

Contract No. AB 2766/ML16021
DC Fast Fill Charging Station
Electric Vehicle Charging Infrastructure
City of Santa Clarita
March 21, 2019

Prepared for the Mobile Source Air Pollution Review Committee (MSRC) under the AB 2766 Discretionary Fund Work Program.

This report is submitted in fulfillment of ML16021 and Electric Vehicle Charging Station Infrastructure by the City of Santa Clarita under the partial sponsorship of the Mobile Source Air Pollution Reduction Review Committee (MSRC). Work was completed on the DC Fast Fill electric vehicle charging station as of February 1, 2018, and the final outreach component was completed on January 24, 2019.

The statement and conclusions in this report are those of the contractor and not necessarily those of the Mobile Source Air Pollution Reduction Review Committee (MSRC) or the South Coast Air Quality Management District (SCAQMD). The mention of commercial products, their sources or their uses in connection with material reported is not to be construed as either an actual or implied endorsement of such products.

The City of Santa Clarita would like to thank the Mobile Source Reduction Committee including Cynthia Ravenstein, Matt Mackenzie, MSRC Member Steve Veres, and SCAQMD Boardmember Michael Cacciotti for their continued support of this project and cleaner air in the Santa Clarita Valley.

Project Description and Work Performed

Task 1 Development of electric vehicle charging station plans and specifications

Task 1.1 – Energy audit of the Santa Clarita Metrolink Station to determine current loading capacity

The City will review the electric bills from the last 12 months to determine current electric load, although preliminary review shows that upgrading to a 480v transformer will be necessary.

Task 1.2 – Coordinate a Southern California Edison inspection of the site to determine needs

The City will work to meet utility representatives to confirm the results of the audit.

Task 1.3 – Develop scope of work and bid specifications for a design-build-operate-maintain contract

The CIP and Environmental Services Division staff will develop bid documents and specifications for private firms to design and build the charging station and provide for a certain number of years of post-construction maintenance and operation of the facility with City contractual oversight.

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| Completion Date Goal in Contract | June 2017 |
| Percent Completed this Reporting Period: | 0% |
| Percent Complete | 100% |

Task 2 Select Contractor

Task 2.1 – Send out bid specifications through Planet Bids

Following the City's purchasing rules, staff will advertise the project on Planet Bids and will notify perspective companies to register on Planet Bids to obtain specifications. Appropriate advertisements will be acquired in local papers.

Task 2.2 – Open bids and award contract at City Council

The bidding process is generally 30 days at least. At the time of advertisement, City staff will select available bid opening slots for the bid due dates. Bids are opened and announced. Staff will review the top bids to ensure it complies with the specifications. Depending on amount and requirements, staff may have to award contract at City Council, which can add up to six weeks to the timelines. If the bids are under \$175,000 then only City Manager approval is required for the contract.

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| Completion Date Goal in Contract | November 2017 |
| Percent Completed this Reporting Period: | 0% |
| Percent Complete | 100% |

Task 3 Electric Vehicle Charging Station Construction

Task 3.1 – Provide available as-builts and information to selected contractor

The City will provide electric bills, as-builts and other information to selected contractor. City staff will coordinate site visits with facility maintenance staff and other operational staff as required by contractor to successfully design the facilities.

Task 3.2 – Procure needed equipment

This will require ordering the site equipment needed so that it is ready upon completion of site work. This would include charging station hardware and any pay wall equipment.

Task 3.3 – Develop site designs for internal review

The selected contractor in coordination with City staff will establish a site plan and design that meets all required standards and codes. Those plans will be shared with internal staff prior to formal permit application approval to ensure the design is consistent with City standards.

Task 3.4 – RFP on Planetbids for Operation and Maintenance of Charging Station

The City does not have the internal capacity to operate and maintain facilities, so the professional service will be bid and charging expenses management will be set so that there are funds for maintenance as well as electricity charges. Selected contractor will be part of the construction process

Task 3.5 – Planning, Building and Safety plan review and approval

Contractor will submit plans to Planning and Building and Safety for permits.

