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Document Title:	San Luis Obispo County APCD response on RFI from agencies re. potential CEC support for siting public hydrogen refueling station
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Comment Received From: Andrew J. Mutziger Submitted On: 8/30/2019 Docket Number: 18-HYD-04

SLO County APCD response on RFI from agencies re. potential CEC support for siting public H refueling stns in local jurisdiction

In an effort to be fuel neutral in our grant programs and to attract interest from hydrogen fueling station developers, the San Luis Obispo (SLO) County Air Pollution Control District APCD issued an RFP for a \$250K grant for the first developer to install a station meeting specified requirements in SLO County. The issuance date was before the pending CEC GFO for hydrogen station funding was to be issued with the intention of having developers consider a SLO County station as they began developing their strategy in applying for CEC funding. We also had a privately funded station option. When the GFO did not get released, on 27 Feb 2019, we updated our RFP to keep our grant offer available. The application deadline was the end of July and the GFO was still not issued. In August, SLO County APCD worked with stakeholders to create a streamlined modification of the RFP where applicants can submit their approved applications from CEC or from CARB's Low Carbon Fuel Standard Credit program and other documentation. We will issue the Streamlined Modified RFP on 3 Sep 2019. We are attaching the RFP for CEC review to help your agency consider how your GFO process might partner well with our grant offering which could be an example for others local agencies.

Parallel to our hydrogen station RFP, SLO County APCD has been the project manager for a CEC grant (ARV-16-015) entitled Central Coast Go-Zero: Zero Emission Vehicle Readiness Implementation Plan. The region covered is Ventura, Santa Barbara, and SLO Counties. Two hydrogen components of this project is to build on this region's 2017 Hydrogen Readiness Plan (ARV-14-038) by providing 1) ZEV safety training for first responders and 2) site assessments for hydrogen refueling stations. Deliverables include:

 $\hat{a} \in \phi$ Course materials for training involving Hydrogen FCEVs or accidents involving electric vehicles with high voltages

 $\hat{a} \in \phi$ Training course reports following each safety training that document number of attendees, feedback, and opportunities of improvement

 $\hat{a}{\in} \not{c}$ A list of station owners interested in adding a hydrogen dispenser

 $\hat{a} \in \phi$ A list of infrastructure installers expressing interest in working within the TriCounties $\hat{a} \in \phi$ A list of stations where preliminary agreements are reached by owners and installers for moving forward with hydrogen infrastructure projects if funds are made available

Ivor John, the subcontractor managing the hydrogen components of our ARV-16-015 grant has considered your request relative to our experiences and lessons learned and has provided a response (Pasted below my signature line) that we believe will be valuable in your RFI.

In addition SLO County APCD has the following recommendations:

1) In our experience the gasoline station owners have very limited information on hydrogen stations. It is difficult for local agencies know what to provide to garner interest. We recommend

that this information come from the State. Flyers and training that inform station owners about hydrogen fueling, safety and FCEV. It would also be helpful for station owners to be provided a list of criteria that is critical for hydrogen station siting so they can consider their station's viability to host a station. It might also be helpful for station owners to have an idea of what is in it for them to consider hosting a station. In that regard, perhaps if the State sets minimum compensation requirement for hosting a station, that could help eliminate some uncertainties. 2) We understand that the California Fuel Cell Partnership has recently met with the service station association and they identified concerns about the deployment process for hydrogen stations in CA. We recommend that your agency contact the partnership to learn more and if you are not already, consider work closely with the station association and other similar stakeholders. 3) It is possible that the delays in the pending CEC GFO has created uncertainties for the developers and limited the interest in the SLO County APCD grant. We understand that the complexity of setting policy and issuing GFOs, and other factors can delay progress. However, it is also important to keep momentum in the hydrogen pathway to help the state meet it reduction goals under SB 32.

Please let me know if you have any questions.

Sincerely, Andy Mutziger | Supervising Air Quality Specialist Planning, Outreach & Grants Division SLO County Air Pollution Control District (805) 781-5956 • amutziger@co.slo.ca.us • SLOCleanAir.org

SLOCAPCD Consultant Response

Contact Information: Ivor John Independent Hydrogen Consultant 855 Estrella Drive Santa Barbara, CA 93110

805-451-8162 ivorjohn@cox.net

The California Energy Commission (CEC) has released a request for information (RFI) to solicit information from California public agencies about support offered for public hydrogen refueling stations in local jurisdictions (GFO-19-601). The CEC is collecting this information to help connect station developers with California public agencies that could assist in delivering stations. This connection is critical to expedited and efficient station development. The information collected will be included in the next hydrogen refueling infrastructure solicitation that will be issued by CEC. San Luis Obispo County Air Pollution Control District (SLOCAPCD) is pleased to submit this response to the RFI.

