Virtual Headquarters Visit Deutsche Bank
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>> NICOLE DeBLASE: Good afternoon, everyone. Thanks so much for attending our virtual headquarters visit with Caterpillar today. I'm Nicole DeBlase. And I'm Deutsche Bank's multi-industry electrical equipment and machinery analyst. And I'm very pleased to introduce Jim Umpleby, CEO of Caterpillar. We are going to take a five-minute break after spending 45 minutes with Jim. And then we are going to have another conversation with Joe Creed, who is Group President of Energy & Transportation. But, before we kick it off, Ryan is going to go through a few remarks from CAT. So, Ryan, over to you.

>> RYAN FIEDLER: Great. Thanks a lot, Nicole. And we are certainly excited to be here today. So during today's meeting, we will be making forward-looking statements, which are subject to risk and uncertainties. We will also make assumptions that could cause our actual results to be different from the information we've shared with you on this call. Please refer to our recent SEC filings and the forward-looking statements reminder in our release for more details on factors that individually or in aggregate could cause our actual results to vary materially from our forecast. Any detailed discussion of the many factors we believe may have a material effect on our business, on an on-going basis, is contained in our SEC filings.

In today's meeting we will also refer to non-GAAP numbers. For reconciliation of any non-GAAP numbers to the appropriate U.S. GAAP numbers, please see the appendix of our earnings call slides.

Additionally, please note that Caterpillar policy does not allow for meetings to be recorded with smartphones or other devices unless specific approvals have been sought and granted prior to the beginning of this meeting.

Lastly, we will post the transcript on our website as soon as we can. With that, Nicole, I will turn it over to you.

>> NICOLE DeBLASE: Thanks, Ryan. So we are going to dive right into the fireside chat here, Jim. And thanks again for participating today.

>> JIM UMPLEBY: Glad to be here. Thanks, Nicole.

>> NICOLE DeBLASE: Of course. So you've been CEO of CAT for over six years now. What are you most proud of in your tenure so far and what are you most excited about for the future?

>> JIM UMPLEBY: Well, Nicole, I'm most proud of the way our team has been executing our strategy for profitable growth that we introduced 6.5 years ago. And I'm

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very excited about what we view as a very bright future. And I will explain that in just a moment.

But, just as a reminder, our strategy that we introduced, everything is focused on long-term profitable growth. We had some key focus areas. Operational excellence, which is safety, quality, Lean and a competitive and flexible cost structure. Services, which is everything we do for our customer after the initial sale; done right, it adds value to customers. It's good for our dealers and it's good for Caterpillar. It adds value to customers, it's good for our dealers, and it's good for Caterpillar. Expanded offerings, making sure we have the right products at different value points for customers. And then we added sustainability at 2022 at our Investor Day. And we think there are tremendous opportunities with the energy transition.

One of the things we told our investors when we introduced this strategy is that we would achieve higher margins based against the reference period, between 2012 and 2016. So different levels of revenue. Different levels of adjusted operating margin. And we also said that we would produce higher, more consistent free cash flows at different levels of revenue. And, I'm really pleased that between 2017 and 2022 we produced between $5 and $6 billion of free cash flow every year except for 2020 when, due to COVID, we had more than a 20% decline in our top line. And even that year we still produced $3 billion of free cash flow.

And just at our [second quarter earnings call] last week we told investors that this year we expect to be around the top of the range for free cash flow, which is about $8 billion (company corrected after the discussion). We also said we would be close to the top of our adjusted operating margin range as well. So, again, I couldn't be more pleased with how the company is performing, embracing a new strategy and really focusing on performing in the short term while also investing for the medium and long term.

And, just the second part of your question, what I'm most excited about in the company's future, as we look at the areas that we serve, and most of our markets are quite healthy at the moment, and look at what is coming, we are very excited about the way we are positioned. Think about the energy transition and all of the commodities that need to be produced to support that energy transition. An average EV takes six times as many minerals as an internal combustion engine car. And think about the copper and all the other materials that have to be produced. Of course, our customers use our products to produce those commodities. So you can decide how many EVs will be added. There's lots of projections. Pick what you believe in terms of how quick this will happen. I don't believe there is any way around the fact that more commodities will need to get produced. And, of course, that is a good thing for our Resource Industries business over time.

Data centers are a very strong part of our business with AI. We sell backup generator sets for data centers. And that business is quite strong. And it's hard to imagine that

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slowing down in the short term just given all the macro-level issues that are driving that market.

Oil and Gas, gas compression is quite strong with all the LNG facilities that are being built and commissioned. Of course, all that gas has to be both produced and compressed down in the LNG facilities in the Gulf Coast of the U.S. And Caterpillar plays across a wide portion of that natural gas value chain from drilling to well servicing to gas gathering near the well head with our recip engines and Solar and gas turbines, and Solar compressors compressing the gas down pipelines.

So then, of course, infrastructure. With the infrastructure bills that have passed in the last year or so and the energy transition, that creates tremendous opportunities for Construction Industries.

One more, and it's growing global energy demand. And our customer views our products to produce the commodities that help satisfy global energy demand. So, again, there's a lot of macro-level trends in the markets that we are very excited about, that we believe will drive profitable growth for us.

>> NICOLE DeBLASE: Great. That is a great answer, Jim. You really touched on a lot of themes that I want to dig into today. So good intro. Maybe let's start with some of the key initiatives that you guys laid out at the most recent or analyst day and start with Service. So where are you on that journey to get to $28 billion of Service revenue by 2026? And can you also refresh us on some of the key enablers that are going to drive you there?

>> JIM UMPLEBY: You bet. So, we said we would double our services to $28 billion by 2026 from the starting point of in 2016. One of the things that we said is it would not be a straight line, it would be a bit back end loaded. But I'm really pleased that we grew to $22 billion last year. And that was up 17% compared to 2021. So we are really starting to get traction. And, again, services is everything we do to make our customer successful after the new equipment sale. And we invest in a whole variety of things to make that happen. We have $1.4 million connected assets, significantly higher than when we started this journey.

We invested a lot in e-commerce as well. One of the things that we know is a big opportunity for us is those smaller customers that own, let's say, five to twenty machines. Our dealers do a very good job of focusing on the larger customers, big mining, big oil and gas, and big construction. But we really needed to find ways to reach and make it easier for those smaller customers to do business with us. And our e-commerce sales are growing quite rapidly. And we are really pleased at how that is going as well.

We are starting to use AI, utilizing things, what we call Prioritized Service Events, which is really helping provide the leads to our dealers. And also information to our customers as well that they need service. And that's creating opportunity as well. Working very hard to sign more CVAs, Customer Value Agreements. Over 60% of the

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new equipment we sell now is sold with the Customer Value Equipment. So, again, just a whole variety of things we are doing.

You know, we are putting QR codes on machines and engines that are leaving our factory. So the vision here is you have an app called CAT Connect. You are a small customer. You take your phone, you scan a QR code, and it's serialized so when you need to buy a part you can easily do it on your phone. If you don't have time to install it yourself, you can click a button and have a dealer do it. If you are in the right country and use a CAT Card, use financing. So, again, a lot of those capabilities are being built as we speak. And some have already started, but they are ramping up. And we are pleased again at the track record that we have. Again, $22 billion last year against that $28 billion target. So we've made good progress.

>> NICOLE DeBLASE: Yeah, absolutely. And what has the customer response been to that technology? Like are they adopting the technology? Are they excited about it as well?

>> JIM UMPLEBY: I think that the proof of that is if we look at our e-commerce sales, they are increasing quite rapidly. So we are really pleased with that.

>> NICOLE DeBLASE: Okay. When you think about the service initiative and the different businesses that CAT has, are all of these businesses going to be part of the effort to get to $28 billion or are there certain businesses where you see more service potential than others?

