

Aspen Aerogels, Inc. NYSE:ASPN

FQ3 2020 Earnings Call Transcripts

Thursday, October 29, 2020 9:00 PM GMT

S&P Global Market Intelligence Estimates

	-FQ3 2020-			-FQ4 2020-	-FY 2020-	-FY 2021-
	CONSENSUS	ACTUAL	SURPRISE	CONSENSUS	CONSENSUS	CONSENSUS
EPS Normalized	(0.16)	(0.25)	NM	(0.14)	(0.64)	(0.35)
Revenue (mm)	26.28	24.20	▼ (7.91 %)	27.79	107.14	132.71

Currency: USD

Consensus as of Oct-19-2020 11:48 AM GMT



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Call Participants

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Presentation

Operator

Ladies and gentlemen, thank you for standing by, and welcome to the Aspen Aerogels, Inc. Q3 2020 Earnings Conference Call. [Operator Instructions]

I would now like to hand the conference over to your speaker today, John Fairbanks. Thank you. Please go ahead.

John F. Fairbanks

VP, CFO, Principal Accounting Officer & Treasurer

Thanks, Brandy. Good afternoon. Thank you for joining us for the Aspen Aerogels conference call. I'm John Fairbanks, Aspen's Chief Financial Officer.

There are a few housekeeping items that I would like to address before turning the call over to Don Young, Aspen's President and CEO. The press release announcing Aspen's financial results and business developments as well as a reconciliation of management's use of non-GAAP financial measures compared to the most applicable GAAP measures is available on the Investors section of Aspen's website, www.aerogel.com. Included in the press release is a summary statement of operations, a summary balance sheet and a summary of key financial and operating statistics for the third quarter and 9 months ended September 30, 2020. In addition, the Investors section of Aspen's website will contain an archived version of this webcast for approximately 1 year.

Please note that in our discussion today, we will include forward-looking statements, including any statement regarding outlook, expectations, beliefs, projections, estimates, targets, prospects, business plans and any other statement that is not a historical fact. These forward-looking statements are subject to risks and uncertainties. Aspen Aerogel's actual results may differ materially from those expressed in these forward-looking statements. A list of factors that could affect the company's actual results can be found in Aspen's press release issued today and are discussed in more detail in the reports Aspen files with the SEC, particularly in the company's most recent annual report on Form 10-K. The company's press release issued today and filings with the SEC can also be found in the Investors section of Aspen's website. Forward-looking statements made today represent the company's views as of today, October 29, 2020. Aspen Aerogels disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

During this call, we will refer to non-GAAP financial measures, including adjusted EBITDA. These financial measures are not prepared in accordance with U.S. Generally Accepted Accounting Principles, or GAAP. These non-GAAP financial measures are not intended to be considered in isolation or as a substitute for results prepared in accordance with GAAP. The definitions and reconciliations of these non-GAAP financial measures to the most directly comparable GAAP financial measures and a discussion of why we present these non-GAAP financial measures are included in today's press release.

I'll now turn the call over to Don Young, President and CEO of Aspen Aerogels.

Donald R. Young

President, CEO & Director

Great. Thanks, John. Good afternoon. Thank you for joining us for our Q3 2020 earnings call. Today, I will comment on the contract we were awarded to provide our PyroThin thermal barriers for use in the next generation of electric vehicles of a major U.S. automotive OEM. I will then share our perspective on the current operating environment for energy infrastructure. I will finish with a progress report on our strategy to leverage our aerogel technology platform into additional high-growth, high-value markets. Next, John will review our Q3 and year-to-date financial performance and provide both revised guidance for 2020 and a high-level outlook for 2021. We will conclude the call with a Q&A session.

We announced today that a major U.S. automotive OEM awarded Aspen a contract to supply PyroThin thermal barriers for use in its electric vehicle battery platform. As a reminder, our thermal barriers help EV manufacturers to manage thermal runaway, a phenomenon where a cell in a lithium-ion battery pack has a sudden release of energy that potentially results in a fire. PyroThin thermal barriers are designed to impede the propagation of thermal runaway, both at the battery cell and battery pack level across multiple lithium-ion battery platform. Aspen's technology offers a unique combination of performance attributes that enable EV manufacturers to achieve critical safety goals without sacrificing drive range.

The battery platform of the major U.S. automotive OEM will power its next-generation EVs with production expected to begin in 2021. We will provide PyroThin thermal barriers in the fourth quarter of 2020 for the prototype fleet. Based on the OEM's projections for 2021 and 2022, we expect to generate single-digit millions of dollars each year in commercial revenue. During 2023, we expect to see from this customer alone a solid ramp in revenue with potential annual revenue in 2024 and beyond, on par with our energy infrastructure business.

Over the coming decade, our potential revenue, again, from this customer alone represents a nearly \$1 billion opportunity for Aspen. It is important to remember, of course, that the ultimate value of this contract is dependent on our customers' success in participating in the global transformation to electric vehicles.

After an intense RFQ process and extraordinary individual and team efforts here at Aspen, we are focused now on exceeding the expectation of this first major customer.

It is also important to remember that thermal runaway is a universal challenge for all EV manufacturers. Battery electric vehicle companies are unlikely to take shortcuts with safety, especially at this pivotal point for market acceptance of e-mobility. We have already seen recalls and regulatory pressure resulting from thermal runaway in EVs in Asia, Europe and North America.

