

**Comments – CEC Draft Solicitation, Oct 2013
Docket 12-HYD-01
Submitted 16 October 2013
Linde LLC**

California Energy Commission

**DOCKETED
12-HYD-01**

TN 72084

OCT. 16 2013

General Comments – not falling in a specific category or paragraph from draft solicitation:

- There should be a funding bonus available for stations that significantly beat the minimum 100kg/day requirement. While additional points are awarded for better performance, the solicitation doesn't recognize that this better performance comes at a significant cost. For instance, stations that provide 300 Kg/day or more, are a far better value for the state from a \$/Kg of throughput standpoint, and the network needs some larger stations in order to prove the model. However, these stations are significantly more expensive and should qualify for a bonus in funding of 10% (or even 5%).
- Linde would like to see the ability of including partial funding for distribution assets that are necessary to meet the special needs of delivery to these retail station sites. In order to access very tight retail sites safely, we need to develop solutions for smaller more maneuverable delivery assets, which will open up the ability to deliver to more sites, removing one important hurdle to site selection. Perhaps this could be considered for next solicitation as well.

Specific Comments – pertaining to the listed section/paragraph from the draft solicitation:

2. Please clarify in more detail what is meant by “awarded in the following sequence”. Are these intended to be sequential solicitations?

2.b. This should either be awarded in both markets – SoCal and the Bay Area – or not at all. Otherwise one market will be at a disadvantage when OEMs are marketing to their customers. And, this should be awarded for only new development, not cover the costs of solutions or assets that have previously been built.

3. Early completion bonus: This should be extended to 18 months. Or at the very least, there should be a transition period. Perhaps its 10% for 12 months, 5% for 18 months. Given the history of difficult progress, the 12 month target is unrealistic in most cases.

4. Late project Penalty: this should be extended to 24 months...the reality as we've seen is that this is a long process, and 18 months is not realistic in many cases due to the difficulty in the early parts of the project. We will try to get stations in as quickly as possible, but a penalty for not meeting 18 months is unfair.
6. One station per proposal is OK. But then allow us to put in identical background information once rather than replicate the same information for each proposal (unless proposals are allowed to be submitted only in electronic form). In other words, structure the solicitation to allow one "generic" section to cover multiple proposals, so as not to create more work for both applicants and reviewers.
7. Just to be clear, where possible a proposal CAN offer a backup station, but this should not be mandatory. This requires quite a bit of up front work and cost in most cases, neither of which is readily available.
8. Our recommendation is that this target should be 50%, which seems more reasonable and is less likely to be challenged.
9. Operational Date: this will be challenging. To be successful, the solicitation should allow for up to 90 days to find and qualify station sites once the solicitation become official. Perhaps there is a split that allows for early submission and a later submission?
10. Suggest that the Bay Area has more primary locations included – areas such as Berkeley, Oakland, Palo Alto, Redwood City, and others should be considered.
11. a. Annual test should be good enough, unless there is a suspected issue with the site. Or, sites supplied with liquid hydrogen (guaranteed higher purity), should only require once annual or every two years testing as the fact that it is liquid negates the purity concerns which other production methods introduce. This cost should be allowed for reimbursement under the O&M funding.
- 11.b. There is currently no device that can test / confirm CSA HGV 4.3 so making this a requirement forces the stations to depend on a timeline of something that is not yet built – consider removing the CSA HGV 4.3 and keeping it SAE J2601.
- 11.d. Minimum Peak Fueling Capacity: This should read "or" not "and" (if this was "and", it implies 42Kg/hour, which is a standard that probably no early station can meet). Really, the solicitation should simply provide a standard for throughput for 700bar fueling (i.e. 3 x 7kg fills back to back) with a requirement that each station has the ability to fill 350 bar (b/c if a station can do 3 x 700 bar, it can meet the lower standard of 3 x 350 bar).

