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Transcript

Morgan Stanley 10th Annual Laguna Conference

September 15, 2022

Webcast

Corporate Participants:

Keith Creel – President & Chief Executive Officer, Canadian Pacific

Other Participants:

Ravi Shanker – Executive Director, Morgan Stanley Research

QUESTION AND ANSWER SECTION

<Q – Ravi Shanker>:

Executive Director, Morgan Stanley Research

Great. Next up we have Canadian Pacific Railway. Very happy to have with us CEO, Keith Creel. Keith, thank you so much for joining us live in-person again at Laguna. So before we kick off, just a few disclaimers, for important disclosures please see the Morgan Stanley research disclosure website at morganstanley.com/researchdisclosures. If you have any questions, please reach out to your Morgan Stanley sales representative.

Keith, so demand environment, kind of how would you characterize -- well, full disclosure, I had like 10 strike questions for you. I had to it strike out thankfully, so it may not be as intense. So let's start with the demand environment. Obviously very tricky macro conditions for the last 2.5 years, but specifically this year with very mixed trends. What end markets would you like to flag to us as potentially being real opportunities going forward, potential risk going forward?

<A – Keith Creel>:

President and CEO, Canadian Pacific

Well, let me start by thanking you for having me again, Ravi. It's always a pleasure, especially coming to Laguna. This is not a hard place to come to. But to be able to share our story, especially in these times, very interesting times, very exciting times, a lot for our company and for our shareholders to celebrate. In fact today, we celebrate our 1-year anniversary of the day we signed our merger agreement or application agreement with the KCS Railway. So Pat and I were exchanging texts this morning congratulating each other. And I can tell you, we're in the red zone. We're ready to get this thing over the goal line and start creating these synergies so that we can truly tap into the demand that's there. So it's a great lead in.

Demand itself we said in the first part of the year, it's going to be tale of 2 halves. It has been a tale of 2 halves for our company. We're very well positioned to achieve what we've guided to strong double-digit RTM growth in the second half. Obviously the grain harvest is coming online now. The grain harvest itself is a little bit better than what we had anticipated. We're coming from a compare standpoint, we had a drought. So we had hardly anything to do. Now we're looking at a harvest that's coming in. It's being gauged about 74 million metric tonnes. We were thinking may be 72, and there's some that suggest there's more upside than that. So we're in a very good position when it comes to grain as a tailwind for the balance of the year. That's when you really see the leverage kick in with that kind of volume on our network. We've got potash growth that is exceeding expectations. It's well up over 30%. We've got the same thing in international intermodal. So international intermodal demand for us, the volume quarter-to-date is well over 30% compared to last year. So all of those markets on a backdrop of fundamental strength in domestic intermodal, fundamental strength in energies, chemicals and plastics, just really across our entire book of business, we're in a great position, and I think a very unique position in the industry, CP standalone. Now get me to talking about the transformative opportunity when we layer on top of the CPKC opportunities that are ahead of us. It's a very compelling unique growth story in this industry.

<Q – Ravi Shanker>:
Got it. Just on the grain, when do you get a sense of what the yield kind of opportunity looks like on the grain crop for next year?

<A – Keith Creel>:
I think we know for sure, a little bit closer, maybe a couple of weeks from now, but that 74 is a conservative number. We think it's going to be a little bit higher than that, but that's pretty exciting compared to what we had last year. It sets us up well. Fourth quarter will be super strong. We've got a lot of grain that's moving this week. In fact I was just sharing this with a colleague a moment ago. This week, over the last 7 days, we've enjoyed 2 record days of all-time revenue highs for Canadian Pacific standalone. And we're not fully into the ramp up with the grain yet.

<Q – Ravi Shanker>:
Sure.

<A – Keith Creel>:
The other wonderful thing that I'm excited about as an operating guy, we've invested a lot of money in a state-of-the-art grain fleet at Canadian Pacific. We went from kind of worst-in-class over the last 5 years to best-in-class. We purchased 6,000 state-of-the-art hopper cars. We're finishing that purchase this year. So this is going to truly be the first grain harvest, where we have the benefit, the full benefit of the density of those cars matched against investment from our grain partners and the grain companies that have built out the loading network to match our 8,500-foot train model. 40% of our elevators are now built out to launch and then land an 8,500-foot train. So an efficiency step improvement is going to make a marginal difference in not only how much grain we move, but also the marginability, the low cost and the better fuel savings that we'll get out of moving trains that are larger than historically they have been.