With an estimated \$100 to \$300 of PyroThin revenue per electric vehicle, our business development effort is focused on a multibillion-dollar commercial opportunity for Aspen over the course of this decade. We have over 30 EV and battery players at various stages in our development funnel. At present, we have 10 companies consisting of EV and battery OEMs and Tier 1 suppliers that are actively evaluating our PyroThin product. We are adding resources to accelerate our success with these potential customers.

Switching gears to our energy infrastructure business that pandemic continues to have a negative impact, particularly on our near-term revenue generation. Our products are installed by contractors working in refineries, petrochemical plants and LNG terminals around the world. It is critical for our business that contractors have access to the energy infrastructure facilities that we serve. In response to COVID-19, facility owners have limited the number of contractors on site in order to reduce worker density. As a result, our revenue has been negatively impacted again during Q3, most notably in the North American market.

Although it is hard to predict the certainty when we will see the pandemic-related interruptions at work cease, our underlying assumption for both the revised 2020 financial guidance and the high-level 2021 outlook is that lower density work sites will be the reality. And therefore, during this time, we assume revenue levels will remain in the vicinity of \$25 million per quarter.

Looking forward, we expect revenue to rebound and contractor access to facilities improves and the distribution channel restocks. We believe there is significant pent-up demand for both maintenance and project work. There are many petrochemical and LNG projects specified with Pyrogel and Cryogel, and we believe that as soon as these projects move forward, Aspen will see a return to revenue growth.

As we reported last quarter, our revenue required for adjusted EBITDA breakeven has decreased from \$140 million in 2019 to a revenue level of approximately \$110 million for 2020. For 2021, we accept the objective to maintain the \$110 million breakeven level, while also increasing our expenditures on our EV initiatives, including enhancing our business development resources, to capture additional EV thermal barrier wins. We believe we have positioned the company to emerge from the COVID-19 period with a strong operating platform and significant strategic momentum.

On the subject of strategy, we continue to make substantial progress with our initiatives addressing electric vehicles. The first major win with PyroThin is important to us in many ways. Not only does it position us for growth in a new dynamic megatrend market, but it also leverages our existing manufacturing assets where capacity utilization is key to significant profitability. And given the universal nature of the thermal runaway problem for electric vehicle manufacturers, we have reason to believe that we can win adoption on additional EV battery platforms.

The problem posed by thermal runaway is extremely challenging to manage for the OEM. We believe the valuable attributes of PyroThin combining a single solution make the product an important contributor to a safe and successful global transformation to e-mobility and a big winner for Aspen aerogels.

With respect to our carbon aerogel efforts, we continue our work to validate and accelerate the potential adoption of our technology within the battery materials market. Our effort centers are taking full advantage of the unique attributes of our carbon aerogels and leveraging our decades of experience manufacturing aerogels at scale. Our goal is to improve the energy density of lithium ion battery. Our focus is on cost, performance and safety.

Our work with our evaluation partners, SKC and Evonik, has intensified as we have demonstrated significant progress in both the cost and performance of our silicon-rich additive materials. With our new battery lab operational and with an expanded team of battery experts, we are now providing larger sample quantities to our partners for their testing on production-level equipment. Their feedback is critical as we seek to optimize our carbon aerogel technology to fit along key points of the technology road maps of industry leaders. We were inspired by the Tesla Battery Day. It affirms that the work that we are doing with our low-cost, high-performance, silicon-rich additive material is, in fact, on target. We believe our work supported by an active IP strategy will be attractive and valuable to our existing partners and to other leaders in battery technology.

The goal with our opportunities focused on the electric vehicle megatrend is to create proprietary and diverse aerogel-based businesses. We have been building towards this first EV-related strategic win for many years. Fire safety, energy efficiency, durable performance and asset resiliency are constant things to our success in all markets that we serve. The contract award not only establishes our position in the EV megatrend but it also demonstrates the value and breadth of our broader strategy to leverage our patent-protected aerogel technology platform in additional high-growth, high-value markets.

Finally, I would like to use this forum to thank the people at Aspen for the extraordinary work they have done and are doing in these most trying times. Balancing the stresses from work, family, community and from life more broadly is especially hard right now, and I am deeply grateful to all of my teammates at Aspen.

Now I will turn the call over to John for a review of our financial results. John?

John F. Fairbanks

VP, CFO, Principal Accounting Officer & Treasurer

Thanks, Don. I'd like to start by running through our reported financial results for the third quarter of 2020 at a summary level. Third quarter total revenue declined by 32% to \$24.2 million from \$35.4 million in the third quarter of 2019. Third quarter net loss was \$6.7 million or \$0.25 per share versus a net loss of \$2.3 million or \$0.09 per share last year. Third quarter adjusted EBITDA was negative \$3.2 million compared to positive \$1.4 million a year ago. We define adjusted EBITDA as net income or loss before interest, taxes, depreciation, amortization, stock-based compensation expense and any other items that we do not believe are indicative of our core operating performance.

For the first 9 months of 2020, total revenue declined by \$15.6 million or 17% to \$77.3 million. Net loss increased to \$15.6 million or \$0.60 per share in 2020 versus a net loss of \$13.6 million or \$0.57 per share last year. And adjusted EBITDA for the first 9 months decreased to a negative \$4.8 million compared to a negative \$2.8 million a year ago.

