DOCKETED	
Docket Number:	18-HYD-04
Project Title:	Draft Solicitation Concepts for Light-Duty Hydrogen Refueling Infrastructure
TN #:	227193
Document Title:	SoCalGas Comments on Draft Solicitation Concepts for Light-Duty Hydrogen Refueling Infrastructure
Description:	N/A
Filer:	System
Organization:	SoCalGas
Submitter Role:	Public
Submission Date:	2/28/2019 3:26:57 PM
Docketed Date:	2/28/2019

Comment Received From: Kevin Maggay
Submitted On: 2/28/2019
Docket Number: 18-HYD-04

SoCalGas Comments on Draft Solicitation Concepts for Light-Duty Hydrogen Refueling Infrastructure

Additional submitted attachment is included below.

Tim Carmichael
Agency Relations Manager
State Government Affairs
925 L Street, Suite 650
Sacramento, CA 95814
Tel: 916-492-4248
TCarmichael@semprautilities.com

February 26, 2019
California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: Comments on the Draft Solicitation Concepts for Light Duty Vehicle Hydrogen Refueling Infrastructure, Docket Number:18-HYD-04

Southern California Gas Company (SoCalGas) continues to support the efforts led by the California Energy Commission (CEC) to accelerate the commercial development of hydrogen refueling and fuel cell electric vehicle (FCEV) markets in California as part of the next cycle of the Draft Solicitation Concepts for Light Duty Vehicle Hydrogen Refueling Infrastructure. SoCalGas continues to see FCEVs as a complementary technology to battery electric vehicles (BEVs) in California. With faster refueling times, FCEV's today can offer longer travel distances (up to 380 miles without refueling)[1],[2] which is longer than any BEVs currently on the market.

SoCalGas appreciates the opportunity to share its perspective on the Draft Solicitation for Light Duty Vehicle Hydrogen Refueling Infrastructure and urges the CEC to address issues regarding the exclusion of landfill gas as a potential feedstock for hydrogen production in the Draft Solicitation. SoCalGas is very concerned that the Draft Solicitation Concepts unreasonably prohibits the use of landfill gas as a feedstock (as described in section 27 (pg., 25) titled: Plan for Dispensing Renewable Hydrogen) and as quoted below:

[1] National Hydrogen Roadmap (Australia), 2018, see https://www.csiro.au/~/media/Do-Business/Files/Futures/18-00314_EN_NationalHydrogenRoadmap_WEB_180823.pdf?la=en&hash=36839EEC2DE1BC38DC738F5AAE7B40895F3E15F4

[2] https://www.hyundaiusa.com/nexo/index.aspx

"Applicants shall provide a Plan for Dispensing Renewable Hydrogen at the hydrogen refueling stations with detail about how each station or the collection of an Applicant's awarded stations (including those stations previously awarded by the Energy Commission) will dispense at least 33 percent renewable hydrogen, on a per kilogram basis. Eligible renewable feedstock includes biomethane or biogas such as: biomass digester gas, sewer (wastewater) gas, municipal solid waste gas from pre-landfilled material, or other waste fuels, excluding landfill gas. Systems using other waste biomass feedstocks, such as biomass waste or residues, may be eligible if the application demonstrates that the proposed system and feedstock comprise a sustainable approach and reduces greenhouse gas (GHG) emissions compared to the relevant petroleum baseline. Carbon intensity benchmarks for gasoline and diesel are found in Table 1 and Table 2, respectively, of the Low Carbon Fuel Standard regulation"[3]

It is unclear why CEC has decided to specifically exclude landfill gas as a potential feedstock, or electricity generated from it as an eligible electricity source. As per the California Public Resources Code, Section 25741(a), "Renewable electrical generation facility" should meet all the following criteria:

(1) "*The facility uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, **landfill gas**, ocean wave, ocean thermal, or tidal current, and any additions or enhancements to the facility using that technology. [emphasis added]*"

California has the potential to produce approximately 94.6 BCF per year (750 million gge per year) of renewable fuel from multiple organic sources including landfills [4], and some of which can be used for hydrogen production. A study by UC Davis for the Air Resources Board also found that renewable gas "*can achieve significant market penetration of 14 BCF into the transportation fueling infrastructure by the 2020s with California's Low Carbon Fuel Standard (LCFS) credits at current levels of $120 per metric ton of CO_2"*[5].The current weekly transfer activity report puts the LCFS levels at $180 per metric ton of CO_2 [6] and will act as a significant driver to further utilize organic feedstock pathways with negative carbon intensities to help support California's low carbon transportation roadmap.

The California Air Resources Board's (CARB) "Current Lookup Table, Tier 1, Tier 2, and Legacy Fuel Pathway Table, Current Pathways" spreadsheet[7] includes two certified pathways for hydrogen from landfill gas with negative carbon intensities of (-5.28) gCO_2e/MJ (FPC: HYGLF200L) and (-12.65) gCO_2e/MJ (FPC:HYGLF201L). It is evident from these pathways that renewable hydrogen produced from landfill gas can achieve significant greenhouse gas reductions.

---

[3] CEC Draft Solicitation Concepts for Light Duty Hydrogen Vehicle Hydrogen Refueling Infrastrucure, page 25. Available at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=226356&DocumentContentId=57125

[4] https://steps.ucdavis.edu/wp-content/uploads/2017/05/2017-UCD-ITS-RR-17-04-1.pdf

[5] https://steps.ucdavis.edu/wp-content/uploads/2017/05/2017-UCD-ITS-RR-17-04-1.pdf

[6] Weekly LCFS Credit Transfer Activity Report accessed on 2/27/2019 at https://www.arb.ca.gov/fuels/lcfs/credit/lrtweeklycreditreports.htm

[7] Downloaded 2/26/19, https://www.arb.ca.gov/fuels/lcfs/fuelpathways/pathwaytable.htm)

SoCalGas requests the CEC to include landfill gas as an eligible feedstock resource for hydrogen production as part of compliance with the CPUC code Section 25741(a) as discussed above and not to deviate from the statutory requirements. The CEC should not exclude specific feedstocks from being eligible for receiving funds from the CEC's Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP).

SoCalGas requests the CEC to revise the language in the Draft Solicitation Concepts to allow applicants to produce hydrogen from landfill gas in California. The CEC should consider the eligibility of all LCFS certified landfill pathways with the CARB. Similar to other feedstocks, if there is not a certified pathway, the applicant should be given the opportunity to demonstrate the emissions reduction benefits from their feedstock.

In conclusion, SoCalGas provides these comments to support California's move towards our aggressive climate goals in a sensible, balanced and cost-effective way and can provide additional input if needed.

Sincerely,

/s/ Tim Carmichael

Tim Carmichael
Agency Relations Manager
Sempra Energy Utilities