Hyzon

Q4 2023 Earnings Conference Call

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CORPORATE PARTICIPANTS

Henry Kwon - Head of Investor Relations

Parker Meeks - Chief Executive Officer

Dr. Christian Mohrdieck – Chief Technology Officer

Stephen Weiland - Chief Financial Officer

ANALYSTS

Steven Fox - Fox Advisors LLC

Craig Irwin - Roth Capital Markets

Rob Wertheimer - Melius

Operator

Hello, and welcome to the Hyzon Fourth Quarter 2023 Earnings Call. [Operator Instructions] I will now turn the conference over to Henry Kwon. Please go ahead.

Henry Kwon, Head of Investor Relations

Thank you, operator. And good morning, everyone. Welcome to Hyzon's fourth quarter 2023 Earnings Call. With me on the call today are Parker Meeks, Chief Executive Officer; Stephen Weiland, Chief Financial Officer; and Dr. Christian Mohrdieck, Chief Technology Officer.

As a reminder, you can find a press release detailing our financial results and the presentation accompanying today's call in the Investor Relations section of our website. Today's discussions include references to non-GAAP measures. These measures are reconciled to the most comparable U.S. GAAP measures and can be found at the end of the Q4 earnings press release.

This morning's discussions include forward-looking statements regarding future plans and expectations. Actual results might differ materially from those stated, and factors that could cause actual results to differ are explained in the forward-looking statements at the end of the press release and page two of our earnings presentation. Forward-looking statements speak only as of the date on which they are made. You are cautioned not to put undue reliance on forward-looking statements.

With that, I will turn the call over to our CEO Parker Meeks.

Parker Meeks, Chief Executive Officer

Good morning, everyone and thank you for joining our fourth quarter 2023 earnings call. I'm pleased to be joined by Steve today, and to introduce Dr. Mohrdieck, who we are thrilled to have as Hyzon's CTO.

Hyzon continues to progress as a leader in the global transition to clean energy by developing and commercializing our proprietary, high-power zero-emission fuel cell technology. Our leading technology provides a lighter, smaller, more cost-effective and more fuel-efficient fuel cell system. Today, we deploy that fuel cell technology in heavy-duty fuel cell trucks. As the hydrogen ecosystem grows, we have the potential to deploy both our existing and our future generation fuel cell technology in additional heavy-duty industrial ecosystems such as rail, mining, aviation, and stationary power, with several of these opportunities in early development.

We believe 2024 will be a year of foundational commercialization for Hyzon: our single stack 200kW fuel cell technology is coming to Start of Production or SOP, we are commercially deploying fuel cell trucks into customer operations in our prioritized markets on three continents, and government, commercial, and regulatory support for hydrogen continues to grow even stronger. We believe our accomplishments in the fourth quarter of 2023 demonstrate the inflection point we have achieved for Hyzon's technology commercialization, and I will take a few minutes to describe why.

Turning first to technology and manufacturing, in the fourth quarter we achieved our full year 2023 operational milestone of manufacturing 25 single stack 200kW fuel cell system B-Samples in our fuel cell production facility outside of Chicago, Illinois here in the U.S. This includes factory acceptance testing, full design verification and significant durability testing. We also progressed fuel cell system development to the C-Sample stage, a crucial step in the standard automotive product development process, as C-samples are built with production tooling to meet all technical requirements for SOP. With this progress, we are on track for SOP of the 200kW fuel cell system in the second half of 2024, with minimal Capex requirements remaining to achieve that SOP. Additionally, we expect the facility to have an annual capacity of 700 200kW fuel cell systems on three shifts at SOP, with plans to debottleneck further and efficiently manage associated debottlenecking capex in line with demand. We expect this approach to maintain the benefits of our asset-light business model – fuel cell assembly capacity additions efficiently taken in line with anticipated demand increases from our customers over multi-year commercial agreements.

On the commercial front, we are excited to have deployed 19 heavy-duty FCEVs under commercial agreements into customer operations across three continents in 2023, achieving the high end of our guidance of 15-20 vehicles commercially deployed. Of those vehicles, five were deployed in the U.S. to both drayage and large fleet customers, three in Europe, and 11 in Australia.

I would like to briefly highlight our U.S. deliveries, four of which were to Performance Food Group, or PFG, in California. The deployment of these trucks is a foundational step toward achieving emission reduction goals shared by Hyzon, PFG and the state of California. It also marks a crucial step in Hyzon's progress, as it demonstrates our ability to deliver vehicles with a positive cash contribution margin at the truck level to large fleet customers. As previously announced, pending a successful trial with Hyzon's 200kW heavy-duty fuel cell truck, Hyzon and PFG intend to work together on an agreement for 15 200kW fuel cell trucks and a potential further option for an additional 30 fuel cell trucks, bringing the total potential to 50 fuel cell trucks if all options are fully exercised. This is exactly the customer profile and multi-year scaling commercial agreement structure we are focused on delivering to large fleets, with a number of fleets already through their trials and a full trial schedule anticipated for the US 200kW fuel cell truck platform kicking off in the first half of this year. We remain focused on converting additional large fleets to similar multi-year commercial agreements on the back of our trial program.

Outside North America, we also launched the commercial trial deployment of our first Heavy Rigid fuel cell electric refuse collection truck platform in Australia with REMONDIS, a global recycling, service, and water company. After completing a successful four-month trial, the vehicle delivered performance in line with its combustion engine equivalent, completing full shifts with over 1,200 bin lifts with fuel left over at the end of the workday, no refueling required. That performance is significantly better than even the best battery electric refuse truck alternatives that our customers are seeing, in some cases doubling the daily work rate of battery electric, demonstrating our clear view that fuel cell trucks are the only viable decarbonization option in refuse to fully perform the work a combustion engine can deliver, and that fleets need. Additionally, the operating cost of the Hyzon fuel cell truck was equivalent to the operating cost of the diesel alternative without subsidies, proving that with the right fuel availability fuel cell heavy duty trucks can do the work at a similar operating cost, today. With the trial complete and successful, the team is working with Remondis to transfer full ownership of the truck to the Remondis fleet under the existing commercial agreement.

