

## Hydrogen and Fuel Cell Manufacturing: Identifying Specific Components for Manufacturing Standardization

DATE: 12/22/2016  
SUBJECT: Request for Information (RFI): DE-FOA-0001700 Modification 000001

### Modification Information:

Modification 000001 updates the deadline for submissions to January 31, 2017 at 5:00 P.M. ET

### Description:

The mission of the U.S. Department of Energy's (DOE's) Hydrogen and Fuel Cells Program is to enable the widespread commercialization of a portfolio of hydrogen and fuel cell technologies through basic and applied research, technology development and demonstration, and diverse efforts to overcome institutional and market challenges. The Fuel Cell Technologies Office (FCTO) operates within the Hydrogen and Fuel Cells Program. The FCTO seeks input from industry, academia, research laboratories, government agencies, and other stakeholders on how and which components in the hydrogen and fuel cell manufacturing process can and should be standardized. It also seeks to identify manufacturing pathways to reduce costs in both the near and longer-term, as well as how to address any critical barriers regarding manufacturability and supply chain development.

### Standardization

This RFI is focused on the specific topic of standardization, of interest to the hydrogen and fuel cell industry which has been identified as an opportunity to reduce cost, improve reliability, and enable a robust domestic supply chain. The FCTO recognizes that not all components can or should be standardized. However, the cooperative development of certain components with universal sizes, functions, and materials will encourage competition and advanced manufacturing to drive down costs and increase product durability. Standardization can also help to maximize compatibility, interoperability, safety, repeatability, or quality. Furthermore, standardization of components in hydrogen and fuel cell systems is expected to lower overall system costs, increase the supplier base, eliminate the duplication of effort, enhance supply inventory/security, and leverage the manufacturing capacity of existing manufacturing facilities.

FCTO is interested in feedback, project ideas, and other guidance on the topic area described above as well as responses to the following questions (as applicable):

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- Which component types should be targeted for standardization (examples: membrane electrode assembly, pumps, compressors, connections, fittings, hoses, nozzles, dispensing equipment)?
- Which component materials should be targeted for standardization (examples: metals, composites, plastics)?
- How can industry engage in establishing standard specifications for components?
- Is there an effective model to leverage buying power for hydrogen and fuel cell manufacturers using the standardized design to further reduce cost?

### Responses:

Interested parties are requested to provide responses to this RFI electronically to [fctomanufacturing@ee.doe.gov](mailto:fctomanufacturing@ee.doe.gov) no later than 5:00pm (ET) on **January 31, 2017**. Responses must be provided as attachments to an email. It is recommended that attachments with file sizes exceeding 25MB be compressed (i.e., zipped) to ensure message delivery. Responses must be provided as a Microsoft Word (.docx) attachment to the email, and no more than 5 pages in length, 12 point font, 1 inch margins. Only electronic responses will be accepted.

EERE will not respond to individual submissions or publish publicly a compendium of responses. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed.

Respondents are requested to provide the following information at the start of their response to this RFI:

- Company / institution name;
- Company / institution contact;
- Contact's address, phone number, and e-mail address.

Please include the category that best describes your company/organization, for instance:

- Hydrogen station developer
- Original equipment manufacturer (OEM) for hydrogen station equipment
- Engineering/construction company with experience in hydrogen infrastructure installation
- Financial investor
- Utility or power generation company

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- National laboratory
- Academia
- State or local government
- Trade association
- Codes and standards body
- Other (please specify)

In addition to submitting written responses with the FCTO, interested parties may also participate in any surveys being administered by the DOE's Technical exchange Centers. The results of any survey undertaken by the Technical Exchange Center will be collected and provided directly to the FCTO. The Northeast Technical Exchange Center will administer a survey during the Hydrogen and Fuel Cell Forum on November 17, 2016 in Hartford, Connecticut. Other Technical Exchange Centers may announce and conduct surveys, which will be noticed by the FCTO before the close of this RFI.

### **Disclaimer and Important Notes:**

This RFI is not a Funding Opportunity Announcement (FOA); therefore, EERE is not accepting applications at this time. EERE may issue a FOA in the future based on or related to the content and responses to this RFI; however, EERE may also elect not to issue a FOA. There is no guarantee that a FOA will be issued as a result of this RFI. Responding to this RFI does not provide any advantage or disadvantage to potential applicants if EERE chooses to issue a FOA regarding the subject matter. Final details, including the anticipated award size, quantity, and timing of EERE funded awards, will be subject to Congressional appropriations and direction.

Any information obtained as a result of this RFI is intended to be used by the Government on a non-attribution basis for planning and strategy development; this RFI does not constitute a formal solicitation for proposals or abstracts. Your response to this notice will be treated as information only. EERE will review and consider all responses in its formulation of program strategies for the identified materials of interest that are the subject of this request. EERE will not provide reimbursement for costs incurred in responding to this RFI. Respondents are advised that EERE is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind EERE to any further actions related to this topic.

### **Proprietary Information:**

Because information received in response to this RFI may be used to structure future programs and FOAs and/or otherwise be made available to the public, **respondents are strongly advised to NOT include any information in their responses that might be considered business**

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**sensitive, proprietary, or otherwise confidential.** If, however, a respondent chooses to submit business sensitive, proprietary, or otherwise confidential information, it must be clearly and conspicuously marked as such in the response.

Responses containing confidential, proprietary, or privileged information must be conspicuously marked as described below. Failure to comply with these marking requirements may result in the disclosure of the unmarked information under the Freedom of Information Act or otherwise. The U.S. Federal Government is not liable for the disclosure or use of unmarked information, and may use or disclose such information for any purpose.

If your response contains confidential, proprietary, or privileged information, you must include a cover sheet marked as follows identifying the specific pages containing confidential, proprietary, or privileged information:

**Notice of Restriction on Disclosure and Use of Data:**

Pages [List Applicable Pages] of this response may contain confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed only for the purposes described in this RFI [DE-FOA-0001700]. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.

In addition, (1) the header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: “Contains Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure” and (2) every line and paragraph containing proprietary, privileged, or trade secret information must be clearly marked with double brackets or highlighting.

**Evaluation and Administration by Federal and Non-Federal Personnel:**

Federal employees are subject to the non-disclosure requirements of a criminal statute, the Trade Secrets Act, 18 USC 1905. The Government may seek the advice of qualified non-Federal personnel. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The respondents, by submitting their response, consent to EERE providing their response to non-Federal parties. Non-Federal parties given access to responses must be subject to an appropriate obligation of confidentiality prior to being given the access. Submissions may be reviewed by support contractors and private consultants.

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On behalf of the DOE FCTO, thank you in advance for providing your input on this important topic and contributing to DOE FCTO's success in achieving its programmatic objectives.

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