For the remainder of my comments, I'll focus on third quarter performance and our outlook for the remainder of the year. However, I first want to emphasize that during the first 9 months of 2020, in

response to the impact of COVID-19 on our revenue levels, our costs and expenses decreased by a total of \$13.6 million versus 2019. In addition to material cost decreases associated with the revenue decline, this decrease in our cost structure was enabled by: our initiatives to reduce compensation and discretionary expenses in response to COVID-19-related uncertainty and our multiyear initiatives to reduce building material costs; and importantly, as we decreased our costs and expenses despite an increase in research and development spending in support of our electric vehicle programs. As a result, we estimate that we will have reduced our annual revenue required to achieve EBITDA breakeven to approximately \$110 million by the end of 2020 from about \$140 million in 2019. This progress indicates that we are making the right decisions in response to the COVID-19-related market challenges that the fundamental economics of our business remains strong.

I also want to provide a few additional details on our contract with the major U.S. automotive OEM. Under the contract, we will supply fabricated multipart thermal barriers for use in the battery system of their next-generation electric vehicles. We will generate revenue both through the sale of our PyroThin material and through fabrication of the multipart barriers. We expect approximately 55% of our revenue will be attributable to the PyroThin materials and the remaining 45% to other materials and fabrication.

We've committed to supply the thermal barriers up to a daily maximum volume and at fixed prices through the term of the agreement, which currently ends on September 1, 2026. The OEM has agreed to purchase all of its requirements for the specified multipart barrier from Aspen but has no obligation to purchase any minimum volume during the term of the contract.

In addition, the OEM has the right to terminate the contract at any time. All other provisions of the contract are customary for the automotive industry. And obviously, all projections and estimates of Aspen's potential revenue are contingent on the OEM's long-term success in the electric vehicle market.

I'll now provide additional detail on the components of our third quarter results. First, I'll discuss revenue. Third quarter total revenue decreased by \$11.2 million or 32% to \$24.2 million from \$35.4 million last year. This decrease in third quarter total revenue was driven by a decrease in both project and maintenance work in the global energy infrastructure market, particularly in North America, offset in part by an increase in project-based demand in the subsea market and growth in the building materials market. In contrast to North America, our revenue in the Asian energy markets held up well versus 2019, experienced only a modest decline.

The COVID-19-related decline in our energy business was largely the impact of our energy infrastructure customers seeking to limit the number of internal and third-party insulation installers in their facilities to reduce worker density, temporarily shutting operations from time to time in response to COVID-19 outbreaks and delaying the start of projects due to the threat of COVID-related interruptions.

Total shipments during the quarter decreased by 34% to 6.8 million square feet of aerogel blankets, while our average selling price increased by 4% to \$3.51 per square foot.

Next, I'll discuss gross profit. Gross profit was \$1.9 million or 8% during the third quarter of 2020 versus \$7.7 million or 22% during the third quarter last year. This decrease in gross profit was driven principally by the 34% decrease in sales volume, a reduction in our production volumes reduced finished goods inventories and an unfavorable change in mix, offset in small part by the 4% increase in average sale price and a reduction in manufacturing expenses.

Next, I'll discuss operating expenses. Third quarter operating expenses decreased by \$1.3 million or 13% versus last year to \$8.6 million despite an increase in research and development in support of our electric vehicle initiatives. The decrease in operating expenses was principally the result of the tight discretionary cost controls we instituted in response to the COVID-19 pandemic.

Next, I'll discuss our balance sheet and cash flow for the third quarter. Cash used in operations of \$1.5 million reflected our adjusted EBITDA of negative \$3.2 million, offset partially by a \$1.7 million decrease in working capital investment during the quarter. Capital expenditures during the third quarter totaled approximately \$600,000, and we're focused on improving the efficiency and reliability of our East Providence facility.

During the quarter, we also received approximately \$100,000 in proceeds from the exercise of stock options.

We ended the third quarter with \$11.3 million of cash, net current assets of \$26.3 million, no borrowings under our revolving credit facility and shareholders' equity of \$60.9 million. We also had access to an additional \$8.1 million available under our revolving credit facility at quarter end.

I'll now turn to our outlook for the remainder of 2020. At the time of our second quarter investor call in July of this year, we indicated that the COVID-19 pandemic was adversely impacting demand for our products, largely due to our energy infrastructure customers seeking to limit the number of third-party installation installers in their facilities to reduce worker density.

Based on third quarter order patterns, we currently project that the COVID-19 pandemic will have a greater impact on our revenue levels than we had expected at the time of our second quarter earnings release. In addition, we are projecting a shift in our product mix from our highest-margin, high-temperature products to our lower-margin, ambient and cold temperature products. As a result, we are reducing our outlook for both revenue and profitability for the remainder of the year.

As a result, our current 2020 full year outlook is as follows: total revenue is expected to range between \$102 million and \$106 million. Net loss is expected to range between \$20.6 million and \$18.6 million. Adjusted EBITDA is expected to range between negative \$6 million and negative \$4 million. EPS is expected to range between a loss of \$0.78 and a loss of \$0.71 per share. This EPS outlook assumes a weighted average of 26.3 million shares outstanding for the year.