Hyzon also entered into a revised commercial agreement with TR Group, New Zealand's largest heavy-duty truck fleet owner, for up to 20 fuel cell trucks upfit with Hyzon's single stack 200kW fuel cell system.

Following the initial commercial trial, TR Group has an option to purchase the two trial trucks as well as to upfit another 18 trucks with Hyzon's 200kW fuel cell systems.

Turning to Governance, throughout 2023, we took significant steps to strengthen our Board of Directors and management, including appointing two new Board members, a new Chairman of the Board, and accomplished leaders to the executive team. We completed the reinforcement of our leadership team by welcoming Dr. Christian Mohrdieck to the team as our Chief Technology Officer. Christian is a globally respected leader in the fuel cell industry. He joins us from his role as Chief Commercial Officer at cellcentric, a joint venture between Daimler Truck AG and the Volvo Group which Christian helped establish through his previous role as CEO of Mercedes-Benz Fuel Cell GmBH. Christian's combination of deep experience developing and, critically, commercializing fuel cell technology will both accelerate our leading, U.S.-made 200kW fuel cell system and further bolster our ability to extend our leadership in fuel cell technology R&D and IP generation. With Christian joining an already strong management team and Board, we are confident in the leadership and governance foundation we have in place to drive Hyzon forward into commercialization.

Turning briefly to our financial performance, we delivered another quarter with declining net cash burn and met our second half 2023 net cash burn guidance by remaining disciplined in maximizing our technology development and commercialization progress while driving real efficiencies in Hyzon's cost structure and cash burn, which Steve will comment on further. We continue to evaluate financing options to support our commercialization including potential strategic counterparties, while being thoughtful about valuation and dilution.

With the operational and commercial milestones achieved in 2023, we start 2024 with strong momentum and a positive outlook. We expect 2024 will be the year Hyzon realizes meaningful commercialization by advancing our 200kW technology and heavy-duty fuel cell trucks to their respective SOPs, and cementing and advancing our large fleet customer portfolio as the foundation for scaling through multi-year commercial agreements and subsequent deployments.

As mentioned previously, Hyzon's innovative single stack 200kW fuel cell system continues to advance towards its SOP in the second half of 2024. We are currently completing durability testing, which is set to conclude around the midpoint of the year, and pending favorable results, we will be ready to start production soon thereafter.

By generating 200kW from a single fuel cell system, Hyzon can offer a significantly lighter, smaller, more cost-effective and more fuel-efficient FCS, when compared to the conventional approach of combining two systems or stacks to reach 200kWs or more of fuel cell power. Our U.S.-based fuel cell production facility is nearing completion with less than $5 million in remaining capital investment to reach SOP. As I mentioned, the facility is projected to have an initial annual capacity of over 700 200kW FCSs, operating on three shifts.

Alongside SOP of the fuel cell system, we also expect to reach SOP with two of our initial vehicle platforms: the 200kW Conventional and the 200kW Cabover fuel cell trucks. The 200kW Cabover truck was unveiled last week in Australia, as the first launch of Hyzon's 200kW fuel cell system and powertrain. The 200kW powertrain was designed in the U.S. and adapted regionally to maximize efficiencies from a common powertrain solution. As one of only two companies with heavy-duty fuel cell trucks commercially deployed in 2023 in the U.S., starting production with these high-power vehicles positions us well to achieve our

commercial targets in 2024, continuing the early mover advantages we established in 2023 with our first deployments to large fleets in each region.

From a commercial standpoint, 2024 is focused on securing large fleet multi-year fuel cell truck commercial agreements similar in design to the agreement in place with PFG: securing vehicle contracts with multi-year scaling potential with large fleets on the back of successful trials; activating several of these contracts with initial deliveries in this year; and then advancing multiple large fleets to their second stage orders and deliveries later in 2024, which will be a significant milestone for the company and the industry when it is achieved. These fleets, with internal and government mandates to decarbonize, are experiencing the limitations of heavy-duty battery electric trucks in their operations, and are turning to fuel cell trucks for long routes with heavy payloads and minimal downtime for refueling. This real-world customer feedback bolsters our confidence that the mix of a decarbonized fleet is shifting clearly toward hydrogen.

One application where battery electric today cannot compete with hydrogen fuel cell trucks is refuse collection, or garbage trucks. As demonstrated in our trial with REMONDIS, our hydrogen refuse truck delivers similar operational capabilities as a traditional diesel truck. The typical battery electric version today completes roughly half of that work, goes home at lunch and charges for the next day. The gap in performance is significant, leading us to believe the future of zero emission refuse collection is clear – it is one that only hydrogen fuel cell electric refuse trucks can deliver. We also see the refuse truck market as one that can develop more quickly, given the back-to-base nature of the use case, and the ability to produce hydrogen onsite from landfill gas or solid waste. Hydrogen powered refuse can create a circular zero emission ecosystem, with an estimated 120,000 refuse trucks on the road in the U.S. alone, and many publicly funded fleets in California facing expected near-term zero emission purchase mandates under California's Advanced Clean Fleet Rule.

With this in mind, we are accelerating our refuse program in North America, building off the development in Australia. We recently announced a Joint Development Agreement for refuse trucks in the U.S. with New Way, the largest private refuse equipment manufacturer in North America. The first U.S. fuel cell waste collection truck is currently in assembly, with a full customer trial schedule expected to launch in the first half of 2024 and initial commercial deliveries projected in 2025. We are excited by the strong response refuse fleet customers have shown and the upcoming customer trial schedule.

All of this is supported by strong tailwinds worldwide for hydrogen and zero emission vehicles. Major markets globally have policies to accelerate adoption. In the U.S., for instance, the Biden administration has allocated $7 billion to seven hydrogen hubs, several of which Hyzon directly supported. The Inflation Reduction Act earmarks $2.6 billion under the EPA's Clean Ports Program to decarbonize coastal and inland ports nationwide, including drayage trucks and fueling infrastructure, which Hyzon is initially participating in as part of Port Houston's application. California remains a well-funded zero emission class 8 truck subsidy market, with several hundred million dollars available as of the beginning of 2024, including over $300 million available through CARB's HVIP program, over $70 million from the Volkswagen Environmental Mitigation Trust, and funding specifically for drayage trucks through the Port of LA and Long Beach Clean Truck Fund.

