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CORPORATE PARTICIPANTS

Anthony Robert Guglielmin *Ballard Power Systems Inc. - CFO & VP*

Guy McAree *Ballard Power Systems Inc. - Director of Marketing & IR*

R. Randall MacEwen *Ballard Power Systems Inc. - CEO, President & Director*

CONFERENCE CALL PARTICIPANTS

Amit Dayal *H.C. Wainwright & Co, LLC, Research Division - MD of Equity Research & Senior Technology Analyst*

Jeffrey David Osborne *Cowen and Company, LLC, Research Division - MD & Senior Research Analyst*

Joseph Amil Osha *JMP Securities LLC, Research Division - MD & Senior Research Analyst*

MacMurray Davidson Whale *Cormark Securities Inc., Research Division - Analyst of Institutional Equity Research*

Robert Duncan Brown *Lake Street Capital Markets, LLC, Research Division - Senior Research Analyst*

PRESENTATION

Operator

Thank you for standing by. This is the conference operator. Welcome to the Ballard Power Systems First Quarter 2020 Results Conference Call. (Operator Instructions) The conference is being recorded. (Operator Instructions)

I would now like to turn the conference over to Guy McAree, Director of Investor Relations. Please go ahead.

Guy McAree - *Ballard Power Systems Inc. - Director of Marketing & IR*

Thanks very much and good morning, everyone. Welcome to the Ballard First Quarter 2020 Financial and Operating Results Conference Call. With us today on the call, we have Randy MacEwen, Ballard's President and CEO; and Tony Guglielmin, our Chief Financial Officer.

We're going to be making forward-looking statements that are based on management's current expectations, beliefs and assumptions concerning future events. Actual results could be materially different. Please refer to our most recent annual information form and other public filings for a complete disclaimer and related information.

I just want to note as well that we're planning an Investor and Analyst Day on September 29 later this year. Our original intent was to hold this as a face-to-face event in New York City. However, in view of the COVID-19 pandemic, we are now planning to host a virtual Investor and Analyst Day event with a live video stream. We're going to be confirming additional details once arrangements are finalized.

On today's conference call, Randy is going to provide his perspective on the COVID-19 situation and notable industry developments. Tony will then review first quarter 2020 financials, and we'll follow that by a Q&A session.

I'll pass the call over to Randy now.

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Thanks, Guy, and welcome, everyone, to today's conference call. Today, I'd like to spend some time providing an update on the COVID-19 situation at Ballard, discussing recent noticeable industry developments and then providing some initial thoughts on longer-term structural implications for our industry as a result of the COVID-19 pandemic.

I want to start today by commenting on the status of our business and operations in the face of this extraordinary environment. Our top priority always is the health and safety of our people, customers and partners. We continue to monitor and comply with the most conservative public health guidelines. We've taken decisive action and implemented important measures to mitigate the impact of the COVID-19 pandemic on our people and on our business.

We also remain firmly committed to serving our customers and meeting their needs. This means we have taken actions that align with employee safety and risk mitigation while also preserving business continuity to support our customer deliverables. So while we have about 2/3 of our global workforce working productively from home, we also continue to operate our essential manufacturing and testing operations in Burnaby and continue to provide essential field service support to our customers in China, Europe and North America.

In our facilities, we've implemented precautionary and prudent measures, including relating to hygiene, sanitization, procurement and supply of PPE, temperature screening and physical distancing. We've made certain changes in our facilities and operations in Burnaby and in Hobro, Denmark to support physical distancing and employee safety.

We've also been busy stabilizing our supply chain to understand potential disruptions and choke points. While some of our critical suppliers temporarily suspended operations, almost all of them have resumed operations already or expect to be resuming production shortly. We have taken a number of steps to support our supply chain partners and mitigate risks during this period, including by increasing certain stock levels, increasing the frequency of deliveries for certain materials, obtaining commitments on supply minimums and delivery timing, flexing our production schedule and accelerating activities to qualify additional suppliers. Based on the information we have at this time, while we see some impacts in Q2, we're not expecting any major supply chain disruptions that should impact our overall expectations for full year 2020. However, as we've seen, the situation remains fluid and geographic-specific. We will continue to closely monitor and manage our supply chain.

Moving from the supply side to the demand side, we're not seeing any demand pullback as a result of COVID-19. In fact, we're experiencing high levels of quoting activity. Further, we believe our long-term markets and business opportunities may be stronger given some of the long-term implications we've seen arising from COVID-19. More on this in a moment.

In the near term, there are potential COVID-19 risks on the timing of new deployments for our customers and from end customers. A number of our customers have had their operations suspended, and certain customers remain shut down at this time. Visibility is even murkier and the uncertainty is further exacerbated as they move to the end customers and try to determine when their operations will stabilize, when hydrogen refueling infrastructure will become available, when deliveries of new zero-emission fuel cell buses and other vehicles will occur and, therefore, when deliveries of Ballard modules or Weichai-Ballard JV modules to customers will be made. While we don't have any information today on material delays, there is uncertainty on the delivery schedule.

When taken together, the dynamic environment presented by COVID-19, potential customer delays, the potential for additional supply chain challenges and even potential disruption in our own operations, we believe the responsible and prudent approach is to withdraw our 2020 revenue outlook.

Now we entered the COVID-19 pandemic from a position of financial strength, and we added to that strength in the first quarter. Notwithstanding the COVID-19 backdrop, we delivered record Q1 revenue of $24 million, up 50% from last year, gross margin of 22% and ending cash reserves of $181.6 million. We further fortified our balance sheet with the execution of an at-the-market equity program.