>> JIM UMPLEBY: Well, we are driving across the company. And, certainly, the value proposition for a customer or let's say a gas -- a very expensive gas turbine that runs 24 hours a day, seven days a week, or a large mining truck that runs 24 hours a day, seven days a week or a small skid steer that runs two hours a day, the value proposition is different. And the way that the services look is different. And there is really a continuum between those two examples. But all parts of the business have been successful in growing services.

The biggest opportunity we believe is with those smaller customers that I mentioned. Those small customers that again, five to twenty machines, sometimes we call them do-it-myself customers. But there is a big opportunity there that -- big organic growth opportunity we can go after.

And one of the things I failed to mention in your first question when you asked what are you most excited about, the thing I'm most excited about, for the reasons I've articulated, and some others, that we have significant organic opportunities ahead of us. You know, I've worked with some other CEOs in other industries. They are a bit worried that the way the market is going, their market is declining. Ours is actually increasing. So I believe we have the opportunity to profitably grow our company organically, which, again, and we are very well positioned competitively to do that. And we can talk about that some more; but, again, that is real exciting for us.

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>> NICOLE DeBLASE: Absolutely. Okay. Thanks for adding that. And then just going back to the technology conversation for a second, I think investors struggle to understand the monetization aspect of technology. So how is CAT monetizing the technology offerings today and how do you envision that evolving over the future?

>> JIM UMPLEBY: I will start with services. I'd argue that the technology that we are putting into e-commerce, artificial intelligence, connected assets, other things that we are doing to make it easier for us to do business with has been a big part of the fact that we've increased services up to $22 billion last year from our starting point. So that's clear evidence that we can monetize it, and that is working.

And, of course, when we, in fact, invest in product features that allow our customers to be more successful, that's a good thing for us. Autonomy is probably, one of the best examples there. You know, it really, in my view, is creating a competitive advantage for us. I feel quite strongly we have the best mousetrap out there in terms of autonomy. And so we've had customers tell us that their productivity has increased up to 30%.

I was in Australia about a month ago and had the opportunity to visit a large customer of ours that has more than 60 trucks in an autonomous site. And just meeting with the customer and hearing their positive feedback at what that has done for them is really important. And, again, what does that do for us then? Well, it certainly puts us in the driver's seat when it's time for a new truck purchase. The fact that, with our autonomous solution, there are Caterpillar people there, full time, helping make the customer successful makes us more of a partner than a supplier in their business. It also creates the opportunity for us to sell more aftermarket services as well because we are right there. And so, again, a lot of positive advantages of doing that.

>> NICOLE DeBLASE: Okay, got it. And we will definitely come back to autonomous mining later. I definitely want to dig into that. But maybe before, while we are on the topic of technology and big picture changes, I thought it might be interesting to spend some time on alternative powertrains. And I'm going to ask you a very broad question. What is CAT doing to help customers reduce emissions and decarbonize?

>> JIM UMPLEBY: We are doing a whole variety of things. And we are certainly very committed to helping our customers reduce their carbon footprint. And, we feel strongly that we are contributing to a lower carbon future. And there is a whole variety of things what we are doing. Personally, obviously, we are working hard to reduce our own greenhouse gas emissions from our operation. We've had Scope 1 and Scope 2 objectives for a long period of time. And you can read about those in our Sustainability Report. We are pleased at how that is going.

In terms of what we are doing to help our customers, so there is really a spectrum of things we are doing. People oftentimes go to batteries in machines. And I will talk about that in a minute. But there is other things along that road that can help our customers as well. So, we introduced our newest next gen Hex model. That is called our excavator model. We've upgraded more than 50 of those models. And those new

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models reduce fuel consumption, and, obviously, the emissions by up to 25% compared to the previous model. So lower emissions, burns less fuel, and, again, the payback for customers in terms of technology, so that's one example.

And I'll jump over to Energy & Transportation. We are doing a whole variety of things there. You know, we have gas turbines that can burn a high hydrogen fuel. We have reciprocating generator sets that can burn hydrogen blend as well. We can burn biodiesels, renewables, a whole variety of things.

One of the things that we are investing heavily in, that we are really starting to see good pull from customers is things that help our Oil and Gas customers reduce their greenhouse gas emissions while they produce oil and gas. I think most people now have concluded that probably oil and gas will be around, past next Thursday. And so what customers are really focused on doing now is reducing their carbon footprint as they produce the oil and gas. There is a whole variety of things that we are doing there. From our DGB engines that are used in well servicing, that's dynamic gas blending, it allows the customer to save up to 85% of the diesel with natural gas. Things like e-frac with our acquisition of Weir SPM. It gave us some great e-frac capabilities. And so now what customers can do, as opposed to having a bunch of diesel gensets and frac trailers, they can burn natural gas in a generator set and then use an electric motor driving a frac pump, which, again, reduces their carbon intensity. We bought CarbonPoint, an acquisition we made that helps and the vision there is to help customers with carbon sequestration over time.

So one thing we are also continually doing on the Energy & Transportation side is expanding our ability to burn different kinds of fuel. We can burn renewable diesel today. It's a drop in all of our machines. It's something that can happen today without a capital investment by a customer and no modifications by us. But we are also always working to try to burn more kinds of fuels. Where the most pull from customers is right now for alternative drivetrains is our big mining customers. You know, they are under pressure, frankly, from a lot of their stakeholders to reduce their Scope 1 and Scope 2 emissions. So we are very committed to helping them do that.

And we demonstrated last November a fully loaded or a large mining truck operating on batteries. Now, it's a prototype. But, we are working that very hard with our customers. And it requires a really different way of thinking. It's not just about building the product and selling a truck, because the whole site then has to be modified to be able to do that. A fully loaded mining truck, the battery wears down in about 90 minutes. So what customers have to do, and we will help them do this, is figure out a way to dynamically charge those trucks that they move around the job site. There is a lot of things -- and we have some customers, the biggest mining customers in the world have signed on with us, in our program to move forward to do that.

I believe that the adoption of these alternative drivetrains will occur at different rates by geography, by application, and by customer. Again, the vast majority of the pull right

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now is with the mining customers. We aren't seeing a lot of it with construction customers yet for a whole variety of reasons. My sense is that will be driven by legislation when that finally happens.

You stop and think about a city setting. One can very much imagine, let's say in Manhattan, where you have batteries in machines. Let's say there was a regulation that said, all right, I want Manhattan, no more diesel engines and automobiles and construction and everything else. In that city setting you can certainly find a way to charge the machines overnight and have them operate during the day. And you could find a way to make that work.

Then you think about an infrastructure project. I was just looking at some photos this week of some high tension lines that are being built by CAT equipment, moving power that was produced by wind turbines from Utah into California. And you look at that remote -- mountainous, remote site. Or you think about building a highway in the middle of nowhere. Where you plug in a machine. How do you charge it again? The machine goes dead at 2 o'clock in the afternoon. What do you do? Do you fire up a diesel genset for a fast charge, which negates the reason of having a battery in the first place? Do you have an extra machine which doubles the customer's capital cost? Do you try to change batteries in a big, heavy piece of equipment? That's not easy. Do you try to move the machine? Well, how do you do that?

So I think in Construction, quite frankly, this journey is going to take some time. But our strategy is we are developing the products. We have them ready. We also have our diesel products. And so the customers will choose how quickly this adoption occurs. And we are there either way, depending on how the market goes.

>> NICOLE DeBLASE: Makes total sense. And, when you talk, it was really helpful commentary by business of what is going on from an alternative powertrain standpoint and where the customer pull is. The follow-up question that I would have is: When you think about all of the different types of alternative powertrains that exist today, are you seeing a gravitation towards any of those? Or is it still pretty broad?

