged Communities.

SDG&E Response:

Two of the three UPS locations are in Disadvantaged Communities. SDG&E will further target Disadvantaged Communities for deployment of the unallocated charging stations.

Project 5: Green Taxi/Shuttle/Rideshare Project

Objective - Support up to 4 EV taxis, 4 electric shuttles and 50 TNC/Rideshare EV's by deploying up to 5 grid integrated charging facilities and provide drivers with home L2 EVSE where feasible. Partner with up to 4 Taxi Companies with

SDG&E providing $10,000 per electric vehicle for up to 4 EV's (one per taxi company.)

A. For the 5 grid integrated charging facilities, as well as the L2 EVSE installed in the drivers' homes, if the project objective were changed to provide the necessary infrastructure up to "the stub" only (make ready work) how much would it reduce the installation costs to ratepayers for this project from what is proposed?

SDG&E Response:

The estimated direct cost to provide make ready infrastructure for this project is $316,883.

If a make ready solution were to be pursued at these various sites with no utility end-to-end ownership of the charging stations, a third party would have to agree to fund the charging stations, pay for the installation, fulfill the ADA requirements where appropriate, and be the utility customer of record on the Commercial Grid Integrated Rate as proposed by SDG&E for other commercial sites.

As mentioned above, SDG&E believes that end-to-end ownership of the infrastructure and charging stations provides value in keeping the equipment operational and available for drivers to use. There are no such requirements for any third party to maintain the charging stations. Examples of equipment that are no longer reliable or operational are described in Footnote 47 in Randy Schimka's Chapter 4 testimony.

B. Has SDG&E considered or had talks with any third party providers of electric vehicle charging infrastructure to see if partnering with these third party providers would yield a project that costs less than presently proposed, i.e., SDG&E would subsidize make ready work and the third party provider

would pay for and operate the grid integrated charging facilities, and the drivers would install the home chargers?

- If so, please explain, if not, why not?

SDG&E Response:

No. Under SDG&E's proposal, SDG&E will utilize a competitive RFP process to select the solution that best met the requirements of the project at the best price for SDG&E's ratepayers.

C. If the project were changed for SDG&E to provide make ready work only, how much funding would third party providers have to pay to make the proposed charging infrastructure operational?

SDG&E Response:

If SDG&E provided the make ready infrastructure work for the project, it would not be operational when construction was complete. Third-party providers would have to provide the appropriate charging station hardware and installation, as well as any other operational features that would be required. Since third-party costs for charging stations and installation would be different than what SDG&E's proposed project cost estimate included, SDG&E can't estimate what those third-party costs would be.

D. In terms of Operation and Maintenance (O&M) costs going forward, if a third party owned the EV equipment (excluding the taxis) called for in this project, how much per year would SDG&E save from avoided O&M costs?

SDG&E Response:

SDG&E estimated direct costs of $15,000 for O&M Service call labor for the first year for make-ready infrastructure and

charging station hardware. In addition, SDG&E estimated direct costs of $10,000 for O&M non-labor maintenance on those same items for the first year. Further estimating that 75% of those costs are charging station related and 25% of the costs are make-ready related, SDG&E would avoid approximately $6,250 per year in those O&M costs if a third party owned the charging stations. SDG&E also budgeted $12,760 annually for pro-rated EVSE replacement, which would bring the total O&M costs to $19,010.

However, SDG&E believes that end-to-end ownership of the infrastructure and charging stations provides value in keeping the equipment operational and available for Taxi/Shuttle/TNC vehicles to use. There are no such requirements for any third party to maintain the charging stations. Examples of equipment that is no longer reliable or operational are described in Footnote 47 in Randy Schimka's Chapter 4 testimony.

- How many years does SDG&E anticipate the infrastructure in this proposal will be operational?

SDG&E Response:

Michael Calabrese's Chapter 6 testimony, table MAC-13, lists the FERC useful life of the different assets.

E. In terms of the $10,000 subsidy to taxi companies to purchase new electric vehicles, what terms or contractual obligations has SDG&E considered to ensure that the taxi companies operate the EVs purchased for as long as their useful life and that they do not take them out of service or sell them once purchased?

SDG&E Response:

SDG&E will establish contractual terms and obligations in the implementation phase upon CPUC approval of the project incentives. SDG&E will take UCAN's concerns into consideration.