In addition, this 2020 outlook assumes depreciation of \$10.4 million, stock-based compensation expense of \$4 million and interest expense of \$200,000. This full year outlook also assumes a gross margin of between 14% and 16% and an average selling price of \$3.45 per square foot plus or minus \$0.05 for the year.

Turning to cash. We expect the capital expenditures will total approximately \$4 million for the full year. And within the context of the adjusted EBITDA range set out in our revised 2020 full year outlook, we expect to exit 2020 with between \$11 million and \$12 million of cash on hand.

Looking forward to 2021, we project that the COVID-19-related contractor access restrictions will continue to impact demand for our products in the energy infrastructure market. As a result, we are currently assuming that our 2021 revenue and profitability levels will remain in line with our 2020 full year outlook, and we intend to build our operating plan on that basis.

We also intend to increase investment in our electric vehicle programs and more broadly in our strategy to leverage our aerogel technology in additional high-value markets. And we'll continue our efforts to improve the underlying fundamentals of our business and to ensure our operational effectiveness remains strong. We believe these actions and initiatives will position Aspen to resume the strong operating performance to characterize 2019 when the impact of COVID-19 subsides.

Overall, we believe we've taken all prudent actions during 2020 to reduce expense levels, to improve our cash flow and to significantly reduce our annual EBITDA breakeven. And at the same time, we've maintained our commitment to increase spending and investment in support of our extremely promising electric vehicle programs.

We also believe we're making the right decisions in response to COVID-19-related market challenges and that we're positioned to thrive when business conditions improve. And as always, we remain committed to monitoring all aspects of our business and are prepared to take the net actions necessary to keep the company financially sound and to execute our strategy.

I'll now turn the call back to Brandy for Q&A. Brandy?

Question and Answer

Operator

[Operator Instructions] And your first question comes from the line of Eric Stine with Craig-Hallum.

Eric Andrew Stine

Craig-Hallum Capital Group LLC, Research Division

So just want to start with the EV award. So it sounds like -- I mean, so you're going to start or you did get the prototype award, but it also sounds like you are assuming or have received the platform. Or -- and I guess, that was of the understanding that you had to perform on the prototype board to start, and although it might have been a foregone conclusion, you still had to do that before getting the actual award. So can you just clarify kind of where that is at right now?

Donald R. Young

President, CEO & Director

Yes. The prototype purchase order really was a small order, as you know. And the contract we were awarded relates to production quantities, if you will, so as distinct from the prototype quantities.

Eric Andrew Stine

Craig-Hallum Capital Group LLC, Research Division

Okay. So you do have the platform order. I mean this is the ultimate goal. You have that in hand. It's just you need to go through the process of the prototype, all of that, but this is the award you've been targeting.

Donald R. Young

President, CEO & Director

Yes. Remember, Eric, the prototype fleet, if you will, I mean, we're a component on it, but these are car, these are full EVs. So yes, we have the contract that we've been striving for. The other end of that 3-tier RFQ that we have talked about in the past, we won the price.

Eric Andrew Stine

Craig-Hallum Capital Group LLC, Research Division

Great. Congrats on that. So just to clarify, so you said you were working with 30 different parties, but 10 of those OEMs are battery materials companies and I'm not sure if I understood that correctly. But just curious...

Donald R. Young

President, CEO & Director

Let me correct that, Eric, and just to be clear. So there are over 30 companies in our development funnel. And 10 of those companies have PyroThin, and they are testing PyroThin. Those 10 companies are made up of EV and battery OEMs and Tier 1 suppliers.

Eric Andrew Stine

Craig-Hallum Capital Group LLC, Research Division

Okay. Okay. And then when we think of those companies, I mean, clearly, thermal runaway, big problem, needs a solution. You've introduced this product. I mean what type of urgency do you see from those parties? And what could that mean in terms of speed? Or how long they may need to get through their process with a view towards launching a lot more electric vehicles?

Donald R. Young

President, CEO & Director

Good question. So well, we've seen recalls and regulatory pressure in all regions for several different companies related to car fires. And so that has really heightened the issue, the awareness of the issue.

If you go back in time, the work that we did with the North American OEM, we -- that took approximately a year. And a good part of that was product development and our understanding of the issues involved with thermal runaway and then the optimization of our material. I mean one of the benefits we had was that PyroThin is a direct descendant of our Pyrogel product that has been addressing fire safety and a lot of the same types of issues from the energy infrastructure world for more than a decade, \$1 billion installed. So we did have a running start, but that period did involve, again, product development, a pretty strenuous intense process with them.

And so if you think about sort of this next group of companies, in some sense, we've gone through the first part of that already. And while it's quite plausible that different companies might have different configurations and perhaps different parameters, we're pretty far along in our understanding of the problem and being a solution provider. And so everyone's -- all these companies are focused on it, and we think we have a really important contribution to make to solving the problem.

Eric Andrew Stine

Craig-Hallum Capital Group LLC, Research Division

So not to put words in your mouth, but I mean, with that in mind and with the urgency in the market, it wouldn't be outlandish to say that there could be -- I mean, that you would certainly hope you'll target additional awards, say, in early -- well, earlier first half of '21, for instance.

Donald R. Young

President, CEO & Director

We're working hard at it, Eric. It's -- again, we think there's good reason to -- we believe there's good reason to think that we're going to win additional platform awards.

