Request for Information (RFI)

Solicitation No. 360070-17-Q-0001

Hydrogen Fuel Cells and H2 Production, Storage, and Dispensing Infrastructure

Issue Date: January 10, 2017

Due Date: February 8, 2017 | 3:00 PM ET

Issuing Office:
Office of Sustainability, Energy Initiatives (EI)

Additional information may be obtained by contacting:
Robert C. Ramba
Contracting Officer
robert.c.ramba@USPS.gov

United States Postal Service (USPS)

Request for Information (RFI)

Hydrogen Fuel Cells | H2 Production, Storage, Dispensing Infrastructure

1.1 SOLICITATION FOR INFORMATION:

The Postal Service ***does not intend to award a contract*** on the basis of this solicitation or to pay for the information solicited.

This RFI is issued to assist the Postal Service to better understand and identify what hydrogen fuel cells and H2 production, storage, and dispensing infrastructure are currently available in the marketplace, how this technology is currently in development or deployed to meet the needs of both commercial and government organizations and to evaluate how this technology meets Postal Service requirements.

Offerors are required to submit all questions regarding this RFI during the solicitation period to the *U.S. Postal Service - Eastern Facilities Construction CMT* at the following email address:

Robert Ramba
Contracting Officer, USPS
Eastern Facilities Construction CMT
robert.c.ramba@usps.gov

1.2 NONDISCLOSURE:

The Supplier acknowledges that confidential information might be generated or made available during this RFI process. In addition to the restrictions on disclosure established under the Supplier's code of ethics, the Supplier specifically agrees not to disclose any information received or generated by the Postal Service related to this RFI unless its release is approved in writing by the Contracting Officer.

2. INTRODUCTION, PURPOSE, BACKGROUND AND RFI

2.1 INTRODUCTION:

This RFI is intended to provide sufficient information for potential Suppliers to register their interest in participating in a future Request for Proposal (RFP) process for the proposed Hydrogen Fuel Cells and H2 Production, Storage, and Dispensing Infrastructure and to provide information on their products and services to meet this requirement and to assist the Postal Service with system development and implementation.

It is not intended to imply a contract to acquire the proposed hydrogen fuel cells and H2 production, storage, and dispensing infrastructure but rather to evaluate market and Supplier capability for a potential short list to which an RFP may be issued. It is not intended that Suppliers prepare detailed proposals at this stage. It is important that Suppliers provide basic information regarding capabilities and an indication, in broad terms, as to how they would approach working with the US Postal Service (USPS) to achieve the objectives set forth in this RFI. In their response, Suppliers are directed to provide sufficient detail to demonstrate their present capabilities, provide the location (Street Address and onsite Contact Information) of design/manufacturing facilities, and explain how this capability responds to this requirement and how your present capability can be leveraged to meet the objectives of this requirement.

The overall intent is for the USPS to better understand and identify available hydrogen fuel cell technology, H2 production, dispensing, and storage infrastructure Suppliers and a description of the technology that is currently available or in development. USPS seeks the status of product development, deployment and other products previously deployed to meet the needs of both commercial and government organizations.

3.1 STATEMENT OF PURPOSE:

The purpose of this RFI is to determine Supplier capabilities and interest in delivering hydrogen fuel cells and hydrogen production, storage, and dispensing infrastructure for the Postal Service.

4. REQUEST FOR INFORMATION (RFI) RESPONSE

4.1 SCHEDULE:

The following is the planned schedule of activities:

Activity	Date
Issue RFI	Jan 10, 2017
RFI Submissions Due	Feb 8, 2017
Issue RFP	May 2017
Award Date (Tentative)	Sep 2017

The Postal Service shall reserve the right to modify this schedule as required to meet its operational requirements.

5. RESPONSE REQUIRED:

Suppliers are required to deliver their submittal via email on or before February 8, 2017 at 3:00 PM ET to:

Robert Ramba at Robert.C.Ramba@USPS.gov and
Paige Lyne at Jacquelyn.P.Lyne@USPS.gov

The RFI response is to include a *Letter of Transmittal* introducing your company and interest in providing this service. This transmittal is to include a top-level summary of the most important features of the proposed solution, major value added features, functions and support that differentiate your solution from others. Include a description of your product, services, capacity to perform the work nationwide, location of manufacturing facility, number and location of offices, affiliated or parent companies, past experience/projects, years in business (5 years minimum) and how this information will satisfy the stated objectives of this RFI. Suppliers are requested to provide a Rough Order of Magnitude for all costs, including but not limited to design, construction, onsite assembly, labor and materials for hydrogen fuel cells and/or H2 production, storage, and dispensing infrastructure.