<Q – Ravi Shanker>:
Got it. Get into the operations in a second, but I wanted to follow-up on a couple of those end markets there. Intermodal, you kind of highlighted, you have been a bit of an outlier -- a positive outlier with your intermodal strength year-to-date. What's been the driver of that kind of -- when the rest of the world when the retail world is saying that hey, we have too much inventory, we're slowing down, obviously, air and ocean kind of has been a problem? Like why is that not impacting you in international intermodal? And kind of what's the opportunity to come?

<A – Keith Creel>:
Well, I think it all starts with service and the strength of our network. That's one that allows us to really benefit from -- I look at it as 2 elements. It's our business mix. Canadian Pacific, we're very well positioned with the large retailers in Canada, specifically with our retail product, whether it's Loblaws, we're their main carrier, whether it's Home Depot, we're their main carrier. It gives us an opportunity as their demand has been high, and we still see strong demand in Canada in these end markets on the retail side. So our book of business on the domestic side has been very strong. That same service offering, capacity offering, not only West Coast, in Vancouver, our inland terminals, we have ample capacity, which is very unique even in the Canadian space in Canada. Room to grow plus handle what we handle today, we're resourced well.

Then the other piece we've layered on top of that is the strength of franchise now with the CMQ purchase. The Port of Saint John, the expansion it's going through. We've had that railroad now for 2 years. We took over, let's say, mid-2020. So we're a little bit beyond the 2-year mark. 60,000 TEUs we're on track now with the second weekly calling of Hapag-Lloyd that we announced not long ago, we're on track. We'll finish next year at 300,000 TEUs.

So that little railroad that was a $40 million U.S. railroad is knocking on the door at $200 million at CP margins. So it's a very compelling growth story that allows us to triangulate and go to our customers and with the hope and the anticipation that the STB approves our transaction, we'll connect these 3 nations at 11 ports -- 11 new ports. I mean it's a compelling value proposition to be able to go to a world-class steamship line and say, I can serve the East Coast, West Coast, Mexican Coast.

<Q – Ravi Shanker>:
Right.

<A – Keith Creel>:
So that has allowed us to truly enhance our book of business. And then the last thing I'll add, which was a meaningful contract win based on service and all of those things I've talked about, is CMA. We took the CMA contract on July the 1st, where now they're majority carrier in Canada. So again and that uniquely fits the strengths of our networks and the lanes that we had capacity and the ability to serve them best. So we're very customer bespoke in the way we managed and brought that business on serving the markets that we're serving for them.

<Q – Ravi Shanker>:
Got it. So obviously your Canadian peer is also talking about investing very heavily in their assets on both the West Coast and the East Coast. And it does seem like there's enough opportunity for both of you to grow. Where is that opportunity coming from? Obviously the Canadian ports have taken share from the U.S. ports for a few years now. Do you feel like that share shift continues? Do you feel like -- again, there's been a lot of nearshoring, but do you still think that there's a lot of demand from the kind of Asia to U.S. lanes?

<A – Keith Creel>:
Yes. I do -- a lot of the growth that came to Canada has been a diversification play off the U.S. West Coast and it's created -- the supply chain has been created between Canadian National come out of Rupert and Vancouver and Canadian Pacific out of Vancouver into the U.S. Midwest and it's compelling. The capacity is there, the service is there and then the cost, there's the cost advantage because of the port cost and the Canadian dollar.

So there's just a natural advantage that to me, I don't think you're going to see the big quantum steps of growth that we've experienced over the last decade, but certainly continued sustainable incremental growth based on the value of the service offering. And yes, to your point, with our networks, absolutely an opportunity. I've always said this. I said it when I was at Canadian National, I believed it. I'll say it at CP.

We've got the 2 best run railways in North America that are in Canada. We serve our markets. We serve our markets that we serve best with our networks. There's ample opportunity for us both to do well and the industry to do well as a result.

