

BOARD MEETING DATE: March 6, 2015

AGENDA NO. 4

PROPOSAL: Execute and Modify Contracts for Hydrogen Station Upgrades and Related Work 

SYNOPSIS: Last year, the Board approved contracts for hydrogen station upgrades in the South Coast Air Basin. While these stations are being upgraded, equipment must be taken out of service. To continue to provide hydrogen fuel to customers at stations being upgraded, CEC through PON 13-607 provided \$999,677 to develop and deploy a commercial mobile hydrogen fueler at stations going offline for the equipment upgrade transition. This action is to cofund development and demonstration of the commercial mobile hydrogen fueler up to \$200,000 from the Clean Fuels Fund (31). These actions are to also modify a previous award for Mebtahi's hydrogen station upgrade adding \$400,000 and to amend a technical assistance contract adding \$50,000 to evaluate upgraded hydrogen equipment from the Hydrogen Fueling Infrastructure Network Fund (63). Finally, temporary loans of \$201,461 and \$297,460 from the Clean Fuels Fund (31) to the Hydrogen Fueling Infrastructure Fund (63) and Hydrogen Fueling Station Special Revenue Fund (55), respectively, are required until CEC revenue is received to implement hydrogen station upgrades and readiness efforts.

COMMITTEE: Technology, February 20, 2015; Recommended for Approval

RECOMMENDED ACTIONS:

1. Authorize the Chairman to execute a contract with H2 Frontier, Inc. to cofund development and demonstration of a commercial mobile hydrogen fueler in an amount up to \$200,000 from the Clean Fuels Fund (31).
2. Authorize the Chairman to execute the following from the Hydrogen Fueling Infrastructure Network Fund (63) using CEC grant revenue for hydrogen station upgrades:
 - a. A contract with Mebtahi Station Services Inc. for hydrogen equipment upgrades in an amount up to \$989,661 (adding \$400,000 to original award of \$589,661); and

- b. A contract modification with Jerald A. Cole adding \$50,000 for evaluation of upgraded dispensing equipment and meters.
3. Authorize temporary loans from the Clean Fuels Fund (31) to be repaid upon reimbursement under provisions of CEC grants as follows:
 - a. An additional \$201,461 to the Hydrogen Fueling Infrastructure Fund (63) for hydrogen station upgrades and related work; and
 - b. \$297,460 to the Hydrogen Fueling Station Special Revenue Fund (55) for hydrogen readiness in early market communities.
4. Authorize reimbursement to the SCAQMD General Fund of up to \$15,002 from Hydrogen Fueling Station Special Revenue Fund (55) for administrative costs necessary to implement the CEC grant for hydrogen readiness in early market communities.

Barry R. Wallerstein, D.Env.
Executive Officer

MMM:LM:PSK/DAH

Background

In June 2013, the Board recognized \$6.69 million in revenue from CEC to upgrade and refurbish existing, publicly accessible hydrogen fueling stations. The SCAQMD released an RFP to award these funds to existing stations needing upgrades. In March and September 2014, the Board approved contracts for hydrogen fueling station upgrades in the South Coast Air Basin (Basin). While these stations are being upgraded, the equipment must be taken out of service. To ensure customers can continue to fuel at the hydrogen stations being upgraded in the Basin, CEC through PON 13-607 awarded Gas Technology Institute (GTI) \$999,677 to develop and demonstrate a commercial mobile hydrogen fueler, which would be used during upgrade transitions and temporary dispensing issues. GTI has partnered with U.S. Hybrid and H2 Frontier, Inc. Staff proposes to cost-share this project.

One of the Board awards in September 2014 was to upgrade the dispenser and canopy for the Mebtahi hydrogen station using CEC revenue funding in the amount of \$589,661. However, subsequent to this award, OEMs expressed concern that the fills would take too long and not meet current automotive performance specifications unless the compressor is also upgraded. Staff proposes to use unallocated funds from the CEC revenue grant to also upgrade the compressor.

Included within the \$6.69 million CEC grant is an allocation to assess the state of existing hydrogen stations, test and evaluate the upgraded hydrogen equipment and meters, and

submit final reporting to CEC on these efforts. Staff proposes to modify one of its technical assistance contracts to have this work performed.

Additionally, Board actions in November 2013 and March 2014 authorized a temporary loan of \$6,445,000 from the Clean Fuels Fund (31) to the Hydrogen Fueling Infrastructure Fund (63) to implement hydrogen station upgrades and related work, but an additional temporary loan is required at this time.

Lastly, on May 2, 2014, the Board recognized upon receipt up to \$299,360 from the CEC into the Hydrogen Fueling Station Special Revenue Fund (55) as pass-through revenue for a contract with Bevilacqua-Knight, Inc. (BKl) to conduct hydrogen readiness efforts in early market communities. The CEC grant was executed for \$297,460, which comprises \$282,458 for BKl's contract and \$15,002 for administrative costs. In order to execute the contract with BKl and reimburse the General Fund for administrative costs, a temporary loan of \$297,460 from the Clean Fuels Fund (31) to the Hydrogen Fueling Station Special Revenue Fund (55) is required pending receipt of the CEC grant funds.