In short, we are excited to build on this momentum with the following milestones in focus for 2024:

Again, we are on schedule to reach SOP for our single stack 200kW fuel cell system in the second half of 2024 and for our 200kW vehicle platforms, with the U.S. 200kW truck platform SOP expected in the

second half of 2024. These will be major technology and commercial milestones, clearing the path for commercial scale-up of our 200kW fuel cell technology to large fleet customers globally.

Second, we are progressing well in our trial-based large fleet customer pipeline, with a focus on converting additional large fleets from trials to multi-year commercial agreements. We are focused on signing new large fleet multi-year customer agreements in 2024, and targeting the advancement of large fleet customers to the second stage of their multi-year order pattern as well.

Third, we will be launching U.S. refuse truck trials in 2024, with initial commercial agreements expected in the second half of 2024.

Fourth, we are targeting 20 to 40 fuel cell truck deployments under commercial agreements to customers in 2024 globally, purposefully focusing our deployments to large fleet customers to activate their multi-year commercial agreements, or to advance to the second delivery of their agreements. By deploying a smaller number of trucks per fleet to priority large fleets, we are purposefully managing working capital and associated net cash burn while maximizing the commercial foundation we have in place to enable scaling in 2025 and 2026.

Lastly, we are focused on strengthening our balance sheet and securing additional capital to fund our business.

I want to thank our global team for their tenacity and commitment. Our leading technology, in-house manufacturing, and partnerships make us ready to scale production and drive commercialization as an early mover in this fast-growing industry.

Now, I would like to introduce our newly appointed Chief Technology Officer, Dr. Christian Mohrdieck. Christian?

Dr. Christian Mohrdieck, Chief Technology Officer:

Thank you, Parker. And thanks for having me.

I would like to first start off by saying how excited I am to join the Hyzon team. After having spent two thirds of my career developing fuel cell technology at automotive OEMs, most recently as Chief Commercial Officer of cellcentric, a joint venture between Daimler Truck AG and the Volvo Group AB, it is refreshing to work for a company solely dedicated to fuel cell technology, especially during this stage of scale-up and commercialization.

What makes me stick to automotive fuel cells for more than 25 years? My energy source is based on the 3Ps: Product, People, and Purpose. Fuel cell products are based on a fascinating technology which delights my physicist's heart and brain. Knowledgeable people with a strong passion to attack challenges are the biggest asset in this business and drive me to work every single day. Fuel cells are helping make this a better, a zero-emission world. This convincing purpose enables me to go high speed and full power all the time. I joined Hyzon because of its existing strength in Product and People, and because as a company, we are fully focused on our Purpose of decarbonization.

On the Product side, one of my biggest motivations to join Hyzon was the significant fuel cell technology advantage and the corresponding intellectual property we hold. Hyzon has developed a single stack 200kW fuel cell system, which brings significant advantages in weight, size, fuel efficiency, cost to manufacture, and product cost. There are currently very few companies developing a single stack 200kW fuel cell system, and I believe Hyzon is the first to deploy a heavy-duty vehicle with a single stack 200kW fuel cell system.

Which brings me to another reason Hyzon's technology is at an advantage: Hyzon not only develops and manufactures its fuel cell systems, but also integrates them into heavy-duty vehicles. We have deployed these vehicles on three continents, and work directly with the fleet customers to understand their real-world operations. With that data, we can intelligently manage and adjust our fuel cell technology to increase durability, reliability, and performance in different environmental circumstances.

By doing so, we constantly expand our portfolio of intellectual property, maintaining and building our competitive edge. As we continue to drive fuel cell developments, we expect new use cases in new industries to come into view, both for the 200kW and for future fuel cell generations. Our goal is to provide hydrogen-powered decarbonization not only for trucking, but across tomorrow's mobility industries, including mining, construction, rail, marine, and airport ecosystems.

Earlier this month, we launched the first truck with Hyzon's 200kW fuel cell system and powertrain in Australia. As Parker mentioned, we plan to introduce 200kW vehicles in North America and Europe later this year. As the hydrogen economy grows, Hyzon's opportunity to decarbonize sectors grows – all based on the same fuel cell technology.

I look forward to working with our team of expert engineers to increase Hyzon's competitive advantage by bringing the 200kW fuel cell system to SOP this year, and to continue advancing fuel cell technology beyond the 200kW system in the future.

With that I would like to turn the call over to Steve for a closer look at the numbers. Steve?

Stephen Weiland, Chief Financial Officer:

Thank you, Christian. It's great to have you on the team. One of the primary reasons why I joined Hyzon last November was our differentiated technology and intellectual property. I believe that our ability to attract an experienced fuel cell expert such as yourself is an affirmation of this value. It demonstrates that Hyzon's technology is compelling, and I very much look forward to working closely with you.

I am proud of the execution that we demonstrated throughout 2023 in achieving the important operational milestones set out earlier in the year. Advancing to the C-sample phase of our 200kW fuel cell system has us on-track for start of production later in the year and also for deploying our first 200kW FCEV trials. Our continued commercial progress is most recently evidenced with our customer PFG, refuse market opportunity with New Way Trucks, and trial activity.

In addition to achieving our operational milestones, we also met or beat the financial guidance established earlier in the year on both a second half and full year basis for SG&A, R&D, and net cash burn. I'll highlight this in more detail as I next walk through our results.

I would like to kick off my discussion by pointing to our Q4 and 2023 revenues of approximately $0.3 million vs. $3.7 million in 2022. The Q4 revenue reflected our first truck sale in the U.S. – one of our 19 truck deployments. We also delivered four trucks to PFG shortly before year end for which we will begin to recognize revenue starting in Q1 2024. While this was a structured as a sale and we collected cash in Q1 2024, given the contract terms, it is effectively accounted for as a lease in our financials and recognized over time. The 14 remaining 2023 deployments translate into revenue if certain contract terms are achieved and customer acceptance is provided.

