

BOARD MEETING DATE: February 2, 2024

AGENDA NO. 8

PROPOSAL: Execute Contract to Replace and Expand Existing Hydrogen Refueling Station at South Coast AQMD Headquarters

SYNOPSIS For over a decade, South Coast AQMD hosted a hydrogen refueling station at its headquarters that is part of a CEC award to Air Products and Chemicals, Inc. The current station's capacity to provide hydrogen refueling is limited. Recently, FirstElement Fuel, Inc. received a CEC grant in the amount of \$42.6 million to develop publicly accessible advanced hydrogen refueling stations. Additional funding is sought to clean up the site and expedite the replacement of the existing station. This action is to execute a contract with FirstElement Fuel, Inc. to replace and expand the existing hydrogen refueling station at South Coast AQMD headquarters in an amount not to exceed \$750,000 from the Clean Fuels Program Fund (31).

COMMITTEE: Technology, January 19, 2024; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chair, or on the Chair's behalf, the Executive Officer, to execute a contract with FirstElement Fuel, Inc. to replace and expand the existing hydrogen refueling station at South Coast AQMD headquarters and clean up the site in an amount not to exceed \$750,000 from the Clean Fuels Program Fund (31).

Wayne Natri
Executive Officer

AK:MW:VP:MH

Background

South Coast AQMD has been operating hydrogen refueling stations at its headquarters for close to two decades. The current station is one of eight stations in California that was established with an award from the CEC to Air Products and Chemicals, Inc. over a

decade ago. However, the hydrogen refueling station has limited hydrogen dispensing capacity based on demand and is experiencing increased downtime largely due to aging equipment.

FirstElement was recently awarded a \$42.6 million grant from the CEC to design, construct, and expand a network of 46 high-performance hydrogen fueling stations across California. The objective of this initiative is to elevate customer experience and optimize operational efficiency of hydrogen refueling stations which is crucial for the adoption of fuel cell electric vehicles (FCEVs). The new station will be integrated with a telematics software management tool to keep track of the volume of vehicles being fueled on-site to help with managing fuel availability and customer demand. In addition, expanding hydrogen refueling capabilities will help with the adoption of FCEVs and reduce hydrogen dispensing costs, making these vehicles more accessible and economically viable.

Proposal

FirstElement proposes to replace the existing hydrogen refueling station at South Coast AQMD headquarters with four fueling stations. The new upgraded station will be capable of dispensing up to 1,600 kg/day of hydrogen through the use of liquid hydrogen storage capable of supporting the refueling of up to 600 FCEVs daily compared to the existing station with a capacity of 250 kg/day of hydrogen capable of supporting 100 FCEVs. Once the existing equipment is removed from the current location, FirstElement will perform site clean-up prior to the installation of the refueling station equipment.

South Coast AQMD funding will be used to expedite the construction and installation of the new station and cleanup the site after the existing hydrogen refueling station equipment is removed. This action is to execute a contract with FirstElement to replace and expand the existing hydrogen refueling station at South Coast AQMD headquarters, in an amount not to exceed \$750,000 from the Clean Fuels Program Fund (31). The clean-up funds and support funds can be used interchangeably.

Sole Source Justification

Section VIII.B.2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified. This request for a sole source award is made under provision B.2.d.: Other circumstances exist which in the determination of the Executive Officer require such a waiver in the best interest of South Coast AQMD. Specifically, these circumstances are B.2.d.(1): Project involving cost-sharing by multiple sponsors. The proposed projects will include in-kind contributions and cost-share by the CEC and FirstElement.

Benefits to South Coast AQMD

Projects to support the development and demonstration of zero-emission vehicle technologies and supporting infrastructure are included in the Technology Advancement Office Clean Fuels Program 2023 Plan Update under the category “Hydrogen and Fuel Cell Technologies and Infrastructure.” This project is to develop a higher performing hydrogen refueling station with greater capacity and capability, allowing the simultaneous fueling of four FCEVs. The liquid hydrogen fueling system is the most novel technology in the hydrogen stations operation. The replaced refueling station will support existing customers, create a more robust hydrogen supply chain with high capacity and lower station downtime that will encourage South Coast Air Basin residents to purchase and drive FCEVs. Implementation of this project is consistent with the 2022 AQMP, which relies on zero-emission technologies to achieve National Ambient Air Quality Standards for ozone and PM2.5. This new higher capacity refueling station will better serve the residents of the South Coast Air Basin and will assist in achieving California’s goal in creating a more expansive and reliable hydrogen refueling network throughout the state.

Resource Impacts

The total cost for the proposed project is \$3,830,000, of which South Coast AQMD’s proposed contribution will not exceed \$750,000 from the Clean Fuels Program Fund (31), as summarized below.

Proposed Zero Emission Demonstration Project Costs

Source	Funding Amount	% of Total Project Cost
CEC	\$1,580,000	41
FirstElement	\$1,500,000	39
South Coast AQMD (proposed)	\$750,000	20
Total	\$3,830,000	100

* Contingent on CEC approval

** South Coast AQMD proposed contribution will be used for site cleanup and expediting station installation

Sufficient funds are available in the Clean Fuels Program Fund (31) for this proposed project. The Clean Fuels Program Fund (31) is established as a special revenue fund resulting from the state mandated Clean Fuels Program. The Clean Fuels Program, under Health and Safety Code Sections 40448.5 and 40512 and Vehicle Code Section 9250.11, establishes mechanisms to collect revenues from mobile sources to support projects to increase the utilization of clean fuels, including the development of the necessary advanced enabling technologies. Funds collected from motor vehicles are restricted, by statute, to be used for projects and program activities related to mobile sources that support the objectives of the Clean Fuels Program.