For the last four years, SLOAPCD has participated in the Tri-Counties Hydrogen Readiness Plan (THRP) efforts funded by CEC. Together with our sister agencies in Santa Barbara and Ventura, we have gained valuable experience about readiness planning in our communities. This response is based mostly on the lessons learned from our involvement in the planning and implementation phases of this work.

The following paragraphs summarize some of the lessons we have learned and our ideas for defining a how best the local agencies can support the statewide effort, and how the CEC can engage the capabilities and resources that can be accessed in our communities.

Over the last two years, SLOCAPCD has been vigorously pursuing opportunities to attract potential developers to build a local hydrogen refueling station in the County of San Luis Obispo. We consider that it is essential to have a station available in this County to attract Fuel Cell Electric Vehicle drivers and dealers, but even more important is the need for a connector station here to facilitate safe and successful north-south travel along the 101 corridor.

Actions we have taken $\hat{a} \in \hat{a}$ and continue take $\hat{a} \in \hat{a}$ to help attract developers to site a station in San Luis Obispo are as follows:

• Performed site walks around a high number of gasoline stations to assess the suitability for adding hydrogen fueling infrastructure

 $\hat{a} \in \phi$ Made contact with an extensive number of station operators and owners to help them appreciate the potential for offering hydrogen as an additional transportation fuel

 \hat{a} €¢ Issued an RFP to station developers offering \$250,000 to support the construction of the first station in the County

 $\hat{a} \in \phi$ Developed a list of active station installers and conducted outreach efforts with them to help promote San Luis Obispo as an option for station siting. These efforts included calls, emails and a webinar.

 $\hat{a} \in \phi$ Participated in the state processes that support the development of hydrogen and hydrogen infrastructure, notably with the CEC with regard to the changes being made to the station funding process, and also CARB with regard to the LCFS changes that help attract private sector funding.

• Made personal contact with staff at CEC and CARB, and also with important hydrogen stakeholders like the California Fuel Cell Partnership.

Despite these diligent efforts, we are not yet aware of a developer that has intent to install a station, and there has been only modest interest in the grant that we are offering.

We are prepared to help expedite the permitting process as soon as we have a concept submitted to the County, and we have begun to train first responders to be prepared for hydrogen incidents and accidents. However, the emphasis of our efforts to date have been focused on how best to attract a station to the County.

The THRP report finalized in 2017 and the current implementation work ongoing in the Tri-Counties have led to a number of findings and recommendations that we have updated and included here since we believe the issues are relevant to this RFI.

1. Hydrogen planning efforts are not expected to be static. New information and new guidance regularly become available from national, state and industry sources. It was recommended that the Tri-Counties find a way to keep the plan a living document. One way to do this would be to support an ombudsman for the region.

2. First responders are faced with extensive demands for required training and the available time for additional training such as hydrogen awareness training is limited. Comprehensive training materials are available through a collaboration of experts coordinated by the DOE National Laboratories. However, to date there are only a small number of competent trainers who have experience delivering this training (for example, staff with at the CaFCP). It was recommended that, for first responders, the focus should be on providing access to training resources and support for local trainers. Scheduling a regular program of trainings in the state (and funded by a state agency) would be one way to address this $\hat{a} \in$ with consideration to the seasonal demands on first responders for fire fighting.

3. There is growing awareness about hydrogen and FCEVs among the local officials, and municipal fleet managers, but they still have only limited knowledge of the role hydrogen is expected to play in attaining state ZEV and climate goals. Scheduling routine outreach and awareness sessions on hydrogen and fuel cell electric vehicles would lay the groundwork for the permitting and growth phases that will occur.

4. There is very little collaboration at a local level between the hydrogen installers, local government agencies, and local hydrogen stakeholders. This could be counter-productive to the purpose of developing regional plans for infrastructure development. We feel strongly that station construction/funding is informed by the regional plans and communicated clearly to the installers and station owners. CEC grant application criteria could be revised to call for a demonstration of how the grant proposal matches the siting analyses in the local plan for the proposed stationâ \mathbb{C}^{TM} s region.

5. It is recommended that CEC (or other state agency) develop a central statewide website for regional plans and resources (permitting, safety training, etc.). For example, as hydrogen codes and guidance are revised (such as NFPA-2 or the GoBiz Hydrogen Station Permitting Guidebook), then links should be updated to ensure the resources and guidance materials are current.

6. We find that hydrogen station installers are reluctant to share information about relationships with station owners whenever there is a competitive process in play for government funds to support installations. The current imperative to come up with a tranche of stations with batch prioritization introduces further complexity to the process of station matchmaking. This would not be necessary if CEC could provide more clarity on the locations where stations will be funded, with a priority schedule.