As you would expect in the current environment, we have also been reviewing our cost structure. While toggling certain costs with market conditions and prudent cost management, we're also continuing to move forward with critical investments for long-term competitive positioning, including in our people, technology, products, product cost reduction, customer experience, advanced manufacturing and our Weichai-Ballard joint venture. We believe this will further strengthen our position as the economy emerges post COVID-19 and as decarbonization again take center stage.

And I want to turn now to recent notable industry developments. While the world has understandably been focused on the COVID-19 news feed, there have been important industry developments in each of China, Europe and California that we want to draw your attention to. As they've been underreported to date, we want to put a spotlight on these items.

Let's start with China where we continue to have conviction that our joint venture partnership with Weichai provides Ballard with a strong competitive advantage in the Chinese market. We believe we're well positioned in the large China market where there appears to be continued strong government support for new energy vehicles, including FCEVs. Although our Weichai-Ballard JV facility in Shandong Province has experienced some construction and program work delays resulting from COVID-19, construction and staffing levels of the JV have resumed to pre-COVID-19 levels. We are making great progress and expect commissioning of stack and module assembly lines around midyear 2020. Most of the major manufacturing equipment has been installed and is currently undergoing qualification and commissioning.

Importantly, on April 23, China's government announced immediate changes to new energy vehicle, or NEV, subsidy programs, which include both fuel cell electric vehicles as well as battery electric vehicles. The overarching goal of NEV programs is for 20% of vehicle sales to be new energy vehicles by 2025. NEV subsidies will be extended until 2022 with no decline this year for public transportation vehicles, including transit buses and commercial trucks. We expect further favorable policy developments in China with specifics on future FCEV support schemes to be released by Q3.

Over the past few months, the Weichai-Ballard joint venture has worked with 4 vehicle OEMs: Yutong, Zhongtong, Asiastar and Sinotruk, to certify new buses and trucks powered by our JV FCmove fuel cell module into the China MIIT program promotion catalog, bringing the total vehicle models powered by Ballard technology to 55. At this time, Ballard technology can be found in approximately 50% of the 6,300-plus fuel cell electric vehicles registered in China. Vehicles powered by Ballard have now accumulated over 23 million kilometers of service by public transportation and logistics vehicle operators. We expect the deployment of FCEVs to continue to accelerate with 60 new hydrogen-refueling stations expected to be put in service in 2020, doubling the current service capacity.

Next, let's move to Europe. Since the start of the year, we've been pleased to receive some exciting new orders in Europe, including 45 fuel cell modules to power Solaris buses, 25 buses for deployment in Germany and 20 for deployment in the Netherlands. And a few weeks ago, 3 fuel cell buses started operation in Aalborg, Denmark, which is about 30 minutes from our facility in Hobro.

We've also been excited with the European Commission's posture on moving to carbon neutrality and the important role of hydrogen in decarbonizing mobility, decarbonizing industry and serving as an energy storage medium for renewable energy. The European Commission's Green Deal is a set of policy measures and actions with the aim of transforming the EU's economy for sustainable and climate-neutral future by 2050. This has meant accelerating Europe's 2030 emission reduction targets to at least 50% and towards 55%. There are 8 specific priorities, including from mobilizing industry for clean and circular economy to accelerating the shift to sustainable and smart mobility.

On March 4, the EU Commission proposed the EU Climate Law, which would enshrine the 2050 climate-neutrality objective into legislation. On March 10, the EU Commission set out a new European industrial strategy with an aim to maintain European industry's global competitiveness and ensure that industry paves the way to climate neutrality. The strategy expressly includes in its top priorities measures to modernize and decarbonize energy-intensive industries as well as to support sustainable mobility. As part of the strategy, the commission announced the creation of the Clean Hydrogen Alliance to accelerate the decarbonization of industry. The alliance will bring investors, together with governmental, institutional and industrial partners, building on the successful template of existing industrial alliances and the great work that's been done under the framework of the FCH JU.

And finally, let's move on to California. CARB had already set a statewide goal for public transit agencies to gradually transition to 100% zero-emission bus fleets by 2040. And now CARB has released a final draft of the Advanced Clean Trucks standard. This standard is part of California's proposed approach to a large-scale transition to zero-emission medium- and heavy-duty vehicles. The proposed regulations have a manufacturer sales requirement and a reporting requirement. Similar to what happens with passenger cars, manufacturers who certify medium- and heavy-duty chassis or complete vehicles with combustion engines would be required to sell zero-emission trucks as an increasing percentage of their annual California sales starting in 2024.

The final draft is much stronger than previous drafts, doubling the number of zero-emission trucks required through 2035. The final draft increased the percentage requirements between 2024 and 2030 and extended the requirements to 2035 and beyond. Zero-emission sales targets were increased across all vehicle categories and now with the continued increases through 2030 -- to 2030 rather than flattening out in 2030.

The final draft is now proposing that for model year 2024, 9% of all on-road Class 4 to 8 truck sales must be zero-emission vehicles, scaling up to 50% of sales for 2030 and 75% for 2035 and beyond. For the Class 7 to 8 tractors group, the requirements are 5% for 2024, 30% for 2030 and 40% for 2035 and beyond. The sales requirement for Class 7 to 8 tractors were increased to better align with the Clean Air Action Plan for the ports of Los Angeles and Long Beach, which has a goal for 100% zero-emission tractors for the population of drayage trucks at the ports currently at about 16,000 and expected to increase over time. The zero-emission tractor deployments will also benefit disadvantaged communities burdened by truck and freight emissions. The policy will apply to truck manufacturers that sell more than 500 trucks annually in California, and these are the categories of trucks that we're focused on at Ballard: medium- and heavy-duty motive.