>> JIM UMPLEBY: Yeah. As we sit here today, the vast, vast majority of our business is traditional business, either diesel power, which, again, those diesel engines can burn renewable diesel and without modification if, in fact, the renewable diesel is available. We certainly sell a lot of generator sets, gas turbines, and other products that can burn natural gas as well and burn biofuels. But today there hasn't been a big shift, quite frankly, with the exception of natural gas. We sell a lot of engines that burn natural gas. And, of course, a lot burns diesel. But, again, the battery adoption, which I believe will be the first -- today we will talk about hydrogen. And we are working on hydrogen. But I think that's a ways off for infrastructure, safety, and a whole bunch of other reasons. I think it will be batteries first. But it's going to take time.

One of the beauties of our business is that we produce engines and then we are able to use those engines in a whole variety of applications and markets. So an engine can

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go into a piece of construction machinery, a mining truck. That same engine can be used for a generator set. That same engine can be used in the oil and gas application. That same engine can be used for a marine application. So that is one of the beauties of our business. We have the ability to leverage the engines that we produce across a whole variety of product applications. And the alternative drivetrains, I believe, will be the same story when we get there. But, again, we will see how quickly the market moves.

>> NICOLE DeBLASE: Got it. Okay. And, I mean, it strikes me and kind of I felt this way after being at ConExpo and seeing the whole product line, which was really impressive at the show, but would you say having a power gen business puts you in a unique position to win in the alternative powertrain space?

>> JIM UMPLEBY: Very strongly that is the case with our mining customers. So, again, as I mentioned earlier, it's not just about selling a truck. We are the only company that can not only sell that truck, but then, because we provide microgrids, we have gas turbine generator sets, we have reciprocating generator sets, and those gas turbines and recip gensets can burn a whole variety of fuels, we can help our customers electrify the mine site. And we are uniquely positioned to do that.

And one of the things, also, I think it's good to keep in mind is we believe that it's very difficult to separate autonomy from alternative drivetrains. Because you stop and think about the complexity of charging that truck as it moves dynamically. And thinking about how you can get that all programmed in and into our autonomous system to maximize the ability to charge the truck as it moves around. And all of that coordination, we do think we are uniquely positioned and it does give us a competitive advantage in the mining space, certainly.

>> NICOLE DeBLASE: Okay, got it. Perfect. So why don't we move on to another aspect of the key initiatives that you set forth at the Investor Day, which is the margin expansion bit. So CAT has already shown really impressive margin expansion under that plan. But I guess when you think about the future, what are the main drivers of margin expansion from here?

>> JIM UMPLEBY: Yeah. Well, certainly, when we first introduced those margin targets, there was a bit of -- back in '17, there was a bit of skepticism among the investment community. So I'm very proud of the team that we are able to do what we said we were going to do, both on margins and on free cash flow. And so, one of the things that -- well, first of all, let's start with the second quarter was a record from just an adjusted operating profit margin of 21.3%. I believe it was a record adjusted operating profit margin for the first half as well. And adjusted PPS of $5.55, first time we have broken $5.00. So, again, very, very, very proud of the team here. And all that happened with the China market relatively weak. So, again, pleased at that as well.

But as we think about our margin targets, we did adjust those about a year or so ago. And one of the reasons for that was inflation, quite frankly. The way our margin targets

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are set up is that higher levels of revenue, we expect to get higher margins. And that is really driven by incremental operating leverage we get at higher volumes. But if a higher percentage of the sales are due to just price because of inflation, then you don't get that operating leverage, which is why we modified it a bit. You know, I'm not going to make any announcements today on the call. But what we will do, of course, is we will evaluate where we are at the end of the year and if it makes sense to modify those targets.

But one of the things to keep in mind is what we are really driving to do is to increase what we call absolute OPACC dollars. So OPACC is, again, our measure of profitable growth. It's Operating Profit After Capital Charge. We charge our businesses cost of capital and they need to provide a return against that. When we set our new strategy in 2017, we spent a lot of time looking at industrial companies and what really drives long-term, total shareholder return. And we concluded that it's an EVA type of measure really but driving absolute OPACC dollars over time and growing the top line and doing that in a profitable way will really drive TSR. And so, yes, we want to have higher margins. But we are not just trying to squeeze higher margins out and having a shrinking business. We are investing for the future. We are investing to grow the top line in a profitable way. And if we continue to increase absolute OPACC dollars over time, we are confident that will drive TSR. And we more than doubled our OPACC since 2017.

>> NICOLE DeBLASE: Got it. Makes total sense. So, maybe to wrap up the strategy discussion, you also set forth the target of $4 to $8 billion of Machinery, Energy, and Transportation free cash flow. So, I guess, and you said that you expect to return most of that to shareholders. So the question that I have is, you know: Are acquisitions off the table? And, if so, why?

>> JIM UMPLEBY: Certainly, acquisitions aren't off the table. I'll go back to the fact that we see just a significant number of opportunities to organically grow our business. So I start with that. And those are areas where, in my view, we have a competitive advantage. We are very well positioned from multi-distribution and a technology and a product perspective. And so, again, best way, in my view, the best way, if you have an excellent organic growth opportunity and you're well positioned competitively and from a product perspective and from a cost perspective, that is a great way to grow the business. So we are very focused on that.

But we are open, certainly, to M&A as well. One of the reasons we maintain a strong balance sheet is for M&A that may come along. And we ask our leaders to continually search for opportunities. But we are not in a situation where we have to buy something. And we're not out there elephant hunting. Obviously, if the right opportunity came along, at the right price, where we're confident we can get both cost and sales synergies, we would certainly go for it.

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And one of the things we've made a number of small bolt-on acquisitions to help us with technology. And there has been a number of those. Marble Robot, CarbonPoint, and Tangent is really exciting. That is one that we believe will tie into another opportunity, which I failed to mention. You know, as more renewables are added to the grid, that creates grid instability issue due to the intermittent nature of those power sources. So that really does provide an opportunity. And there is more of a medium, long-term opportunity, but we are starting to see some of it already, for us to sell both recip gensets and, gas turbine gensets in what we call distributed power applications.

So that is -- now, traditionally the way the grid has worked is there have been very large power plants, coal, nuclear, natural gas. And that power has been distributed on high tension lines. Well, now that you are putting in more renewables, the whole grid is changing. And we believe it's a great opportunity for us to sell those recips and gas turbines in those distributed power applications. And those engines and turbines can burn a whole variety of fuels: Natural gas, hydrogen blends, biofuels, and all the rest. So we think it's just a great, long-term play.

Now, in terms of acquisition, we did buy Weir Oil & Gas, now SPM. I mentioned that one earlier. And that was a business that we had our eye on for a long time. And we moved when the time was right. I think when we were negotiating that deal, literally when we were still talking about it, the oil price went negative, so our timing was good.

So, again, what we try to do is follow businesses that are interesting to us and then do it at the right time. But, again, we had some outstanding opportunities to grow the company organically, which is, again, you know how this works, you make an acquisition, you have to pay a premium. Then you have to get a return on that premium. If we have an outstanding opportunity to grow our business organically, why not do that, which is what we are really focused on, those opportunities.

>> NICOLE DeBLASE: Understood. Makes sense to me. So maybe we can shift the conversation to your view on some of the exogenous factors that you've brought up, maybe it's exciting growth drivers for CAT. And the first I want to touch on is infrastructure stimulus. We get a lot of questions from investors around this. And I think the big debate is with the amount of infrastructure stimulus that is coming in, does this elongate the cycle? Does this offset some of the impact of rising interest rates on commercial construction? What is your stance on that, Jim?

>> JIM UMPLEBY: Yeah. Well, certainly, I don't use that C-Y-C-L-E word because I think oftentimes people will use that word as it applies to Caterpillar. And what I look at is the diverse end markets that we serve. So it's not one size fits all. Oftentimes, when people think about Caterpillar, they just think about construction because that is kind of what they know because they see it when they drive down the street. But the reality is that we serve a variety of relatively diverse end markets that are strong and weak at different times.