7. It is suggested that CEC consider setting up a more inclusive process for collaborating with local government agencies. Through this process, the CEC could inform local agencies about near term funding opportunities in their specific localities. Local agencies would likely be more willing to perform outreach efforts with station owners if they knew that a station in their jurisdiction was being sought for funding. With the current process, local government agencies are not given a clear indication from the state about such near-term priorities. If there were more clarity on this, the local agencies would have the incentive to streamlining the hydrogen permitting process.

8. Local agencies that are not in the core (urban) market areas for hydrogen deployment could also better support hydrogen infrastructure development in their regions if there were separate funds available for rural areas where connector and destination stations play a critical role in facilitating trans-state mobility, for example on the 101 corridor between Los Angeles and San Jose. And, of course, each station then becomes an anchor point for growing the statewide network for FCEVs. Siting and funding criteria for these need to be different than for stations in

core markets.

The APCDs in the Tri-Counties region recognize the potential for FCEVs to play a significant role in reducing vehicle tailpipe air emissions and Life Cycle GHG emissions. The county agencies will continue to offer support to local station owners and hydrogen fueling station developers with an interest in building stations in this region. As evidenced by the SLOCAPCD RFP offering match funds for a local station, there is sincere commitment to making this happen. To the extent these efforts can be enhanced through improvements to the CEC's process, we greatly this call for information and your intent to involve local agencies as key stakeholders.

Additional submitted attachment is included below.



Request for Proposal to Install a Hydrogen Fueling Station in San Luis Obispo County

San Luis Obispo County **Air Pollution Control District**

November 20, 2018 - Release

February 27, 2019 – Update

September 3, 2019 – Streamlined Modification

TABLE OF CONTENTS

I.	INTRODUCTION	3	
Α.	BACKGROUND	3	
В.	QUESTIONS		
C.	CONTACT INFORMATION	3	
D.	RELEVANT LAWS, REGULATIONS, REPORTS, AND OTHER DOCUMENTS		
II.	RFP ELEMENTS	5	
Α.	Key Activities and Dates	5	
В.	AVAILABLE FUNDING AND FUNDING CATEGORY	5	
C.	How AN APCD GRANT OF UP TO \$250,000 IS AWARDED	5	
D.	APCD GRANT AGREEMENT		
III.	ELIGIBILITY REQUIREMENTS	8	
Α.	ELIGIBLE HYDROGEN STATION DEVELOPER	8	
В.	PROJECT REQUIREMENTS	8	
C.	ELIGIBLE PROJECT COSTS		
D.	APPLICATION DELIVERY	9	
APPE	APPENDIX A		

I. Introduction

A. BACKGROUND

The <u>California Fuel Cell Partnership</u> (CaFCP) states that there are 39 hydrogen stations open in California with another 25 in development towards the initial AB8 goal of at least 100 stations by 2023. The next goals are 200 stations by 2025 and 1,000 stations by 2030 to support 1,000,000 vehicles. The San Luis Obispo County Air Pollution Control District (SLO County APCD) is offering a \$250,000 grant to incentivize hydrogen station developers to install a SLO County hydrogen fueling station in the near-term. This updated Request for Proposals (RFP) streamlines the award process.

A SLO County station is listed as a Group 1 Priority Target Market in the 2019 CaFCP Original Equipment Manufacturers Priority Hydrogen Station Location Recommendations (Appendix A) that was requested by the California Air Resources Board (CARB). A SLO County hydrogen station is a critically needed connector station between northern and southern California on the U.S. 101 corridor and between the Central Coast and Interstate 5. SLO County's multiple features, including, a strong tourism draw, Cal Poly State University, and the region's Central Coast travel corridor (Santa Barbara, Ventura, SLO, Monterey, and Santa Cruz) present station location opportunities to serve as both a "destination" and a "connector." The SLO County APCD and other SLO County stakeholders are identifying fleets and individuals willing to add hydrogen vehicles to support the siting of a SLO County hydrogen station.

Additionally, SLO County APCD has been working with local stakeholders and neighboring air districts in Ventura and Santa Barbara Counties for the past four years on California Energy Commission (CEC) grants for a Tri-County Hydrogen Readiness Plan and on a Zero Emission Vehicle (ZEV) Readiness Implementation Plan. Both plans help provide support for a robust and resilient hydrogen refueling network and ZEV outreach on the Central Coast.

B. QUESTIONS

Questions and clarification about this grant offer should be directed to the SLO County APCD.

C. CONTACT INFORMATION

Andy Mutziger San Luis Obispo County Air Pollution Control District 3433 Roberto Court San Luis Obispo, California 93401 E-mail: <u>amutziger@co.slo.ca.us</u> **D. RELEVANT LAWS, REGULATIONS, REPORTS, AND OTHER DOCUMENTS** The installed SLO County hydrogen station must comply with all applicable federal, state, and municipal laws, rules, codes, and regulations related to the dispensing, storage and sale of hydrogen fuel.

