CORRESPONDENCE FROM 04/28/2026 MUNICIPAL SERVICES COMMITTEE MEETING

Outlook

Comment on item 1 - MSC April 28 Agenda - Hydrogen Fueling

From Sanford Krasner

Date Sat 4/25/2026 7:22 PM

To cityclerk <cityclerk@cityofpasadena.net>; Cole, Rick <rcole@cityofpasadena.net>; Jones, Justin <justinjones@cityofpasadena.net>; Lyon, Jason <jlyon@cityofpasadena.net>; Hampton, Tyron <thampton@cityofpasadena.net>

This is a comment on item 1 on the April 28 Municipal Services Committee agenda:
AUTHORIZE THE CITY MANAGER TO ENTER INTO A CONTRACT WITH STANTEC CONSULTING SERVICES, INC. FOR BIDDING AND CONSTRUCTION ADMINISTRATION SERVICES FOR THE HYDROGEN FUELING STATION PROJECT IN AN AMOUNT NOT TO EXCEED $316,800

In December of 2018, the California Air Resources Board (CARB) set a statewide goal for zero-emission bus fleets by 2040

On August 25,2025, the Pasadena City Council authorized $32 million for acquisition of 17 hydrogen-fueled buses, and supporting infrastructure. The City has recently issued a Request for Proposals (RFP) to design the fueling station to support them. These buses violate the City's intent to reduce greenhouse gas emissions. The City should reverse this decision and procure electric buses instead.

Let's start with the entire hydrogen lifecycle. Someone has to produce the hydrogen that these buses will run. Has the city done a full lifecycle analysis of the impact of a hydrogen bus fleet? What is the total impact on greenhouse gases compared to electric buses?

Will this hydrogen be "green" or "gray"?

"Gray" hydrogen is produced by steam reformation of methane (the primary component of natural gas and itself a powerful greenhouse gas). 95% of current production of industrial hydrogen is gray; only 1% is green. Gray hydrogen requires natural gas, uses a large amount of energy and releases carbon dioxide. Some plants are proposing to recapture the carbon dioxide; the primary use of captured carbon dioxide is to inject it underground in order to pump more oil, generating even more greenhouse gases. In addition, up to 10% of hydrogen boils off during transport, producing 30-40 times more global warming (over 20 years) than an equivalent amount of CO2. Gray hydrogen is a climate nightmare.

"Green" hydrogen can be produced without greenhouse gas emissions, by electrolyzing water – if the electrolyzer is powered by carbon-free energy. These electrolyzers are inefficient users of electricity. The round-trip efficiency is 30-45% compared to an electric bus efficiency of 85-90%.

Less that 1% of hydrogen is currently "green" Who has plans to produce it? The Trump administration has cancelled the ARCHES program that would have built hydrogen hubs in California.

Where will the carbon-free electricity come from to power the electrolyzers? Pasadena is working hard to reach 100% carbon-free electricity. There are many better uses for carbon-free electricity, including powering more efficient electric buses.

Will Pasadena build an electrolyzer at the fueling station? Or will hydrogen be trucked in, through a residential district? How reliable is remote hydrogen production and transportation? A hydrogen truck explosion in February in Colton killed one person and caused a shortage of hydrogen for over a month.

What is the total lifecycle cost of hydrogen buses compared to electric? A recent study showed that electric buses have about 40% lower lifecycle costs. Hydrogen bus operating cost/mile is more than twice that of electric buses

Is the bus and station procurement funded by unreliable federal and state grants? Arcadia, CA recently abandoned its hydrogen-powered fleet because the supporting grants were cancelled.

Cities in England, Scotland, Canada and Germany have abandoned their hydrogen bus fleets.

Why will Pasadena be more successful?

Transit companies such as L.A. Metro, L.A. DOT (DASH buses), Santa Monica Big Blue Bus, Long Beach Transit, Culver City Bus, and Anaheim Regional Transit have successfully implemented electric buses. Antelope Valley recently reached 21 million miles of electric bus transport, with availability better than diesel buses.

We have been told that hydrogen buses are more reliable in the event of a widespread power outage. However, it takes electricity to run an electrolyzer, or to pump hydrogen from a transport truck or a storage tank. How many days of hydrogen can be stored at the fueling depot?