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And so you mentioned commercial real estate. Just to calibrate you, so North American commercial real estate is usually about 1% of total Construction Industries sales. And Construction Industries is, of course, just one of our three segments. So it's not large. People tend to focus on that a lot. And really it's a nonstarter. But 75% of construction industry globally is what we call non-residential. And 25% is residential.

At the moment residential, the growth rate is moderated but it's still growing. And, of course, one of the things people often think about is, as our interest rates goes up, housing, people can't afford expensive mortgages and housing is going to slow down. Well, I think that it certainly happened a bit. But, in my view, what's happening now is that people have realized there is a housing shortage. And so houses we build, because people are willing to buy them, so I feel good about residential.

Nonresidential I feel really good about because of, again, you've talked about some of the legislation that's passed, the CHIPS Act, the IRA. And we are starting to see some benefit of that coming. But, much of it, of course, will take time because permitting takes time. You know, something like $1.2 trillion of spending over the next five years. So I do believe that positions us very well. Even if customers have some projects now, and they feel that there is a pipeline of business coming, they are much more willing to pull the trigger on that capital investment and buy a piece of equipment because they are confident they will have work down the road.

And so our contractors are quite busy. I talked to some contractors who said, do you know what? I can't take any more business because I can't execute. I don't have the people. I just don't. There is not enough out there. So, again, I feel good about that. But it's not just the U.S. I mean, I'm sure you are aware what's going on in Saudi Arabia. I mean, it's just unbelievable. Something like $1 trillion is being spent on huge mega projects. And that's very good for construction as well.

We are also seeing CapEx support in places like India. You know, there is over 20% growth in infrastructure. The government funded the infrastructure, expected over the next 12 months or so. So, again, a lot happening there. IIJA, CHIPS Act, IRA. So at the moment we, certainly, don't feel a slowdown. That market is quite robust.

>> NICOLE DeBLASE: Excellent. Okay, got it. And why don't we go ahead and shift to mining. So what are you hearing from your customers right now on the mining side about their multi-year spending plan?

>> JIM UMPLEBY: So, certainly, we talked a lot in our earnings calls about the fact that our mining customers remain capital disciplined, and that’s true. And what we said is, what we expect is a more of a moderate increase over time in mining. And that's exactly how it's played out over the last five or six years, or so, which is a positive thing in my view for both us and our customers. I would much rather have that than the wild swings up and down, which we saw previously, a big peak in 2012, and that all came crashing down. A lot of that was driven by what was going on in China at the time.

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Having said that, certain factors are very positive for our business. Utilization of our equipment is high. The number of parked trucks is low. The age of the equipment is high. And all three of those factors, certainly, play in our favor when we think about mining business going forward. It was exactly the opposite back in 2012, 2013, 2014, high number of parked trucks, low number of hours, low utilization. All three of those indicators are great, that is good news.

We talked earlier about the fact that with the energy transition, if you believe any portion of that, in my view, there is no way around the fact that that will involve increased production of commodities. And not that many companies in the world have big mining trucks. And so, we think that we are well positioned there to help our customers produce those commodities.

Having said that, again, there is capital discipline. And it can take some time for mines to get approved. You know, it's not you go out and put in an application and three weeks later you get approval. So it takes time. So that is an issue there. But, again, while those mines are manifesting themselves over time, business at the moment is strong. So, again, we feel really good about the mining business.

And one interesting point is, you stop and think about where we were in 2012, our sales and revenue was about $66 billion, and that was a high point there. And Resource Industries was about $20 billion back in 2012. And you know what it was last year. And you know what it is the first six months of this year. So there is a big opportunity there. So we are -- you know, we are -- if you look at where we are this year and think about where we will probably wind up, I'm not going to make a prediction here, but as you can imagine, one could predict that we will be kind of close to that 2012 number at a time when Resource Industries is still significantly less than it was back in 2012. And think about the opportunities presented by the energy transition for our mining business.

So, again, if you add that up with the opportunities that we have in distributed generation, the opportunities in construction, I feel really good about the opportunity we have moving forward.

>> NICOLE DeBLASE: All really exciting stuff. So I wanted to come back to autonomous mining. I said that I would, and I think it's time we delve into that. So where do you think we are on the adoption curve for autonomous mining globally? And can you talk a little bit about CAT market position there versus competitors?

>> JIM UMPLEBY: As I mentioned earlier, I feel really strongly that we have the best mousetrap in terms of the autonomous solutions. And why is that? What makes it better? Well, our trucks move faster. That the way our system is designed our system knows where everything is in the mine site. And so what that allows them to do, and it also knows in five minutes and ten minutes and two minutes and twenty minutes where everything will be, what that allows trucks to do is move more quickly. So they don't have to slow down as much when they get near each other. They can move. And it's

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all about productivity for our mining customer. So then, in fact, the equipment moves faster. You produce more. And it makes a huge difference on their economics. So we feel really positive about that. Thoroughly in my view we have reached a tipping point in autonomous. And we have around 600 [autonomous] mining trucks in operation (company clarified after the discussion). And that number continues to grow. We've got mining trucks in iron ore, copper, gold, oil sands, coal, lithium.

And so when we first started deploying autonomous solutions, we really focused on large site. And, to pencil out, we had to have something like 70 or more trucks on a site. Since that time we have worked really hard to get the costs down. The economics have improved. So now we are deploying in sites with as few as 12 to 14 trucks. And that opens up a whole -- a much larger number of mines that can put in autonomy. So almost every conversation we have with customers when they talk about you're expanding an existing mine or opening a new mine, autonomy is part of that solution.

And so some of the people that were waiting, think about a customer or two that were waiting to see how it played out, people are starting to get on board. But it's not just mining customers, you know. You may have seen we made announcement recently with a company called Luck Stone, which is a family-owned quarry and ag customer in the United States. And so, they are going to put -- that is our first autonomous solution in a quarry and ag application.

And so, again, by continuing to bring costs down, there is more and more opportunities for us to provide that autonomous solution. And, again, what that really does for us, it provides us a competitive advantage. That means more trucks out there and more equipment, that means more services after that, so it's all very positive.

>> NICOLE DeBLASE: Yeah, absolutely. All good news there. Okay. Then, I mean, I'm hearing a lot of really exciting things here on exogenous growth drivers, technology, CAT's market position, I guess alternative powertrains. When you think about all of these things, does CAT need to take up investment spending to address all of these opportunities? Or do you feel you are already in the right zone?

>> JIM UMPLEBY: Well, one of the things we told investors at our May 22 Investor Day is that we were willing to invest more in what we call AACE, which is Autonomy, Alternative Fuels, Connectivity and Digital, and Electrification. And we think that is a really key area. And we are investing more in there. You know, we believe that we have some of the best products there. But we need to continue to get better. And we will continue to make targeted acquisitions to help, and investments as well, to integrate and enhance our technology.

Again, I talked about some of the acquisitions we made previously like Marble Robot, Lithos, and we will continue to do those, and we are going to work on the mine site of the future. But, certainly, we are investing more. But, again, we certainly have the capacity to do that. Look at the our financial performance, the amount of cash we are throwing off. Again, we feel good about that.

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>> NICOLE DeBLASE: Okay. Got it. Perfect. And, taking a step back, the backlog is obviously very extended. It has been for some time. And we even saw backlogs step up another 300 million with earnings a couple weeks ago. So, I guess, how far are you now booking orders into the future? And within which businesses do you have the most and least visibility?