F. Project Partners – has SDG&E considered if the project partners (Taxi Companies, Shuttle Companies, and Transportation Network Companies) would provide funding for grid integrated charging facilities that will include DCFC and L2 EV supply equipment?

SDG&E Response:

Yes, SDG&E did consider this. The taxi, shuttle, and TNC industry does not yet have experience with EVs and therefore this pilot will help prove that EVs can provide operational capabilities to support this market segment. Once taxi, shuttle and TNC drivers gain more experience with EV technology they may be more likely to invest in integrated charging facilities.

G. What analysis has SDG&E done to determine if a subsidy of $10,000 is the appropriate amount to encourage taxi companies to purchase EVs?

SDG&E Response:

SDG&E refers to the AVRP[4] as an example of funding levels required to influence the taxi industry. After eight months of no participation in replacing conventional taxis with gasoline hybrids, the rebate value was increased 300%[5] to $7,500 before the program starting converting cars. This reluctance is important to note because those cars required no change in fueling yet drivers and owners benefited by decreased costs of fuel and maintenance.

Additional incentives may be required to convert gasoline drivers to EV drivers because of the lack of charging infrastructure.

[4] The Airport Vehicle Rebate Program (AVRP) was administered in San Diego County from 2010-2011 by Center for Sustainable Energy.
[5] After eight months of participation AVRP rebates were raised to $7,500 for the first five vehicles and $5,000 for the second five vehicles with all remaining rebates at the $2,500 level.

SDG&E believes that a limited number of $10,000 incentives is appropriate due to past incentive programs.

H. Has SDG&E contacted any local taxi companies to ask how much of a subsidy they would require before they purchased an EV?

SDG&E Response:
SDG&E has spoken with several taxi companies and taxi drivers. None have stated a specific incentive value that would encourage them to purchase an EV.

I. Has SDG&E conducted any research on if a smaller subsidy would encourage taxi companies to purchase EVs?

SDG&E Response:

Yes. Please see answer for "G" in regards to the Airport Vehicle Rebate Project administered by Center for Sustainable Energy from 2010-2011.

J. Leveraged Funding – have any Taxi Companies, Shuttle Companies, Transportation Network Companies been asked to provide any funding for charging facilities called for in this project?

SDG&E Response:

No, not for charging facilities. Project partners will invest in this project by way of several methods, including:

a. Purchasing of up to four EV Taxis, up to four EV shuttles and up to 50 Transportation Network Company (TNC) Contractors' EVs.
b. Outfitting the four taxi EVs with taxi equipment (metering, signage, etc.).

c. Outreach by TNCs and Taxi Companies to get drivers interested.

K. Disadvantaged Communities - please describe how, if at all, the project objectives target Disadvantaged Communities.

SDG&E Response:
There are no specific targets for Disadvantaged Communities in this project. SDG&E believes the project will provide community-wide GHG reductions that will benefit all communities.

Project 6: Dealership Incentives Project –

Objective – Provide EV training, sales tactics, and cash incentives to local car dealerships and their salespeople to increase EV adoption.

A. Project Partners – have any of the project partners (local car dealerships associated with the New Car Dealers Association of San Diego County or Auto Alliance) been asked to provide additional funding themselves for education and outreach should SDG&E provide incentives?

- If so, please explain, if not, why not?

SDG&E Response:

No, these groups have not been asked to provide additional funding. However, these groups have agreed to market the program to their members directly.

B. Leveraged Funding – has SDG&E determined if local car dealerships associated with the New Car Dealers Association of San Diego County or Auto Alliance can provide additional funding for education and outreach should SDG&E provide incentives to dealerships?

SDG&E Response:

No, these groups have not been asked to provide additional funding. However, these groups have agreed to market the program to their members directly.

C. Disadvantaged Communities - please describe how, if at all, the project objectives target Disadvantaged Communities.

SDG&E Response:

A majority of the dealerships in the San Diego region are located in disadvantaged communities. SDG&E's general education and outreach efforts to grow EV adoption target many disadvantaged communities, which helps drive them to the dealerships.

III. Additional Questions

A. In your application, you have proposed six priority projects that after adjustments total $26,428 million. Have you considered modifying your project list should the Commission determine that all IOUs have a total funding limit of $20,000,000 that includes overhead loaders and escalation costs?

If so, how**?** If not, why not?

SDG&E Response:

Please see response to question 1a.