<Q – Ravi Shanker>:

Got it. I guess on that point, I think one of the big drivers of the synergies kind of with the KSU transaction is going to be driving incremental over-the-road conversion to rail. I think so far, I think the U.S. rails, in particular, have had a mixed time of doing that, especially in the last few years. What do you think are going to be the drivers of accelerating that with the combined entity going forward?

<A – Keith Creel>:

Well, the uniqueness to this transaction, unlike the U.S. rails, the product we're going to put out there, assuming that STB approves our merger, which we anticipate they will, is going to be very unique. It's going to be much like the Canadian product. Length of haul is not going to be like the U.S. rail domestic intermodal lengths -- a 500-mile length, the haul with the truck. So we're a bit more insulated. You're talking length of hauls now that Chicago, the Mexico City, Chicago to Monterrey or vice versa, you're talking 1,800, 1,900 miles, 2,000 miles, depending on where it's coming from. So again, it's hard to replicate that.

And then the other key piece is the ability to pass through that water in a very progressive, efficient way. A lot of people don't realize this. At Laredo, right now, there's 8 hours a day that the trucks don't move across the bridge. So it's a very congested location. There's a tremendous amount of demand wanting to go South and North. If you create an ecosystem through rail, where you could sail right through there and you avoid that dwell time, that congestion, you create a service offering. And then the other benefit and we're getting into this now as we're looking at some frozen products that we're doing some power projects and anticipate to create a new market for on rail. You've got an ability to put 30%, 40% more weight because you weight out before you cube out...

<Q – Ravi Shanker>:

Yes.

<A – Keith Creel>:

…on rail versus on the road. So it's a very compelling proposition in the market that we believe this combination is going to allow us to unlock. It's really the last frontier, and I'm talking specifically about pork and meats and sort of the protein belt of North America is literally, if you look at a map, it's around Kansas City.

Well if you're the railroad that has a terminal in Kansas City and you're the railroad that can connect deep into the Southern Mexican markets where that pork or that beef is consumed and then backhaul fruits and vegetables, which are consumed in Middle America and uniquely serve that as well. That's a pretty compelling value proposition.

<Q – Ravi Shanker>:

Understood. Let's move from volume to pricing. On the 2Q call, you noted that pricing renewals have actually accelerated as you moved in the back half of the year, which is I don't know maybe a little bit understandable, but also maybe a little bit surprising given maybe a slowing down in the macro and the truck market loosening as well. So what do you see in terms of the pricing environment out there as you head into '23?

<A – Keith Creel>:

I see continued strength. Obviously right now, this is the strongest pricing by -- environment in my 30-year career in the industry. That said, there's also some headwinds with inflation and all of those other challenges. So it's not to suggest that railroads are taking advantage of customers, we're having to cover our cost. I mean we see the PEB, we see how much wage inflation is going up. We have to be able to pay our employees and invest in the infrastructure. So number one, I think we're being fair.

Number two, provide a great service, which we do. The reality is it creates an opportunity to not apologize when you go to the customer and have that discussion. If I've got to pay 7% here, then certainly I've got to be able to pay my employees. We have to have inflation plus pricing. So that's allowed us with the strength of our service and capacity to effectively, I think this quarter our renewals on our contracts were north of 6%, which is impressive. We've got about 40% of our book that's repricing in 2022, and its north of that. In domestic space, high single-digit contract renewal.

So again, based on the strength of the service, and again, I know there are some headwinds ahead of us relative to, we'll keep an eye on spot rates and extra truck capacity that may become available, but again, I remind the uniqueness of our length of haul does not expose us as much as with a U.S. rail because of that 1,800 or 1,900 mile length of haul.

<Q – Ravi Shanker>:

Got it. You mentioned the PEB, so maybe it's a good chance to ask you if you have any thoughts on the tentative agreements that have been reached and kind of how does that compare to?