In a December 2019 report, it was estimated that America's 28 million trucks and buses make up 10% of all vehicles but are disproportionately responsible for 28% of total carbon emissions in the transportation sector, with heavy-duty vehicles contributing 45% of NOx and 57% of direct PM2.5.

So those are some notable regulatory updates from China, the EU and California.

We've previously discussed many of the important commercial announcements that have happened over the past 8 quarters, including the announcement from Weichai and Ballard and subsequent announcements from major players like Bosch, Cummins, IVECO, Michelin and Faurecia, to name a few. We can now add 2 more blue-chip names making highly visible investments in the hydrogen fuel cell industry for commercial trucks. In April, Daimler Truck and Volvo Group signed a preliminary, nonbinding agreement to establish a 50-50 joint venture focused on developing, producing and commercializing fuel cell systems for heavy-duty vehicle applications, in particular commercial trucks. All Daimler fuel cell activities will be consolidated in the new JV, which has an initial valuation of EUR 1.2 billion. This is an exciting development that will increase momentum in the adoption of fuel cell solutions for the global trucking market.

In the press release announcing the deal, the parties noted that CO2-neutral transport can be accomplished through electric drivetrains with energy coming either from batteries or by converting hydrogen onboard into electricity.

For trucks to cope with heavy loads and long distances, they see fuel cells as an important answer. They noted that electrification of road transportation is a key element of delivering the Green Deal. Further, they noted that using hydrogen as a carrier of green electricity to power electric trucks in long-haul operations is one important part of the puzzle and a complement to battery electric vehicles and renewable fuels.

By forming this joint venture, Daimler Truck and Volvo Group are clearly showing that they believe in hydrogen fuel cells for long-term commercial vehicle applications. We believe this is yet another strong validation of Ballard's strategy to focus on medium- and heavy-duty motive use cases. As OEMs and Tier 1 suppliers further develop their strategy to decarbonize their vehicles and powertrain offerings, we believe Ballard will be viewed as an attractive fuel cell technology partner for commercial vehicles.

I also want to take a few minutes to discuss possible long-term implications of COVID-19 on our industry. While COVID-19 is the clear priority for governments and corporates at this time, we still see the fundamental drives of sustainability as motivating change in the background. And while it's still early, we wanted to share some initial thinking on the new normal post COVID. These are some potential trends to watch for over the next 6 to 24 months.

First, we do not expect any deferrals of softening of CO2 emission targets. We believe the transition to green mobility will forge ahead.

Second, recent studies have found a correlation between long-term exposure to PM2.5 and COVID-19 mortality rates. We believe this will be another factor pushing cities to aggressively promote and accelerate zero-emission mobility to improve urban air quality, including further restrictions and bans on PM2.5-emitting diesel trucks.

Third, the increase in e-commerce during COVID-19 will lead to higher penetration of online shopping in the new normal. We believe this will result in more commercial trucks to support deliveries of online purchases, which has traditionally been a challenging segment of mobility for emissions abatement.

Fourth, we're seeing positive signs that stimulus packages in the EU, China and the U.S. will include infrastructure spend. We view hydrogen refueling infrastructure as a potential beneficiary in these infrastructure stimulus and green recovery plans. We may also see new subsidies to support the purchase of zero-emission vehicles as part of a green recovery package.

Fifth, given the economic strains resulting from COVID-19 and contraction in near-term new vehicle demand, we believe many of the vehicle OEMs and Tier 1 suppliers will have insufficient budgets to continue fully investing in internal combustion engines as well as the ACES trends. This presents opportunities for technology companies. They may continue to invest in battery electrification for passenger cars while seeking to collaborate with fuel cell technology partners for commercial vehicle markets, for example. In addition, we expect COVID-19 to accelerate industry consolidation among the OEMs and Tier 1 suppliers.

Sixth, the long-term growth trajectory for renewables should remain intact. With growing support for electrolysis, we see continued cost reduction on renewables strengthening the hydrogen opportunity.

Seventh, we do not expect the current temporary low oil prices to present long-term barriers to the adoption of zero-emission solutions. Interestingly, the current oil shock has laid bare the challenge in the oil industry around storage. We believe at low oil prices, the energy majors will increasingly invest more in low-carbon energy and hydrogen. We know recent announcements by BP and Shell on their net zero-carbon targets.

And eighth, we believe COVID-19 will cause many countries to become more protectionist and reconsider national security, energy security and supply chain security in critical industries, not just in food supplies, health care and pharmaceuticals. There will be increased pressure on domestic supply chains with more focus on security and resiliency.

On a relative basis, we believe green hydrogen and fuel cells offer important advantages from a supply chain perspective compared to battery electrification. We see a brighter spotlight on the vulnerability of the supply chain for critical minerals and rare-earth materials using consumer goods, military applications and electrification. Again, it's still early, and these ideas represent some of our initial thinking on potential long-term implications for our industry from COVID-19.

Now let me conclude with 2 final remarks. First, we believe we're taking the right steps to build a great business that will drive long-term growth, improve financials and value for our shareholders. Second, as a final word, I'd like to thank each of our global Ballard team members who demonstrated true valid resilience and dedication to safety and our customers during this challenging period.

And with that, I'll turn the call over to Tony to briefly review the Q1 financials.

Anthony Robert Guglielmin - *Ballard Power Systems Inc. - CFO & VP*

Thanks, Randy, and good morning, everyone. As Randy mentioned, top line revenue in the first quarter was a Q1 record of $24 million, up 50% year-over-year.