II. RFP Elements

A. KEY ACTIVITIES AND DATES

Key activities, dates, and times for this RFP are outlined below:

Original RFP Released November 20, 2018 with a February 27, 2019 update.

This September 3, 2019 modification is a significant change to the previous RFPs and simplifies the award process. This modification is in response to 1) Changes in the CEC's hydrogen station grant program as outlined in the Draft Solicitation Concepts for Light-Duty Hydrogen Refueling, and 2) a better understanding of the CARB Low Carbon Fuel Standard credits under Hydrogen Refueling Infrastructure (HRI) Pathways.

This grant offering will be closed after SLO County APCD and the grant awardee sign a SLO County APCD grant agreement. The SLO County APCD reserves the right to withdraw the offering to pursue other priorities if no grant agreement has been signed eighteen months from the September 3 date when the RFP was updated.

B. AVAILABLE FUNDING AND FUNDING CATEGORY

\$250,000 of SLO County APCD's locally collected AB 923 funds are available on a first-come-first-served basis for the installation of a hydrogen fueling station in SLO County under a grant agreement resulting from this RFP.

Applicant for the CEC or CARB Pathways described below may state in their CEC or CARB applications that they may receive up to \$250,000 in project match funds from SLO County APCD if their company is the first successful SLO County APCD applicant.

C. How AN APCD GRANT OF UP TO \$250,000 IS AWARDED

- <u>Funding Pathways</u>: The SLO County APCD grant will be awarded to the first successful hydrogen station developer to complete one of the two pathways below:
 - a. CEC Pathway:
 - Receive a CEC award through their pending Grant Funding Offer to fund hydrogen stations with the award including a SLO County station in the first batch of their tranche. Note: If multiple station developers receive CEC awards that include a SLO County station in the first batch of their tranche, then the award will be evenly divided between the CEC awardees.

- ii. <u>Notification of Competitive Bid Requirement Being Met</u>: If a CEC grant will be used to fund the project, SLO County APCD elects to use the CEC's competitive selection of the awardee(s) to meet the AB 923 competitive bid requirement found in Chapter 3, Section H1(F) of the 2017 Carl Moyer Guidelines.
- b. CARB Pathway:
 - i. Receive CARB approval for LCFS credits under their HRI Pathways application for the installation of a SLO County hydrogen station to be privately funded without CEC funding.
 - ii. <u>Notification of Competitive Bid Requirement for CARB LCFS</u> <u>Pathway</u>: The station developer's private funding will be partnered with the SLO County APCD's AB 923 grant award to complete the proposed project. For eligible project components to be paid for with SLO County APCD grant funding, the station developer must solicit and select the contractors/sub-contractors on a competitive (two or more bids) basis to meet the AB 923 competitive bid requirement found in Chapter 3, Section H1(F) of the 2017 Carl Moyer Guidelines.
- <u>Application</u>: Upon meeting either of the two pathway requirements above, the station developer shall send SLO County APCD the following application materials (for delivery method, see Section III.D.): a. An application letter that:
 - i. Provides proof that they are an eligible hydrogen station
 - developer as specified below in Section III A;
 - ii. Commits their company to install a hydrogen station in SLO County with an anticipated project schedule;
 - iii. Includes proof of their CEC award or CARB approval;
 - iv. Includes a copy of their approved CEC or CARB application;
 - v. Provide documentation of all other sources and amounts of funding for the project;
 - vi. For CARB Pathway, include the competitive bids as discussed in Section 2.C.1.b.ii above. Also include a statement as to the reason(s) for the bid the station developer plans to select;
 - vii. Commits their company to providing SLO County APCD with a copy of their CEC or CARB agreement when it is finalized;
 - viii. Identify the name and title of the company representative with contract signing authority;
 - ix. Provide copy of company's articles of incorporation or if not incorporated, other pertinent documents that demonstrates the company's business structure; and
 - x. Commits their company to submitting a reimbursement invoice to SLO County APCD after the project is complete that includes receipts for the eligible project components to be paid for with the SLO County APCD grant.

3. <u>Award</u>: SLO County APCD shall verify the station developer's CEC award or CARB approval and will send the station developer a SLO County APCD grant award letter and a draft APCD Grant Agreement.

D. APCD GRANT AGREEMENT

The awardee will enter into a SLO County APCD Grant Agreement. The Grant Agreement is in effect after it is signed by the applicant and approved and signed by the SLO County Air Pollution Control Officer. Awardee will not place orders, make purchases, or begin any work associated with the project component(s) to be paid for with SLO County APCD grant award project until notified by the SLO County APCD that the project's Grant Agreement is in effect.