Task 3.6 – Coordinate with Southern California Edison to for upgraded transformer installation

While permits and design are being developed and approved, the contracts in coordination with City staff will work with Southern California Edison to secure the necessary inspections and permits to install an upgraded transformer on the site.

Task 3.7 – Pre construction meeting

Upon required permits and approvals secured, City staff and contract will hold a pre-construction meeting with all pertinent parties, including Labor Compliance requirements. This is to ensure proper coordination and a more smoothly run project.

Task 3.8 – Grading, trenching and boring

Upon holding the pre-construction meeting, site work will commence. This may include demolition and regrading of areas of the parking lot and sidewalk, trenching and/or boring for electric service and other needed site work. Contractor will acquire all required inspections and reports needed to demonstrate compliance. This includes Labor Compliance

Task 3.9 – Install upgraded transformer and electric lines

All electric lines will be installed after site work is completed. This includes transformer installation and electric lines. Contractor will acquire all required inspections and reports needed to demonstrate compliance.

Task 3.10 – Repave area

Upon completion of the electric and transformer work, the contractor will repaved the site as necessary. Restriping will be required. This will also include any poured foundation required for the charging station equipment. Contractor will acquire all required inspections and reports needed to demonstrate compliance.

Task 3.11 – Install DC Fast Fill charging equipment

The contractor will install, test and ensure safety of all equipment. Contractor will acquire all required inspections and reports needed to demonstrate compliance. Startup testing will be required before opening.

Task 3.12 – Open facility

Consistent with the operation and maintenance contract, the City will authorize public use of the facility. Appropriate public outreach and grand opening ceremonies will be coordinated with the City Communications division. Contractor will be available for any debugging or other start up

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| Completion Date Goal in Contract | February 2019 |
| Percent Completed this Reporting Period: | 35% |
| Percent Complete | 100% |

Task 4 Public Outreach Plan

Task 4.1 – Develop and get approvals for signage and public information

Wayfinding and site signage will be designed by graphic designers consistent with the City Sign Ordinance. Approvals of both Communications and Planning Divisions will be required. Installation of signage will be required of the contractor after required approvals.

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| Completion Date Goal in Contract | Submit April 2018, Implement after complete Task 3 |
| Percent Completed this Reporting Period: | 100% |
| Percent Complete | 100% |

Task 5 Quarterly and Final Reports

Task 5.1 – Submit Quarterly Reports – February, May, August, November of each year through February 2019

Task 5.2 – Final Report May 2019

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| Completion Date Goal in Contract | February, May, August, November of each year through February 2019, Final May 2019 |
| Percent Completed this Reporting Period: | 20% |
| Percent Complete | 100% |

Problems Encountered

The City of Santa Clarita did encounter several problems throughout the grant program. Several solutions and alternatives were applied to resolve the problems. There were contracting, design, construction and operational problems.

Contracting Problems

The first problem is that the City could not get enough qualified construction firms to bid for the project. The original low bidder withdrew his bid after month of negotiation. Although a good handyman type contractor with the appropriate contractor's license, it became clear that he would be unable to complete the work. The City worked with him to gracefully withdraw his bid without penalty. The second lowest bidder accepted the contract with his bid even though the price had expired. After several back and forth discussions, the contract was signed and the purchase order issued. Work began, but the contractor was trying to act as a designer. As a result, staff had to work with the contractor to find a qualified designer for plan check. There was a potential to reject all bids to rebid the project. However, staff was able to support the contractor, help find a designer, and got the project back on track.

Design Problems

The charging product that was submitted originally for the bid was not manufactured anymore. This required a change order and a substitution. This delayed design as the contractor had to determine availability, delivery and price. The new product was more costly. This resulted in change orders.

During the site plan review, the Building and Safety Division was going to require substantially new areas to be worked on for Americans with Disabilities Act compliance. Essentially, the plan reviewer, thinking this was a level 2 type charging situation where the user would need to leave for many hours for the charge. In his mind, this meant that the entire parking lot path of travel would have to be satisfied. Staff was able to explain this DC Fast Fill was more like a traditional gas station filling, where at the longest the person would be in place for 30 minutes. As a result staff agreed to a 30 minute time limit sign at the location and that the only Americans with Disabilities Act compliance was related to the spots themselves and the ability to reach the hoses.