Eric Andrew Stine

Craig-Hallum Capital Group LLC, Research Division

Okay. Got it. Maybe last one for me. Just on the outlook for 2021 and just to kind of get your mindset there. I mean is it fair to say that it's not really guidance, but it's how you view the year with the nod to the unpredictability of COVID, right? I mean it's COVID. Nobody knows how long that's going to go. And so you do have a business, as you said. I've heard about the pent-up demand as well that could bounce back pretty nicely once things lift. It's just no one knows when those things lift. Is that fair?

Donald R. Young

President, CEO & Director

That's very fair. Just sort of harking back to even maybe our Q1 earnings call and the way we -- and when I say we, I mean, all of us analyzing what was about the pandemic as it was rolling out. I think most all of us had this sense that, gosh, if we could just get to our Q2 and Q3, we kind of roll through this thing, and by Q4, certainly by the beginning of the new year, things would be back to normal. Well, there's a lot more uncertainty about that than what we might have thought earlier. So we think it's prudent to just assume that the 4 quarters of 2021 will be impacted by the pandemic. And that's what we've done. We are assuming all 4 quarters. And obviously, we don't know how it will play out, but we like that kind of baseline starting point.

Operator

Your next question comes from the line of Jed Dorsheimer with Canaccord Genuity.

Jonathan Edward Dorsheimer

Canaccord Genuity Corp., Research Division

And congratulations on the EV win. I guess just starting there. Curious with the -- so just to clarify, you have BYD that you've publicly announced for the Pyro product. And then in the U.S., today, you're

announcing another OEM, but there's no contract that requires them to take a certain amount of volume or minimum amount. Could you just -- I'm sure I'm just confusing this, but I was wondering if you could help clarify.

Donald R. Young
President, CEO & Director

Yes. Yes. No, it's a good question. John was really clear in his comments about it. I'll let him just outline it for us all.

John F. Fairbanks
VP, CFO, Principal Accounting Officer & Treasurer

So Jed, we have a contract with the OEM. It runs through 2026. And we have an obligation to supply up to a certain daily volume, and those daily volumes are significant and underlie the projections, the rough projections Don gave you through that time period. But the EV manufacturer has no obligation to purchase from us because they don't want to commit to that until they see see-through -- see sell-through of their vehicles ultimately through the time period. And they do have the right to terminate the contract at any time. So this is not a take or pay type of an arrangement, but we have every expectation that they will purchase from us through that -- through the time period of the contract. And we would hope that it would be extended beyond 2026 as well. But we just wanted to make it very clear as to what the contract was ultimately.

Donald R. Young
President, CEO & Director

And I think, Jed, just to put an accent on one thing that John said was that the OEM has agreed to purchase all of its requirements for the specified part from Aspen.

John F. Fairbanks
VP, CFO, Principal Accounting Officer & Treasurer

Right.

Jonathan Edward Dorsheimer
Canaccord Genuity Corp., Research Division

Got it. I'm just a little surprised, though, because it would seem like all the risk is on you, not on the OEM because I'm presuming that there is capital costs associated with expanding capacity to be able to provide for the -- for this OEM. Are they -- is there any upfront payment to ease some of those risks on your side?

Donald R. Young
President, CEO & Director

No. But also, in the early rollout, Jed, the capital costs are not substantial. And so while there is some staffing and focus, a lot of the expenditures that we're making here over the course of the next 3, 6, 12 months are really related to continuing -- working our way through the development funnel.

John F. Fairbanks
VP, CFO, Principal Accounting Officer & Treasurer

And Don, I think it's important, Jed, this PyroThin material is a material that we can produce on our existing assets in our East Providence plant. And as you're aware, we've got significant capacity. And so there's no capital cost for us to increase capacity to meet the demands of this contract clearly in the short term. And so the capital costs are going to be more associated with us setting up a fabrication operation. But that is relatively insignificant compared to the types of capital costs that are associated with aerogel manufacturing capacity.

Jonathan Edward Dorsheimer
Canaccord Genuity Corp., Research Division

Got it. And then in terms of this opportunity, kind of an extension of what you just said, there really is very little to us on the outside. It's really a matter of filling your East Providence fab. And this is simply another market opportunity to fill that fab. Or is it -- or should we be -- yes.

Donald R. Young
President, CEO & Director

No, that's a good way of thinking about it, Jed. As we have said, as we fill that plant, 40% or 45% of what the incremental dollars fall down to the EBITDA line for us. And so incremental revenue is valuable to us. We have approximately \$200 million of revenue capacity in that facility. And so as we fill it, we -- our expectation is that we would have EBITDA potential in the range of \$35 million. So again, very different profile type company.

Also, I would say that the opportunity, again, whether you look at it from just one customer -- from the perspective of having this one customer or having the potential to have multiple customers, the dollars we're talking about are measured in the hundreds of millions of dollars and even in the billions of dollars. So it's a very large opportunity for us.

Jonathan Edward Dorsheimer
Canaccord Genuity Corp., Research Division

Got it. And so I guess, just jumping back to the core business or the core opportunities, the more established one in terms of refineries and oil pipelines. I can appreciate the difficulties in the end market. I think I've asked you before. While you mentioned COVID, one of the more obvious signals in terms of just the strength of the oil and gas market has been rig counts, which, frankly, are down over 80% that began in 2018 and seemed to be having a greater effect from a pure capacity. Is that the wrong way to look at this? Because it would seem that, that again would be more -- and I know that you're tied more to the refinery side. But shouldn't we be looking at it as a pure supply/demand capacity? If you're not building out pipelines or you're not building out refineries, there's not a need for as much ore rigs, as much insulation? Or am I -- what am I missing there, I guess?

