DOCKETED	
Docket Number:	17-HYD-02
Project Title:	Hydrogen Station Network Future Approaches
TN #:	222053
Document Title:	Shell comments to CEC regarding the 30 November Hydrogen Refueling Infrastructure Alternative Funding Mechanisms workshop
Description:	N/A
Filer:	System
Organization:	Shell/Wayne Leighty
Submitter Role:	Public
Submission Date:	12/22/2017 4:11:26 PM
Docketed Date:	12/22/2017

Comment Received From: Wayne Leighty Submitted On: 12/22/2017 Docket Number: 17-HYD-02

Shell comments to CEC regarding the 30 November Hydrogen Refueling Infrastructure Alternative Funding Mechanisms workshop

Additional submitted attachment is included below.



Shell Oil Company 910 Louisiana Street Houston, TX 77002

Wayne Leighty Hydrogen Business Development Manager, North America Tel +1 (832) 337-0501 Email <u>W.Leighty@shell.com</u>

December 22, 2017

California Energy Commission Docket Office, MS-4 1516 Ninth Street Sacramento, CA 95814 Delivered via website

Subject: Shell comments to CEC regarding the 30 November Hydrogen Refueling Infrastructure Alternative Funding Mechanisms workshop

Dear CEC Administrator:

Shell appreciates this opportunity to comment on the specific proposals made at the 30 November 2017 Hydrogen Refueling Infrastructure Alternative Funding Mechanisms workshop. We believe now is the time for CEC to help industry accelerate and grow hydrogen refueling infrastructure by putting in place scalable multi-year support programs.

The primary enabler to accelerate infrastructure expansion is to provide market and investment certainty through a scalable **multi-year funding program**.

Comments on specific proposals made at the 30 November workshop:

Concept 1: Capital Expense (Cap-X) / Operation & Maintenance (O&M) Funding via Grant

- Ensure the potential benefits of a single award for more stations (scale) with multi-year support (sustained program) are realized by obtaining the necessary balance of capex and opex funding.
- Streamline grant administration to reduce cost.

Concept 2: Allocating Grant Funds by Station Capacity (kg/d)

- Consider implementing this concept in application evaluation (scoring) criteria.
- Recommend further discussion to ensure desired outcomes are achieved without unintended consequences

Concept 3: Allocate Grant Funds by Region

Ensure the potential benefits of a single award for more stations (scale) with network efficiency (opex cost reduction) in a multi-year program (sustained program) are realized by (1) providing significant advance notice to enable market participants to prepare regional or network plans, (2) allowing buildout over several years (e.g., in conjunction with Concept 1 and/or eliminate the sliding scale on funding beyond 20 months), (3) allowing flexibility in station design and location to enable change/progress during the implementation period, and (4) keeping regions large enough/few enough to preserve scale for a station developer.

Concept 4: Loan Loss Reserves and Loan Guarantees:

 This concept does not address top priorities (decreasing risk in case of default is not a critical enabler), may create unintended consequences of introducing an additional cost of financing, and may increase the industry risk profile by enabling higher risk participants. Actions should instead focus on improving the commerciality through cost reduction and increasing utilization.

Concept 5: Certificates of Guarantee on a portion of capital expense based on realized station utilization:

- This concept would require an incremental source of funding to be effective. Ensure the potential benefits of enabling larger investments through firming demand (de-risking station utilization) by funding the downside risk (true-up on revenue below an amount) without trimming the upside potential (retain full grant amount if station utilization exceeds forecast).
- This concept does not address top priorities (making revenue more certain by decreasing both the downside risk and upside potential as a means to lower the cost of capital is not a critical enabler), may be burdened with additional administrative cost relative to the more simple Loan Loss Reserve and Loan Guarantee concepts, and may create unintended consequences by providing more support to more poorly performing stations. Actions should instead focus on improving the commerciality through cost reduction and increasing utilization.

Concept 6: Renewable Fuel Sales Reimbursement

- This concept would require an incremental source of funding to ensure the potential benefit of
 increased renewable content is achieved. If an incremental funding source is found, consider
 creating a fuel reimbursement focused specifically on pump price reduction, which is one of the
 critical enablers to market activation. A specific proposal has been developed by industry.
- Without incremental funding, providing an incentive to increase higher cost renewable source hydrogen without continued support for station capex/opex could remove support for other objectives like station coverage, capacity, and cost reduction.

Conclusion

To encourage infrastructure investments, we encourage the CEC to establish a multi-year program in the next GFO for all remaining stations authorized under AB 8, which may be subject to annual funding appropriations.

From the specific alternative funding mechanisms introduced at the workshop on 30 November, we encourage the CEC to combine concepts 1 through 3 while ensuring the potential benefits are captured as described in our detailed comments above.

We encourage the CEC to simplify and reduce the costs of grant administration for the state and station developers.

If you should have any questions regarding these comments, or wish to discuss, please contact me.

Sincerely,

Wayne Tay

Wayne Leighty