

## Houston to Los Angeles Urban Local Project Advisory Group Meeting Summary July 8, 2024

The Houston to Los Angeles (H2LA) Local Project Advisory Group met on Monday, July 8, 2024 in the Transportation Council Room of the North Central Texas Council of Governments (NCTCOG) with a hybrid option available via Zoom to allow participation by individuals who were unable to be present. The following Local Project Advisory Group members were present: **Camille Gilchriest** (Dallas College, Director of Data Visualization/GIS), **Temeckia Derrough** (Joppa Freedmen's Town Association, President), **Chris Hooper** (Dallas County, Director, Consolidated Services), **Minesha Reese** (Dallas County, Senior Transportation Planner), **Phillip Martin** (Environmental Defense Fund, Manager, Zero Emission Truck Initiatives in Texas), and **Al Cioffi** (Independent Contractor, Clean Energy Industry).

Others present at the meeting were: **Lori Clark** (NCTCOG, Senior Program Manager and DFWCC, Director), **Jared Wright** (NCTCOG, Senior Air Quality Planner), **Eden Wagner-Muns** (NCTCOG, Intern), **Maggie Quinn** (NCTCOG, Air Quality Planner), **Eric Boria** (GTI Energy, Senior Analyst and Project Manager), **Bart Sowa** (GTI Energy, R&D Manager), **Craig Cipriano** (STV, National Director) and **Faye Farahmand** (STV, Zero Emission Facility Engineering Lead).

### 1. Presentation Overview:

To allow more time for discussion, Jared Wright from NCTCOG opened the meeting with a brief presentation on NCTCOG's CFI Corridor Award and an overview of the H2LA project. Faye Farahmand attended virtually to provide information from STV, presenting the basics of hydrogen fuel cells, different types of refueling infrastructure, and the current state of the industry. Following Faye's presentation, Jared Wright presented slides with discussion questions on community concerns and priorities to the group.

### 2. Discussion:

Much of the discussion following the presentations centered around safety, potential environmental impacts, and community education and engagement around the implementation of hydrogen refueling infrastructure. After Faye Farahmand of STV's presentation, Phillip Martin of the Environmental Defense Fund (EDF) asked about STV's experience with hydrogen leakage and the potential for leaked hydrogen to increase greenhouse gas emissions. Faye stated that STV works with other firms on hazard analysis, and STV itself contributes to analysis and development of leak detection systems. Al Cioffi added that detecting and fixing hydrogen leaks is an area of interest for researchers, and emphasized the importance of choosing the right technologies to ensure safe storage of hydrogen and mitigate potential harm leaks may cause.

In response to community concerns and priorities (see attachment 2, slide 10) Temeckia Derrough of Joppa Freedmen's Town Association mentioned concerns around community safety and awareness, wanting to know that if an incident involving hydrogen refueling stations were to occur, how communities would be informed on proper procedure and if first responders would be prepared. Temeckia also said that for her community, she would like public discussions of protocol and of identifying normal vs abnormal signs around hydrogen stations. She gave an example of communities knowing what to do or not do when they smell natural gas, since the dangers are well known, but the same is not true for hydrogen. Al Cioffi mentioned that hydrogen has established safety protocols from use in other industries, but awareness will need to be increased in areas where it is new. He explained that hydrogen is inherently safer due to

the extremely low weight of the element. Fires will be well above the ground since it rises so quickly, compared to conventional fossil fuels which will burn near the ground on surfaces.

In response to the topic of community relationships to trucking corridors, sites, and facilities (see attachment 2, slide 11), Temeckia Derrough said for her community, there is not much of a relationship with trucking companies. There is a large amount of frustration due to trucking companies not following local ordinances meant to protect residential areas by driving large heavy-duty vehicles on residential roads and idling in no idling zones. Phillip Martin mentioned enforcing regulations can be further complicated since many shipping companies use contracted operators and may not own or operate the trucks. Local resources that are intended to enforce anti-idling and other ordinances may also not be adequately staffed or funded. Minesha Reese of Dallas County suggested that a regulatory approach to educate and engage the trucking facilities at their origin and destination might be required to resolve some of these issues. Overall, the consensus from the discussion was that better dialogue with truckers and trucking companies is needed, especially if existing corridors are to be reinforced with hydrogen refueling stations.

Regarding concerns about impacts from existing conditions, specific community issues, and community burden (see attachment 2, slide 12) Camille Gilchriest of Dallas College also mentioned that current trucking regulations are designed with diesel trucking in mind, but hydrogen fuel cell vehicles are heavier than diesel and could lead to increased road deterioration and emissions from braking. Bart Sowa of GTI Energy said that from a technical perspective, many Federal Highway Administration (FHWA) standards are the same for all vehicles regardless of fuel type. He also noted that zero emission vehicles are eligible for an additional 2,000 pound weight allowance but that should not be enough to increase safety risks or infrastructure wear. Bart also confirmed they are not analyzing road wear for the modeling in this project. Philip Martin added that trucks could be made heavier without significant safety concerns, but it would come at the cost of faster road deterioration. The main issue is the extra 2,000 pounds is not enough to make hydrogen fuel cell vehicles competitive, though this may change as the field advances, as seen in electric vehicles (EVs).

Small particulate matter was also discussed as a concern relating to local community benefits and disbenefits from hydrogen vehicle operation (see attachment 2, slide 12). Camille Gilchriest expressed concern of increased PM2.5 and PM10 emissions due to the tire and brake wear from heavier trucks. Bart Sowa said they are not including non-tailpipe emissions in current models due to lack of data, but that overall it is thought that the benefit of removing diesel emissions would far outweigh increased non-tailpipe particulate matter. Additionally, Al Cioffi mentioned that regenerative braking, common in both EVs and hydrogen vehicles, reduces PM2.5 emissions from braking. These are considerations that need further study, but they are outside of the scope of this project, which is focused on the infrastructure and more immediate impacts on communities.

The meeting closed with discussions of data and deliverables. Eric Boria said that one of the deliverables of this project is to identify community concerns, even outside of the current scope, so all community concerns around the implementation of hydrogen fuel cell vehicles are welcome and will be taken into consideration regardless of specifics. Eric said that any information sent before the project ends in Q3 2025 are welcome, and that input in between meetings sent via email is also appreciated.

3. **Key Takeaways:**

- Community understanding and training on how to recognize and deal with potential complications and risks at hydrogen fueling stations was a major concern, with community outreach and education strongly needed.
- Better dialogue between hydrogen refueling companies, trucking companies, and local communities was highlighted as a major need to sustain and restore community trust.
- While some community concerns may be out of the scope of the current project, all concerns are welcome and will be taken into consideration for future projects and research.

4. **Next Steps:**

- Encourage any questions or concerns between meetings to be sent to NCTCOG
- Send out date confirmation of October 9 for next meeting
- Include any relevant Dallas-Fort Worth Clean Cities upcoming events.