>> JIM UMPLEBY: Yeah. So it does change by -- it's different for different areas in the business. You know, typically over many years some of the products that have the longest lead time, let's say Solar Turbines as an example. So when someone buys a gas turbine from Solar typically the lead time is something like 7 to 10 or 12 months because oftentimes after the order is placed the customer is still deciding what it is exactly they want to buy because each product is customized a bit. So those products and the Solar business is quite robust. We are doing quite well. And so, again, their order book is -- it looks very healthy.

Also in areas like gas compression, business is quite strong. So our larger engines, whether it's data centers or whether it's gas compression, that all looks quite positive. And also, of course, there is RI as well. You know, one of the things about the backlog is, honestly, we are working hard to get our availability up. And if we improve the availability of our equipment, meaning that customers don't need to wait as long, our backlog, I would hope, would maybe go down a bit at some point because, again, customers don't have to wait as long. So, a bit of a decline in the backlog is not necessarily a bad thing if it's driven by our ability to shorten lead times. And we are still dealing with some supply chain issues, particularly around large engines. And a bit even still with chips that are impacting things like displays and some other things.

But again, as we sit here today, most of our end markets are healthy. Our dealer inventory we believe is -- we are quite comfortable where it is. Some products our dealers wish they had more inventory. Some they have enough like excavators, and that is due to the downturn in China. But, again, we have a healthy backlog. And, as I mentioned, most of our end markets are quite robust.

>> NICOLE DeBLASE: Perfect. Got it. On the topic of pricing, so, obviously, it has been very robust for many years now. You guys have done a good job of passing along the rampant inflation that we have seen. I have heard concern among investors that if we start to see inflation moderated at some point, deflationary environment, is there a risk that some of those price increases could go the other way? And perhaps CAT could decrease price? What would be your approach in that kind of an environment?

>> JIM UMPLEBY: And, we make -- we look at whole variety of factors when we make a price decision. Certainly, we look at input costs; but we also look at our competitive position. And it's not one size fits all. We look at by product, by market, by application, then we make a decision based on what we see. You know, in the second quarter of this year, prices was favorable, by about $1.4 billion, it was in, about in line with what we expected. You know, certainly, because we put in some significant price

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increases in the second half of the last year, that will start to lap in the second half of this year. So, there will still be some positive benefit of price. But, of course, it will moderate just because we are lapping those significant increases that we took last year.

But, again, one of the reasons we continue to invest in technology. We continue to invest in finding ways to provide more value to our customers. It's not just about competing on price. It's about providing value to them. Yes, we have to be competitive. There is no question. And with some products it's easier to demonstrate the value than with others. It's a continuum. But, again, I feel quite comfortable that we will be able to remain competitive in the various markets that we serve and still meet the shareholder commitments that we've made.

>> NICOLE DeBLASE: Understood. Fair. So, switching to China, so what is your view on the potential for a rebound driven by stimulus or otherwise in China? And can you give us a refresher on CAT's competitive position versus some of the local players in that market?

>> JIM UMPLEBY: You know, we had a couple of very strong years in 2020 and 2021 in China. And we saw a decline in [2022] (company corrected after the discussion). We expected a further decline in 2023, and it was more of a decline than we had anticipated. And, we talked in our first quarter earnings call about the fact that sales in China typically are 5 to 10% of our total sales. And we told investors in that first quarter call that we would be less than 5%. And just last week we said it's going to be even lower than we thought before. So, keep in mind, our market in China is primarily hydraulic excavators 10-ton and above. So when we talk about the China market, that is mostly what we are talking about. And that market does tend, well, to move up and down.

So at this point, we haven't seen an improvement. I'm not going to try to call one of those. Obviously, a lot depends on the actions the government takes in China. The really good news is that even with China relatively weak, as I mentioned earlier, we just produced record results. So, again, that is the beauty of the fact that we serve a variety of diverse end markets and we are not just dependent upon, say, construction in China. We are not just dependent on one particular market. We are pretty diverse.

In terms of competitiveness, I'm confident in our ability to continue to compete in the markets that we serve. Certainly, there are some local Chinese manufacturers, particularly on the smaller end, particularly that are focused on being number one in terms of market share. And certainly, our strategy is to be competitive, to make money. And I feel -- well, I feel good about the way we are positioned. And we have been in China for more than 45 years. We've got about 20 facilities, [over 12,000] employees (company corrected after the discussion). We've introduced products at different value points. What we used to do is take a premium product, meaning the product that moves the most dirt in a 24-hour period and try to sell it to a customer that either didn't need it or couldn't afford it. And, by being in China, it's made us better, quite frankly. We first

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introduced the GC product, then the GX product, which targets a different customer segment. And we started with a clean piece of paper and learned how to design lower-cost products. So, again, it's a whole variety of reasons to remain in China and be competitive and we are pleased at how it's going.

>> NICOLE DeBLASE: Excellent. Great answer. Thanks, Jim. So the final question for you today, cognizant of time, what keeps you up at night? And then please feel free to leave us with any messages that I didn't address today.

>> JIM UMPLEBY: One thing that keeps me up at night is why investors, why our multiple isn't higher, just given the amount of cash that we are providing and where our markets look moving forward? So you can all help me with that later. And I scratch my head and I look at -- I look at our results and I look at the fact that we have been consistently able to produce higher cash flow and higher gross margins. And that fact that we had the big downturn in 2020. And it's not the catapult. It really isn't. It's not your grandfather's Caterpillar, it really isn't, and the fact that we were able to produce $3 billion of free cash flow that year without dipping much into inventory. You know, we were positioned for the upturn in 2021.

So what keeps me up at night is why everybody on this call doesn't give us a higher multiple. So that's that one.

And then, again, as I think about our markets, as I think about the way we are positioned and everything I've talked about, the energy transition driving mining, growing global energy demand driving the distributed generation opportunity, the fact that with all these infrastructure bills driving CI business. You know, one of the things that keeps me up at night is, all right, are we positioned from a supply chain perspective to meet potential future increases in demand? But, again, that is a wonderful thing to keep me up at night as opposed to a decline in market. So, again, it's great. I've never been more confident about our future. And I'm not just saying that. I really do believe that for the reasons I've described.

>> NICOLE DeBLASE: Excellent. Thanks so much, Jim. Well, I think we are going to wrap it up there. But thanks to everyone for joining. And thank you, Jim, so much for your time. I really enjoyed the conversation today.

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>> NICOLE DeBLASE: Welcome back, everyone. Very happy to introduce Joe Creed, who is Group President of CAT's Energy & Transportation Business. Joe, thank you so much for spending some time with us today.

>> JOE CREED: Great to be here and nice to see you.

>> NICOLE DeBLASE: Likewise. So you've led the E&T segment since January of 2021, a little over two years now. What have you changed since you've held the role and what are you most excited about for the future of business?

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>> JOE CREED: Well, I mean, you heard Jim as far as what we are excited about. I'm excited about a lot of the same things, and the opportunity that we have in front of us now and well into the future. Energy transition, as Jim mentioned, and he has talked about many times before, presents a great opportunity for us as far as just total energy demand. Normal renewables and the emittancy that we are starting to see in the developed world, not just in the developing world, which will increase our opportunities for distributed generation in Oil and Gas. You know, all of the energy sources, just with the increase in energy demand, are going to be needed in the future. And we are investing in all of the technology to really help our oil and gas customers be more efficient as they move forward, lower the carbon intensity of operations out in the oil patch. And so we are really excited about the near-term and the long-term opportunities.

You know, our traditional customers today are asking us to continue investing in diesel, and that's what they're buying, and we are doing that as well. We introduced the new diesel engine for our industrial customers that's going to be in our CAT machines as well at ConExpo. And so it's more fuel efficient, more power dense. And we are making investments across the portfolio to really take advantage of the new things that are going on in the industries that we serve, like Jim mentioned as well.