Cost of Revenue came to $15.7 million in 2023 vs. $23.3 million in 2022. 2023 Cost of Revenue primarily represents inventory write downs and customer contracts' cost provisions. The decrease from 2022 is primarily driven by costs incurred in 2022 in China and Europe for FCEVs, upfit services, and other charges that did not occur in 2023.

R&D expenses came to $43.7 million in 2023 vs. $39.1 million in 2022 and slightly below our guidance range of $45 to 49 million. The primary driver for the increase in R&D over 2022 is higher personnel costs supporting our development efforts.

SG&A came to $121.2 million in 2023 vs. $114.1 million in 2022 and below our guidance range of $130 to $134 million. The primary reason we fell below the guidance range is because we began recognizing asset impairment charges as a separate line item in Q3 2023. The drivers behind the increase in SG&A over 2022 were the $25 million SEC charge offset by certain activities that did not occur in 2023 such as the Orten cancellation charge. A significant portion of our 2023 SG&A came from an elevated level of legal, accounting, and consulting fees from ensuring filing compliance and legal work relating to the SEC investigations, which are now behind us.

We recognized $7.8 million in restructuring and asset impairment charges in 2023 driven primarily by charges in Europe and the U.S.

On the balance sheet, we ended 2023 with $112.3 million in cash and equivalents, representing a net cash burn of $25.5 million in Q4 – this represents our lowest quarterly net cash burn over the last nine quarters and fourth consecutive quarter of declining burn. Our full year 2023 net cash burn of $143.0 million came in below our guidance of $148 to $156 million driven by the timing of our $8.5 million first tranche SEC payment, and we would have fallen in the range had the payment occurred in Q4. That payment landed this January versus in Q4 due to the timing of court approval as previously discussed could happen. We have an additional $8.5 million due at the end of 2024 and the remaining $8.0 million in January 2026.

Turning to guidance, we are not providing annual net cash burn guidance for 2024 at this time, but are currently reviewing our assumptions for the full year, and to a large extent the timing of any capital raise can impact our outlook. However, we do want to provide insight on our first quarter. We are targeting a net cash burn range of approximately $24 to $27 million in the first quarter, not including the impact of the $8.5 million SEC payment in January. We have also not included the impact of approximately $3 million from the sale of our Rochester Facility in this range given that the timing of the payment could fall to either the end of Q1, or the beginning of Q2 2024. Excluding these one-time items, we believe that this range is representative of how we are operating at the moment below $10M in average recurring monthly net cash burn. We are anticipating that our Q1 2024 SG&A will likely come in a range of $22 to $24 million, and that our R&D expenses will likely come in a range of $12 to $14 million.

We continue to remain focused on raising capital. We will provide updates as appropriate. I'd also like to point out that should we need to, we have identified levers to reduce our cash burn and extend cash into 2025 as financing activities continue. We are keenly focused on maintaining financial flexibility, while ensuring that we are well-positioned to achieve our near-term growth objectives.

Something that investors have raised in our discussions over the past quarter is: as we look to exercise financial discipline in 2024, what is our priority? The answer clearly is that our fuel cell IP is foundational to our technology and strategic value. We will continue to prioritize our fuel cell development efforts, and having Christian join us as CTO at this time clearly demonstrates our ongoing commitment to our technology and its strategic value.

Thank you for listening, and now I will hand the call back over to Parker.

Parker Meeks, Chief Executive Officer:

Thank you, Steve. I am incredibly excited for 2024 as it promises to pave the way for our long-term growth.

Our seasoned management team and board provide us with the right mix of expertise, experience and governance, enabling us to concentrate fully on our streamlined, refocused, and centralized business model with a clear vision for the future, centered in technology and driving commercialization in 2024.

We are confident in the capabilities of our technology and our differentiated asset-light business model. We anticipate substantial commercial progress and minimal capital spending requirements to achieve start of production of our 200kW fuel cell system in the second half of 2024, positioning us favorably as we push to capture critical capital and to expand our large fleet customer commercial agreements and activations – strengthening the balance sheet while maintaining our early mover advantage in a growing movement to decarbonize trucking. The addition of the fuel cell refuse vehicle as an international platform with a significant performance and economic advantage vs. battery electric alternatives is yet another example of heavy-duty industry requiring hydrogen fuel cell technology to do the work it needs to do. We look forward to a growing set of major US refuse fleets experiencing that leading technology and truck platform in the first half of this year.

I would like to thank all of my colleagues here at Hyzon for their dedication and execution throughout 2023.

Finally, we appreciate your ongoing engagement as we collaborate with customers and partners to bring Hyzon's cutting-edge hydrogen fuel cell technology to the forefront of the trucking industry today and various other applications in the future.

Now, I'll hand it back to the operator for any questions. Operator?

Operator:

[Operator Instructions] Your first question comes from the line of Steven Fox with Fox Advisors. Your line is open.

Steven Fox, Fox Advisors:

Hi, good morning. I guess I had 2 questions. First off, I was wondering if you could talk a little bit about any learnings from the trials that you did throughout 2023 into '24 that maybe either help you to engage with other fleets or applications or just maybe speed up the trialing process? And then I had a follow-up.

Parker Meeks, Chief Executive Officer:

Great. Hey Steve, thanks so much for the question, and we're always excited to talk about the process of trialing, learning and improving the fuel cell technology and the powertrain. So -- as we've noted in previous calls, we have been in trial for quite some time. We launched our Class 8 trial program in March of 2022. We've completed 20 major trials just in North America as 1 example since March of '22, 14 trials in 2023 calendar year. And we're excited that, that's expanding, right? We have 24 total trials planned in 2024 across both the Class 8 truck and the refuse truck in the U.S. alone.

And the learnings have been significant over that time. What's exciting is we still have the first trucks that we put together; of course. When you look at those Class 8 trucks, the first trucks in trial side by side with the latest technology, so much has changed from the powertrain from the integration approach, even the look and feel of the truck to the driver, where the steps are positioned, how they get in and out of the truck, how they operate the truck.