<A – Keith Creel>:

You know what I congratulate them, I know those are tough discussions. I know the leadership at the BLET, I know the leadership at SMART, I know the leaders of the railways, they all wanted the same thing. Obviously getting there took a lot of time. But I can tell you, I was extremely encouraged because I know -- but I do know, although I don't know all the specifics because we're not part of the national negotiation process, I do know the pain and suffering this nation would have incurred at a time when we least need it, had that strike occurred. So I'm happy for the employees. I'm happy for the other railroads. And I'm most happy for the customers that what I -- I wouldn't call it a disaster, but it certainly would have been a material wound to the rail network and the supply chain had they gone out on strike.

<Q – Ravi Shanker>:

Got it. In terms of the deal itself, kind of are you able to comment on that?

<A – Keith Creel>:

Actually no, I haven't got any of the details other than I'm sure it's not going to be dramatically different than the PEB. The PEB itself, if you think about it, is pretty compelling. It's a 24% compounded wage increase. That's the largest wage increase in this industry those employees would have received in probably 5 decades. I can't think of one that's that compelling. I'm not saying they didn't earn it. I'm not saying they don't deserve it. The railroad is a tough, tough business. It's demanding. It takes sacrifice, hardworking employees. I'm just glad they got it settled, for both parties. All parties involved.

<Q – Ravi Shanker>:

Got it. So very strong volume growth runway for CP for the foreseeable future. Where are you from a resourcing standpoint, kind of employee base? You said you have brand-new fleet locomotives where it does a locomotive count. How much in terms of new resources do you need to contribute to the network to support that growth?

<A – Keith Creel>:

Yes. So bottom line, Ravi we're in a good place when it comes to resources. Part of the way we manage resources tightly. We have very robust planning processes. We hired ahead for our level of business that we're experiencing. So obviously hiring today is not as easy as it was pre-COVID, but we have a very compelling value proposition. We treat our employees well. We pay them well.

On the U.S. side, they're the highest rail – highest paid railroaders is in North America. We've got a different unique progressive contract. That's why we're not part of, one of the reasons we're not part of the national. So again, we're well resourced. Locomotives, we're doing well.

I look forward into 2023, carrying the momentum that we're carrying and it's a resource-rich environment. I look at an ability to become more efficient with the car fleet that creates additional cars to handle growth. I look at surplus locomotives, more fuel efficient, savings in fuel, more productivity with the locomotives. So again, I don't see our combined network even with the growth profile we have being back in the market for new locomotives until post-2025. That's how well positioned we are.

If we do our jobs and we bring a CPKC network to the CP standards when it comes to productivity, car miles per day, locomotive productivity, fuel productivity, we're in a very, very good position, a position of strength when it comes to resources.

<Q – Ravi Shanker>:

Got it. From a labor standpoint, is there any easier hiring in Canada versus the U.S. especially kind of working on a railroad kind of, is it more acceptable to the Canadian?

<A – Keith Creel>:

Well, it's -- I'm not going to suggest it's easy anywhere. Again we have a very good pension in Canada. We pay our employees well. It's a pretty compelling value proposition. You don't get around the sacrifice part though. The 24/7, the schedules, all of those things, there are common challenges, common agreements. But there are some provisions within the Canadian agreements that allow employees to take more time off that they control, that the railroads don't control, that aren't replicated in the U.S. agreements.

But by and large, our company -- we've done well. We've done some creative things too. And I'm kind of proud of this. I'll share this one. I've always said call on cash is first in the company, what do we need to do to invest to make money? Well, that applies to people too. Revelstoke B.C. is a location that over the last several years, it's -- if anyone knows, it's a wonderful ski location. So it's beautiful mountains. We have to operate through it. It became a very desired place to live and the cost of living is going up exponentially. So we found over the last year and a half that it was getting harder to attract new employees to relocate to Revelstoke to work because they couldn't afford to live.

So we decided last year, we've already broken ground, to be finished end of this year, to build our own lodging facilities. So we're literally building condominiums on our property. There's no property there. We have property. So we're building condos where actually new employees or existing employees can live there at a below market rate, it covers our cost. We're not making money off of it, but it allows us to use that as an effective tool to attract and retain talent in the Revelstoke area. So to me, it's a $15 million expense, pales in comparison to what it would cost if you're not moving trains.

So it's the right thing to do for the employee. It's the right thing to do for the company. So we are doing some creative things like that. But by and large, our HR team, our operating team is very hands on in the recruiting process and the selection process. They're doing a great job. They are doing a solid job.