Hydrogen buses make no economic or climate sense.

Pasadena should present an in-depth study of these questions and compare the impacts of gas and electric buses.

I believe that Pasadena should halt its procurement of hydrogen buses, and switch to electric.

Thank you for your consideration.

Sanford Krasner

Altadena Resident

Member of Pasadena 100

Outlook

Written Public Comment: Zero-Emission Bus Rollout and Stantec Contract, Municipal Services Committee, April 28, 2026

From Ana Soulriver
Date Mon 4/27/2026 6:36 PM
To cityclerk <cityclerk@cityofpasadena.net>

1 attachment (212 KB)
Public Comment Hydrogen.pdf;

Dear City Clerk,

Please accept the attached written public comment for the Municipal Services Committee meeting of April 28, 2026, regarding the Pasadena Transit Zero-Emission Bus Rollout Plan update and the proposed contract with Stantec Consulting Services for hydrogen fueling station oversight.

Thank you for including it in the public record.

Respectfully,
Ana Soulriver

Ana Soulriver

Ana Soulriver
Pasadena, California

April 27, 2026

Municipal Services Committee
City of Pasadena
100 North Garfield Avenue
Pasadena, California 91101

Re: Written Comment on Pasadena Transit Zero-Emission Bus Rollout and Proposed Hydrogen Fueling Station Contract (Stantec)

Dear Committee Members,

I am a Pasadena resident, environmental advocate, and community commissioner writing to offer comments on the Zero-Emission Bus Rollout Plan update and the proposed $316,800 contract with Stantec Consulting Services for hydrogen fueling station oversight. I write in genuine support of Pasadena's commitment to a fully zero-emission transit fleet. My comments center on one specific request: before the city proceeds further with hydrogen infrastructure investment, I am asking Director Joaquin T. Siques and the Department of Transportation to provide the Committee and the public with a direct, ten-year cost and emissions comparison between continuing on Renewable Natural Gas and proceeding with the hydrogen fuel cell strategy.

I. What the Public Record Currently Shows

The staff report presented today contains important and honest operational data. The finding that Pasadena Transit's battery electric bus averages approximately 80 miles per day against routes requiring up to 200 miles and 14 to 16 hour duty cycles is a real constraint. The staff conclusion that hydrogen fuel cell buses provide a one-to-one operational replacement for the current Renewable Natural Gas fleet, while battery electric would require a 2-to-1 ratio and significant additional fleet costs, is a legitimate finding that deserves weight.

What the report does not yet provide, and what I believe the Committee needs before recommending further investment in hydrogen-specific infrastructure, is a direct comparison of the full ten-year cost picture between the city's current Renewable Natural Gas fleet and the proposed hydrogen fuel cell strategy. The public record shows the capital costs of hydrogen procurement and infrastructure. It does not yet show a side-by-side analysis of total cost of ownership, including fuel costs, maintenance, infrastructure operations, and the projected cost trajectory of green hydrogen supply through the First Public Hydrogen JPA.

II. The Data Request

I am respectfully requesting that Director Siques prepare and present to the Committee, prior to the May 4 City Council hearing on the Stantec contract, a comparative analysis that addresses the following questions:

- Total ten-year cost of ownership for the hydrogen fuel cell strategy, including vehicle acquisition, fueling station construction and operations, hydrogen fuel costs under First Public Hydrogen contracts, and maintenance. Expressed as a per-mile and per-bus annual cost.
- Total ten-year cost of remaining on Renewable Natural Gas for the existing fleet, including fuel costs, maintenance, and the cost of continued CARB compliance under the Innovative Clean Transit rule. This is not a recommendation to extend RNG indefinitely. It is a baseline against which the hydrogen investment should be measured.
- The projected cost and availability of green hydrogen through the First Public Hydrogen JPA. Specifically, what is the contracted price per kilogram, what are the delivery guarantees, and what contingency provisions exist if the supply is delayed beyond the 2028 fueling station commissioning date?
- The lifecycle greenhouse gas emissions of the hydrogen strategy, accounting for the actual production method of the hydrogen to be delivered, not manufacturer or JPA projections alone. The city's experience with Renewable Natural Gas has demonstrated that a fuel is only as clean as its sourcing and supply chain. Hydrogen is no different, and the Committee deserves a clear answer on this before further infrastructure is committed.
- A comparison of battery electric bus performance projections for 2028 versus 2025 benchmarks, given the rapid improvement in battery technology and total cost of ownership across the industry. The current data is drawn from one bus procured under 2024 specifications. The 2028 procurement should be evaluated against 2028 technology.