III. Eligibility Requirements

This section describes the overall eligibility requirements for this RFP.

A. ELIGIBLE HYDROGEN STATION DEVELOPER

This is an open solicitation for public and private entities.

All corporations, limited liability companies (LLCs) and limited partnerships (LPs) are required to register and be in good standing with the California Secretary of State. Applicants must provide SLO County APCD evidence of their ability to successfully implement, operate and maintain retail hydrogen stations (e.g. the stations they manage are included in the Station Operational Status System (SOSS), show the ability to manage station-uptime to industry standard levels, satisfaction by vehicle manufacturers of performance of stations, etc.). All applicants must also be in good standing with the SLO County APCD for any previous grants or permits received from the SLO County APCD.

B. PROJECT REQUIREMENTS

For eligibility, the proposed projects must meet the following criteria:

- 1. Proposed station must be located in San Luis Obispo County.
- 2. Proposed station must be open to the public 24 hours a day, 7 days a week.
- 3. Proposed station must meet Accessibility Requirements including the requirements of the Americans with Disabilities Act (<u>ADA</u>) Standards for Accessible Design.

C. ELIGIBLE PROJECT COSTS

In the development of a hydrogen fueling station, eligible project components to be paid for with SLO County APCD grant funding shall be consistent with Chapter 10, Section D - Eligible Costs, of CARB's current Carl Moyer Guidelines. If the project is being funded through the CARB pathway, see Section II.C.1.b.ii for competitive bid requirements. Costs incurred before final execution of the project grant agreement between SLO County APCD and the Awardee are not covered by the grant.

D. APPLICATION DELIVERY

An applicant can submit application by:

- Email with attachments (address below)
- U. S. Mail (address below)
- In person (same location as mailing address)
- Courier service

San Luis Obispo County Air Pollution Control District Attn: Andy Mutziger 3433 Roberto Court San Luis Obispo, CA 93401 E-mail: amutziger@co.slo.ca.us

Number of Copies

Applicants submitting a hard copy application are required to submit one paper copy together with electronic files on a <u>CD-ROM or USB memory stick</u>.

Electronic File Formats

Electronic files must be in Microsoft Word XP (.doc or .docx formats) and Excel Office Suite formats (.xls or .xlsx). CEC or CARB application materials may be in PDF format.

H:\PLAN\Grant Programs\CEC\Hydrogen\RFP\H2_Infrastructure_RFP-Aug2019Update_Final.doc

Appendix A

2019 CaFCP OEM Priority Hydrogen Station Location Recommendations Letter (Next 5 Pages)



California Fuel Cell Partnership 3300 Industrial Blvd., Suite 1000 West Sacramento, CA 95691 (916) 371-2870

> www.cafcp.org info@cafcp.org

2019 CaFCP OEM Priority Hydrogen Station Location Recommendations

February 11, 2019

Hydrogen Station Developers and Interested Stakeholders -

The California Air Resources Board requested CaFCP OEM members to provide a collective response to identify fuel cell electric vehicle (FCEV) customer market locations in support of future development of light-duty retail hydrogen stations. The following is a consolidated response made up of the participating OEMs. This response is limited in scope to light-duty station locations and supersedes any previously provided OEM priority list.

As in past requests, the OEMs individually developed lists of light-duty retail locations and submitted them in a blind process to CaFCP to assure anonymity. CaFCP aggregated individual responses to develop this list of priority target locations.

With a special emphasis on target station locations necessary to increase density and expand coverage of the network, OEMs made recommendations based on:

- Market critical locations selected, but not completed, in past Notice of Proposed Awards.
- Continued expansion within key existing market areas plus enabling NEW markets such as the San Diego area. Existing market expansion includes Sacramento, greater San Francisco Bay area, Los Angeles, Orange County, Inland Empire and adjacent market areas to support increasing FCEV sales volumes.
- Providing redundancy for the Central Valley US5 corridor and enabling greater confidence with round-trip travel to the Fresno/Visalia region (e.g., Arvin/Lebec area).
- Establishing additional early market and connector stations:
 - US101 Central Coast corridor to serve the San Luis Obispo region and support travel between the Santa Barbara and Monterey/San Francisco Bay areas.
 - Enable the US15 corridor coordinated with a Las Vegas station, as a destination to enable a future market.

The recommended station locations for the next phase of California's light-duty retail hydrogen fueling network development are consistent with the published documents "<u>A California Road</u> <u>Map: The Commercialization of Hydrogen Fuel Cell Vehicles</u>" (2012), "<u>Hydrogen Progress</u>, <u>Priorities and Opportunities</u>" (2014), and "<u>The California Fuel Cell Revolution</u>" (2018).

Station developers and interested stakeholders are encouraged to engage with the OEMs directly for more detailed information.