In the quarter, Power Products revenue was up 95%, and Technology Solutions revenue increased 20%. Within Power Products, heavy-duty motive was up $7.8 million to $10.4 million. This was largely due to a year-over-year increase in sales of module parts, kits and MEAs to the Weichai-Ballard joint venture in China. The increase in Technology Solutions revenue to $11.6 million was due primarily to the Audi program and the technology transfer program with our Weichai-Ballard JV. Now this was despite the temporary slowdown in China and JV activities in the quarter.

Gross margin was 22% in Q1, up 8 points year-over-year. The improvement was the result of the 50% increase in total revenues, combined with a shift in mix to higher-margin product and service revenue.

Cash operating costs increased 31% year-over-year to $12.2 million, primarily attributable to increased expenditures in technology and product development. These increases stem largely from new hires made throughout 2019 to support investments in our next-generation fuel cell products.

Adjusted EBITDA in Q1 was negative $9.1 million, an increase of $0.5 million compared to the same quarter last year. This included Ballard's $2.5 million share of losses related to the Weichai-Ballard JV.

Ballard's net loss in Q1 was negative $13.5 million compared to negative $12 million in Q1 last year, and earnings per share was negative $0.06 in Q1 compared to negative $0.05 in Q1 2019. Both the net loss and EPS numbers include the Ballard share of losses from the Weichai-Ballard JV.

Cash used by operating activities was $10.1 million in Q1, consisting of cash operating losses of $7 million and working capital outflows of $3.1 million.

In terms of liquidity, during March, we began executing our $75 million ATM program. During the quarter, this generated net cash proceeds of $52.6 million. We ended the quarter with cash reserves of $181.6 million, 10% higher than the same period last year and 33% higher than the end of the prior quarter. We also added an additional $12.3 million to cash reserves in April under the ATM program. In total, the ATM transactions have added $64.9 million to cash reserves to this point in 2020. And this was accomplished with no price discount, relatively modest transaction fees and limited dilution to existing shareholders.

Finally, we ended Q1 with an order backlog of $169.5 million and a 12-month order book of $105.8 million. Our sales pipeline remains robust with significant qualified commercial sales opportunities.

And with that, let me turn the call back over to the operator for questions.

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) Our first question comes from Rob Brown with Lake Street Capital Markets.

Robert Duncan Brown - *Lake Street Capital Markets, LLC, Research Division - Senior Research Analyst*

Randy, I just wanted to clarify what you said on the JV operation with Weichai. Did you say that was going to be running kind of midyear here? And then maybe could you clarify the steps that need to happen thereafter to kind of ramp that production?

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Great. Thanks for the question, Rob. So we had, in the last conference call, identified we expected the JV to start and be fully commissioned midyear. So that time line hasn't changed. When we had the call last time, we did know that there was some delays that was occurring. We basically had a contractor that was out of Hubei province that wasn't able to support the JV construction for a period of time. Weichai and the Weichai-Ballard JV is back to full staffing now for some time. And in fact, we have a JV Board call tonight. And the facility has basically fully constructed. All of the equipment -- almost all the equipment has arrived, I believe now, and is in the process of being commissioned.

So achieving midyear, there aren't really a lot of long poles in the tent at this point. It's really a matter of optimizing, getting equipment fully commissioned and optimizing -- doing sample runs and stuff like that. So I think we're in very good shape. In fact, there was kind of a preliminary soft opening of the JV. There are some activities currently underway on some temporary lines. So there's a lot of work going on there, including with the vehicle OEMs and in terms of qualifying new vehicles and new platforms and on the sales side. And we're expecting a good finish to 2020 with the JV as well as a very strong 2021 with the JV.

Robert Duncan Brown - *Lake Street Capital Markets, LLC, Research Division - Senior Research Analyst*

Okay. Good. And then in the U.S. market, you mentioned some pull from California or some -- moving toward regulatory pull. What are the steps in the U.S. market that you sort of see playing out as a result of that and sort of the time lines you kind of think can develop there?

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Yes. I think the highlight that we wanted to focus on was the Clean Trucks standard, and we've been actively involved helping kind of shape this legislation in California as well and still in a final draft, so it's not law yet, of course. But I think the direction we're seeing and the change from the previous version to this final draft are very, I think, supportive of a strong outcome. And so moving to a regime, in some ways, similar to what Europe did last year where you have very clear emission reductions for Class 8 trucks here in California, now we're talking about from 2b all the way up to Class 8 trucks, we see this annual increase from 2024 through to 2035 as a very powerful requirement. And I think companies like Daimler Truck and Volvo, these type of announcements are -- while they're initially going to be focused, I think, on Europe, there's clearly a requirement for these truck OEMs to meet the requirements that are coming in California.

And what we've seen in the U.S., of course, while we don't necessarily have good visibility what's going to happen at the national level, what we see is that California is a very significant influence on climate policy and air emission policy in the U.S. And typically, some of the good regulatory work that's done in California is adopted eventually in other states. So we think it's really important what California is doing. We're very supportive of the activities there. I believe we'll likely see a favorable outcome on this front in 2020 and starting to get very clear requirements for these truck OEMs to start decarbonizing their platforms for 2024.

So if you kind of look at that time line of 2024 to 2035 and you look at the increasing percentage requirements each year, not just for the Class 7 to 8 tractors but Class 4 through 8, we see lots of opportunity there for fuel cell technology that I think uniquely satisfies the requirements, particularly for long and heavy payloads -- long routes and heavy payloads. And we believe Ballard is very well positioned, and we need to do -- continue to do great work on collaboration as well as continuing to progress the technology and the products, including, importantly, product cost reduction, which is a very big emphasis for us here in 2020.