III. Why This Analysis Matters Now

I am not asking the Committee to reverse the existing hydrogen bus contract or to forfeit the $38 million in grant funding tied to the current strategy. Those commitments are made, and the financial consequences of reversing them would be substantial. I am asking for the data that allows the Committee, the Council, and the public to understand what we are committing to before the infrastructure that locks in that strategy is built.

The Stantec contract, if approved, advances construction planning for a hydrogen fueling facility that will serve the city's fleet for decades. That is a long-term commitment. The city's own staff report acknowledges that a full plan update is scheduled ahead of the 2028 procurement. A ten-year comparative cost and emissions analysis, presented before May 4, would be exactly the kind of evidence that makes that 2028 review meaningful rather than a formality.

Nationally, clean hydrogen project cancellations have accelerated. Transit agencies in Southern California, including LA Metro, Santa Monica's Big Blue Bus, and Long Beach Transit, have made significant investments in battery electric fleets. Pasadena may ultimately be right that its specific duty cycles and route demands make hydrogen the better operational choice. I simply want to see that case made transparently, with full cost and emissions data, not assumed.

IV. Conclusion

Pasadena has earned its reputation as a city that takes climate seriously. The zero-emission bus transition is a public and visible expression of that commitment. I am asking Director Siques and the Department of Transportation to give the Committee and the community the full cost and emissions picture, so that our investment in hydrogen infrastructure is grounded in transparent, verified data rather than in projections alone.

Thank you for your consideration of these comments and for your service to this community.

Respectfully submitted,

Ana Soulriver
Pasadena Resident and Environmental Advocate
Commissioner, City of Pasadena Environmental Advisory Commission
(Affiliation listed for identification only; this letter is submitted as a private resident)

Outlook

MSC

From Lauren Siegel
Date Mon 4/27/2026 8:03 PM
To Official Records - City Clerk <OfficialRecords-CityClerk@cityofpasadena.net>

1 attachment (108 KB)
2025-7-08 EAC Hydrogen Bus Recommendation Letter(1).pdf;

Hi

Please attach EAC letter on Hydrogen Busses to the MSC agenda for public comment.

Thanks,
Lauren

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Lauren Siegel
MS Sustainable Development and Resource Management
Pasadena Environmental Advisory Commissioner
linkedin.com/in/siegell/

Memorandum

To: Pasadena City Council
From: Environmental Advisory Commission
Date: July 9, 2025
Re: Concerns and Recommendations Regarding the Hydrogen-Based Zero Emission Bus Rollout Plan

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The Environmental Advisory Commission, writes to express our appreciation for the City of Pasadena's continued leadership in advancing climate action and transitioning to a zero-emission municipal bus fleet. The goal of a cleaner, healthier transit system aligns with our shared environmental and public health priorities. However, after reviewing the City's proposed Zero Emission Bus (ZEB) Rollout Plan presented on May 13, 2025, we feel compelled to raise serious concerns regarding the plan's reliance on hydrogen fuel cell electric buses (FCEBs) for the Pasadena Transit fleet.

While we understand that both battery electric buses (BEBs) and FCEBs are permissible under the California Air Resources Board's Innovative Clean Transit Rule, the heavy investment in hydrogen technology as the primary pathway raises questions regarding cost, safety, reliability, and climate efficacy:

1. Cost and Financial Risk

The plan anticipates spending over $150 million through 2028, with $100 million allocated to a Transit Operations and Maintenance Facility and $20.5 million to a hydrogen fueling station. Yet even with grant funding, over $31.5 million remains unfunded. Hydrogen buses are estimated to cost approximately $1.6 million per unit, compared to $1.3 million for BEBs, with significant additional costs for hydrogen fueling infrastructure. While the ZEB Rollout Plan anticipates that BEBs would require an additional 9 units, the marginal reduction in fleet size with FCEBs does not offset the substantial difference in capital and infrastructure costs. These figures suggest escalating financial burdens on local taxpayers, especially as long-term fuel and maintenance costs remain uncertain.

