

**HYDROGEN AND FUEL CELL TECHNICAL ADVISORY COMMITTEE**

**PUBLIC MEETING MINUTES**

**November 2, 2018**

Webinar

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Note: This meeting was held by conference call with a live webinar.

**1. Call to Order, Roll Call, and Review of Agenda**

The Designated Federal Official, Shawna McQueen, commenced the 2018 Hydrogen and Fuel Cell Technical Advisory Committee (HTAC or Committee) meeting at 1:00 p.m. Eastern Standard Time (EST), and discussed the role of HTAC. Eric Parker, the DOE webinar administrator, provided instructions for using the webinar system. Ms. McQueen called roll and reported that no one from the public had registered to speak during the meeting. She noted that this is a public meeting and that an announcement of the meeting was published in the Federal Register on September 21, 2018. She explained that members of the public could only speak during the meeting if permitted by the chairman of the Committee.

Charles Freese, the HTAC Chairman, reviewed the agenda and described the purpose of the meeting: to review the annual report and the cover letter accompanying it and to ensure that the Committee’s comments are incorporated. He set a goal for the Committee to vote to accept the report and cover letter by the end of the year, noting that a quorum of ten Committee members is required for the vote. He reported that Joseph Powell has accepted the role of HTAC Vice Chair and noted that Dr. Powell will likely lead the December HTAC meeting, as Chairman Freese will be travelling at that time. Chairman Freese thanked Janea Scott for leading the annual report development process.

**2. Discussion on Draft 2017 HTAC Annual Report**

Commissioner Scott led a discussion and feedback session with the Committee members on the final draft of the annual report. Commissioner Scott thanked her advisor, Matt Coldwell, for compiling and revising the report based on the comments received from the Committee members. She noted that some comments received from members were not included in the 2017 report because they were not applicable in 2017; she suggested considering these comments in the development of the 2018 HTAC Annual Report. Commissioner Scott explained that because the 2017 HTAC Annual Report is shorter than past reports, it was titled “2017 HTAC Summary Update.” However, it was suggested that the report be called an annual

report to be consistent with past reports. Commissioner Scott asked whether there were any objections to titling the document “2017 HTAC Annual Report;” no objections were raised.

The following corrections and changes to the draft annual report were discussed and adopted by the Committee.

- Under the Industry Progress section, remove the fourth bullet about Plug Power and replace it with the first bullet under the “Fuel Cells for Material Handling” section, about Amazon’s purchase of forklifts from Plug Power. Edit the bullet to add that more than 2,000 fuel cell forklifts were delivered in 2017. Andrew Marsh will provide a citation for this bullet.
- Change the remaining bullet under the “Fuel Cells for Material Handling” section to reflect that Walmart is using more than 7,000 fuel cell forklifts at 30 of its distribution centers. Andrew Marsh will provide a citation for this bullet.
- Add a bullet about the variable cost of hydrogen under the section titled "There's More to Be Done." The bullet will read, “The delivered cost of hydrogen at current scale remains a challenge.”
- Add a bullet under the Industry Progress Section about the joint venture between General Motors and Honda. Chairman Freese and Gary Stottler will provide language and a citation for this bullet.

### **3. Discussion on Cover Letter for the 2017 HTAC Annual Report**

Chairman Freese led a feedback session about the cover letter to the Energy Secretary for the annual report. Chairman Freese explained that the cover letter has historically contained additional comments and recommendations from the Committee that were not included in the annual report. He asked Frank Novachek, former HTAC chair, if the Committee has historically voted to accept cover letters to the annual report. Mr. Novachek responded that he does not remember voting on the cover letter. Shawna McQueen, DOE Designated Federal Official, emphasized that it is important for the full Committee to agree on the contents of the cover letter, as it includes recommendations to the Energy Secretary.

Chairman Freese led discussion of each bullet in the HTAC recommendations section of the cover letter and asked for feedback and suggestions for changes. Morry Markowitz expressed concern that the first recommendation emphasizes DOE’s priorities rather than industry’s priorities. The Committee agreed to change the first part of the first recommendation from “In addition to focusing on early-stage research” to “In addition to supporting early-stage research.”

Chairman Freese closed the cover letter discussion by noting that he will revise the first sentence of the fourth paragraph to accurately represent the content of the annual report.

### **4. Report and Cover Letter Acceptance**

Upon conclusion of the discussion of the cover letter, Dr. Powell moved that the Committee accept the 2017 HTAC Annual Report and the cover letter with the aforementioned corrections and changes. Mr. Novachek seconded the motion. All fourteen Committee members in attendance voted unanimously to accept the report and cover letter.

### **5. Next Steps and Action Items**

Chairman Freese indicated that final modifications to the annual report will be made, and signatures will be prepared. Ms. McQueen will check whether a hard copy of the report and cover letter need to be sent

to the Secretary. HTAC letterhead is not required; the current header will be used. The cover letter will be signed and scanned. The HTAC Chairman will send the scanned version to the Secretary of Energy.

Chairman Freese thanked the team and Committee for their work on the annual report. With no further concerns, the meeting was adjourned at 1:50 p.m. Eastern Standard Time.

## **6. Participant List**

### ***HTAC Members Present***

- Henry Aszklar
- Kathy Ayers
- Marie Ffolkes
- Charles Freese
- Nick Irvin
- Harol (Hal) Koyama
- Anthony Leo
- Morry Markowitz
- Andrew Marsh
- Daniel Nocera
- Frank Novachek
- Joseph Powell
- Paul Rogers
- Janea Scott
- Levi Thompson

### ***HTAC Members Not Present***

- Inês Azevedo
- Paul Leggett
- John Mizroch

### ***U.S. Department of Energy Staff in Attendance***

*Office of Energy Efficiency and Renewable Energy*

- Shawna McQueen (Designated Federal Official)

### ***Members of the Public in Attendance***

- Jane Sullivan, Champaign Urbana Mass Transport
- Christine Murphy, Circle M Advisors
- Matt Hone, Los Angeles Department of Water and Power
- Gary Stottler, General Motors

### ***Support Staff in Attendance***

- Melissa Laffen—Alliance Technical Services, Inc.
- Eric Parker—Keylogic Systems, Inc. (Webinar Administrator)
- Neil Popovich—National Renewable Energy Laboratory