plug power

September 17, 2012

California Energy Commission
Dockets Office, MS-4
Docket No: 12-HYD-1
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: Hydrogen and Transportation – Draft Solicitation Comment

Dear Commissioner Peterman and California Energy Commission Staff:

We would like to take this opportunity to thank the Energy Commission for its consideration of the material handling fuel cell industry's input when crafting the draft hydrogen infrastructure solicitation. We sincerely appreciate the Energy Commission's identification and segregation of funding for this critical component of California's hydrogen highway.

Existing and potential hydrogen infrastructures at material handling customer locations alongside California's main thoroughfares offers California the potential for convenient, cost-effective dual use connector hydrogen stations that will be critical to developing a practical and accessible hydrogen economy. Notwithstanding, there are a few dynamics worthy of consideration when reviewing the cost share and 40% cap features of the draft solicitation.

<u>Cost Share</u>

Material handling customers strongly support dual use fueling infrastructure because increased volume in hydrogen consumption offers decreased hydrogen prices. California's fuel cell vehicle owners will benefit from these decreased prices and California will benefit from a more expansive hydrogen highway with minimized public sector investment.

Though our material handling customers have voiced strong support for the co-location of fueling infrastructure at their sites, these customers are very unlikely to offer cost share to build out the infrastructure for connector stations.

First, fuel cell material handling customers, such as Winco, Sysco and Procter & Gamble, have paid a premium for the installation and delivery of hydrogen infrastructure to fuel their material handling fleets. These costs are considerable. Unfortunately, the draft solicitation states that the Energy Commission will not reimburse for costs incurred before final execution of the grant agreement. Accordingly, dual use connector stations sited at material handling customer locations with existing hydrogen infrastructure would not include this initial, significant investment in the calculation of the total project cost.

Nationwide, Plug Power currently has over 3,000 material handling forklift trucks running at 37 different customer sites, using between 100 to 500kg/day/site of dispensed hydrogen. The

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hydrogen infrastructure that is serving these fleets at each site has been paid for in-full by the private sector. Absent the private sector's investment, California would not have the opportunity to piggy-back on this investment to offer dual use stations for the on-road market at a fraction of the price of a retail non-connector station. Costs to add public access could be less than $200,000 per station versus $1 million or greater for dedicated sites. Moreover, given the investment already made, the lead time to create public access to a dual use station could be months, not years.

We urge the Energy Commission to leverage and acknowledge the investment the material handling customers have already made to promote a hydrogen economy. We urge the Energy Commission to consider costs already incurred to install a material handling hydrogen infrastructure as eligible total project costs when calculating cost share percentages.

Second, corporate decisions regarding capital investments rely on an analysis of financial return on investment. Customers cannot afford to allocate substantial funding in an infrastructure project that cannot, with some degree of certainty, assess when fuel cell vehicles will be introduced in quantities large enough to offset the initial investment. Unlike a decision to purchase material handling fuel cell systems, there is too little data to create a value proposition that explains or encourages a rate of return on investment.

Third, the vast majority of fuel cell material handling customers lease, and do not own, the hydrogen infrastructure installed on their site. Instead, our customers partner directly with industrial gas companies to pay monthly invoices that account for the lease of the infrastructure and the consumption of hydrogen on a monthly basis. Based on this history, it seems reasonable to conclude the gas companies, not the customers, would own the infrastructure build-out to accommodate the dual use hydrogen station. Unfortunately, our experience suggests that the industrial gas companies may be unwilling to offer the 35% cost share required to build out existing hydrogen infrastructure for dual use stations.

Accordingly, should the Energy Commission decide to not acknowledge prior hydrogen infrastructure investment as part of total project cost, Plug Power recommends that the Energy Commission remove or significantly lower the cost share requirement to build out connector stations at existing material handling hydrogen infrastructure sites to encourage the industrial gas companies and/or customers to invest in these critical dual use connector stations.

40% Cap

We commend the Energy Commission for increasing transparency and better regulating the diversification of opportunities to build California's hydrogen highway. Notwithstanding, Plug Power recommends that the Energy Commission creates an exception to the 40% funding per hydrogen supplier for the non-road station set-aside.

Dual use connector stations, though practical and necessary, do not seem to be popular or enticing opportunities for the industrial gas industry. Based on our experience, we believe many industrial gas companies will be inclined to focus exclusively on those hydrogen fueling station opportunities that offer a larger public relations and financial impact – particularly when they are limited to a 40% cap of total funds awarded under the solicitation.

The non-road station set-aside represents only a very small fraction of the total funding made available under this proposed solicitation. We believe the benefit of removing this cap for the purposes of facilitating and encouraging dual use station expansion outweighs the risk that one industrial gas company is perceived to receive an unfair share of funding.

Thank you for your consideration and support. We appreciate that you recognize the value that material handling hydrogen installations offer to the fuel cell industry and we look forward to working with you moving forward. Please do not hesitate to contact me with any questions.

Sincerely,

Gerard L. Conway, Jr.
General Counsel and Senior Vice President, Government Affairs