Participating CaFCP OEM members prioritized locations for future hydrogen station development in California, which are presented to guide development. City names are presented as representative of generalized target areas for transportation corridors and in some cases, specific intersections for reference. These locations are presented in two groups, Group 1 and Group 2.

Group 1 locations (Table 1) are first and highest priority, as their function is to further expand fuel cell vehicle markets. There are 56 Group 1 locations, which are listed in alphabetical order. Group 2 locations (Table 2) have secondary priority, relative to Group 1, as these will continue expansion within specific markets and provide additional interconnection between markets. There are 58 Group 2 locations which are segregated into three bins whereby their ranking (1 - 3) are based on aggregated OEM scoring.

In total, CaFCP is recommending 114 priority location target areas.

For further information regarding this letter, please contact:

David Park Infrastructure Development Coordinator California Fuel Cell Partnership <u>dpark@cafcp.org</u> 2019 CaFCP OEM Priority Hydrogen Station Location Recommendations

Table 1: Group 1 Priority Target Markets.	
Arvin / Lebec / (S Wheeler Ridge Rd / US5)	⁴ Orange / North Tustin (CA55)
Baldwin Park / West Covina (US10 / US605)	⁴ Pacific Palisades
¹ Barstow / Victorville / Apple Valley	Palm Springs / Thousand Palms
Brea / Fullerton (CA57)	Petaluma (CA1 / US101)
Cerritos / Artesia (CA91 / US605)	Rancho Santa Margarita (CA241)
Corona (US15 / CA91)	Redondo Beach (South) / Torrance
	(Hawthorne Blvd / Sepulveda Blvd)
⁴ Cupertino (CA85 / US280 / DeAnza)	Sacramento / Downtown (US5 / Bus80 / US80)
Davis (CA113 / US80)	Sacramento / Folsom (CA50)
Downey / Norwalk / Whittier (US5 / US605)	Sacramento / Roseville (US80)
Dublin / Pleasanton (US580 / US680)	³ San Diego / Airport / Downtown (US5)
El Monte (Greater Area)	^{3,4} San Diego / Carlsbad / Oceanside / Encinitas
(CA60 / US605 / CA19 / US10)	(US5)
Garden Grove / Anaheim / Santa Ana	³ San Diego / La Jolla (US5 / US805)
(CA22 / US5)	³ Ser Diago / La Mara (US9)
Gilroy ⁴ Huntington Beach / Seal Beach	³ San Diego / La Mesa (US8) ³ San Diego / Rancho Bernardo (US15)
Hintington Beach / Seal Beach	[*] Nan Diego / Rancho Bernardo (UNIN)
⁴ Irvine (North) (US5 / CA133 / Jamboree Rd)	San Jose 3 / Alamitos (CA85 / CA87)
⁴ Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa	San Jose 3 / Alamitos (CA85 / CA87)
⁴ Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa (CA73 / US405 / CA55)	San Jose 3 / Alamitos (CA85 / CA87) San Luis Obispo (CA1 / US101)
 ⁴Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa (CA73 / US405 / CA55) ⁴Irvine (South) / Lake Forest (US5 / US405) ⁴Laguna Niguel / Aliso Viejo (Aliso Creek / Crown Valley / La Paz / Pacific 	San Jose 3 / Alamitos (CA85 / CA87) San Luis Obispo (CA1 / US101) ⁴ San Mateo / Foster City (CA1 / US101 / CA92)
 ⁴Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa (CA73 / US405 / CA55) ⁴Irvine (South) / Lake Forest (US5 / US405) ⁴Laguna Niguel / Aliso Viejo (Aliso Creek / Crown Valley / La Paz / Pacific Park) Lake Tahoe, South Shore (CA50) Los Angeles 	San Jose 3 / Alamitos (CA85 / CA87) San Luis Obispo (CA1 / US101) ⁴ San Mateo / Foster City (CA1 / US101 / CA92) San Rafael / Corte Madera (CA1 / US101)
 ⁴Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa (CA73 / US405 / CA55) ⁴Irvine (South) / Lake Forest (US5 / US405) ⁴Laguna Niguel / Aliso Viejo (Aliso Creek / Crown Valley / La Paz / Pacific Park) Lake Tahoe, South Shore (CA50) 	San Jose 3 / Alamitos (CA85 / CA87) San Luis Obispo (CA1 / US101) ⁴ San Mateo / Foster City (CA1 / US101 / CA92) San Rafael / Corte Madera (CA1 / US101) Santa Cruz (CA1 / CA17) ⁴ Santa Monica 2 (US10 / Lincoln Blvd)
 ⁴Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa (CA73 / US405 / CA55) ⁴Irvine (South) / Lake Forest (US5 / US405) ⁴Laguna Niguel / Aliso Viejo (Aliso Creek / Crown Valley / La Paz / Pacific Park) Lake Tahoe, South Shore (CA50) Los Angeles (US10, near Downtown, towards Santa Monica) 	San Jose 3 / Alamitos (CA85 / CA87) San Luis Obispo (CA1 / US101) ⁴ San Mateo / Foster City (CA1 / US101 / CA92) San Rafael / Corte Madera (CA1 / US101) Santa Cruz (CA1 / CA17)