2. Fuel Supply and Emissions

Unlike battery electric vehicles, which can be charged using local grid electricity and increasingly renewable sources, hydrogen fuel must be imported by truck. This introduces both cost and reliability risks in addition to undermining climate benefits. Each delivery entails truck traffic (likely diesel trucks) through Pasadena's residential neighborhoods and along freeways, contributing to greenhouse gas emissions, air pollution, and road safety risks.

Additionally, truly "green" hydrogen is not yet available at scale and even if it was, requires large amounts of electricity and water to produce, straining both energy and water resources. More commonly, hydrogen is produced from natural gas or so-called "renewable natural gas," both of which are energy-intensive processes that generate significant fossil fuel emissions. In this context, the logistics and environmental impacts of hydrogen make it a far less sustainable or reliable fuel choice than battery electric options. The City would be effectively swapping tailpipe emissions for upstream emissions from fossil-fueled supply chains.

3. Safety Concerns

Hydrogen is a highly flammable and pressurized gas, requiring strict containment protocols. The prospect of transporting and storing large quantities of hydrogen within City limits, particularly near homes or sensitive areas, is deeply concerning. The risk of leaks or accidents — whether during storage or transportation — cannot be entirely mitigated and raises serious questions about the prudence of placing such facilities in a dense environment like Pasadena.

4. Future Cost and Technology Uncertainty

Hydrogen is a relatively immature transit technology. During the ZEB Rollout Plan presentation, we were told that only one company in the world currently manufactures hydrogen fuel cell buses There is also a limited network of hydrogen fueling stations and a narrow supply chain for parts and maintenance. This leaves us concerned about higher operating costs, longer downtimes, and greater dependency on a small set of specialized vendors. The risks of relying on a single manufacturer are not hypothetical — we are informed that the City has already experienced similar challenges with EV chargers that use proprietary technology, which have remained out of service due to lack of available repairs. In contrast, battery electric buses, when thoughtfully implemented using open standards and diverse suppliers, offer a strategic advantage: they benefit from a rapidly expanding market, declining costs, and widespread parts availability.

5. Battery Electric Buses as a Viable and Preferable Alternative

Battery electric buses, which are already designated for Dial-A-Ride service in Pasadena's plan, offer a lower-risk and more scalable path to zero emissions. BEBs do not rely on fuel imports, produce no local emissions, and can leverage existing investments in the electrical grid and renewable energy. Other agencies across the state, including LA Metro, have made significant investments in BEBs, recognizing their potential for long-term operational cost savings and climate resilience.

Recommendation

We urge the City Council to reconsider the current emphasis on hydrogen fuel cell buses and instead consider prioritizing a battery-electric fleet transition for both Pasadena Transit and Dial-A-Ride. To that end, we also recommend commissioning an updated comparative analysis of lifecycle emissions, total cost of ownership, and safety implications for BEB versus FCEB pathways — including localized supply chain impacts. However, cost is not the only factor to consider; the significantly greater risks to safety associated with hydrogen fuel compared to electric transportation infrastructure must also be fully accounted for in the City's decision-making.

Our Commission is committed to supporting Pasadena's transition to a sustainable, zero-emission future. We believe that with careful planning and community-centered investment, this goal can be achieved in a manner that maximizes both environmental benefit and public safety.

Outlook

NRDC comments on Item #1 - Municipal Services Committee

From Rubin, Carter
Date Tue 4/28/2026 6:45 AM
To Jones, Justin <jjones@cityofpasadena.net>
Cc Cole, Rick <rcole@cityofpasadena.net>; Hampton, Tyron <thampton@cityofpasadena.net>; cityclerk <cityclerk@cityofpasadena.net>; Lyon, Jason <jlyon@cityofpasadena.net>; dreyes@cityofpasadena.net <dreyes@cityofpasadena.net>; Hosey, Lisa <lhosey@cityofpasadena.net>; Gao, Beilei <bgao@cityofpasadena.net>

1 attachment (127 KB)
NRDC Pasadena Clean Bus Letter.pdf;

Good morning Committee Members and staff,

I hope this finds you well. I'm writing to encourage Pasadena to pursue electrification of its transit fleet with battery electric buses. Please find our letter with additional details attached.