Donald R. Young
President, CEO & Director

I think the focus on downstream is a little bit more -- is most important. And when we look around a regional breakdown, in Q3, we had regions that were -- that had positive -- that had growth. It was interesting. The North American market was our weakest market. And we have a significant refinery exposure particularly in the United States. And I think the impact that they've had from reduced demand for jet fuels and some of these other things that we think have been impacted also by COVID has had a profound impact on those refineries and certainly a follow-on impact to us. And I sort of think about it in those terms.

There's a -- there remains a reasonable amount of activity around the world in both petrochemical -- let me say, potential petrochemical projects and LNG activities. And as I said in my comments, we have our products, Pyrogel and Cryogel, specified in a series of those projects, and we do believe that, especially on the petrochemical and LNG side that when COVID subsides, those projects will come back to life. And we're -- we'll be in the capital seat to resume revenue growth in our energy business.

And while it's -- no question, it's down, and look, the state -- a part of our strategy has been to diversify into additional markets. And we've talked about EV. In the building materials area, we're going to have growth in 2020. Even with a COVID-challenged year, we're still in the single digits of millions. But we're moving in the right direction. And so I think our strategy is sound. The fundamentals in our energy business remains very good. We think we have a product and product attributes that are valued in that market.

And again, it's obviously a difficult segment right now. But again, we believe on the other side of COVID, we'll resume growth. Remember, '07 to 2019, we have a revenue CAGR for a long period of time, over 20%. Last year alone, we had revenue growth of over 30%. So we still have room to go in that market, and it creates a nice base of operation for us.

Jonathan Edward Dorsheimer

Canaccord Genuity Corp., Research Division

Got it. Last question on the silicon nanocrystal. In the lab that you've got set up, that's a development activity that, at some point, you monetize, but it is very separate than the core business. Is that the right way to look at that?

Donald R. Young

President, CEO & Director

That's a reasonable way to look at it, I think. So with the silicon-rich carbon aerogel material that we're focused on today on the additives part of the battery with our partners, yes, it is a -- it's a separate lab facility. It's -- I mean, it's in the 4 walls of our offices in Northborough, but it's a separate group of people and a separate focus and a bit of a different focus as well.

I think what you will see, Jed, from us in this area is that we will continue our close partnership with SKC and Evonik. I think you may very well see us broaden those partners, the list of partners to some of the other leading companies, including some of the auto OEMs in the space who, as you know, have taken in-house more and more of this battery activity. And while the team is, their near-term focus, no question, is on the silicon regenerate, there are other research activities going on there. We're actively filing patents in other areas for our carbon aerogel materials. And so it's a rich program and a very focused and dedicated group of people.

Operator

Your next question comes from the line of Jeff Grampp with Northland Capital.

Jeffrey Scott Grampp

Northland Capital Markets, Research Division

Congrats on the win.

Donald R. Young

President, CEO & Director

Jeff, thank you.

Jeffrey Scott Grampp

Northland Capital Markets, Research Division

Was wondering, first, if you could clarify. The fact that you guys are having the fabrication aspect as well on this contract, does that at all change how we should think about incremental margins on the thermal runaway versus traditional business? And is there a way -- I know you said \$100 to \$300 as far as the revenue per vehicle. Is there, I guess, an average to think about that's taking the midpoint there to crude based on the various models and sizes that you guys are looking at?

Donald R. Young

President, CEO & Director

Let me answer the second part, and I'll ask John to answer the first kind of the margin breakdown part of it as we anticipate it today. But yes, that range, I recognize it's a large range, but it's -- just think of it as sort of a spectrum of vehicle size, I guess, right, from smaller passenger vehicles to SUVs and trucks and what have you, which are so prevalent here in the larger-sized vehicle so prevalent here in -- especially in the U.S.

John F. Fairbanks

VP, CFO, Principal Accounting Officer & Treasurer

And Jeff, I think in terms of the first part of your question, we did give some guidance that about 55% of the revenue would be attributable to our PyroThin product, and clearly, that will have the sort of incremental margin impact that we've talked about in our existing base business. The fabrication portion

is going to be significantly lower margin. A lot of it is just us buying materials from other vendors and packaging it up, so it will not have the same economics. But we will provide additional guidance on that as the business rolls out. I think your best bet is to concentrate on the 55% at our -- that's our traditional business.

Donald R. Young
President, CEO & Director

Yes. And Jeff, I mean, it's kind of interesting. We've talked a long time about our \$200 million revenue capacity in our current assets. And just to sort of state the obvious, our -- that's for energy infrastructure business but also our -- the aerogel portion of our EV business. And so one could think that we have greater revenue capacity because of that fabrication that's sort of additive to the \$200 million. But just -- I'm sure you understand that math.