 ⁴Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa (CA73 / US405 / CA55) ⁴Irvine (South) / Lake Forest (US5 / US405) ⁴Laguna Niguel / Aliso Viejo (Aliso Creek / Crown Valley / La Paz / Pacific Park) Lake Tahoe, South Shore (CA50) Los Angeles (US10, near Downtown, towards Santa Monica) Los Angeles (CA1 / US101, near Downtown) 	San Jose 3 / Alamitos (CA85 / CA87) San Luis Obispo (CA1 / US101) ⁴ San Mateo / Foster City (CA1 / US101 / CA92) San Rafael / Corte Madera (CA1 / US101) Santa Cruz (CA1 / CA17) ⁴ Santa Monica 2 (US10 / Lincoln Blvd) ⁴ Santa Rosa 1 (CA1 / US101)
 ⁴Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa (CA73 / US405 / CA55) ⁴Irvine (South) / Lake Forest (US5 / US405) ⁴Laguna Niguel / Aliso Viejo (Aliso Creek / Crown Valley / La Paz / Pacific Park) Lake Tahoe, South Shore (CA50) Los Angeles (US10, near Downtown, towards Santa Monica) Los Angeles (CA1 / US101, near Downtown) Los Angeles (US110, near Downtown, at USC) 	San Jose 3 / Alamitos (CA85 / CA87) San Luis Obispo (CA1 / US101) ⁴ San Mateo / Foster City (CA1 / US101 / CA92) San Rafael / Corte Madera (CA1 / US101) Santa Cruz (CA1 / CA17) ⁴ Santa Monica 2 (US10 / Lincoln Blvd) ⁴ Santa Rosa 1 (CA1 / US101) Simi Valley (CA118)
 ⁴Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa (CA73 / US405 / CA55) ⁴Irvine (South) / Lake Forest (US5 / US405) ⁴Laguna Niguel / Aliso Viejo (Aliso Creek / Crown Valley / La Paz / Pacific Park) Lake Tahoe, South Shore (CA50) Los Angeles (US10, near Downtown, towards Santa Monica) Los Angeles (CA1 / US101, near Downtown) Los Angeles (US110, near Downtown, at USC) Malibu (CA1) 	San Jose 3 / Alamitos (CA85 / CA87) San Luis Obispo (CA1 / US101) ⁴ San Mateo / Foster City (CA1 / US101 / CA92) San Rafael / Corte Madera (CA1 / US101) Santa Cruz (CA1 / CA17) ⁴ Santa Monica 2 (US10 / Lincoln Blvd) ⁴ Santa Rosa 1 (CA1 / US101) Simi Valley (CA118) Temecula (US15)
 ⁴Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa (CA73 / US405 / CA55) ⁴Irvine (South) / Lake Forest (US5 / US405) ⁴Laguna Niguel / Aliso Viejo (Aliso Creek / Crown Valley / La Paz / Pacific Park) Lake Tahoe, South Shore (CA50) Los Angeles (US10, near Downtown, towards Santa Monica) Los Angeles (CA1 / US101, near Downtown) Los Angeles (US110, near Downtown, at USC) Malibu (CA1) ⁴Manhattan Beach / Redondo Beach (North) 	San Jose 3 / Alamitos (CA85 / CA87) San Luis Obispo (CA1 / US101) ⁴ San Mateo / Foster City (CA1 / US101 / CA92) San Rafael / Corte Madera (CA1 / US101) Santa Cruz (CA1 / CA17) ⁴ Santa Monica 2 (US10 / Lincoln Blvd) ⁴ Santa Rosa 1 (CA1 / US101) Simi Valley (CA118) Temecula (US15) Tustin (US5 / CA55)
 ⁴Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa (CA73 / US405 / CA55) ⁴Irvine (South) / Lake Forest (US5 / US405) ⁴Laguna Niguel / Aliso Viejo (Aliso Creek / Crown Valley / La Paz / Pacific Park) Lake Tahoe, South Shore (CA50) Los Angeles (US10, near Downtown, towards Santa Monica) Los Angeles (CA1 / US101, near Downtown) Los Angeles (US110, near Downtown, at USC) Malibu (CA1) ⁴Manhattan Beach / Redondo Beach (North) Milpitas (US680) 	San Jose 3 / Alamitos (CA85 / CA87) San Luis Obispo (CA1 / US101) ⁴ San Mateo / Foster City (CA1 / US101 / CA92) San Rafael / Corte Madera (CA1 / US101) Santa Cruz (CA1 / CA17) ⁴ Santa Monica 2 (US10 / Lincoln Blvd) ⁴ Santa Rosa 1 (CA1 / US101) Simi Valley (CA118) Temecula (US15) Tustin (US5 / CA55) Vallejo (US80 / CA29 / CA37)
 ⁴Irvine (North) (US5 / CA133 / Jamboree Rd) Irvine (West) / Costa Mesa (CA73 / US405 / CA55) ⁴Irvine (South) / Lake Forest (US5 / US405) ⁴Laguna Niguel / Aliso Viejo (Aliso Creek / Crown Valley / La Paz / Pacific Park) Lake Tahoe, South Shore (CA50) Los Angeles (US10, near Downtown, towards Santa Monica) Los Angeles (CA1 / US101, near Downtown) Los Angeles (US110, near Downtown, at USC) Malibu (CA1) ⁴Manhattan Beach / Redondo Beach (North) Milpitas (US680) Mission Viejo (US5) 	San Jose 3 / Alamitos (CA85 / CA87) San Luis Obispo (CA1 / US101) ⁴ San Mateo / Foster City (CA1 / US101 / CA92) San Rafael / Corte Madera (CA1 / US101) Santa Cruz (CA1 / CA17) ⁴ Santa Monica 2 (US10 / Lincoln Blvd) ⁴ Santa Rosa 1 (CA1 / US101) Simi Valley (CA118) Temecula (US15) Tustin (US5 / CA55) Vallejo (US80 / CA29 / CA37) Ventura (CA1 / US101)