Feel free to reach out if you have any questions.

Thanks,

Carter

CARTER RUBIN
Director, State Transportation Advocacy
Climate and Energy

NATURAL RESOURCES
DEFENSE COUNCIL

NRDC

April 28, 2026

Hon. Chair Justin Jones
Pasadena City Hall, Council Chamber
100 North Garfield Ave, Room S249

RE: Item #1 – Contract for Hydrogen Fueling Station Consulting Services

Dear Honorable Chair Jones and Councilmembers,

On behalf of Natural Resources Defense Council (NRDC) I'm writing to both support Pasadena's efforts to eliminate emissions from the operations of its municipal bus fleet, and to advocate that the city pursue a pathway of direct electrification with battery electric buses.

NRDC is an international environmental organization with a long history of advocacy in Southern California to clean up our local air.

NRDC has supported a targeted deployment of hydrogen in sectors like fertilizer, steel, and maritime shipping that are otherwise difficult to electrify. But because hydrogen production is energy-intensive and can require new infrastructure build-out, it's imperative to produce and deploy hydrogen strategically in end uses that lead to net positive climate impacts.

In our report, "Hitting the Mark: How Targeted Deployment of Hydrogen Can Maximize Climate Benefits," we found that battery electric vehicles can achieve zero emission while using *one-fifth* as much electricity as a fuel-cell electric vehicle requires to travel the same distance[1].

With competition for clean electricity, strategic deployment of hydrogen is essential for maximizing climate benefits. Hydrogen use should not be prioritized in sectors that have direct electric alternatives, such as transit buses.

Further, the transit industry is quickly aligning around battery electric buses as the dominant option for zero emissions bus fleets. According to California Air Resources Board data, there are 879 battery electric public transit buses in operation in the state, and only 170 hydrogen buses[2]. Globally there were 70,000 electric buses sold worldwide in 2024.[3]

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[1] https://www.nrdc.org/sites/default/files/2025-11/Hydrogen_Pathways_Report_R_25-10-C_04_locked.pdf

[2] https://ww2.arb.ca.gov/our-work/programs/innovative-clean-transit/reporting-tool-data

[3] https://www.iea.org/reports/global-ev-outlook-2025/trends-in-heavy-duty-electric-vehicles

Focusing on electrification with battery electric buses will ensure that Pasadena has access to a growing industry supplying battery electric buses, charging infrastructure and support services.

For these reasons, we encourage the committee to direct staff to pursue a battery electric approach for its bus fleet. Thank you for your consideration.

Sincerely,

Carter Rubin
Director, Station Transportation Advocacy

Cc: David Reyes, General Manager
Lisa Hosey, Assistant City Attorney
Betty Gao, Recording Secretary

Outlook

Municipal Service Committee Meeting Agenda Comment

From Robert Nowicki
Date Tue 4/28/2026 3:23 PM
To cityclerk <cityclerk@cityofpasadena.net>

Board,
I just read through the agenda for tonight's meeting, and I see that the Hydrogen Bus purchase and Infrastructure is the only topic. I believe this was kicked back from a recent city council meeting where much public comment was received concerning the contract award.

My overall impression of the agenda material is that the city seems to be stating that there is no viable solution other than the FCEB purchase, otherwise we would lose out on some portion of the granted funds. While this may be true, a possible worse outcome would be purchasing fuel cell busses that turn out to be incapable of running for the desired period, and needing to be replaced. Then the city would be back to square one.