Jeffrey Scott Grampp
Northland Capital Markets, Research Division

Okay. Yes, that's helpful. Perfect. And for my follow-up, can you guys kind of talk about the dynamics of the ramp here? I know a lot of this is obviously out of your hands as far as what you talked about. But Don, I think you had said it kind of sounded like from 2021 to 2022, we shouldn't expect to see much of a ramp really show up on the income statement. Really, this is more of a '23 and beyond type of story. Is that -- can you talk about that dynamic? I guess I would have thought we'd see a little bit more traction in '22, given that would be a full calendar year of sales there but maybe not.

Donald R. Young
President, CEO & Director

Yes. No. I think a little bit of it is calendar year, but I think of it also just as these companies are rolling out their EV models. So what we're seeing is and as I sort of take hold in the market and begin to displace internal combustion engines. So again, just to be clear, very small revenue this year here in 2020, here in Q4, starting to have some initial revenue in 2021, again, single-digit millions of revenue. And again, that is associated with the rollout of their 2022 vehicles, which will come out in the market approximately September.

And then in 2022, we have additional growth that denominated again in single-digit millions. And then there are additional models being introduced as we get out into that other next time frame, which starts to really ramp up our numbers. And as I said, by the time we -- and is a substantial and very notable in 2023. But then again, our revenue sort of on par from this customer, from this single customer with our entire energy infrastructure business into 2024 time frame going forward.

Jeffrey Scott Grampp
Northland Capital Markets, Research Division

Got it. Okay. That's helpful. And if I can sneak one more in here. Have you guys been able to, I guess, share this news in any capacity, whether maybe directly or in mailed conversations and I guess, gotten any feedback or thoughts as far as -- I'd imagine this would provide some validation or comfort and could accelerate if it took you 1 year, 1.5 years to get you win number one? How much contraction do you think we could see in contracts 2, 3, et cetera?

Donald R. Young
President, CEO & Director

Yes. No, I think it helps a lot, Jeff, in the sense of winning that first one and really understanding the problem and working the levers of our product to really address this. Again, winning the first one is always the hardest. I think winning the second one is really important, though. And in the sense that we're really rolling at that point. And I think we will demonstrate again, as I've said, a little role to play. And look, I mean, I think we're a relatively small company. And for them to commit to us in this way is substantial. I believe that these large automotive companies have taken comfort in the fact that we have served the

ExxonMobils and the BASFs and the Shells of the world for a long time very, very effectively. And we will do the same in the EV market.

Operator

Your next question comes from the line of Amit Dayal with H.C. Wainwright.

Amit Dayal

H.C. Wainwright & Co, LLC, Research Division

So is this EV customer the biggest customer you could have won in the U.S.? Or are there other larger customers in place for you?

Donald R. Young

President, CEO & Director

We just want to be really careful that we haven't announced it for contractual and confidential reasons. And we just want to be really careful about necessarily revealing who it is. And our time will come when we will do it, and it's just not quite right now.

John F. Fairbanks

VP, CFO, Principal Accounting Officer & Treasurer

Yes, Amit, we would tell you more if we could, but we're abiding by contractual provisions.

Amit Dayal

H.C. Wainwright & Co, LLC, Research Division

Understood. And then just a little curious about sort of drivers behind you providing 2021 outlook sort of at this point. Typically, we don't see that from management teams at this -- during this period. Is this because maybe the pipeline has shrunk for you? Or are there any other factors that we need to keep in mind [if the results are...]

Donald R. Young

President, CEO & Director

Yes. No, it is our -- approach to communicating these kinds of things has been to be as early and transparent as we can. There is nothing sort of fundamentally different about our energy infrastructure value proposition or model. We just wanted to create some baseline expectations during this pandemic time. And -- but we also want to be equally clear that when we get to the other side, we have every expectation that we will resume our growth in -- both in the project and maintenance side of that business. We have an outstanding group of people focused on that market, and they've done a very good job, and as -- we passed over earlier this year, \$1 billion of installed material. And I think the second billion will come in short order here over the course of the coming years once we get our way -- make our way through COVID.

Amit Dayal

H.C. Wainwright & Co, LLC, Research Division

Understood. Could you give us a sense of how big you believe the addressable opportunity for PyroThin is in [indiscernible]?

Donald R. Young

President, CEO & Director

Yes. I mean if you look at it kind of most broadly, I think if you just use our estimate of \$100 to \$300 per electric vehicle, and then you can kind of plug that into your expectations, and everyone has done as to how many electric vehicles will be sold between now and K 2030 or 2035, and -- but just stay focused on this area. And when you do that math, it becomes a multibillion-dollar addressable market, depending again on -- almost -- no matter who the estimate you use, some are higher than others, but they all result in a multibillion-dollar opportunity, again, using that mathematics. And so you get to some very large

numbers fairly quickly. Again, as we've said, from this first major customer alone, we look at numbers that approach \$1 billion during this decade.

Amit Dayal

H.C. Wainwright & Co, LLC, Research Division

Right. And of the 10 OEMs that are actively testing, how deep are you in terms of that process? In the context of all of these companies trying to bring these offerings to the market ASAP, should we think that these announcements could come pretty fast over the next 12 months in terms of whether you win some of these contracts or not?

Donald R. Young

President, CEO & Director

We've really been head down to win this first one. And while we have a team who is dedicated and an expanding team who is dedicated to working our development -- business development funnel, it's a formal process that we have internally. I think I just wanted to, not for now, begin to set expectations about when Q3 and 4. All I would say is what I said in my notes is that we have reason to believe that our solution -- our contribution to a solution is applicable to many battery platforms, virtually all battery platforms and EV models.