 Table 1: Group 1 Priority Target Markets.

Notes:

¹ Barstow/Victorville – Due to the round-trip distance, development of a "connector" hydrogen station on the US15 corridor to enable travel to Las Vegas is contingent upon a coincident development of a "destination" hydrogen station in the Las Vegas area. This two-station approach substantially increases the potential for travel, and thereby improves the utilization and overall operational economics of both hydrogen stations compared to a connector only approach.

²Newport Beach 2 - A second Newport Beach hydrogen fueling station should be built after, or concurrent with, the anticipated upgrade of the currently existing Newport Beach hydrogen fueling station location.

³A minimum of three additional hydrogen refueling stations are necessary in the greater San Diego region to achieve sufficient coverage to enable FCEV sales planned for that market.

⁴*These target sites represent previously awarded locations that were either relocated or not completed.*

Table 2: Group 2 Priorit	y larget Markets.
Group 2, Bin 1	Glendale (CA134)
	Long Beach 2 (US405)
	Los Gatos
	Menlo Park
	North Hollywood / Burbank
	Pasadena (US210)
	Sacramento / Elk Grove
	Sacramento / Pocket Area (US5 / Pocket / Sutterville)
	San Clemente (US5)
	San Jose 4 (US280 / CA87 / CA1 / US101)
	San Jose 5 (CA1 / US101 / US680)
	San Leandro (US880)
	Santa Barbara 2
	Santa Clara (CA82)
Group 2, Bin 2	Agoura Hills
	Antioch / Brentwood
	Burlingame
	Daly City (US280 / Hickey Blvd / CA1)
	Escondido
	Fairfield (US80)
	Fresno 1
	Livermore
	Los Alamitos / Rossmoor
	Los Angeles - Century City (US5 / Santa Monica Blvd.)
	Mountain View 2 / Los Altos
	Northridge
	Pacifica
	Palm Desert / Rancho Mirage / Cathedral City
	Pomona / Clairmont / San Dimas (US10 / US210 / CA57)
	San Diego / Chula Vista
	San Francisco (CA1)
	Santa Rosa 2 / Rohnert Park (CA1 / US101)
	Stockton 1 / Tracy
	Torrance 3

Table 2: Group 2 Priority Target Markets.

Group 2, Bin 3	Anaheim Hills / Yorba Linda (CA90 / CA91 / CA241)
	Buena Park / La Mirada (US5 / CA91 / CA39)
	Chino Hills (CA71 / CA142)
	Eastvale / Norco / Corona 2 (US15)
	Fresno 2
	Marina Del Rey
	Monrovia / Azusa (US210 / US605)
	Moorpark
	Murrieta (US15)
	Novato
	Oxnard
	Paso Robles (CA1 / US101)
	Pismo Beach
	Placerville
	Pleasanton 2 (US680)
	Rancho Cucamonga / Fontana (US10 / US15 / Foothill Blvd)
	Richmond (US80 / US580)
	San Bernardino
	San Marcos / Escondido 2
	Santa Maria
	Union City (US880)
	Vacaville

 Table 2: Group 2 Priority Target Markets (cont'd).