

Response to Docket Number 12-HYD-1

Hydrogen and Transportation-DRAFT Solicitation Comment

Monday, 17 September 2012

Executive Summary

This document contains responses from renewable hydrogen provider ITM Power.

ITM Power designs and manufactures hydrogen energy systems for energy storage and clean fuel production.

ITM Power is committed to clean sustainable energy solutions based upon water electrolysis. ITM's principal objective is to engineer and deliver zero-carbon hydrogen energy systems that provide energy security and independence from fossil fuels.

ITM's electrolyser technologies and products have the potential to become the cornerstones of a future hydrogen economy based on 'green' hydrogen. Our hydrogen systems are able to convert renewable energy to a clean fuel that can amongst other applications be stored and used for on-road and off-road transport applications.

ITM-Power is in the process of establishing a local presence in California.

Any clarifications, questions and further communications regarding this tender should be addressed to:

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| 7 | II, B | The previous PON included additional funding for higher rate renewable hydrogen systems – consider revising to include again as an incentive, to promote the adoption of a higher overall implementation of renewable hydrogen. |
| 7 | II, C | This seems a low amount for 100% renewable solution considering the benefits of renewable hydrogen. It is proposed that consideration be offered for 100% renewable hydrogen as per previous comment above under II, B). Include statement that says “the energy commission reserves the right to increase the designated funding available beyond \$3.00 million for stations dispensing 100% renewable”. |
| 7 | II, D | Again this seems a low amount; include statement that says “the energy commission reserves the right to increase the designated funding available beyond \$3.00 million for stations dispensing 100% renewable hydrogen”. |
| 9 | III, C | 50kg is a low amount. Propose increasing to 100kg per day - as equipment is currently available to do so and more. Also propose adding “in the case of dual purpose non-road stations, 50kg must be the minimum amount available to service road vehicles”. |
| 10-11 | III, C | Of the 33% renewable hydrogen, consider introducing a weighting strategy whereby zero-fossil-fuel hydrogen (e.g. wind electrolysis) counts 100% towards the overall 33% and fossil-fuel-derived ‘renewable’ hydrogen (e.g. landfill gas etc.) counts 50% (or XX%) towards the overall 33%. This encourages the genuine adoption of 100% renewable hydrogen use. |
| 15 | III, F | The current match funding scoring provides an advantage to the big gas companies, which produce the majority of hydrogen from fossil fuel sources. Consider excluding projects seeking additional funding through set-aside funds – these funds are there specifically due to the fact that certain stations are inherently more expensive to build therefore a lower match funding % is to be expected. |
| 16 | III, G | Recommend that the CEC provides a central point of contact at the DOE office to avoid any advantage being given to people with pre-existing links. |
| 20 | VI, 3 | Suggest replacing coin toss with the station with the highest % of renewable hydrogen |
| 27 | X, E | Require addition of the process to be added of how we represent new members of staff that will be recruited following a successful bid. |
| 29 | X, G8 | Recommend the consideration of adding in ‘equipment shall become the property of the applicant once the equipment has depreciated in value by X%.’ Consider incentivizing the Grant recipients at the end of the project to continue to operate the equipment. |
| 29 | X, I | Request that the CEC provide base case figures for number of vehicles and station throughput or a link to respective, studies, reports and documents that provide this information and assumptions. The business case will hinge on this – those who assume higher throughput will appear to have a better business case. Requires a level playing field. |
| 30 | X, J | Propose that the CEC provide estimated timeframes they feel should be achievable when gaining CEQA compliance? |
| 32 | XI, B3 | Suggest replacing coin toss with – solution with highest % renewable hydrogen. |

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| 38 | XII, C3 | Provides an advantage to existing station suppliers – possible monopoly development. Consider removal of weighting towards those with existing projects or areas with existing permitting – this goes against the objective of achieving wider coverage with new areas. |
| 42 | XII, 10 | This seems a low weighting score (20) for such an important factor. Consider removing incentives for systems that rely on carbon credits to justify higher than 33% renewable hydrogen – carbon is still being emitted in this scenario and in reality does not support the overall objective of in fact reducing carbon emissions. Instead weight those systems higher that produce genuine zero carbon hydrogen. |
| 43 | XII, 11 | Typo on 2 nd bullet point – this should read “Applications with greater <i>reductions in</i> greenhouse gas emissions will be scored higher” |
| 46 | XIII, J | Consider adding in a statement that says “if a minor or administrative error has been made the applicant will have 7 days to rectify the error or face exclusion” |