<Q – Ravi Shanker>:

Got it, great story, great anecdote there. So following through the bottom line, I think you've said mid to high-50s or for the back half of the year, kind of what's your confidence in the trajectory there with all of these moving parts? And maybe even longer term, I think everyone's been sort of obsessed with the 55 OR number, going to 50 over time kind of -- but is that the right way to look at the business over the next 5 years or is it kind of -- what's the right balance between OR and growth?

<A – Keith Creel>:

So short-term, I've got a strong degree of confidence. We're going to make our guidance short of forest fires, I can’t predict floods, I can't predict, we're going to get it done, and we're going to end the year, I'd say the mid-50s OR with strong momentum going into 2023. And then you layer on CPKC. And I'll tell you, the OR story is compelling, but what I'm focused on is growth.

When you don't have to choose one or the other, if you run your business the right way and if you grow the right way, low-cost sustainable growth, you partner with the right customers to allow them to grow in their end markets. The OR's the natural outcome of just running an efficient business. It applies to any business. So I'm not an enamored with that. We're going to do it. It's just going to be part of how we run the business

The thing that will allow us to get to maybe new frontiers, I'm not sure exactly where. I think it's -- obviously, I'm not going to tell you don't assume, we're going to get to the mid-50s. We will. But if we grow enough, could we do better than that? Yes, we absolutely could. Because I guarantee one thing, we're going to grow with the opportunities that we have with this network. The combined network especially that are unique.

And as long as I have anything to do with running the company and or anything to do when I retire, whenever that day might come with the people that run the company, this company is going to be run efficiently. And it's going to be run in a way to serve the customer, to serve the shareholder and to serve the employee. And to me, that's a recipe for success. That's what's unique about this company. It's the priorities and it's the culture that we accomplish that by that allow us to create such a unique outcome in this industry.

<Q – Ravi Shanker>:

Got it. A couple of questions, obviously, about the transaction kind of, we don't know how far away the finish line is. But kind of as we continue to make progress, hopefully towards it, how are you feeling about like synergies and kind of what you can do? Obviously you've opined about how that is going to create a very, very unique asset. But in terms of blocking, tackling and synergy numbers on the revenue and cost side, kind of how do you feel about that?

<A – Keith Creel>:

You know what, you're not going to get anything out of me, but optimism. I have been very involved with John and the team over the last year. Interacting with existing customers, future customers, developing potential supply chain solutions that they don't enjoy today. On a backdrop of it, I'm not happy about this because I don't think overall it's good for the industry or the nation, but we've had a very challenged service experience for especially the U.S. shippers.

So in that space, to be able to go in and have a conversation that says, hey, we've got this new network that can uniquely serve you and lessen your dependence upon the truck, take trucks off the road, create supply chain reliability, give you access to different ports. It's just so unique that it enables conversations that give me a confidence in our synergy objectives, we're going to well exceed our synergy objectives.

The key to me is making sure that we don't oversubscribe the network. We've got 3 years of investment. We're going to spend close to $300 million of incremental capital to ready the network, to be able to handle this level of synergy business. So you have to stage it, sequence it the correct way. Because if you oversubscribe it, if you build the trains too big and the siding capacity and the track capacity won't handle it, you don't have a service product.

So we're not going to do that. We're going to be disciplined like we have been. But I can tell you, I've got stories in bulk, I've got stories in intermodal, I've got stories in merchandise. You pick the market. I can tell you the story. There's a compelling story that's not just an idea. In each one of those we're at a point where we used to have been signed in many, contracts are being negotiated, pending successful approval of, the STB transaction that we will hit the ground running.

You're going to see some pucks in the net in a very compelling way quickly. And I'll just point to a couple of the things that we're doing in the meantime. We're limited into -- we can't take control, but we could do interline moves with KCS. So we've created some service offerings to let the customer's sort of taste the service that are compelling.