You know, and what I've changed? I inherited a terrific business, taking this role. My predecessors, a number of them, positioned us well. And so I'm grateful for that. And I was part of the business before moving into this role. We are really leaning in with our dealers, to help our dealers, particularly around larger customers and data center customers and oil and gas customers that cross territories, particularly in this environment and longer lead times, as much as they can give us insight into their volume.

So on the commercial side, we have also stood up an electrification division to really focus on things Jim talked about earlier. You know, we are preparing ourselves for electrification. And I think it's a long road when it comes to adoption. But we want to be there with our customers and take that journey with them, and mining is kind of out in front right now. So working closely with Denise and her team, not just on electrifying equipment, which is wonderful. We demonstrated the mining trucks to customers in February. And that was a great demonstration. But also in leveraging what we think is a competitive advantage, having a captive distributed power group inside the same company as the OEM and bringing a full site solution to the customers.

And we also created remanufacturing, Reman, as its own division as well. It's a great sustainability story, helps us build services. It's great for our customers, our dealers, and us. So a lot of emphasis on Reman as well. I'm hoping to get more competitive machine re-builds for customers using Reman. We think it's a great opportunity for us. So, I haven't made wholesale changes. We made some small acquisitions, as Jim

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mentioned as well, in this section to really bolt on to our portfolio. But we are really just trying to lean in and take advantage of the great trends we are seeing in the industries.

>> NICOLE DeBLASE: Understood. Great answer. So E&T is comprised of four applications. And from my experience it seems like investors, I think, have the least deep knowledge about the E&T business. So I'd kind of like to spend time with you digging into each of those four. Maybe starting with Oil and Gas. So Oil and Gas, price per barrel has kind of been in the $65 to $75 range for a while now. I guess, what are you hearing from your customers when it comes to the level of investment that they expect to be putting into the next few years? And maybe you can speak to like Solar versus reciprocating engines versus well servicing as well.

>> JOE CREED: Oil prices have kind of been in that range, have actually been up here recently in the last few days. As Jim and Andrew both mentioned on the call as well, sort of what we are hearing from customers right now when we hear their earnings calls. On the well servicing side and drilling side, in the near term, we might see a slight slowdown. On the compression side, we are seeing no slowdown at all. And Jim mentioned the O&G is slowly coming online. And we will need to move a lot more gas, natural gas, in the next few years, and Solar plays a heavy piece in gas transmission, as well as our reciprocating business and gas gathering and gas compression. So those orders are robust. And a lot of those are longer lead time. We talked about Solar Turbines, those orders are starting to come in. And we are seeing that backlog remain really healthy. So the compression side is really strong. You know, when it comes to drilling and well servicing, it may be a little bit of a slowdown in the second half. But I don't see this as an elongated thing. Customers have been very disciplined in this cycle, which I think is a great trend compared to some of the past cycles in Oil and Gas.

So, yeah, I don't think this is something that we expect to last very long. I think it's more of a slowdown and not a stop or a hard pause. So we think long-term things are great. It's a great market in the industry for us. And as we mentioned, we made some investments to really help have the most high-tech fleet out there and equipment options for our customers to lower their carbon intensity in Oil and Gas. And we continue to talk to our customers and stay close to them about what is going on. This is a great business, a healthy business for us, and one we think has great meaning and long-term retention.

>> NICOLE DeBLASE: Got it. Okay. And you brought up how you are helping customers reduce carbon emissions. Can we talk a little bit about some of the CAT technologies that you are excited about, that enable that?

>> JOE CREED: Sure. It kind of goes across the spectrum, we participate in powering drill rigs on the frac side as well as in moving gas. Maybe if I just start with drill rigs. Drilling typically has been done in the past with four diesel generator sets on a drill rig that powers the drill. We have been able to almost move to what we call a hybrid drill rig set up where we can use three natural gas generators and energy

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storage or a battery and then our smart microgrid controller to seamlessly shift between power sources. That allows where typically those generator sets in diesel would have idled before, we can use the battery on sort of and not outputting a lot of power. We can use the battery when they are actually drilling and need that excess power. We can shut down one or two of the generators.

And the ability to burn natural gas and other fuels, as Jim mentioned, is really important as well. We can burn conditioned field gas which can help customers reduce flaring, using gas that would have been flared gets conditioned and we can run the generator. So it's really a microgrid type of set up. We can substitute one diesel and you can have natural gas and batteries. You can get power in and power substitute. So it's a really neat solution and the drilling has not been a huge demand for us just because of the amount of equipment that is out there. But we feel like we are ready, when that does pick up, with the most advanced solutions.

On the well servicing side, if you move to a frac site, that is where really the acquisition of SPM is really important for us. It helps us really create a solution in traditional fracking fleet, that we can have an integrated solution. And no one else has the engine, the transmission, and frac pump, and so on. And so we can integrate the whole system from trailer to wellhead, monitor all of it. And we have what we call a frac fleet optimizer, which is a digital solution that really sits on top of that. And you will run every trailer and engine at the optimal gear and speed to really optimize that whole side. And it helps drive a lot of fuel efficiency for customers. We put our DGB engine in there. We can displace up to 85% of diesel and natural gas.

And then SPM also brought us higher horsepower frac pumps. As Jim mentioned, this 5000 horsepower pump with our gas 3520 generator set for an e-frac application, it has become very popular with a number of our customers as well. So really having this kind of, sort of a missing piece to really put an integrated solution together. And we are really the only supplier that, in the industry, that has the engine, transmission, and the frac pump. If you think about what we do, we, E&T and we, Caterpillar, that is what we do. We integrate our pieces of equipment and optimize for the industries that they are in. And that is what we do with our CAT machines. We take an engine and transmission and optimize it for the application. So we have a ton of experience in knowing how to do that integration. And we have taken that knowledge and really applied it into our well servicing and Oil and Gas business. So I'm proud of the team for doing that.

And then on the gas compression side, we can burn a variety of fuels. We mentioned CarbonPoint Solutions, small acquisition, but it's carbon capture technology that is not large scale. Carbon capture has been out there for a while, but more tailored to our applications on our turbines and our engines and compression. So really excited about all the investments that the team has made. And really positions us, I think, as we move forward and think about not just -- I try to think past the next six months and

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whatever might be happening there. And as customers continue to update their fleets, we will have more sustainable solutions moving forward and try to be in front that with the right technology.

>> NICOLE DeBLASE: Okay. Great. Good overview of Oil and Gas and what is happening there. So maybe let's go ahead and move on to Power Gen. The business has been growing really strongly. So 15% growth in 2022, followed by 33% growth year to date. What is driving this strength and how much of it is all about data centers versus what is going on in other verticals?

>> JOE CREED: It's pretty strong across the board and has been. And data centers is a huge piece of it. And I would say if you looked kind of under the hood and distributed generation in Electric Power has been strong, both on the small end, as our generator sets can go behind a number of industrial buildings and a number of commercial buildings, that business, we call it sort of the retail side for us. Much smaller generator sets. They've been robust. But on the large side, data centers has been probably the fastest growing when you think about just what is the biggest growth rate that we see. And that's really all the connecting, all the digital connections that are going on driving demand in the data centers. You guys can read about that, do your research. And what we are hearing from customers now is with the onset of AI, that potential for that to continue to grow, even accelerate more over the next few years based on what we are hearing, that is a great opportunity for us.

So data centers are such an important deal for us there, huge consumers of power if you do your research around. And they want up time. And they want quick response. And power vent, making sure they are continuing to run and we don't lose connectivity in our personal lives. So what we do for them is backup power. And it's critical. And it requires -- you know, it's not just one unit behind the data center. The amount of power that it consumes, it's many units every time you build a data center. So if you think about the growth that is coming there, it's really exciting for our business.