And the learnings, frankly, for us have been as much about the performance of the truck and optimizing and upgrading that as it has, how we interact with the fleet, how we improve the experience for the driver. And I'll give a couple of examples of that. One, when we launched the first ever fuel cell trucks in commercial operation in Texas at Port Houston, in December of 2022, which we did to show the U.S. fuel cell trucks are ready to do drayage, not just in California, but across the country which we're excited, hopefully to expand through the Zero Mission Port equipment funding coming out shortly in the Inflation Reduction Act.

That trial was a next step in our testing of various weather environment. So we tested the trial through its paces in cold weather in Edmonton, Canada starting in that winter of 2022 with the truck showing up in minus 20, minus 30-degree temperatures, which went through learnings on preheat and other things to now have run for 2 consecutive winters up in Canada. We've done hot weather testing in the L.A. Basin and in Central Texas in the summer with up to 100 - 105-degree Fahrenheit temps.

We had a lot of learnings that are going to keep the truck and the technology cool through that experience in Houston, I call it our wet weather trial test because I'm from Houston originally, the monsoon season comes through in Houston. When we launched that trial, the first day, there was a significant rain storm the night before. We always tell our drivers of our fleet customers take that truck anywhere it needs to go. We need to really test it and learn.

So long story short, there's a foot of standing water on the feeder road in South Houston near the port driver takes it to 45 miles an hour. And when you do that, through a foot of standing water that water permeates every crevice of that truck. It actually found a high-voltage fault, safely shut the truck down. We get it back to the service bay, dry it out, closing the operation, about 24 hours later and complete the rest of that trial very successfully. We found the water proof fault source and swapped that out in the design and haven't seen that issue come back since.

So we're very transparent about the learnings from trials and our customers see that appreciate that. And we're very thankful to have tremendous customers like Performance Food Group that we've been working with now for over 2 years since their trial, and Talke in the Port of Houston, who ran that trial for us and it's been a great partner to us since.

And these leaders, these customer leader fleets who really are motivated to not just get going, but learn and help everyone improve are why we've been able to get the experience. We have the tens of thousands of miles and kilometers globally on our powertrain and while we're so confident in the powertrain that we've developed and are launching now.

Steven Fox, Fox Advisors:

Great. Great. That's helpful. And Just from a funding/regulatory standpoint, like you mentioned a bunch of opportunities where the technology could be advanced through new funding in the U.S. But -- how would that sort of relate to maybe direct funding or your ability to have a more pronounced position in the supply chain as hydrogen develops. Is there anything you could point to that we should be watching closely for '24. That will be sort of, if not a game changer or an incremental positive. Next one...

Parker Meeks, Chief Executive Officer:

Absolutely, Steven. Thank you for that as well. We are very excited by the tailwinds that have continued to grow globally, in particular here in the U.S. for subsidy to deploy and start to decarbonize trucks. We see a clear 3-step pathway for subsidy here. For us to scale with our customers in line with our production capacity and in line with their appetite over a 3- to 4-year scaling plan.

The first step is active today and is very deep, which is California, right? The State of California still has over $300 million available right now for Class 8 servicing trucks with the $240,000 per truck base voucher for large fleets that can go up to over $400,000 for small fleets and drayage and certain other applications stacking various subsidy sources on top of the HVIP card voucher. That's active now.

We said on our last earnings call that even if we only had our -- what we see as our opportunity share of fuel cell trucks in California, there's what we expect fuel cell trucks to make up of California's decarbonization goals to 2030, we would take the company to its cash flow breakeven by 2030, just with California.

The second step is ports, right? And that's under the Inflation Reduction Act Clean Ports funding, which includes the zero-emission Port Equipment fund. That’s $2.6 billion of funding with applications going in now and awards expected to be awarded starting in December of this year. And that's up to $500 million per port, which includes drayage trucks and hydrogen refueling infrastructure.

And we actually mentioned in the comments, we're excited to have our joint application with a customer and a fueling partner to be selected by Port Houston to be a part of their application to that program. So that's the first example of Hyzon supporting application to go in, we'll see -- we hope that application is successful. There's other ports that we're in discussions with, and we see that as a critical program to put drayage trucks and fueling filling infrastructure at major ports, both coastal and inland. And then

The third step, is, of course, the DOE hydrogen hub program, which I think we're all were $7 billion awarded to 7 hubs, Hyzon is proud have supported several of the awarded hubs and are currently actively working to help those hubs with and our fleet customers with applications.

So we have tremendous opportunity we see on the truck side. On the fueling side, the 45 V production tax credit in the IRA is also critical to us and to the industry. Now I think anyone is in hydrogen has seen

the significant discussions going up to Congress about how that initial guidance has come back and what we all think are prudent changes that are critical to be made.

Even without that 45 VPTC, we still see a clear path and opportunity given we said publicly, we believe at 1,000 trucks per year, 1,000 fuel cell systems per year of capacity that we will be at a significant path towards TC0 parity without meeting subsidy on the truck side. But that feels subsequent I think, is important to us. The last thing I'll say is there's other provisions that are under the radar that all help us get this cost down.

One is the 45 W Clean Truck tax credit, which gives us the $40,000 per truck that we're working right now to ensure that Hyzon trucks are able to qualify for. So very clear path we see for subsidy. I think some of the major things to look for are continued deployments in batch applications by Hyzon customers under the California CARB HVIP Program and then we're all focused on this first application of the hope would to come in the zero-emission port equipment funding with the words is currently exploited for December of 2024.

Steven Fox, Fox Advisors:

Great. That's helpful perspective. Thank you.

Parker Meeks, Chief Executive Officer:

Thanks, Steve.

Operator:

Your next question comes from the line of Craig Irwin with ROTH MKM. Your line is open.

Craig Irwin, ROTH MKM Partners:

Good morning. Thank you for taking my questions. Parker, I just wanted to start off with the improved cash use. You guys seem to be tracking ahead of what you're guiding us for earlier in 2023? And even ahead of sort of what you were discussing for the outlook for '24. Can you maybe describe for us what's working for you? Maybe some of the actions that you've taken that are getting these results?