There was not established WIFI at the site that was City operated. This was a concern because EV Connect has to be able to communicate remotely with the charging station. However, EV Connect visited the site with their operations managers. They tested the WIFI strength at the site and determined the EV Connect staff would be able to communicate remotely with the site using other existing WIFI in the area.

Construction Problems

The contractor did not anticipate certain costs, such as obtaining a separate meter and parking space striping, in addition to the higher cost charging station. In order to reduce project costs, the City Streets Division stepped in and provided the required parking space striping. Also, City Environmental Services Division staff worked to design and install the education wrap on the charging station, as well as the outreach. Nonetheless, the contractor submitted a change order. Staff approved some of the change order requests but not all. There were substantial delays in the construction of the facilities due to the above.

Operations Problems

Instead of bidding the operations and maintenance of the unit, staff determined the only course of action was to sign a maintenance agreement with the manufacturer. The station was operational as of February 1, 2018. However, there were several periods where the charging station did not function for users. During the course of this process, the City found a Santa Clarita electric vehicle users group on Facebook. They also emailed and called the City after there was struggles to get the customer service response needed. This group has been helpful in

providing feedback on when the station doesn't work, precisely what the problem is, and error messages. This proven helpful in dealing with EV Connect operationally. The specific user problems are communicated to EV Connect from the City, and then were followed up on. There were three occasions where the new equipment had error messages. The City started to enact parts of the warranty for replacement. The maintenance firm has fixed and replaced some elements of the equipment. There haven't been any complaints since, but the warranty could be tapped if problems persist into the future.

Photographs and Outreach

The City of Santa Clarita uses Greensantaclarita.com as its virtual wayfinding method. The City advertises all the alternative fueling stations in the area and added this electric vehicle charger to that list. This link is included to emails and other outreach as needed.

<http://greensantaclarita.com/green-store/>

Annually, the City mails its Green Guide to all households in City limits. The electric vehicle charging stations are advertised in that document. The electric vehicle section is focused below. The whole document can be reviewed at http://greensantaclarita.com/files/2019/01/Green-Guide-Spring-2019_PRESS.pdf

Green

WATER CONSERVATION

- Help conserve water by monitoring your watering systems so you don't over water your landscaping.
- Visit **WaterWiseSCV.com** and **YourSCVWater.com** to determine your weekly watering schedule and for more water wise tips.

ELECTRIC VEHICLES – CHARGE AND GO!

Electric vehicles are cheaper to fuel and maintain than gasoline-powered cars, potentially saving thousands of dollars over the life of the vehicle. The air pollution from electric vehicles



is also much lower than gasoline-fueled vehicles. Minimizing air pollution caused by vehicles helps clean up the air in Santa Clarita. For a list of public alternative fueling stations throughout Santa Clarita Valley, visit **GreenSantaClarita.com/green-store**.

WATER SOFTENERS

Automatic (self-regenerating) water softeners are banned in the Santa Clarita Valley because they discharge a salty waste into the sewer system, which cannot be treated and ends up in the Santa Clara River. Residents with these

LOCAL SCHOOLS AND ORGANIZATIONS
events to

For community events
GreenSantaClarita.com

Household batteries should be recycled. Residents can take household batteries to recycling locations around Santa Clarita. Batteries can be accepted at these locations: Santa Clarita Community Center or City of Santa Clarita. Batteries can be accepted at these locations: Santa Clarita Community Center or City of Santa Clarita. Batteries can be accepted at these locations: Santa Clarita Community Center or City of Santa Clarita.

GET YOUR CRV BACK

You paid the California Redemption Value (CRV) deposit when you made the purchase, why not take your bottles and cans to a recycling center to get your deposit back? There are several recycling centers in Santa Clarita and the link for local recycling centers is on **GreenSantaClarita.com**. Other than milk, wine and beverage containers, CRV is requested on a per-container basis.