And the medium to longer term trend as well, on the onset of all the renewables that are supporting the grid, and retiring of some traditional coal plants and other traditional generation, we think and are starting to see grid instability and more intermittency issues and peak load concerns just because renewables are very sustainable, but they are not consistent. The traditional forms of power and power plants whether its coal or natural gas are very consistent. They are reliable what level of power the utility has to distribute. When you put renewables in there, it changes the mix and you have more and more demand on power, and EVs coming along, and at the same time you have intermittency being introduced to the supply side of that. And that is what we really believe and this is what Jim mentioned, this is a medium to long-term opportunity to distributed generation to fill in that gap and helping to support some of that intermittency of peak load because you don't have to put all the transmission in. You can put it in closer to source.

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And so having the right set of products within our turbines and generator sets is a great mix for us, burning all kinds of fuels is great for that. And the Tangent, and that is why the acquisition of Tangent is so important for us. It gives us what you call an energy-as-a-service company, but really it's a proprietary digital software and solution that we can help with customers that really can monitor and dispatch a distributed generation asset to help monetize that at the right time for customers who buy a distributed generation asset. Also, it can also help utilities, when needed, during peak loads and intermittent issues to help firm up the grid. So it's something we wanted to get in front of again, trying to be ahead of maybe when we see huge demand. We've had a few orders. And we are talking much more utilities than we would in the past and would not be typical customers of ours and mostly would have commercial industrial customers. They are still great customers, but now you add utilities to the mix. Many of them, even here in the U.S., are starting to put programs out for distributed generation to help with intermittency issues. So Power Generation is probably the fastest growing segment that we have in E&T at the moment

>> NICOLE DeBLASE: Okay. Got it. Thanks for that. If I could ask a very prime level question. Please forgive me. But there is a ton of interest from investors in data center exposure right now and how all this works. And I think it's a bit of an underappreciated part of CAT's story to be honest. So can you just explain a little bit, like, in very layman's terms, what you are providing to a data center? And, I guess theoretically, would every data center need some sort of CAT-like backup power unit?

>> JOE CREED: Yeah. I mean, almost every data center that goes in will have backup power and redundant power, enough to power the entire data center. So maybe if I try to equate it to a lot of times a commercial building that I'm in or an apartment building or even homes, right, we have backup generators in the event of a power outage. Many times in those we will only put enough power in to run we will low shed some things and run the essential parts of the house that you need or the building that we need, but not 100% the power. Data centers are more available to run the entire operation and want quick response time so that when we are on our phones or you are consuming data, that there is really no interruption. So every data center has backup power. Like I said they vary in size. But you can have data centers that are 15 megawatts, 100 megawatts. So it's not one unit that goes behind a data center. It's many, many units with the data center to provide that backup power.

And having the redundancy of having multiple units is also a good thing. So really kind of getting into that sweet spot of our large engine portfolio is right where data center customers, they are coming to us and we're really leaning in to help them. So as data centers continue to grow and the build out happens, it's an opportunity for us. And, like I said, that is one of the reasons we are really trying to help our dealers and talking more and more to the big hyper scalers especially, just so that we are getting a view of what is, obviously, coming and to supply them with what they need.

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>> NICOLE DeBLASE: Okay, okay, perfect. That is clear. Thanks for that. So just on the subject of grid investment in the U.S., you did bring some of this up earlier. Are you starting to see the impact of some of these infrastructure stimulus bills within Power Gen? And, I guess, have you thought about like what the potential impact could be to CAT business over time, in quantifying it?

>> JOE CREED: Yeah, on the infrastructure bills, I mean, I would say they are not -- it takes time for those to roll out like Jim said. We watch that a lot closer on the Construction side of business in terms of as it relates to an impact to us. We haven't really quantified it. I think the bigger one for us really is, as I mentioned before, the one that is a little further out and harder to quantify because it's really emerging right now. It's just the instability and intermittency issues that we see with the grid. And we talked to a couple of utilities. There is a couple in the Southeast and the Northeast where they are contemplating what type of programs and how does the distributed generation play a role in helping them.

And the way I look at it is distributed generation is really an enabler of renewables because, just by the nature as we talked, as we mentioned are intermittent. So, to put more renewables on, we need to be able to deal with that intermittency and potential peakload concerns. So I'm not really in a position to quantify it today other than I can tell you it's not a huge piece of what we have been seeing as far as growth right now, that's more of an emerging opportunity that would really just accelerate on top of the things that we are already seeing in that business. Because it's early days. But I think it's pretty evident, even here in the U.S. utilities that didn't struggle in the past are dealing with intermittency issues and peak concerns and I think that trend will continue.

>> NICOLE DeBLASE: Okay, okay. Got it. Perfect. Shifting to Transportation, the recovery here has clearly been a lot more muted than it has been in other areas. What are you seeing globally, like, U.S. versus international, OE versus aftermarket, and could there be a recovery coming at some point in the near future?

>> JOE CREED: There is two real sort of segments under the Transportation, what we call Transportation. There is Marine and then there is our Rail business. And I think I would handle those two, maybe, separately because they seem slightly different things. On the Marine side, it sort of has been depressed; but we are starting to see a little bit of demand coming back. Ports are being built out. Really strong with tug fleets. And think about offshore supply vessels and wind and a little bit of offshore oil starting to come back. So we believe there is some opportunity there. We have seen our business better this year than it was last year. So that part of the business we think has modest growth. You know, I think it's not the size of business, probably not the opportunity in Power Generation, but it's a nice business for us and one that I see as positive trends in right now.

On the Rail side, it's a little bit of a mixed story. On the Rail services we are seeing growth and strength and that business is doing real well. It's the locomotive business

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that has been pretty depressed, particularly in North America. Not a lot of new locomotives being purchased in the industry in the last few years. It doesn't appear there is anything imminent there as far as a huge comeback.

Internationally there are deals out there. And we've been participating in those. But a significant amount of volume in that industry relies on the freight side on North America. So we have the products available if and when our customers decide to replenish fleets. You know, our Tier 4 offerings is available. We will continue to talk to those customers to see if to make sure we are ready to meet their needs when the time is right. That one, I think, is the one area for us that is still pretty slow.

>> NICOLE DeBLASE: Okay, okay. Got it. Just maybe taking a step back and talking about alternative powertrains and electrification. If you look across E&T, what technologies is CAT bringing to market to kind of drive us through or to that transition?

>> JOE CREED: Yeah, and that is the fun part about this and the challenge at the same time in our segment is the diversity of the businesses that we have. So it isn't going to be one solution for us when it comes to the energy transition. We are investing in many different solutions alongside our customers to really -- because each industry has a little bit of a different feel. On the electrification front, obviously, we are leading with mining, mining customers, and made some commitments early in our program and looking at wholistic solutions. As Jim mentioned, it's not just powering the equipment with batteries, but also site solutions to charge and make sure that we have enough power and infrastructure on site to actually operate and charge the machines.

We see the full spectrum through alternative fuels. We have a quest on hydrogen and hydrogen blends, biodiesel and biogas, ethanol, methanol. So burning a variety of alternative fuels is really important. And our teams are really good at development, so we're having all those ready. You know, we have -- we can run 20% off the shelf hydrogen blends with natural gas in our generator sets today. And the turbines are pushing that even higher. And we did even release, it's around one megawatt unit reciprocating generator set that can burn 100% hydrogen. It's a design-to-order product. Not a lot of demand for it; but customers ask me about it. And what that does is really instills confidence in our customers because they know the answer isn't really known as far as timing and in many industries, what technology is actually going to win out. And for us to be a good partner and for them to have confidence we're going to be there with them, it's important that we can show capability in all of these different solutions.

And I think my personal opinion is there will be opportunities for all these technologies depending on the market. And I don't see one that wins across the whole diverse set of industries that we serve, just because of the challenges and different requirements of our customers.