Operator

Our next question comes from Amit Dayal with H.C. Wainwright & Co.

Amit Dayal - *H.C. Wainwright & Co, LLC, Research Division - MD of Equity Research & Senior Technology Analyst*

With respect to all these positive industry developments from a longer-term perspective, how is the competitive environment shaping up, Randy? Could you talk about how difficult it may be for many competitors who are now trying to enter this market to go around your IP and your history in this space?

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Amit, thanks for the question. I apologize, maybe I'm going to ask you to repeat the question. It was very difficult to hear you.

Amit Dayal - *H.C. Wainwright & Co, LLC, Research Division - MD of Equity Research & Senior Technology Analyst*

Yes. I was just asking how you guys are positioned competitively with a lot of these positive longer-term industry developments taking place, how difficult would it be for newcomers in the space to go around your IP and your history of involvement here?

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Yes. So great question. So I think there are new companies coming to the hydrogen and fuel cell space. I think when you look at kind of -- it was interesting to me. I was listening to the conference call between Daimler Trucks and Volvo. I don't know if you had a chance to look in that -- listen to that call. And they just highlighted how difficult it is for -- they said making fuel cell technology work is no small undertaking for any company, and we've had this a lot longer. And they highlighted they have a history of a couple of hundred pass cars and some buses and kind of millions of kilometers driven. Just in China alone, we have over 23 million kilometers of service with vehicles that have Ballard technology inside. And outside of China, of course, we've got a long history and the largest fleet of fuel cell buses.

So I think from a competitive positioning, when you look at talent; when you look at technology leadership, whether it's durability and power density, reliability, uptime and availability in the field; when you look at product offering with the characteristics required to meet the market requirements; when you look at service support that we have, we have very high uptime or availability of our vehicles in the field, we do an excellent job on the service side as well; and then when you look at brand and reputation and, importantly, partnerships on the supply chain side, we've been working with a lot of key partners there to qualify materials, and we're very encouraged with the opportunity for product cost reduction going forward at the system level, at the stack level, at the MEA level, plate level, so a lot of work being done with the supply chain; and then when you think about partners on the market access side and strategic partners like Weichai, we have, I believe, the strongest possible platform in the China market and a huge competitive advantage because of our relationship and our joint venture with Weichai. It's a very compelling company, and they continue to prove that every week. So I think, overall, we have a very strong position.

And aligned with a lot of these, I believe, long-term implications for structural industry change as a result of COVID-19, we do believe that decarbonization will be front and center. And we're very well positioned. We've been talking about the medium- and heavy-duty motive industry for a number of years now. We've always highlighted the 3 key reasons to be focused on that industry is the value proposition for fuel cells are strongest where you have long range, a need for fast refueling and heavy payload. Number two, these are markets where you typically can have opportunities for return-to-base refueling. So solving the refueling side is much easier than, say, on the passenger car market where you need to distribute refueling infrastructure. And then third, you're hitting a market segment that's very difficult to abate. I don't believe batteries are going to be able to satisfy the use cases for a number of these class -- heavy-duty trucks. And fuel cells really offer the only viable solution, in my opinion, at this time for zero-emission decarbonization of these vehicles. And these are the vehicles, as we pointed out, that have disproportionate contribution to emissions.

So I think we're very well positioned. We still have lots of work to do. We're continuing to improve our operations. We're investing in advanced manufacturing. And I think at the end of this year, hopefully, some of the travel restrictions will abate. But Amit, if you had the opportunity, for example, to come out late in the year and then we invite others as well, we're making great changes in our facilities here in terms of how we manufacture our products, increasing in robotics, shrinking takt times, really compressing steps and expanding capacity and lowering costs. So we're very excited about what's going on, not just technology improvement but on advanced manufacturing and on the operations side as well. So still a lot of work to do to meet the demanding requirements for these markets in high-volume commercialization, but we believe we're making the right investments and engaging the right partnerships to make it happen.

Amit Dayal - *H.C. Wainwright & Co, LLC, Research Division - MD of Equity Research & Senior Technology Analyst*

Randy, maybe just one more from my side. With all these developments now taking place, many of these seem to be still in the early stages of taking shape. But are you seeing a big change in inbounds you're getting with requests to test or pilot some of your offerings?

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Yes. So what's been surprising, frankly, is that we knew for a long time that the bus and truck markets were going to be very important markets. They're large, addressable markets. We have a very good positioning in these markets. What surprised me, frankly, is the activity levels we're also seeing in some of the other market segments, so rail, marine, forklift but also even stationary power. Increasingly, there's more activity on the DG side. And so I think there are a number of markets that are going to surprise to the upside. And I would probably put a spotlight on -- and each of these markets will take time. They're not going to see high revenue values next quarter from these markets, to be clear. But the level of quoting

activity and the level -- the proposals that we're looking at and the customer collaboration opportunities we're negotiating are very exciting, and we're seeing new geographic markets pop up as well. So I think there's a lot happening that, in my mind, has been accelerated. And I don't know if it's COVID-19 necessarily. We started feeling this just before late 2019 and early 2020, but it's really accelerated in the last few months as well.

Operator

Our next question comes from MacMurray Whale with Cormark Securities.