There is also a local SCV Electric Vehicle users group on Facebook, and the City promoted the site to them. They have a lot of interaction with staff on concerns when the site wasn't working correctly and have been a great resource.

<https://www.facebook.com/groups/SantaClaritaElectricVehicleGroup/?ref=share>

There was a ribbon cutting event on January 24, 2019 to promote the site. The following link has the photos and the video of the event.

<https://www.flickr.com/photos/cityofsantaclarita/sets/72157706149269184>

<https://www.youtube.com/watch?v=DiGFiqPz4>

There were invitations sent to dignitaries. The invitation is copied below. The following representatives attended

- Councilmember Bill Miranda
- Councilmember Bob Kellar
- Councilmember Laurene Weste
- City Manager Ken Striplin
- Parks and Recreation Commissioners Kieran Wong and Ruthann Levison
- MSRC Member, Steve Veres
- MSRC Staff Cynthia Ravenstein and Matt Mackenzie
- State Senator Scott Wilk's office, Kris Hough
- State Assemblywoman Christy Smith, Ryan Valencia
- Los Angeles County 5th District Supervisor Kathryn Barger, Nicole Vartanian.
- Saugus Union School District Superintendent Dr. Colleen Hawkins
- From EV Connect, Customer Experience Manager Daniel Bryant

you are invited

THURSDAY
JANUARY
24
2019



santa-clarita.com

*Mayor Marsha McLean, Mayor Pro Tem Cameron Smyth,
Councilmembers Bob Kellar, Bill Miranda and Laurene Weste
cordially invite you to attend the*

New EV Charging Station Ribbon Cutting



Thursday, January 24 at 10:00 a.m.

*Location - Santa Clarita Metrolink Station (22122 Soledad Canyon Rd., Santa Clarita CA 91350)
Please RSVP to Kirsten Lindgreen at the City of Santa Clarita at klindgreen@santa-clarita.com,
or at (661) 255-4939 by January 21 at noon.*

Several local media outlets covered the event. The SCV Signal wrote the following story.

Santa Clarita celebrates latest vehicle charging station

© January 24, 2019 4 Comments Tammy Murga



Santa Clarita Mayor Marsha McLean (center) and City Council members (left to right: Councilmember...

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By Tammy Murga
Signal Staff Writer

As local leaders gathered at a Santa Clarita Metrolink Station parking lot Thursday, Mayor Marsha McLean announced citywide efforts to introduce a step forward in transportation and the environment.

"Today marks a really special occasion in Santa Clarita, and we're here to celebrate the installation of this new electric vehicle charging station, which furthers the city's mission in providing green

Emissions Benefits

EV Connect includes a wonderful dashboard that tracks daily users and calculated sustainability metrics for any time period required. The site went online February 1, 2018. As of March 20, 2019, and there have been 376 charging sessions. From those charging sessions, the following benefits have been realized by the installation of the DC Fast Fill charging station in the City of Santa Clarita.

- 322 gallons of gasoline saved
- 13,376 electric vehicle miles provided
- 2,861 kg of greenhouse gases prevented
- equivalent carbon dioxide scrubbed to 80 trees

Summary and Conclusions

In 2015, the City established its 2020 Plan, which was a visioning and prioritization of projects important and critical to the success of the organization and Santa Clarita community. In the Sustaining Public Infrastructure section the goal was set out for electric vehicles to "Seek grant funding to add alternative fuel stations throughout the community to meet growing demand." This project embodied the successful accomplishment of that goal. However, it did not come without a learning curve. This included understanding the proximity of electric infrastructure to the charging stations, the size and type of meters, the timelines required, ADA requirements and issues, and lack of experienced contracting capabilities. These lessons learned helped provide insight to the next group of level 2 chargers that the MSRC generously awarded to the City of Santa Clarita. It also helped the City connect with electric vehicle users in a real and beneficial way. This allows for them to continue to have input into the future infrastructure. The City has provided support for publicly and privately owned facilities. The end product has paid off with community benefits and a better appreciation of electric vehicles and the current potential and the future growth related to the needed support to meet statewide goals. The City would recommend providing technical assistance experts on designing, siting and selecting equipment for inexperienced grantees.