

QUESTIONS/ANSWERS: CNG FUELING STATION RFP

1. PAGE 3 – COMPRESSOR REQUIREMENT:

The statement “compressors must be belt driven with non-lubricated cylinders” limits the compressor options to one manufacturer – Clean Energy Compression (formerly IMW) - based on this description. In the US, this compressor is marketed exclusively by Clean Energy Fuels, and historically they have not offered this to competing contractors.

Based upon this requirement, it appears that the City of Philadelphia is looking at a sole source bid, as no one else will be able to bid competitively. Please confirm if this is the intent.

ANSWER:

The city does not specify any brand of compressor, however, this type of compressor is commercially available from IMW Industries.

2. Also, the IMW compressor is not considered a non-lubricated design within the compressor industry. It utilizes a combination packing design instead of a true distance piece, so it is considered an incidental or accidental lube design, as oil can migrate from the crankcase into the compression cylinders via the piston rod, and into the rest of the fueling system. This is evidenced by the fact that Clean Energy installations using this compressor still install oil coalescing filters at the time fill headers, fast fill dispensers and other areas of the fueling system. If this was a true non-lube design, these filters would not be required.

A copy of a presentation from a 1995 NGV industry conference detailing the different types of compressor lubrication is included for your reference. Another factor to consider is spare parts. Having only one source of spares restricts anyone other than Clean Energy from getting fair prices, which would increase maintenance costs for their competition. In view of the above, we request that the compressor restriction be lifted to allow industry standard, oil lubricated compressors with either belt drive or direct drive be used to provide a true competitive bid. You have referenced SAE J1616 – Recommended Practice for Compressed Natural Gas Vehicle Fuel – for dryer moisture content; but this document also limits the amount of oil carryover allowed from the compressor, and all CNG compressor manufacturers must comply with this requirement, so we recommend it be applied to the compressor too.

ANSWER:

The city will consider other options if the compressor will operate on a minimum of 10 PSI inlet pressure with the same horsepower and Cubic Feet per Minute.

Questions Nos. 3-11 are asked with the assumption that the above restrictions, as outlined in Question No. 2, are lifted:

3. **Page 2, Section A:** It is understood CMAQ funds are being applied to this CNG project. Based upon this, are Buy America requirements being applied to the CNG station equipment? If so, please confirm which section will be used.

ANSWER:

CMAQ funds are for vehicle purchases only.

4. Page 2, Section B:

This section mentions a Fuel Management System, but it is not referenced in the technical requirements, and time fill systems do not typically utilize fuel management. Please confirm if this is required, and if so provide design details and specifications.

ANSWER:

Not required

5. Page 3, Section C:

Compression: Based upon 43 vehicles using 15 DGE each, the minimum compression requirements with a 10-hour fill window are approximately 150 SCFM, and with an 8-hour time fill window approximately 190 SCFM. Is your intent to provide 100% redundancy with your 450 SCFM total flow requirement?

ANSWER:

Yes, future plans may include additional vehicles beyond what is specified in this RFP.
The station must be designed to be expandable without changing the Infrastructure.

- 6. Dispensing:** This section indicates 43-time fill posts, but the layout drawing only shows a combined 42 parking spaces. Is the extra post to be used to provide emergency fast fill a vehicle? If so, where is this to be located on the site? Are individual posts required for each parking space, or can dual position posts be used in Time Fill area #1?

ANSWER:

Fast fill will be in the isle between K rails. Dual posts are acceptable.

- 7. Storage:** It is assumed this storage vessel is to be used for a fast fill post. Does this require an additional valve panel to isolate it from the time fill system to speed up fueling, or is it to be piped series with the time fill headers?

ANSWER:

Storage should be available to fast fill port, compressor to engage when storage is depleted. No additional valve panel should be required, however, a manual valve should be installed between the fast fill post and the time fill post at the K rail.

- 8. Natural Gas Dryer:** The referenced single tower dryer is not available with automatic regeneration; the regeneration cycle must be manually initiated. If an automatic regenerating dryer is required, it must be the more expensive twin tower design. Please confirm what is required.

ANSWER:

Manual is acceptable.

9. **Natural Gas Source:** 10 PSIG **minimum** suction pressure is given; however, it is not clear if this is a regulated or unregulated pressure. It is assumed that this will be a worst case low pressure at peak usage times – primarily meal times in the winter, and probably not overnight when your vehicles are fueling. Can you obtain the pressure charts from PGW showing nominal, maximum and minimum gas pressures and the times they typically occur, as this may allow for lower HP compressors to be utilized, thereby reducing capital and operating costs?

ANSWER:

The system must be capable of operating at the lowest possible pressure which Philadelphia Gas Works (PGW) confirmed is 10 PSI. Please see the attached agreement from PGW.

10. **Page 6, Section I:** This section requires a 5 year “guarantee”. As the contractor is referenced, it is assumed it relates to maintenance performance, as typical equipment manufacturer’s warranties do not last this long. Please confirm.

ANSWER:

A 5 year warranty can be listed separately as an additional cost.

11. **Drawing CP-1:** This drawing shows two simplex compressors; would a duplex compressor be considered?

ANSWER:

Contractor may propose an alternate design. Alternate proposal must meet or exceed performance and design outlined in this request.