Amit Dayal

H.C. Wainwright & Co, LLC, Research Division

Got it. And just one last one on the battery side. With respect to carbon aerogel offering, what are the next milestones we should look for?

Donald R. Young

President, CEO & Director

Well, I would say that not revenue in the short term here, but additional and more substantial development agreements with highly recognizable names. Certainly, deeper, broader relationships with SKC and/or Evonik. But then with SKCs, pure companies are active in this space, again, whether it's LG Chem or Samsung SDI or Panasonic or CATL in China and others. And of course, what we have seen is that EV manufacturers themselves have increasingly taken battery technology, battery development in-house. They recognize that this is the principal value-add of an electric vehicle, and they don't want to outsource it. And so we're seeing a lot of activity from the EV manufacturers themselves in this area. And I think it would be very interesting if we were able to post an interesting development agreement with one of them.

So those are the kinds of milestones. I mean we have thought that perhaps during 2021, sometime during the year, that we may post some of our performance data. And to those who could put that in perspective, I think people would find that very interesting, again, both from a cost and a performance point of view.

Operator

Your next question comes from the line of Tom Curran with B. Riley Securities.

Thomas Patrick Curran

B. Riley Securities, Inc., Research Division

Thanks for squeezing me in late because I couldn't join until late. I appreciate it. Just a few quick ones, and I'll let...

Donald R. Young

President, CEO & Director

We recognize that Amazon and Facebook and some others announce their earnings at the same time. So we recognize it, yes, busy day.

Thomas Patrick Curran

B. Riley Securities, Inc., Research Division

Yes. Far less important, boring stories. But I'll make this quick. Starting on the PyroThin side. When it comes to the battery platform contract you baked with the mystery U.S. OEM, does that contract include any kind of exclusivity provisions or any constraints on your ability to market and sell PyroThin however you want, to whoever you want?

John F. Fairbanks

VP, CFO, Principal Accounting Officer & Treasurer

So Tom, I don't want to talk about their contract, but we believe that we can continue to market PyroThin broadly to the electric vehicle market.

Thomas Patrick Curran

B. Riley Securities, Inc., Research Division

Great. And then if you were to -- if that contract should ramp as expected, at what point would you need to pull the trigger on an expansion of your PyroThin manufacturing capacity whether it would involve adding roofline at East Providence or breaking ground on a whole new facility. At what point would you have to decide that in the volume ramp, sort of like the earliest you might have to pull the trigger and then the latest we could see that?

Donald R. Young

President, CEO & Director

I would say that earliest, is about a year from now, approximately. And let me just tell you how I get to that time line. That would indicate that we would have new capacity online. Again, depending on whether we build extension of our existing manufacturing, which is unlikely just given the space constraints. And it's probably prudent for us to have a second plant, but also kind of a modification or a middle ground between that and a greenfield site would be to build an aerogel asset onto an existing manufacturing facility, say, with one of our suppliers or partners. And of course, that comes with a lot of infrastructure, and we're able to operate much more or commence operation much more quickly that way.

So if you take that kind of time frame, you're probably talking about maybe 18 months. So that gets us into the middle of 2023 where we would have asset additional capacity. I think that would be -- that's probably good thinking if we were to win a second or a third or a fourth. That begins to change that a little bit here, and it might cause us to move a little faster. But that's a good time frame that I think your expectation should from a calculation point of view.

Thomas Patrick Curran

B. Riley Securities, Inc., Research Division

And then in terms of that second or third potential award, shifting to China, where do things stand with your effort to convert the prototype contract into a similar type of battery platform contract like you've done with the U.S. OEM? Where does that -- where do you stand there in terms of progress? And then what's the soonest, if that does happen, we would see it?

Donald R. Young

President, CEO & Director

As I've described, we do have a Chinese partner who is interfacing with the customer there. And so again, our view of that is not quite as clear as it is, obviously, for the one that we were working on here in the United States very directly. And so what I would say is that the prototype fleet is operational, and we're in sort of full test mode. So I think it would be something that would become notable in the first half of 2021.

Thomas Patrick Curran

B. Riley Securities, Inc., Research Division

Great. And then last one for me. Shifting to the carbon aerogel side and your efforts focused on improving battery performance. When you reach the point at which you'd recognize first revenue, and by that, I'm allowing for something as small as just an initial prototype order of some sort, just that first recognition of revenue, would you expect it to more likely be for the use of carbon aerogel material in a lithium sulfur application or lithium-ion one just from where you sit today?

Donald R. Young

President, CEO & Director

Yes. No, a current lithium-ion drop-in type situation. And again, that's -- our team's near-term focus is very much on the lithium-ion battery and contributing to that. And obviously, there has -- we do have a team that focuses a little longer term. We do have an active intellectual property program going, sort of anticipating next steps down the road. But our principal focus and our goal is to win a design into a lithium ion battery. That's what we're trying to do right now.

Operator

And I will now turn the call back over to Don Young with closing remarks.

Donald R. Young

President, CEO & Director

Thank you, Brandy. Well, look, we appreciate your interest in Aspen Aerogels, and we will -- we look forward to reporting our Q4 2020 results to you in the new year. So be well, and have a good evening. Thanks very much.

Operator

This concludes today's conference call. You may now disconnect.

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