>> NICOLE DeBLASE: Okay, okay, that makes sense. Shifting to pricing, so pricing and E&T has been a little less robust than we have seen in CAT's other two businesses.

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Why is this? And do you think there is maybe scope for a bit of a longer tail of price increases in E&T as you seek to kind of recoup the inflation that we've had for several years?

>> JOE CREED: Well, we were a little later in bringing to sort of take some pricing action right when inflation sort of tipped off a couple years ago. And the reason for that is, you heard Jim mention a little bit before, our engines, we sell them to many different markets. That is a great advantage for us. It gives us scale and gives us all the opportunities that comes along with that. And one challenge with that was we saw strength in some of our end markets and some of the others weren't quite robust enough yet. So that's why if I saw the same engine in multiple areas, with the market is strong to take pricing as early as the other ones did. And, certainly, Oil and Gas started coming back and the industry started to recover at the same time. And inflation started to pile up and our costs, we needed to take some action. So we did. And I feel like we are in a much better position today and have been able to make up a lot of that. And we continue to monitor that. I think we feel good about our pricing right now. We are in a healthy position, talking to our customers. And our margins sort of have gotten back in line with where we were at at the higher end of our prior ranges. So it took a little bit longer. We will continue to assess the situation. And it depends on the industry, but we have and will continue to look at pricing and price appropriately. But we have done a pretty decent job in the last 12 months getting back with all those inflationary costs for sure.

>> NICOLE DeBLASE: Okay, okay. Understood. And maybe shifting to supply chain, where would you say we are on the path to recovering the supply chain? And maybe you could talk a little bit about some of the constraints you are still seeing and maybe where things have kind of cleared up.

>> JOE CREED: Things are much better for us, what we call medium and small engine business 18-liter and below. Actually, probably 32-liter and below. We have been able to kind of overcome some of the supply challenges. Where we are really still struggling a bit is in the large engine business. And there are two things going on there. There are constraints and there have been constraints. But at the same time our orders were going up faster than we could ramp up. So we have been able to increase our production every quarter, just not at the pace that the orders were coming in. So we are making progress I would say there.

When you look at the number of suppliers that were causing us some challenges, we put teams on there and we work closely with those suppliers. It's getting significantly better. The challenge is I need every component on time in order to build it and to get it out.

So I would say we are making great progress there. There is still pockets. Maybe some specialized components here and there. And then occasionally things pop up. -- One of the things we get in this situation is the supply chain can't really absorb things

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that normally happen in a normal situation where you kind of absorb that shock and can keep going and recover. So we kind of feel every little hiccup that can happen in that business. So it's getting better. We are continuing to ramp as fast as we can, to take care of our customers. And we are making some progress. So it's kind of a mixed bag depending on the business for E&T.

>> NICOLE DeBLASE: Okay, okay. Got it. And another broad question for you is: Across the four applications, where are lead times most extended? And maybe this is just a total E&T question, but how is backlog coverage looking relative to where it would normally be?

>> JOE CREED: Our backlog is healthy. It's really healthy. And lead times are pretty extended, particularly in our large engine business. So when we talk about -- and that really is the heart, kind of Oil and Gas and data center business and large Electric Power. And so our lead times are pretty extended. And our backlog is really healthy. And that's where as long as demand is there and our sales to users continue to be strong, personally I would like to see our backlog come down a little bit as long as end user demand is there, and that means we are able to get product out faster and get better availability for our customers. You know, to combat some of that, and that is, again, why we are really leaning in on the commercial side with our dealers, to kind of try to communicate with customers with as long of a window or picture to what they think is happening so we can really maneuver, to take care of them as best we can in this area of extended lead times. So but that's one of the reasons we are really working hard on the supply side. We want to bring those lead times in. When we do that, part of that may be a bit of contraction on the backlog, and that is not a bad thing. Customers, when they have more confidence, they can get the product in a shorter amount of time will just place the orders a little bit later, that is okay, that is healthy.

>> NICOLE DeBLASE: Yeah. That makes sense to me. And, maybe just on the topic of profitability, so your margins have been recovering quite a bit year to date, which is good to see. But I think we have a little ways to go before we get to prior peak. So any reason why we couldn't see E&T margins return to prior peak? And maybe you could talk about some of the margin expansion initiatives that you are working on today.

>> JOE CREED: Yeah. I mean, I think we can get to our prior segment peak margins. And we are pretty close now. If you look at trends for the months, we have been around 17, and that is with even still ramping. I think we went up less than 16 in the third quarter of last year, the trend for a couple months' worth. We are definitely climbing. And pricing has been a big piece of that. We work on cost reduction as well. And certain parts of the portfolio you can always strive to get better and be more efficient. As lead times come in and what we just talked about, there is efficiency in the factory that I expect we would see. But, overall, I'm pretty happy. I'm comfortable with where our margins are trending at the moment.

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And keep in mind when we talk about increasing AACE, as Jim mentioned, in the alternative fuels piece of that, the electrification piece of AACE, the E&T sort of has the bulk of those investments on the front end because that is where a lot of that development work gets done. We are spending more money on investing in the future, which I think is a great thing for us to do and it's really healthy. Even some of the digital spend we had -- we are trying to connect our assets as well and really push some of the tools.

So, when you couple all of it together, and we have kind of been able to get back to where we want to be on pricing, and we will continue to work on efficiencies. And as the supply chain gets better, but we will spend a little bit more money just because of the diversity of the technologies we need to invest in. When you put all those together, I'm comfortable with the trend that we are on. We always love to get better. But we also want to make sure we are making the right investments for the future.

>> NICOLE DeBLASE: Absolutely. And there is a lot of growth to come, right?

Okay. So I'm down to my last question for you, Joe. So I'll ask you the same thing that I asked Jim, hopefully you have been thinking about the answer when you watched Jim's segment. But what keeps you up at night? And please feel free to mention anything that I didn't ask about that, you think we should talk about today.

>> JOE CREED: I appreciate the time today and the questions and the interest in Caterpillar and E&T. I sleep pretty well at night but you always worry about how can it be better in the future? A couple things. In the short term, really, I'm laser focused on how increasing our throughput and getting products to our customers quicker. But I want to bring availability in because I think that is healthy. I want our supply chain to get healthy. And it’s not just the factory. We need to support our dealers and our customers in the aftermarket. We have some work to do to get ourselves there. I would feel comfortable in that to see us. So that is in the short term.

Then in the long-term it's really balancing all of these investments that we need to make and all the different technologies along with the pace. Energy transition is an exciting time, but it's an uncertain one. And unlike an emissions tier change or some sort of an investment, that is a big investment, that we would make, that has a due date and known sort of technology outcome here. It's a lot different technologies. As Jim mentioned, depending on even in the same industry, depending upon the region of the world and regulation, the pace of adoption on some of these technologies could be different. So I want to be ready. I want to be ahead with the technologies. And hopefully through our discussion today you see we’ve been making investments to think ahead. But at the same time we want healthy margins and we want to pace that investment.

And I think we are finding the right balance now. But the pace is uncertain. And we have a diverse set of industries that we serve. And I want to make sure we are in lock step with our customers and we are making the right investments, to be ready when

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they -- to really fuel some of this growth. You know, it's an exciting time to be in the energy space. And energy is growing. I believe we are in some really great industries and have great momentum and the right products and made the right investments to capitalize on that growth. So it's really all about our executing that and keeping that right balance.

>> NICOLE DeBLASE: Got it. Well, thanks so much, Joe. Joe, thank you so much for your time today. This was a real interesting conversation. With that, we are going to wrap up our virtual headquarter visit, so thanks again for all the attendees for listening in as well.

>> JOE CREED: Thank you. Nice to see you.

>> NICOLE DeBLASE: Likewise.

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