There isn't any background material concerning the actual bus provider whose bus only manages 80 miles of range. With the subsequent argument being made that, because of that, twice as many busses of the battery only variety would be required. Multiple other transit operators have tried running hydrogen busses and have given up for technical reasons. See the following link (one of many with similar stories):

https://app.croneri.co.uk/feature-articles/hydrogen-fuel-source

I would also point you to the city of Santa Monica, where they are using their grant funding to purchase 73 battery electric busses:

https://www.santamonica.gov/press/2024/10/24/sustainable-connected-big-blue-bus-awarded-53-3-million-to-accelerate-fleet-electrification-service-enhancements-and-workforce-development

https://www.santamonica.gov/press/2026/04/09/unprecedented-56-million-groundbreaking-investment-brings-clean-transportation-to-santa-monica

Have you coordinated with the city of Santa Monica to see how it is that they are able to deploy only battery powered busses versus fuel cell busses? The second article mentions "overhead gantry charging", which is typically used when a route is longer than a single charge can handle. These are often positioned at the "end of line" station where the busses can idle and charge for a short period, then do a return run on the same route. This exact charging method is going to be used on the under construction Burbank to Pasadena BRT system, with end of line charging being constructed on Hill street by the PCC campus. Per a recent inquiry to

nohopasbrt@metro.net: *The project will be implementing bus charging infrastructure along Hill Av to accommodate Metro's zero-emission buses along the route.*

The agenda doesn't provide details of whether the routes were analyzed to understand whether the shorter routes could be electrified first, with longer routes coming later. Also, as you know, battery technology is advancing very rapidly, so decisions made today about what is feasible could end up being overcome by events very shortly.

A recent letter I wrote to the city council brought up the city installed DC fast chargers at the Arroyo charging plaza, now sitting abandoned for several years, about to be replaced. I'm sincerely hoping that the city doesn't make the same mistake by purchasing hydrogen fuel cell busses.

Robert Nowicki

Outlook

Comment on Municipal Services Committee Item #1 this evening

From Darrell Clarke
Date Tue 4/28/2026 4:29 PM
To Gao, Beilei <bgao@cityofpasadena.net>

You don't often get email from ı. Learn why this is important

I spoke to the Pasadena City Council last August 25th on this same subject of hydrogen fuel cell buses, per my written comment copied below.

This evening I'd like to ask two questions based on the Item #1 staff report section "Operational Evaluation and Performance" on page 9:

1. Why didn't they buy the test battery-bus with more battery capacity and therefore range?
2. Why didn't they consider fast-charging during the day, like LA Metro does?

Darrell Clarke

PASADENA CITY COUNCIL, AUGUST 25, 2025

7. FINANCE COMMITTEE: AUTHORIZE THE CITY MANAGER TO ENTER INTO A CONTRACT FOR THE PURCHASE OF 17 FUEL CELL ELECTRIC BUSES FROM NEW FLYER OF AMERICA, INC., FOR PASADENA TRANSIT FOR A NOT-TO-EXCEED AMOUNT OF $32,050,255 (Transportation Dept.)

I'm Darrell Clarke, here as a Pasadena homeowner and Sierra Club Angeles Chapter Transportation Chair.

The future of buses and trucks is battery electric, not hydrogen, and I'll briefly show why.

I attended the California Air Resources Board's **Zero-Emissions Showcase** at Angel Stadium's parking lot on June 18. https://ww2.arb.ca.gov/events/zero-emissions-showcase-ride-drive-anaheim-ca .

I spoke with ENC (Eldorado): their new Axess EVO-BE has a **usable range of 225 miles** in California with a 692 kWh battery, in 32', 35', or 40' low-floor buses. https://eldorado-ca.com/axess-evo-be/

Conversely, Pasadena's **decision was based on obsolete 2021 data** in CALSTART's 2022 study, which **presumed only half that battery capacity** in its Table 2-4, and therefore not sufficient range for full 1-for-1 bus replacement which the city wanted.
https://ww2.cityofpasadena.net/2023%20Agendas/Jan_30_23/AR%204%20Attachment%20A_Pasadena%20ICT%20Report_Finalrev.pdf

Most Southern California transit agencies have chosen battery-electric, not hydrogen fuel cells, including L.A. Metro, L.A. DOT (DASH buses), Santa Monica Big Blue Bus, Long Beach Transit, Culver City Bus, and Anaheim Regional Transit. Pasadena projects tripling to about the same ridership as Culver City, 3.1 million annual trips. China, the world leader in battery technology, has deployed some 700,000 battery-electric buses.