Parker Meeks, Chief Executive Officer:

Thanks so much, Craig, and great to hear your voice. So I'll pass it over to Steve for comments. Steve?

Steve Weiland, Chief Financial Officer:

Yes. Craig, thanks for the question, and thanks for bringing it up. We're really proud of our performance in managing cash burn expenses here at Hyzon. I think if you look at the numbers, you'll see that just from Q1 '23, our net cash burn was about $46 million. And here in Q4 about $25.5 million, right? So that's a significant reduction over the course of the year.

And even if we had included that SEC payment in Q4, like I mentioned, we still would have come in that range. And so it really represents a number of things. It's our renewed strategic focus, really focusing the business on the most important things as we rolled out our new strategy early in the year. It's driving cost efficiencies.

And we're also benefiting from, of course, seeing kind of legal and consulting and accounting fees come down as we move out of that investigation. So you know right now, in that fourth quarter; that worked out to about $8.5 million of monthly average recurring cash burn. That level, sub-$10 million per month level is pretty representative of how the business is operating right now and we're not giving guidance for the full year, but I think that's pretty indicative of what we're doing.

And it also lets us continue to prioritize and invest in key areas of our technology and move that forward.

Parker Meeks, Chief Executive Officer:

Yes. I'll just add to that, that we're really proud of the fact that I feel -- we believe we're showing significant progress and a real inflection point that we're reaching commercialization, not just in the development towards SOP, the 200-kilowatt fuel cell system and our plant here in Bolingbrook in Chicago area, which we're very excited about the upcoming SOP that we're anticipating in the second half of this year.

This is a major step, not just for us, but for the fuel cell industry in the U.S. and a plant like this coming online, and then additionally, with this global powertrain, we've just brought the refuse program and platform from Australia to the U.S., and we're eager to get that leading refuse truck into trial here in the U.S. soon.

And additionally, launching the 200-kilowatt powertrain in the right-hand drive 6x4 cabover truck in Australia this past month, making all that progress while continuing to drive cash burn down, we think shows that we've been effective in maintaining and driving the commercialization of Hyzon, our technology, while also continuing to find opportunities to produce cash burns.

So that remains our focus is driving cash burn, managing it. We have a clear view of the levers we can continue to pull to manage cash burn appropriately to make sure that we're maximizing value for shareholders and how we're advancing the business and being prudent with our resources.

Craig Irwin, ROTH MKM Partners:

Great. Thank you for that. So then as the focus of the company is shifting, right, moving from B samples to C-samples, moving from testing primarily on, I guess, rigs, I guess we call them, not big rigs, but benchtop rigs, right, to rolling this year ahead of SOP, all those efficiencies that you've achieved on sort of tightening the screws, learn a little bit of savings on how you're executing your strategy. Do those continue to translate through likely over the next number of months. Are those lesser things that are long-term applicable?

Parker Meeks, Chief Executive Officer:

They are. Yes. So that's a really important topic to us, Craig. So how we think about testing, trialing is a comprehensive system. And I'll give an answer and ask Dr. Mohrdieck to add any thoughts he may have. But it does run from the bench tests in our full scale 250-kilowatt load bank testing facilities here in Bolingbrook, which is a lab that we think is a highly productive and a real showcase for the company that we love to show off any time people come to visit us to the on-track program that we run at the test truck utilized in Michigan here in the U.S., and test track in Europe and in Australia that we have to test each of our truck platforms and our customer trial programs as well.

And what's important is it's a multistage program, the test durability, the test performance, and the test fuel efficiency that allows us to optimize every element of the powertrain. So it starts, of course, with the fuel cell itself. Our 200-kilowatt fuel cell system, SOP is not just testing the system, right? It is testing single cell, it is testing short stack and it is testing full stack, it is testing the full system, it is documenting learnings and integrating those throughout the SOP.

So I can tell you that even in the 200-kilowatt fuel cell system itself, we're already on multiple sub generations of that technology as we've identified and built in additional improvements in the design even over the past 12 months. And that is exciting about that is we are confident when we bring that system to SOP here in Bolingbrook that we're still on track for later this year, that system will not just be a high-performance fuel cell system that we think is ahead of others that are in trucks today, but it also is one that we already have started to go through cost performance and quality improvement in the balance of plants and the MEA the catalyst design as we're optimizing and improving it based on the findings through our very rigorous A-samples through C-sample preproduction and SOP process.

And on the truck side, as I said before, all the testing that we've done now for tens of thousands of miles and kilometers look, in the grand scheme of this technology, we all across the industry, have a long way to go to test and validate and improve performance in the use case. But we've already shown tremendous gains in the performance and the optimization of the powertrain and the performance of the truck, even going from the 110-kilowatt technology in the truck, the 200-kilowatt technology in the truck we're seeing an expectation of 20% better fuel efficiency on the test track with that 200-kilowatt powertrain in the truck in the same use case, which by the way, that's 20% better than diesel.

And when half the cost of a truck of its life is fuel, that is a tremendous impact on our progress towards total cost of ownership parity with diesel. So all of that learning applies and what's also exciting for the company long term, so it's direct impact on the truck use case today, right?

And that's what we need to deliver to commercialize the technology. But when you look at the valuation of Hyzon, the option value and the upside and putting the same 200-kilowatt technology into ground support equipment at airports and the stationary and rural power concepts are relatively near term in the grand scheme of this industry evolving.

And all those learnings on the fuel cell is performance, the powertrain integration have a real benefit to us in all these cases that will come as well. So we're excited. Our customers see it and that's why they're with us. And the other example that I'll give you, which shows the progress, the first truck that we brought into trial with the U.S. 110-kilowatt truck in March 2022. Since then, the U.S. truck has been through all the testing that we've talked about, the fuel cell has been through all the testing that we've talked about.

We've launched the truck in Europe. We've launched the refuse vehicle in Australia. That refuse vehicle in Australia, I can't underscore how excited we are about that enough. That truck ran 4 months with REMONDIS unconstrained, up and down 18% grades near Sydney, Australia and had 0 unplanned downtime, which is a tremendous outcome for our technology at this stage and one that requires to build on, which we think shows the progression of not just our fuel cell technology, but our powertrain as well.