I'll talk about domestic intermodal. You want to talk about taking trucks off the road. The best-in-class service right now with the shortest route is UP, Chicago to Laredo they advertise an 89 hours service. We ran test moves 3 months ago where we ran 90 hours with no infrastructure investment. We ran test moves last week where we did Laredo to Chicago in 72 hours. Now again, that was a dedicated train that ran Chicago to Laredo, but that sort of tells you, once you get the density, Ravi, you create that service offering that is better than a truck can do. That's better than a single truck driver can do with a better greenhouse gas emission efficiency. So you're helping the environment, you're helping the bottom line and you've got one railroad, single line service, cradle to grave, no finger pointing, no interchanges. It is a beautiful ecosystem that is going to allow us to serve those that we partner with in a very unique way. So it's compelling.

<Q – Ravi Shanker>:
Sounds good. Any questions from the audience?

<Q – Unidentified Participant>:
Your demand commentary was very constructive, but just to take the other side of that, if the macro were to slow a little bit more materially from here. Can you just talk a little bit about the playbook for you guys? Does it look different than maybe it has in the past?

<A – Keith Creel>:
Yes. So you're saying if we're given some macro headwinds. I'm not going to say we're recession-proof because obviously, if the water comes down, the ship is going to come down a little bit with it, but ours is going to be less. Our book of business, our mix is uniquely positioned with our heavy book of grain, potash, coal, all 3 of those commodities.

I'd say today, especially if you think about potash, food supply, food security has never been more topical more important you think about what's happening with the Russia and Belarus. Potash, Canada is number one, they're number two. That product, there's a lot of countries that don't want to source their product. So case in point of, I'll talk about a CPKC story that would help us in this case. We're right now deep into exploring with Canpotex, a new port.

We're looking at Port Arthur Texas. So a brand-new export potash that will have the capacity if this thing works out the way we think it might, 3 million to 5 million metric tons of potash a year that not only can serve Canpotex growth to feed the world, to feed the potash to feed the world, but also existing customers that we exclusively serve K+S, the new potash mine that was built on our railway a couple of years ago, I guess, 3, 4 years ago.

And BHP, BHP, certainly, they're well into their process of building a brand-new potash facility in Janssen, which we can uniquely serve. So with our, again network, strength of network, service, we can serve Portland via the UP for potash export, we can serve Vancouver. We'll be able to serve if we get this done Port Arthur. And the alternative to that is going all the way to St. John. And again, I'm an operating guy, get into cycle turns and these things that may not seem so exciting. But if you can go to a customer, they own the fleet, and you can tell them you can save them comparable shipment to St. John, the competitive alternative, its 800 miles round-trip shorter combined. That's compelling. If you get into car - cycle savings, get into additional volume to move with the same amount of fleet.

It's just a very compelling value proposition that if we get into some economic challenges? Number one, there's no other railroad that knows how to adjust resources and control costs better. We've been doing this a long time. And there's no other network that's uniquely positioned, especially pending or assuming the STB approval, a CPKC network to weather any kind of economic storm in a unique way that's quite frankly, not possible by any other rail network.

<Q – Ravi Shanker>:

Any more questions for Keith. Keith, you obviously have plenty of wood to chop in the last 2 years with the transaction with the pandemic and everything else, but that hasn't stopped you from investing in technology and kind of taking kind of a forward look at what you need to do? And I don't think it's just because you want to check that box. I think there's also kind of tangible operating and financial gains from that. So do you want to highlight like a few of your like pet projects there and kind of especially what kind of traction like OR traction or financial metrics will benefit from those initiatives?

<A – Keith Creel>:

Yes. Let me -- the one I'm most excited about, it's too premature to talk about OR. I think it truly could be if it pans out transformative. But let me get into the weeds a bit first, then I'll speak about the hydrogen locomotive as a closer. Over the last 5, 6 years, we've really led the industry in investing in -- I call it technology that you can actually operationalize. I'm not a guy and I tell my team all the time, I'm not a bleeding edge technology guy.

I've lived that one chapter in my railroad life, where we wrote off a whole lot of money spend on technology that never really panned out. So I've always challenged the team. I love technology if it can leverage safety and efficiency, but you got to put it to the bottom line. So our team over the last 6, 7 years, we've developed cold wheel technologies, the first in the industry. It effectively eliminates the need for a man or a woman to do a 1,000-mile brake test in simple terms.