A **battery-electric vehicle is 70-80% efficient** at converting electricity to motion. But a **hydrogen fuel cell wastes at least 70% of that electricity** to electrolyze water, compress the hydrogen, and run a fuel cell to power a motor, not to mention the diesel fuel to truck the hydrogen.
https://cleantechnica.com/2025/03/11/the-hydrogen-bus-illusion-essen-mulheims-costly-reality/

And **is that hydrogen even "green"** from renewable electricity? Shutdown of the ARCHES California Hydrogen Hub's federal funding means you'd probably be getting **"gray"** hydrogen made from natural gas, just **emitting its waste CO2 someplace else**, essentially no better than current gas-fueled buses. And the very small hydrogen molecule is prone to **leaking, itself a secondary GHG**.

Please don't invest in an expensive, inefficient, polluting, dead-end technology.

Darrell Clarke
Pasadena, 91103

Outlook

Municipal Services committee 4-28-26 Agenda_ Public comment item #1

From PADRES PUSD
Date Tue 4/28/2026 4:54 PM
To PublicComment-AutoResponse <correspondence@cityofpasadena.net>; Cole, Rick <rcole@cityofpasadena.net>; Lyon, Jason <jlyon@cityofpasadena.net>; Hampton, Tyron <thampton@cityofpasadena.net>; Jones, Justin <justinjones@cityofpasadena.net>
Cc Cynthia Cannady

Public Comment – Item 1
Zero-Emission Bus Rollout and Fleet Transition Strategy
René H. González

Good afternoon Chair and Members of the Municipal Services Committee,

I want to begin by acknowledging the City's commitment to transitioning toward a zero-emission fleet. This is the right direction, and the urgency is real. However, I respectfully urge the Committee to proceed with **strategic caution** before deepening long-term dependency on hydrogen as the primary solution.

According to the staff report, Pasadena is moving forward with **17 hydrogen fuel cell buses, hydrogen fueling infrastructure, and daily fuel supply logistics.**

While this approach addresses range limitations, it also introduces a critical vulnerability: **the City becomes a continuous consumer of externally produced hydrogen**, much of which today is still derived from "grey" or transitional sources and transported into the city.

This raises three URGENT key concerns:

1. Energy Independence & Resilience
Hydrogen requires a supply chain. Batteries can be powered locally.
Pasadena should prioritize **localized energy ecosystems**, not fuel dependency models that rely on daily inbound delivery.

2. True Environmental Impact
While hydrogen is often described as "green," the reality is that **not all hydrogen is green today**. Until supply is fully renewable and locally generated, emissions are simply shifted—not eliminated.

3. Long-Term Cost and Infrastructure Lock-In
Hydrogen infrastructure is capital intensive and highly specialized. Once built, it limits flexibility. In

contrast, Emergency-**Use Battery Energy Storage Systems (BESS)** integrate directly with solar, grid stabilization, and emergency backup—serving multiple citywide purposes beyond transit.

Recommended Path Forward

I urge the City to expand its strategy to include:

- **Large-scale Battery Energy Storage Systems (BESS)**
  - Enables true renewable integration (solar + storage)
  - Provides emergency resilience during outages
  - Reduces dependence on imported fuels
- **Smaller, modular electric bus fleets**
  - Vehicles with **swappable or modular battery packs**
  - Allows continuous operation without long downtime
  - Aligns with evolving battery technology rather than locking into one system
- **Hybrid innovation strategy (not just hybrid fleet)**
  - Continue evaluating hydrogen, but **do not overcommit infrastructure before the 2028 reassessment** already planned by staff
-
  - Pilot scalable battery solutions in parallel

Closing

Pasadena has the opportunity to lead—not just in adopting zero-emission transit—but in defining what **true sustainability** looks like.

A system powered by **locally generated, stored, and distributed clean energy** is more resilient, more adaptable, and ultimately more aligned with long-term climate goals than one dependent on continuous external fuel supply.

I respectfully ask the Committee to ensure that all viable alternatives—especially **BESS and next-generation electric fleet models**—are fully evaluated before further committing to hydrogen infrastructure at scale.

Thank you for your time and leadership.

Yours Truly

Rene Gonzalez

--
René H. González
PADRES
Care • Protect & Prepare all Children

Pasadena Association of dedicated Residents Educators and Students