11.g. Renewable Hydrogen: SB1505 requirement for green H₂ – 33% of fuel sold. There should be room for how this is interpreted and enforced, especially as it applies to early stations. Initially, with only 5 or 6 cars (or even less) fueling at a new station, enforcing a 33% green H₂ requirement becomes quite an administrative burden and very expensive, for relatively very little CO₂ reduction benefit. For instance, if purchasing biogas to accomplish this requirement, there is a minimum amount that a station owner will need to contract for, which makes this route very expensive for low and inconsistent throughput. This regulation should be interpreted to go into effect for any given station, only after there is a fairly consistent throughput of H₂. Once a station has enough cars that it is fueling a minimum of 50 or 60 Kg/day (around 20-25 fuelings per day), then the 33% requirement could go into effect. This would be a more cost effective approach to meet the spirit of SB1505 requirement. Ultimately, a station can meet the 33% requirement, but the cost to do so will simply be passed on at the pump, and for low/inconsistent throughput, this could be high.

12. See response for 11.g

15.g. 3) if this means that the CEC can selectively over-rule the 6 minute separation requirement, then this is a good thing. The CEC should be open to selective arguments about stations that may be ideal in other ways, but are a bit closer than the 6 minute driving distance. In some cases, having a redundant station closer will help with market confidence and support early FCEV rollout.

18. a. Eligibility. We strongly support this eligibility requirement for previously funded stations. Especially given the reduced funding of the stations awarded under the last solicitation, the business case will be impossible to justify without this funding support.

18. c. Eligible O&M costs: This must be expanded to include other “fixed” operating costs, such as monthly lease or license fee paid to a station owner, required purity testing, or other such costs. The intent is correct – protect the early station owners from lack of throughput early on and help cover the “fixed” operating expenses to help cover early losses. So, as long as this funding is capped, then the definition of what is covered should be fairly flexible. In fact, the monthly payment to station owners is a fixed payment that occurs whether a single car shows up to fuel. This should be an allowed expense under this section.

18.c.4. As explained above, we do NOT agree with the sentiment of this section.

20. Scoring Criteria and Points: #5 Project Budget: This should be normalized by \$/Kg of throughput, or larger stations with much better throughput will be penalized.

20. Scoring Criteria and Points: the bullet about “demonstrated ability to meet deadlines and milestones...” potentially penalizes the early station providers who have lead the way and struggled to move projects forward for a number of reasons. So long as a new station provider doesn’t simply get points b/c they haven’t made the same mistakes!

21. Please clarify if this “CEQA form” is the same as last solicitation (which Linde supports). CEQA is already a very difficult hurdle.

The Applicant shall provide copies of email or letters or both as evidence. The applicant must also provide an estimation of the potential or actual impacts the project may have on the surrounding environment. A CEQA schedule / plan activities must be submitted for each proposed station.

This is very subjective and any meaningful response to this requires any proposer to spend non-reimbursable monies prior to award and undertake more detailed analysis at a very preliminary phase. Suggest removing this barrier from entry.

NOTES: A proposal can be for a future hydrogen fueling station at an existing fueling station. A proposal can also be at a location without an existing fueling station; however, in this case the proposal must be accompanied by a completed CEQA analysis.

This comment effectively removes “non fueling station” locations from consideration as experience shows that cities do not readily grant CEQA completion without detailed permit and engineering packages completed. This barrier (the language highlighted above) must be removed, and CEQA should not be a scheduled milestone for solicitation. The hurdle is already very high, and getting CEQA approval prior to submitting a proposal to the solicitation would effectively remove these “non-fueling station” sites from most considerations, which is not in the spirit of the solicitation. Finding sites is perhaps the most difficult step, so anything that opens this up is welcome.

Linde appreciates the efforts of the CEC to solicit feedback from the stakeholders – this draft solicitation largely reflects key feedback. Significant hurdles remain to getting qualified sites, but this draft solicitation is definitely a strong step in the right direction.

Please feel free to contact either Mike Beckman or Nitin Natesan directly about clarification on any of the comments in the above document.

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