Proposal

This action would be to cost-share development and deployment of a commercial mobile hydrogen fueler. The mobile fueler can be a stand-alone unit for remote filling or integrated into stations experiencing temporary dispensing issues during transition to upgraded equipment or repairs. The fueler will connect to the onsite hydrogen storage supply and have the ability to connect with existing hydrogen dispensers to fill onboard storage. The mobile hydrogen fueler will use renewable fuel if possible and would be deployed at hydrogen stations as needed. Project partners include the GTI, U.S. Hybrid and H2 Frontier, Inc.

The upgrade of Mebtahi's existing hydrogen fueling station in Harbor City, in addition to providing a new dual pressure dispenser that is certified for selling hydrogen fuel on a retail basis using credit cards and a canopy over the hydrogen dispenser, would also upgrade the compressor and replace the hydrogen storage with four new storage tubes to enable faster back-to-back high-pressure fills and increased daily capacity. This upgrade will strengthen the evolving hydrogen station network and improve consumer options. This action is to modify the previous award to Mebtahi Station Services Inc. to provide additional funding to also upgrade the compressor and replace the hydrogen storage tubes.

Additionally, this action is to modify a contract with Jerald A. Cole to add funding for the testing and evaluation of upgraded hydrogen equipment and meters and prepare reports on the effort for submission to CEC. The additional funds will utilize a portion of the revenue set aside in the CEC grant for this effort. Mr. Cole was awarded his current technical assistance contract through a formal RFP process. Mr. Cole has over 30 years of experience in the fields of emission controls, combustion technologies, hydrogen,

alternative fuels, and stationary engines, as well as extensive experience in providing services in these fields to local, state and federal environmental agencies.

This action is also to authorize an additional temporary loan of \$201,461, for a total of \$6,646,461, from the Clean Fuels Fund (31) to the Hydrogen Fueling Infrastructure Fund (63) to be repaid upon reimbursement under the provisions of CEC's grant awarding funds for hydrogen station upgrades and related work.

Lastly, this action is to authorize a temporary loan of \$297,460 from the Clean Fuels Fund (31) to the Hydrogen Fueling Station Special Revenue Fund (55) to be repaid upon reimbursement under the provisions of CEC's grant awarding funds for hydrogen readiness in early market communities.

Sole Source Justification

Section VIII.B.2 of the Procurement Policy and Procedures identifies four major provisions under which a sole source award may be justified. This request for sole source award with H2 Frontier, Inc. is made under B.2.c (1): The unique experience and capabilities of the proposed contractor or contractor team, and B.2.d (1): Projects including cost sharing by multiple sponsors. Project partners include the Gas Technology Institute, U.S. Hybrid and H2 Frontier, Inc. The CEC is contributing funds with cost-share also provided by U.S. Hybrid and H2 Frontier, Inc.

Benefits to SCAQMD

SCAQMD supports hydrogen and fuel cell technologies and recognizes that light-, medium- and heavy-duty vehicles must achieve zero or near-zero emissions if the region hopes to meet state and federal air quality attainment standards. These projects will help ensure that sufficient hydrogen infrastructure is available to support the impending OEM roll out of fuel cell vehicles over the next few years and are included in the *Draft 2015 Clean Fuels Program Plan Update* under "Develop and Demonstrate Distributed Hydrogen Production and Fueling Stations." SCAQMD's Clean Fuels Program has been active in funding the development and demonstration of low-emission, hydrogen fuel technologies. Hydrogen vehicles and refueling stations are necessary to comply with CARB's ZEV regulation to reduce criteria pollutant emissions and development of an extensive hydrogen fueling network in Southern California will accelerate the deployment of these cleaner vehicles.

Resource Impacts

Total project costs to develop and deploy the commercial mobile hydrogen fueler are estimated at \$1,665,654. The contract with H2 Frontier, Inc. shall not exceed \$200,000 (12% of total costs) from the Clean Fuels Fund (31). Funding is broken down as follows:

	CEC Funding	Partner Cost-Share
Gas Technology Institute	\$224,677	\$15,064
U.S. Hybrid	\$400,000	\$375,913
H2 Frontier, Inc.	\$375,000	75,000
SCAQMD (<i>requested</i>)		200,000
Totals	\$999,677	\$665,977

Sufficient funds are available from the Clean Fuels Fund (31) for these projects and services. The Clean Fuels Fund was 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.

The \$6.69 million grant CEC previously awarded to SCAQMD was recognized into the Hydrogen Fueling Infrastructure Network Fund (63). The contract with Mebtahi Station Services Inc. shall not exceed \$989,661 and the contract modification with Jerald A. Cole shall not exceed \$50,000; both will be funded from Fund 63 using the CEC grant revenue. An additional temporary loan of \$201, 461, for a total of \$6,646,461, from the Clean Fuels Fund to the Hydrogen Fueling Infrastructure Fund (63) shall be repaid upon reimbursement under the provisions of CEC's grant (600-12-018) awarding funds for hydrogen station upgrades and related work.

The temporary loan of \$297,460 from the Clean Fuels Fund (31) to the Hydrogen Fueling Station Special Revenue Fund (55) shall be repaid upon reimbursement under the provisions of CEC's grant (600-12-018) awarding funds for hydrogen readiness in early market communities. Of the \$297,460 CEC grant, \$282,458 is for BKi's contract and \$15,002 is to reimburse the SCAQMD General Fund for administrative costs.