So we've operated under waivers from Transport Canada, where now we have our coal fleet and our potash fleet, both of which are material in our bulk business that we've eliminated. We do not have to do one of the brake inspections, we're doing it with our cold wheel technology, and it's given a safer product. It's finding more bad order brakes.

We've applied that same thought process again to those -- to the potash fleet when it comes to vision technology, inspecting railcars. It's finding 80% more defects than the human eye can find, which means we fix them when we don't have disruptions on the mainline when they break or they affect a train movement. So it's creating a tremendous amount of velocity and asset turn benefits that come straight to the bottom line. It's part of how we produce -- as I said earlier, the margins the natural outcome running this railway. If I can take out inefficiencies, train stops by applying technology, we have, we will, we benefit.

The last piece, and this is, I don't want to say this is a leading edge because we didn't bet the farm to do it. But 2 years ago, in the middle of the pandemic, one of our engineers, I was out on inspection trip inspecting some other technology that they develop the broken rail technology, which is unique to the industry. It's not dense enough to put CTC, but we still wanted to be covered from a safety standpoint. So we're out checking out what he design or what they designed and he came up with this concept. He said, Keith, I think we can build a hydrogen locomotive. And I said, well, listen, I've done the dance on the LPG. I've done -- I understand the limitations that to me, if you're going to replace a diesel locomotive, again, I go back to -- you have to operationalize it. I've got to be able to refuel it. I can't create more unintended consequences and problems than it solves. I said we have to have a range. That was the problem with LNG. You could do local service, you couldn't do road service. And he said well, I think I can give you a range, if we do a hybrid of not just hydrogen, but hydrogen and batteries. It's a combination of the 2. And I said, okay, tell me more.

And essentially, long story short, he told me, now it's probably been 2 years ago that I can take existing technologies to develop the control systems to convert the energy, combine the 2, and I can build your road locomotive that give you a range. So I said how much money? It was not a large amount of money, it's millions, but not tens of millions.

<Q – Ravi Shanker>:
Sure.

<A – Keith Creel>:
And I said, you know what, I believe in you let's try it. You get 18 months. And he did it. The locomotive is moving cars in our terminal -- at headquarters now thus far. It's going to be out working out more bugs, proving itself out, switching customers in Calgary. We qualified for a matching grant from the province of Alberta to build 2 more. So we're in the process of building an AC because that was a DC and another DC and 2 hydrogen fueling stations, which will all be completed by the end of 2023. So we're going to have 3 locomotives switching customers. And then the next thing that we're going to do, again, because I'm going to scale this up, we got to get it out on the road.

We're in the middle now of discussions with a very material supply chain where we could deploy -- build a few more of these locomotives and put them in road service and cycle product to the West Coast in a closed loop.

<Q – Ravi Shanker>:
Okay.

<A – Keith Creel>:
Imagine the positive impact for that customer, partnering with us and all the greenhouse gas that they'll save. Imagine the technology and heavy haul traffic through the mountains of Canada that the winners of Canada. If you can prove it there, you can run it anywhere.

So again, we have a test bed and opportunity in the technology, I think if this thing hits the way it might, 10 years from now, I'll look back and I'll just be extremely surprised at what this might be for the industry. Again, a lot of work, a lot of wood to chop, but it's not concept. It's not theory. And the thing -- that some people will say, and I said this, I said, wait a second, we're not Progress Rail, we're not Caterpillar, we're not GE, we're not Wabtec that's not who we are. That's not our core fundamental strength.

And he said, no, we're not. And I said, well, how can their engineers not figure it out, but you and your small team can. They said, there's too many of them. Too many people with that number of opinions and that much brain power together, there's going to be disagreement. There's not going to be alignment. We've got a very agile entrepreneurial minded.

<Q – Ravi Shanker>:
Railroad like culture.

<A – Keith Creel>:
Railroad educated, that's the other key for us, the unique sauce. These engineers are qualified conductors and engineers, locomotive engineers. They don't just understand science and technology, they understand how the product moves the freight. You combine all that together and it creates an ecosystem to do some pretty special stuff.

<Q – Ravi Shanker>:
Amazing, exciting times there for CP. Thanks again for joining us, Keith.

<A – Keith Creel>:
Thank you.