6. SCOPE OF WORK – INTRODUCTION:

The USPS' Office of Sustainability, Energy Initiatives (EI) is planning the replacement of the lead-acid battery system currently powering the powered industrial vehicles (PIVs), including forklifts, tow motors, and pallet jacks, with a hydrogen fuel cell system which will provide the Network Distribution Centers (NDCs) and Processing and Distribution Centers (P&DCs) with several operational, financial, and environmental benefits.

Due to the attributes of hydrogen fuel technologies – including long maintenance intervals, short refueling times, reliable voltages, and clean operations – the installation of a hydrogen fuel cell system will increase plant and equipment productivity, significantly decrease the costs associated with fueling and maintaining PIVs and provide USPS with numerous environmental and safety benefits.

6.1 SCOPE:

Sustainability is reviewing operational and technical information to validate the national deployment plan for the following size and scope:

- Number of Facilities: 15-25 facilities across the Continental United States
- PIV Fleet Size: Between 75 -150 PIV units (on average 65% Class 1 MHE, 35% Class 3 MHE)
- Range of Labor Hours: on average 2,000-5,000 annual operating hours per PIV
- Range of Shifts: 2 and 3 shift operations

7. REQUIREMENTS:

The Postal Service seeks information on the following topics:

State of the Supplier, Technology, and Market

- Information regarding the current state of the Supplier, industry, and technology in the marketplace (e.g. sales, geographic market distribution, R&D, etc.)
- Information regarding where the Supplier sees itself, the industry, and technology going in the marketplace
- Information, including technical specifications for each piece of equipment required for on-site and/or off-site hydrogen production, generation, compression, storage, and dispensing provided by the Supplier
- Information regarding the types of hydrogen production provided by the Supplier (e.g. steam methane reforming, electrolysis, etc.), including information about how each system works and its benefits
- Information regarding system design, site plans, and common configurations for HFC and H2 production, storage, and dispensing infrastructure (e.g. how dispensers for a single H2 production may be distributed throughout a facility)
- Information regarding other technologies, equipment, and services that may be considered for use with H2 powered fuel cell systems for material handling applications
- Information regarding any turnkey and/or bundled capabilities or services provided by the Supplier
- Thresholds for cost effectiveness for various types of hydrogen production (e.g. SMR, electrolysis, and trucked-in H2 solutions)
- Information regarding previous Supplier projects (e.g. prior installations, equipment performance, etc.) for independent/third party validation purposes
- What are your general operational ranges/sizes for the different types of hydrogen production (SMR, electrolysis, etc.) that make it more cost effective?
    - For example, is SMR more cost effective and best deployed when the size of the operation is <,>,or = 75 PIVs)

Deployment Management

- Information regarding Supplier technical and management capabilities large scale geographically distributed equipment deployments
- Information regarding the geographic range of Suppliers services and Supplier infrastructure locations within the Continental United States
- Information regarding how Suppliers manage production, delivery, installation, testing, and commissioning

Site Preparation/Construction

Acknowledging that system size may vary based on facility requirements, the Postal Service is seeking information regarding general requirements and how Suppliers manage facility preparation and construction required to enable the use of hydrogen fuel cells and H2 production, storage, and dispensing infrastructure, including:

- Information requirements and management of facility site preparation construction, including:
    - Electrical improvements
    - Mechanical improvements
    - Structural/architectural improvements
    - Warehouse space requirements (internal and external)

Cost and Purchasing Information

- Equipment cost information and information regarding purchasing, leasing, and rental options, including comparative descriptions of costs and benefits
- Cost information regarding additional services available and/or required when using HFC and H2 production, storage, and dispensing infrastructure

Performance Measurement

The Postal Service is seeking information on Supplier capabilities to estimate and measure the equipment and operational performance, including:

- Equipment Performance, including hydrogen production, usage, pressure, dispensing frequency and duration
- Cost savings
- Productivity improvements
- Environmental, health, and safety value
- Other HFC and H2 production, storage, and dispensing infrastructure information and/or data that can be made available to further study and improve USPS' current operations and models