12. Would it be possible to share more information on how the requirement for the 450 scfm was determined? Since the station you are requesting is a time fill station, understanding your fueling window would be helpful in sharing additional information for your consideration.

ANSWER:

Vehicles at this location are used for winter snow operations therefore for redundancy purposes site must be capable of refueling multiple vehicles (up to 25) in succession.

13. Page 2 General Requirements, 3rd bullet “Fuel management system” what are the expectations for this since tracking a time-fill station is not an industry standard configuration and will be costly (Similar reference in the O & M).

ANSWER:

Not required.

14. Page 3 dispenser: "Station will include forty-three (43) plumbed time-fill posts. Thirty (30) complete assembly...in initial buildout..." Please verify what is intended by this initial buildout and how it applies to the "Conceptual Layout" which indicates forty-two (42) posts (presume 1 post is for fast-fill).

ANSWER:

The city intends to purchase 25 trucks within the next two years, initial build requests 30 posts for 25 trucks the 5 extra posts for redundancy. The city expects to add additional trucks every year necessitating expansion of up to, and possibly beyond the 42 posts outlined in this request. **The station must be designed to be expandable without changing the Infrastructure.**

15. Page 3 Natural Gas Source: 10 PSI is listed as minimum and what is the maximum, so we can design a system for a projected pressure range.

ANSWER:

PGW states; "Minimum guaranteed 10 PSI, average 17 PSI, main is rated at 35PSI"

16. Page 5: O & M Activities Section: what is the intent of the City in handling negligence calls? For example, a drive-away that damages a hose, breakaway or nozzle.

ANSWER:

The city performs in house repairs, other repairs requiring additional expertise will be performed by the awarded vendor as a time and material repair.

17. Page 6: "free from defects for at least five (5) years..." does this refer to the only compression equipment?

ANSWER:

All equipment

18. Page 8 "Retro-fit necessary equipment for the project..." Please define equipment referenced.

ANSWER:

Page 8, Proposal Submission Requirements is amended as follows: "Responses must demonstrate financial wherewithal and the capacity to carry out proposed project. Submissions must provide documentation of available funds in an amount no less than the amount valued at the cost of the entire project. Failure to provide clear evidence of committed sources of funds for the project will disqualify submissions".

19. Is this a "Brown-Field" site and/or carries any environmental requirements?

ANSWER:

None we are aware of.

20. Is this site in a flood plain and if so, what are the elevation requirements?

ANSWER:

This is not a flood plain.

21. Is CNG Fueling an approved use for the site? Are there any zoning or planning department(s) applications required?

ANSWER:

Zoning permits required.

22. Can you provide a cut sheet or configuration on the trucks intended for this project? This is needed for the design the time-fill post assemblies and respective block heaters.

ANSWER:

Attached

23. IS this project exempt from permit fees?

ANSWER:

No

24. How will internet be provided for the project? Independent of the City's system?

ANSWER:

Contractors' responsibility.

25. How are we to handle debris removal? Independent of City?

ANSWER:

Contractors' responsibility.

26. In the event we have an option for Fuel Management, would there be an opportunity to provide a separate price for this as an addendum to the base bid?

ANSWER:

Yes

27. What are the actual daily hours of operation for the refuse trucks and the daily hours available for time-fill?

ANSWER:

Dependent upon operational need. Normal hours 6:00 AM 6:00 PM. Fill available 6:00 PM 6:00 AM.

28. During the pre-bid meeting there was mention of snow plowing as an operating requirement of the refuse trucks. During snow plowing operations, what is the fuel use requirement per truck per shift? How many shifts and is it a 24-hour operation until the snow is cleared?

ANSWER:

Assumption each truck will use at least 16 DGE per shift 24 X 7 until event ends.

29. The RFP indicates on page 3, "Dispensing:Fast-fill isolation valve and fueling point must be included." Attachment E - Conceptual Station Layout includes a single storage vessel and valve panel but does not include a fast fill dispensing location. Where does the City want the fast-fill dispensing located? Additionally, the RFP mentions under Section B. General Requirements that the contractor is responsible for a fuel management system. During the pre-bid meeting it was mentioned the Fleet Data Systems (FDS) from California (local company Internet Works) was in use by the City. Is this expected for the fast-fill dispensing only? Is a common meter sufficient for the time-fill portion without going through the fuel management system? It was mentioned that the refuse trucks use RFID, will there be a requirement for some type of ring on the fast-fill nozzle? Will there be a requirement for a fuel control terminal at the fast-fill dispenser?

ANSWER:

Fast fill will be in the isle between the K rails. Fuel Management system not required.

30. The RFP indicates on page 3, "Block Heaters: Station will include block heaters for all forty-three (43) time-fill parking spots." We are confirming that the CNG trucks will have engine block heaters since most CNG refuse trucks do not have them. Also, are the outlets within the scope of the contractor or the City? If the existing outlets are to remain, then there could be an upgrade of the outlets to explosion proof outlets.

ANSWER:

Conduit may be used if it is in good condition, all other posts and devices must be new.

31. I understand there was nothing official, but if the gas line pressure from PGW does float between 10 – 18 PSIG, do you want a compressor capable of accepting this range without using a regulator?

ANSWER:

Yes