

At Hydrogen Summit Euphoria Gives Way to the Practical

June 16, 2024 **by Dan McCue**



A scene from one of the informative sessions at the Hydrogen Americas 2024 Summit & Exhibition at the Ronald Reagan International Trade Center in Washington. (Photo by Dan McCue)

WASHINGTON — It was, as it always is, a very big event. But if this year's Hydrogen Americas Summit differed from its previous incarnations, it was that the sense of euphoria that for so long defined the sector is gone, and the real work has begun.

"I think we went through the hype cycle, which is typical in a technology sector, and now we're at the point where reality sinks in," said Brett Perlman, CEO of the Center for Houston's Future, and moderator of a session on hydrogen distribution applications on land and sea.

“Now we’re talking about things that are somewhat more prosaic, but important, like permitting and the practical steps we have to take to ensure safety and reliability,” he said.

“It seems to me that these are steps we ought to be taking, because it is only through these conversations that we can lay out a clear roadmap of what we ought to be doing in this industry to start to make hydrogen applications take off.”

Over the course of the two-day event at the Ronald Reagan Building and International Trade Center a wide range of speakers discussed the latest developments in the hydrogen power sector, while emphasizing the need for reliable and safe equipment, efficient production and transportation and clear cut standards for the industry.

At the same time there was much discussion of how to drive down the cost of decarbonizing the transportation sector through the adoption of green hydrogen, overcoming the “chicken and egg dilemma” in the hydrogen mobility sector and how community engagement is crucial for accelerating hydrogen adoption.

And as is often the case when business groups meet in the nation’s capital, regulatory uncertainty was the most often cited cause of industry concern.

“What I really love about the conversation we’re having this year is we’re really getting down to the practicalities,” Perlman said.

By far the biggest regulatory development to occur between last year’s summit and this year’s event was the Treasury Department’s notice of proposed rulemaking regarding the 45V hydrogen tax credit.

The tax credit is considered a major part of the Biden administration's climate agenda as the White House sees hydrogen as a clean fuel that can be used to decarbonize sectors of the U.S. economy such as heavy industry.

The Clean Hydrogen Production Tax Credit, a provision of the Inflation Reduction Act, would create a new 10-year incentive for clean hydrogen of up to \$3.00/kilogram.

The level of the credit provided would be based on carbon intensity, up to a maximum of four kilograms of CO₂-equivalent per kilogram of H₂.

The credit provides a varying, four-tier incentive depending on the carbon intensity

Campbell Howe, senior advisor for loan programs office at the Department of Energy.

(Photo by Dan McCue)

of the hydrogen production pathway, and whether the project meets prevailing wage and apprenticeship requirements.

"Clean hydrogen will be critical in reducing emissions from harder-to-decarbonize sectors like heavy industry and heavy transportation," said John Podesta, senior adviser to President Biden on climate matters, during a briefing call with reporters.

"Treasury's proposal will help build that clean hydrogen industry, while including important environmental safeguards,"

Podesta said.

One of the key provisions of the rule, called additionality, would require hydrogen made from electricity to use verified new low-carbon energy sources like solar and wind farms.

A sampling of the more than 30,000 comments received on the proposal shows environmentalists generally endorse provisions like the one pertaining to additionality, saying they ensure future hydrogen applications will be climate friendly.

Some Energy Department officials, meanwhile, are concerned that the draft tax credit guidance might have unintended negative consequences for its hydrogen initiatives.

To date, the Biden administration has supported 52 hydrogen projects with \$750 million as part of its Investing in America Agenda.

“[The tax credit] is top of mind for everybody, and we’re very eager to see when the final rulemaking comes out,” said Campbell Howe, senior advisor for loan programs office at the Department of Energy.

“That said, I do think the notice of proposed rulemaking issued last year provided some sense of certainty, in that folks were able to see the direction the administration is going in,” she continued

Todd Anderson, chief technology officer at Phinia, the automotive parts manufacturing company, agreed.

“In our many interactions with [other] manufacturers, what we’ve found is their chief difficulty in planning for a hydrogen future is uncertainty over the rulemaking and what the legislation will look like,” he said.

“In our experience, the sooner we get clarity on that, the sooner we’ll be able to determine what our funding approach will be,” he said. “Uncertainty has a way of delaying investment and contributing to timeframe creep.”

A short distance
away in the
exhibitor’s hall,
David Jenkins,
director of
business
development —
Americas for
Houston, Texas-
based Future Pipe
Industries, was
pleased with how
the summit was
going.

David Jenkins, director of business
development — Americas for Houston,
Texas-based Future Pipe Industries, at his
both at last week’s Hydrogen Americas
Summit. (Photo by Dan McCue)

“I’ve seen a much
better response
this year, compared to last ... much more solid leads and
contacts,” he said.

As he spoke, Jenkins was standing behind a length of pipe made
of composite material. He quickly explained that the super
strong, fiber-based material used in the pipe will be a key
element of moving hydrogen from place to place in the future.

“Hydrogen can be moved through an existing steel pipeline, but
once you cross a certain threshold, the steel will incur what we
call hydrogen embrittlement; in other words, the welds will start
to crack and the steel will degrade over time.

“You don’t have that with composites, and what’s more, we can slide this pipe right inside the existing steel pipeline, so there’s no need for a new right-of-way,” he said.

Like others The Well News spoke with at the conference, Jenkins said when it comes to the commercialization of hydrogen, “everybody, all of the producers, are waiting for the tax incentives to be decided upon.

“And then, of course, all of the regulatory bodies have to write a standard for hydrogen pipelines,” he said.

“I represent Future Pipe Industries in the U.S., and Canada and Latin America, and so far, no one has written a regulatory standard for hydrogen transmission,” he said.

And when might there be clarity on these issues?

“Nobody knows,” Jenkins said. “But hopefully soon.”

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