MacMurray Davidson Whale - *Cormark Securities Inc., Research Division - Analyst of Institutional Equity Research*

You mentioned, Randy, about the hydrogen programs in China, expecting some developments to be revealed in Q3. Can you speak, first of all, whether there's any involvement of Ballard or Weichai or the JV in shaping that program and whether there's any sort of insights you can provide in terms of the size or the timing of the types of stimulus?

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Yes. Thanks for joining, and thanks for the question. So I think what we'll likely see -- and it could be as early as June or July. We're always reluctant to give a time, particularly when you're talking about regulatory environments. They always seem to take longer, and we actually expected these to be in place earlier this year. But of course, COVID-19 has caused some delays on that front. So we might see something happen as early as June or July. But to be cautious, I kind of think about it as Q3. So that's the timing in terms of the announcement.

I think there's a lot of discussion in the market about what may -- the new fuel cell subsidy scheme may look like, and I think a number of parties have been influential in helping shape this. So there are industry groups and there are companies that have access to regulatory authorities at the national level and provincial level. I don't want to get into detail on how we get to influence this or how our partner influences this, but I believe that Weichai has a very loud voice in the market. They're the largest manufacturer of diesel engines in China. And the fuel cell platform that they're building out with Ballard is, I believe, going to be the leading fuel cell business in the country. And I think there's a lot of support for Weichai in terms of transitioning over time their portfolio to provide for zero-emission solutions.

In terms of what the scheme might look like, we -- our understanding is that there likely will be 5 or 6 key regions that are identified as regions where there will be significant policy support and subsidy support. And these regions or clusters will have kind of special fuel cell and hydrogen recognition and a lot of subsidy support that will support, not only the adoption of fuel cell vehicles, particularly in heavy-duty motive, bus and truck, but also hydrogen refueling infrastructure. So they were going to need to wait to see this come out, but I believe it will be highly, highly supportive of long-term growth in this market, and I believe there will be long-term visibility. I don't think this is something where, every 6 or 12 months, we need to wonder what the policy is going to be. I think they'll provide sufficient visibility so companies can make the appropriate investments. So I think it's going to be highly supportive. And I'm quite excited about it.

I think you'll also see, following that, a number of provinces also come out with cascading subsidy announcements as well. And I believe Shandong, in particular, is going to be a very strong advocate for the adoption of hydrogen fuel cell solutions, not just because Weichai is located there but Shandong has some unique attributes, including access to hydrogen that positions them very well. They have 15 cities or so that I'd expect to see some fuel cell activities coming out, so we're pretty excited about the national-level support that the industry is likely to see. We can't be firm on this, but we're optimistic and excited about it. And we believe there'll be some cascading provinces as well that come out with some policy updates that we'll be very supportive to.

MacMurray Davidson Whale - *Cormark Securities Inc., Research Division - Analyst of Institutional Equity Research*

Okay. And then just following up on visibility. On the 2,000 units committed by Weichai, do you have any additional insight into where they'll be deployed or by whom or what the plan is there?

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

We do. We're going to follow Weichai's lead on their communications on this, Mac. So they have commented publicly that they expect these primarily to be buses. There will be some trucks as well. And they'll -- there are different regions that they'll go into but primarily in Shandong Province.

MacMurray Davidson Whale - *Cormark Securities Inc., Research Division - Analyst of Institutional Equity Research*

Okay. And then just a couple of things, perhaps from Tony. Just in terms of modeling over the next couple of quarters, if we were to see revenue pushed out, can you remind us of the fixed versus variable overhead and sort of the cost of goods sold, whether we'll see a big jump in the burn rate because there will be fixed overhead not being covered? I'm wondering about that. And then second question is just can you go over the anti-dilution rights that Weichai has given the -- how that works with the at-the-market financing?

Anthony Robert Guglielmin - *Ballard Power Systems Inc. - CFO & VP*

Sure. So let me -- thanks, Matt. Let me deal with the second question first. This is with regard to the Weichai anti-dilution rights. So Weichai does have -- has the right to top up with regard to any new financing, public market or private financing we do, to top up to 19.9% related to the financing. So with regard to the ATM specifically, this is the $75 million program. Weichai has indicated to us they do intend to top up to maintain their 19.9%. So that would be off of -- thus far, would be about $16 million relative to what we've issued thus far. And if we complete the program, that might move that $16 million to $17 million or $18 million of additional -- this will now -- this would be funded under a private placement with Weichai. So at this point, they have indicated they will top up. It's just really right now a question of timing. We expect that to -- would close sometime likely in the second quarter. But at this point, we don't have a firm window on it. So those are the anti-dilution rights specifically that they have, and we do expect them to exercise. So that's on the Weichai side of things.

On your other question with regard to the cadence of revenue and fixed and variable overhead, I got to say I don't have the numbers in front of me right now, Mac. But I will say Q1 is somewhat illustrated at a revenue number of around $25 million -- $24 million, $25 million. As was highlighted or as you've seen, we did see a bump-up in gross margin from Q4 last year, particularly where we were at a lower level of revenue in certainly Q1 of 2019. So we're already -- with that 22% gross margin in Q1, we're already starting to see that type of absorption of the overhead. I'll -- if I can find the numbers, I'll certainly get back to you on the call. If not, we'll take it off-line.

But as we think about Q2 and the rest of the year, we had kind of signaled that we expected to see a decent Q1, which I think we -- which we've seen a little bit below, I think, where consensus was. But all things considered, we are expecting to see some improvement into the second quarter, notwithstanding some of the delays that Randy mentioned. And of course, we would expect, as we've signaled in the past, a fairly strong second half of the year, of course, assuming that there isn't a sort of a round 2, if you will, of any COVID situation. So let me get back to you on a little bit of the numbers, but I would expect to see the gross margin that you saw in Q1 at that revenue level will -- that's -- we expect to see that actually improve slightly as revenue goes up and we absorb more.