Craig Irwin, ROTH MKM Partners:

Excellent. That's really impressive. So Parker, my next question, I guess, I should preface right? We all know that you are using very conservative accounting, right? Your customer acceptance tests are robust. When the customer accepts a product, it's not coming back, right? But if we were to go to the other -- the other end of the spectrum, if we were to maybe look at FOB, like if we were selling widgets, but weren't this technology innovation that you guys have come up with, if we were selling simple widgets, what would revenue possibly look like for 2023?

Would we potentially have seen something in the teens, mid-teens from the 19 trucks that you delivered? Just so we can scope out how the separation from shipments and revenue recognition works and understand how to compare this to others that might not be using its conservative account.

Parker Meeks, Chief Executive Officer:

Yes. Look, it's a great question, Craig. I do appreciate you recognizing that we always are driving to achieve transparency and appropriate accounting principles. I'll give a high-level answer and then hand it over to Steve. But at a top level, you're correct that as we're deploying vehicles this year -- sorry, last year and this year, we are deploying it into a commercial construct, which typically will reflect the commercial agreement that we have with Performance Food Group, PFG in the U.S., which is a multiyear commercial agreement with a total of, in PFG's case, 50 potential vehicles total across 3 stages where the first 5 are what are binding and the next tranches unlock as we deliver the prior tranche.

And we said before, that first tranche of deliveries, we typically will have some kind of a risk share mechanism in place in the commercial agreement like a buyback provision that drives us more towards operating lease accounting when we look at that financially. Even though the cash may come in all upfront, which is very important to us, obviously, and we're happy to have that happened.

The accounting itself is a bit more conservative, given some of those risk share mechanisms that are in place in most of our -- not all, but most of our contracts. So when that flips, when will that flip, we will see -- our hope is that after the first tranche is delivered to a fleet and proven and the technology is proven in the use case, that second tranche, we've been able to release those buyback provisions at more of a traditional sale, but that's all to be proven as we push towards second orders that we're hoping to achieve from our early fleets this year. Steven, do you want to add?

Stephen Weiland, Chief Financial Officer:

Yes. Thanks, Parker. I'll just add a few things, Craig. Of course, here at Hyzon, we take compliance and our accounting and reporting very seriously, right? So -- we're following all the appropriate rules. We're recognizing revenue and working closely through auditors make sure everything is solid there.

So I don't want to necessarily say what pro forma revenue could have been like from a 2023 perspective. I guess the best I could do here to help you out is maybe just point you into the financials and take a look at our remaining performance obligation, right, on the balance sheet, it's about $14.8 million and our disclosure that about -- we expect 72% of that to translate over the next 12 months. I think you can kind of take a look at that and get an idea.

Craig Irwin, ROTH MKM:

Fantastic. That was what I was looking at. So that's good to hear. Last question if I may. You know, President Biden's support in the IRA for hydrogen infrastructure, the $7 billion we've seen awarded for infrastructure hubs, not something that was anticipated a year or 2 ago, right? So really positive and helpful for the long-term development of the market. Can you talk about whether or not this is widening the circle as far as the fleets that are taking a serious look at hydrogen.

Is this changing the tempo of activity in some areas of the country? I know in the short term, it does impact deliveries as people figure out where they get the best funding opportunity. But can you maybe unpack for us what this has done to change the long-term future for you guys?

Parker Meeks, Chief Executive Officer:

Yes. No, I would love to because it's a really exciting future when you look at how this technology and the decarbonization of trucking is going to grow across the United States. And that hub program is critical to it. What it's done for our fleets, right? What's fantastic is really over the past 18 months, once we started our trial program in March '22 and started to progress it. We have a very clear picture as to where the fleets would like these trucks to go.

California, everyone is focused on that because of very deep funding, like I said before, $300 million available and a voucher, which pushes the price the truck nets the customer in a place where economics are feasible today.

But they all want to run trucks -- most want to run trucks in Texas, most want to run trucks in the Midwest or trucks on the East Coast as well, wherever they're located, where there's volume. The Texas Triangle, Houston, Dallas, often San Antonio is a great example. That triangle is perfectly suited for fuel cell technology at today's stage. It's about 200 miles per leg of the triangle fits very well within the current range of our truck. And there's initiatives already ongoing.

There are small scale to go in, for instance, Interstate 45 between Houston and Dallas is a federal hydrogen highway with 3 hydrogen stations that are already insighting under a prior funding mechanism. And as I mentioned before, Port Houston has been quite aggressive in driving decarbonization grant applications like the one that we're very fortunate to have been selected with our partners at their application going in under the Clean Ports funding.

And so what we see that the sub program is doing, as 1 example, the Houston-based High Velocity Hub is 1 of the 7, right? And so that hub is a tremendous opportunity, we believe, for fleets to put in projects with us and fueling providers to be a part of that hub and to drive trucks once that hub is ideally funded and deployed into that Texas triangle with a significant freight demand and opportunity.

So what it's done is it's given our fleet customers a tangible visibility into how they can run trucks outside of California relatively near or midterm timing given that those funds we do hope start to flow certainly in the decade. And additional thing is when you pair that with the other driver for fleets, which has been the performance of fuel cell trucks versus the performance and availability of battery trucks.

That's frankly been an even bigger driver of fleets and fleets coming to us that may not have been looking at hydrogen before. The experience fleets have gotten trying battery electric trucks for up to 6 to 12

months, right? And then making purchase fee decisions on battery electric trucks and trying to get chargers permitted and cited behind warehouse expenses for those battery trucks.

The fact that in many parts of the country, including parts of California, where you have customers where you have freight. You also have a grid that's stressed. You have substations that don't have capacity, in some cases, to put more than 20 trucks with the chargers bind a single warehouse fence.

And you have 5- to 6-year lead times, some customers tell us to get any material number of chargers with enough power for charger, to not have to sit there for 8 hours, which a lot of Class 8 fleets can't have 8 hours charging. So that's driven fleets to also expand their view of the use case for fuel cell trucks and how much needs to be a part of their future given the frictions on weights, penalty, the frictions on operating performance profile on range -- and then on infrastructure availabilities.