B. If the Commission agrees to fund only 1 year for the priority review projects how, if at all, would SDG&E modify its proposed programs?

SDG&E Response:

If that were the case, SDG&E would have to evaluate the Commission's decision in its entirety in order to decide on appropriate program modifications.

C. PU Code 740.12 requires that programs proposed by electrical corporations shall seek to minimize overall costs and maximize overall benefits. Has SDG&E considered proposals similar to PG&E and SCE that provide subsidies for individuals to install infrastructure rather than SDG&E proposing to own the EV equipment in its proposals?

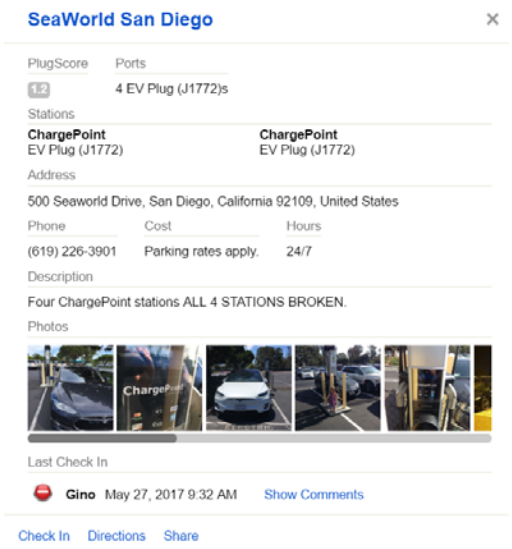
SDG&E Response:

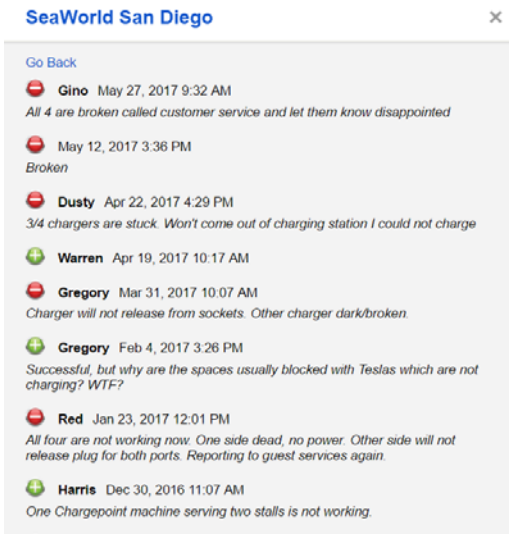
SDG&E objects to this request as vague and ambiguous with respect to use of the word "subsidies." SDG&E assumes that these are subsidies that would have to be funded with ratepayer funds and are subsidies that would have to completely cover the cost of the equipment necessary to make the project function, assuming third parties are not willing to provide equipment for free. Subject to and without waiving these objections, SDG&E responds as follows:

SDG&E conceived and proposed a portfolio of priority review projects that adheres to the requirements in 740.12. SDG&E has not considered proposals to provide subsidies for individuals with these priority review projects. End-to-end utility ownership helps ensure charging equipment maintenance and availability. There are currently several public charging installations in San Diego that are not operational, and SDG&E believes this is an impediment to drivers in the region who need to charge at those facilities to get to their next destination.

Below is one example: As shown in the screen captures below from the Plugshare.com website, the ChargePoint equipment at Sea World (one of San Diego's most visited tourist destinations) has been out of service for about 5 months. In SDG&E's view, this is unacceptable.

As an end-to-end owner, SDG&E would be obligated to its customers to be responsible for operating and maintaining all the infrastructure over the life of the assets and be fully accountable to the Commission for delivering these benefits. SDG&E believes that the requirements in 740.12 (minimize overall costs and maximize overall benefits) are best served by utility end-to-end ownership.





D. PU Code 740.12(a)(1) states that "widespread TE should stimulate innovation and competition, enable consumer options in charging equipment and services, attract private capital investments…" SDG&E's proposals seek funding so they can own the infrastructure – has SDG&E explored providing opportunities for 3rd party market participants to compete and bid for the charging stations thus providing innovation, competition and consumer options?

SDG&E Response:

SDG&E has already considered providing opportunities for 3rd party market participants. As outlined in Linda Brown's Chapter 2 testimony on page LB-15, starting on line 5 "Additionally, five of SDG&E's priority review projects will go through an RFP process to help ensure adequate competition among relevant third parties."