MacMurray Davidson Whale - *Cormark Securities Inc., Research Division - Analyst of Institutional Equity Research*

Okay, okay. Yes. We can do that off-line. And just as well, I probably have a question about the pricing that Weichai will get like whether it will match the average sort of prices that the market was buying it.

Anthony Robert Guglielmin - *Ballard Power Systems Inc. - CFO & VP*

Yes, yes, I could touch on that quickly because just that is an important point. And again, it's all tied up to timing. So Weichai has the right to top up. In our investor rights agreement, Mac, we've offered them the ability to top up at the end of the quarter or at the end of the ATM program. And depending on which option they choose, yes, they do get the benefit of the weighted average price under the ATM, but there is a TSX restriction

on pricing. So if they close, they get that VWAP. But if the closing is delayed and the stock price rises appreciably, then they would have to be subject to whatever restrictions the TSX has on maximum allowable discount to the closing date. But in theory, they would get the benefit of the VWAP. And the numbers can be figured out, but the VWAP for the ATM shares that were issued thus far is a bit over $8. About $8.13, if I recall, was the VWAP under the shares issued today. But in order to get that, they'd have to close fairly quickly. So whether they enjoy that or not is going to be a function of the closing.

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Yes. Mac, it's Randy. I just wanted to supplement that. So whether -- I do believe Weichai will top up. And whether it's at the $8.13 VWAP or some higher price because of the TSX restrictions, it's a really good signal in my mind. You think about they invested back in late 2018 where they invested at USD 3.54. So with them topping up at these levels, it's a very good indicator of the value they place on Ballard.

Anthony Robert Guglielmin - *Ballard Power Systems Inc. - CFO & VP*

Yes, thanks. I should have said that $8.13, by the way, of course, that's U.S. dollar price as well as was the $3.54 that they originally invested in. So those are off of NASDAQ prices.

Operator

Our next question comes from Jeff Osborne with Cowen and Company.

Jeffrey David Osborne - *Cowen and Company, LLC, Research Division - MD & Senior Research Analyst*

Yes. A lot has been discussed, Randy. But maybe just on China, is there any update outside of Weichai and the JV share with any other potential customers or avenues to revenue growth?

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Thanks for the question, Jeff. Thanks for joining. Yes. So on the rail side, it was just late December, early January when the first tram line in the world really started commercial operation in -- on the Gaoming line in Foshan, Guangdong province. And so we -- there was some disruption to the operation of that tram line during the COVID-19 situation. So that would -- call it the activities from CRRC have been kind of on pause while they continue to want to get data off the first deployments there. So there's, I think, increasing investment likely to occur in China on the rail side, and we see zero-emission rail as a key part of that. So I do believe there's lots of opportunity, not just in Europe with Siemens but also in China with CRRC on the rail side. Of course, that's outside of the joint venture.

And then the pass car market is another market that we've been looking at, and we've had discussions with a number of different vehicle OEMs as well as Tier 1 suppliers on the opportunity for the Chinese passenger car market. It's evolving slowly, particularly over the last few months, but we'll see how that shapes. We do think there are opportunities in that market. And then the other thing that's interesting, in my mind, this is in the joint venture, is the material handling market is a market segment that we're seeing some interest in globally. So we have kind of 3 key projects we're working on in the material handling side for fuel cell-powered forklifts. And I believe that China is a market longer term where we're going to see some traction for fuel cell forklifts as well, particularly as logistics increasingly becomes so important there.

So I would -- I'd just point to rail and the passenger car market outside of the JV. Inside the JV, we haven't talked much about material handling market, but I do view that as a long-term market. And of course, Weichai with the -- something around 45%, 47% ownership position of KION has a good partner there for the European market as well. So kind of other markets that we see in the China market are off-road markets, so construction equipment and mining equipment. We've got some activities in other jurisdictions in these markets as well, but these are markets that we see potentially working with Weichai in the -- some of these off-road markets as well because they have a strong competitive position in those markets,

too. So those are some additional markets. And then, of course, we still have our legacy 9SSL technology that is being used at the Synergy-Ballard JV. And there are continuing sales by the JV to users of the 9SSL stack. So that's another revenue source of opportunity going forward as well.

Jeffrey David Osborne - *Cowen and Company, LLC, Research Division - MD & Senior Research Analyst*

Got it. That's very detailed. Real quick with the Green Deal in Europe, and obviously a lot of moving parts there. But is there any risk to the JIVE program maybe slowing down and then things like that, that are one-offs getting rolled into a broader infrastructure package or vision?

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

That's a possibility. I think what we've seen is that it's -- every time there are European bus demonstration programs, it always takes longer than parties would like. And we're seeing progress, of course. We announced some of the orders, obviously, in the past 120 days, particularly on -- with Solaris. We're seeing lots of opportunities in the European market that are kind of bubbling below the surface where the volumes look to get to that next stage on the bus side. And then, of course, the commercial truck market is going to be a huge market, I believe, in Europe. But I do think you're going to see more announcements on the bus side, both in, I'll call it, Mainland Europe as well as in the U.K.

Operator

Our next question comes from Joseph Osha with JMP Securities.