When you add the battery truck challenges, which is the biggest driver, if you ask us, of why there's $300 million sitting in the California, the CARB HVIP program today. When I joined Hyzon June 2021, when CARB opened up HVIP funding, they'd release anywhere from $50 million to $100 million at a time. It would sell out in 20 minutes because the battery trucks were being applied for in significant numbers.

That money is built and is sitting as fuel cell trucks come to market in part because of all these frictions on the battery truck side. So we're seeing a clear movement to hydrogen. We're seeing, the use case for hydrogen trucks expands, because of both the challenges of battery trucks to do the work that diesel does today.

And as to your point, the clear path that the government at the federal and the state level is showing in this 3-step approach to fund this program from California and to the ports with certainly the hubs.

Operator:

Your next question comes from the line of Rob Wertheimer with Melius Research. Your line is open.

Robert Wertheimer, Melius Research:

I'll have 2, if I can. You mentioned, I guess, with the 200 -- the potential, at least for expansion into other industrial end markets, including rail, stationary and other, is that more of an outreach program from you guys? Or is that demand pull? And does that extend to potential strategic partners?

I mean can you just kind of describe that ecosystem and a level of interest and what's driving those comments?

Parker Meeks, Chief Executive Officer:

Hey Rob, good morning. The future for fuel cell technology is significant, and we're excited to talk about the next markets that we see after trucks. So to answer it directly, the opportunity is as much a pull from strategic counterparties and other entities that want to get going and have real decarbonization goals as it is us pushing and identifying where that could happen.

And let me give you a couple of case studies on that. One, stationary and mobile power, we announced previously a joint development agreement with Schlumberger to do that. There's significant appetite from many in the industrial and remote work use cases for a decarbonized solution for power that can work.

So that's both inbound from partners, inbound from customers, and that's a pretty broad set of opportunities. It's inbound from data center operators, inbound from entertainment industry, who is using diesel generators to film movies and TV shows and other things in time for industrial operators, which run off oil and gas and power and chemicals that need to replace generator power is on diesel today with something that is zero carbon and find batteries to be a tough solution.

The other example I'll give is the airport ecosystem and ground support equipment. There are funding programs at airports today, both in the U.S. and Europe to start decarbonizing airports. I think people realize, look, we hope fuel cells are in planes certainly, but that is going to take some time. 75% of the emission profile when you take the planes out of the equation at an airport is ground support equipment.

And those use cases like aircraft tubs, and ground power units are perfect use cases to slot in 200-kilowatt fuel cell power today so that airports and airlines and others in the aviation ecosystem, who are quite interested in and have goals they need to achieve. So we're -- those are things that we're working on actively that we would like to see come to market as we have the trucks launched and scaling. We have been taking a prudent approach to manage our working capital and our resources.

But those are markets that we fundamentally believe are going to be ready to go as soon as the trucks are launched.

Robert Wertheimer, Melius Research:

All right. Perfect. Thank you. And then Parker, you've touched on this in 2 questions in a couple of different ways. But just contextualize California, clean truck mandates are difficult to meet. I think you've mentioned that sometimes battery electric just isn't up to the duty cycle, et cetera. What are your customers saying a potential customer saying, are they waiting around until fuel cells are fully tested, mature?

Do they expect to have to buy batteries? I'm just curious what that environment feels like and if there's a real launch in '26 or whatever people like wait for it and then go after it. And if I may, when you're dealing with your trial customers and customers, are they typically playing you against and benchmarking you against other fuel cell providers? Or is everybody like finding a customer and testing it out at this point? It's not really competitive between you all on fuel cells. I'll stop there. I know that's 2 questions.

Parker Meeks, Chief Executive Officer:

No, that's great. Thanks, Rob. I'm happy to describe transparently how that's -- how we're seeing this today. So first, all the fleets that we're working with, we are screening our pipeline to focus, right? We believe we only need at least 10 large fleets like Performance Food Group, to scale over a 4-year scaling program to 1,000 trucks per year in total, that stand up to 100 trucks per fleet, right? So we're very focused on back-to-base large fleets plus concentrated ports, right?

But back to base large fleets who have concentrated demand by warehouse expenses and have the use case that stretches beyond the other 200-mile sort of break point. It's now reducing probably 150 miles where battery struggles, right? And with that in mind, all of our fleets are trying everything, right? The fleets that are truly motivated and these fleets like Performance Food Group are typically leaders, right? So PFG has a stated goal to decarbonize to reduce the diesel for pacing their fleet significantly by 2030. That's a real goal.

And you see them leading in taking our trucks into operation because they want to get going, right? And they're very proud of that. Those are the fleets that we're focused on. There's a significant number of those out there. As I mentioned before, 20 trials completed in North America alone since March of 2022. They are -- every fleet is trying multiple solutions, right?

And we want them to because we're confident and first of all, fuel cell technology being the right answer for the use cases that we're focused on, which is the majority of what Class 8 does, the over 150-mile back to base to long-haul transition.

And then also benchmarking us against other fuel cell technology, we're happy whenever fleets are trying other fuel cell structure because we fundamentally believe our 200-kilowatt single stack fuel cell system has a weight advantage that's significant, a volume advantage, a cost advantage, which allows our trucks to be positive cash contribution margin today to large fleets, which is a unique statement in this business versus others who are significantly cash negative.

And fleets see that and see a technology that's leading and they see a business model that can scale.

Robert Wertheimer, Melius Research:

All right. Thank you.

Parker Meeks, Chief Executive Officer:

Thank you.

Operator:

That is all the time we have for questions. I'll turn the call to Parker Meeks for closing remarks.

Parker Meeks, Chief Executive Officer:

Thank you very much, operator, and thank you all for joining and for the tremendous questions and discussions today. As you can tell, I and we are incredibly excited for 2024. It promises to pave the way for Hyzon's long-term growth. And we look forward to continuing to update you as we achieve our commercial relation goals this year, and thank you so much for taking the time to engage with us. Take care.

Operator:

This concludes today's conference call. We thank you for joining. You may now disconnect your lines.