Joseph Amil Osha - *JMP Securities LLC, Research Division - MD & Senior Research Analyst*

I'm curious about what you think of some of the -- I'll call them the soup-to-nuts competitors, Nikola springs to mind. There are some others that seem to believe they can do everything from the fueling to the truck, to the powertrain, to the fuel cell. Do those companies ultimately represent potential customers? Or do you see them sticking with kind of the not-invented-here mentality?

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Yes. I won't comment specifically on Nikola. But just that overall model, we are seeing others potentially talk about these models where you basically offer transportation that is based on our per kilometer-driven or a lease rate. And then they say we'll take care of designing and manufacturing a vehicle, we'll take care of supplying the hydrogen refueling infrastructure and we'll take care of the financing. It takes a lot of capital and a lot of business complexity to deal with all of those variables. And partnering is a very key way to mitigate that risk and I think a very important driver of whether or not that type of model is going to be successful. And I think as companies look at the space, the technology on fuel cell is not easy. If it was easy, it would have been commercialized a long time ago.

And so Ballard is in a leadership position on the technology front. And I think as companies scratch more at the surface and invest time, understanding where the challenges are on really commercializing high-durability, high-power density, high-performing fuel cell technology, I believe they're going to need partners. And I -- going back to the vehicle OEMs, whether it's trucks, buses, pass cars, going back to the Tier 1 suppliers for all of these markets, including the commercial vehicle market, a number of them, I think, are going to be looking at Ballard as a company that has technology and would make sense to partner rather than to try and do it in-house and, particularly, as they look at trying to invest in autonomy and connectivity and electrification on the battery side, shared mobility and even continued investments in internal combustion engines.

So I think companies are going to recognize like, I believe, Daimler Trucks and Volvo Group, the collaboration is perhaps a more powerful model than trying to do it all yourself. And even in these type of organizations that do believe they're going to be able to accomplish everything internally, I think, over time, Ballard will have opportunities in those companies. The number of kilometers we're getting is just increasing every day in the field. Our uptime availability rate is increasing every day in the field. Our technology is getting more mature. Our products are getting more mature.

And customers that are putting end customers or users who have -- whether it's their brand on the front of a truck or on the front of a bus or their brand on promising delivery of materials or people, this durability and reliability is going to be very important.

Joseph Amil Osha - *JMP Securities LLC, Research Division - MD & Senior Research Analyst*

And then just a follow-on. It's, I guess, kind of a related question. I'm wondering if you've had any conversations with some of the folks looking at electrolysis. In particular, I'm hearing from, say, New Fortress Energy and then some other folks about this idea of doing hydrogen production with 0 or even negative cost wind power, in particular, in the middle of the day. What potential exists for your business to cooperate with some of the fueling infrastructure businesses?

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Yes. So great question. We've long been looking at electrolysis technology. Our belief is that there are 2 home-run opportunities in the hydrogen fuel cell industry. There are, of course, others. But the 2 home-run opportunities we see in the hydrogen fuel cell industry is fuel cell technology for medium- and heavy-duty motive applications, number one. And number two is electrolysis to generate green hydrogen and really support the Paris Climate Accord objectives. And so yes, we follow and track electrolysis very closely.

We're familiar with all of the companies in the space, and it's been kind of interesting to see some of the positioning that's happened over the last year where you had Cummins acquiring Hydrogenics, not just for their fuel cell technology but for their electrolysis. Air Liquide had invested in Hydrogenics just before that as well. You've got Linde and other gas companies making investments in electrolysis companies and setting up joint ventures. So I'd say the gas giants are increasingly getting more invested in electrolysis and see opportunities there. You have jurisdictions like Australia who are -- and Saudi Arabia who are really looking at electrolysis and green hydrogen as ways to decarbonize and even economic development opportunities. I mentioned earlier, BP and Shell looking at net carbon 0 mandates over the long term. I think you'll see Aramco starting to join this type of chorus, looking at hydrogen road maps in the future. And electrolysis is going to be a key part of this.

And so we don't have any proprietary technology at Ballard focused on electrolysis. There's always been the theory that fuel cell technology and electrolysis is reversible technology. It hasn't really proven out to be that way practically. There are a lot of challenges with that. There are a lot of core competencies and a lot of technology know-how that are directly relevant to both of those technologies though. And it is a strategic area of opportunity as we think about things like M&A opportunities. It's one of the topics that we look at frequently. I do think that we've been focused on partnering for that part of the value chain ecosystem. And it's really important that we're focusing on the e-mobility ecosystem and bringing to bear not just a fuel cell technology but solutions for end customers. And that's why, for example, as an illustrative example, last year, we announced the H2Bus Europe program that brought together a consortium, tank provider, hydrogen fuel cell technology from Ballard and also electrolysis technology and hydrogen refueling infrastructure solutions and on the bus side with Wrightbus.

So we do partner and collaborate, and it's a strategic area that I think there's going to be a lot more emphasis. And if you look at the McKinsey report that came out with the Hydrogen Council in January, they're forecasting something like a 40 to 50x increase in electrolysis over the next 4 to 5 years with most of that booked already. Really identified projects and, in a lot of cases, significant orders. So electrolysis is going to scale up in the next 5-plus years, and we're going to see massive cost reduction. And I think those that have the leading electrolysis technology are going to have a lot of value.

Operator

This concludes the question-and-answer session. I would like to turn the conference back over to Randy MacEwen, the CEO, for any closing remarks.

R. Randall MacEwen - *Ballard Power Systems Inc. - CEO, President & Director*

Great. Thank you for joining us today. We look forward to speaking with you again in August when we'll discuss results for Q2 2020. Thanks again.

Operator

This concludes today's conference call. You may disconnect your lines. Thank you for participating, and have a pleasant day.