

## Foresight: The CPA Podcast

### Season 3 Episode 6: Who should take charge of sustainability: government or private sector?

**Neil Morrison:** Welcome to Foresight: The CPA Podcast. I'm Neil Morrison.

On our last episode, Roopa Davé argued that "accountants will save the world." Okay, She didn't quite say that, but she did agree with the sentiment. Roopa said that the skillsets and abilities of CPAs are going to be a critical part of any solution to global issues like climate change. On today's episode, we are going to look at one concrete example of that skillset in action.

Janice Tran is a CPA. She also has a Master of Science in Sustainability Management from Columbia University, and she has a Masters in Accounting from the University of Saskatchewan. That background all comes together in her role as the CEO of Kanin Energy. Kanin is a Canadian company that turns excess heat into electrical power. You can see this excess heat when you drive past a factory or another industrial site. It's not unusual to see plumes of steam rising from exhaust stacks. The heat floats into the air and then just dissipates.

**Janice Tran:** So there's a lot of wasted energy that just ... some of that is waste heat. And that just goes into the atmosphere and nothing is done with it. So what we're trying to do is to take some of that waste heat and turn that into carbon-free, 24/7 power. How we do that is through technology ... a combination of technology, and also business model.

**Neil Morrison:** The technology Kanin uses is something called a Rankine cycle turbine. Essentially, it creates electricity the way it's been done for decades. Heat turns a turbine that generates a flow of electrons. I've really simplified it, but that's basically it. The tech needed to do this is not experimental. It already exists.

**Janice Tran:** So nothing here is ... we're not talking about pilot scale, we're not talking about in the lab. We're talking about technology that's already in the ground across the world in gigawatt scale. We're just trying to use a business model innovation to really apply this technology and scale it in Canada and the United States because it hasn't quite been as popular as other places across the world.

**Neil Morrison:** What's the business model innovation that you're using?



**Janice Tran:** Yeah. So we're taking a lot of the business models and learnings from the solar and wind industry in the United States and applying it to this sector here. So how the solar industry really got off the ground is through this concept of a power purchase agreement. So back in the day, solar wasn't widely adopted because it was considered too expensive. So people like you and I wouldn't really think to go out and install that solar panel on our roofs. It was not only too expensive, but we actually didn't know how. And it wasn't like a streamlined process on how. Who to contact? What contractors? What distributors? You'd have to do it yourself and it was just too cumbersome to do.

And so what a lot of the solar developers did in the United States is they packaged up a development solution along with a financing solution. So customers like you and I were able to just pay a monthly fee or per kilowatt hour fee, just like you normally would on your power bill. And so that kind of business model innovation, we want to bring that over to accelerate the adoption of waste heat recovery and waste heat to power.

So what that means is Kanin Energy as an entity, we have capital that we'd be able to invest in these projects on behalf of that host. Oftentimes, when we talk to facility managers or sustainability folks, or even CFOs, they might have heard of waste heat recovery and waste heat to power, but it's always been too expensive to do. It's something that crosses over their threshold of an 18 to 24-month payback. These are typically much longer than that and so they don't make the investment.

And so what Kanin does is we bring capital that is aligned with the payback periods of this project, as well as we bring our development expertise. So we really bring that full package solution. And at the end of the day, we want to ... whenever there's a "no" on why to implement these solutions, Kanin Energy will come in and we will take away that "no" and turn it into a "yes." We're removing all friction to implementation as much as possible.

**Neil Morrison:** If I'm a big industrial factory or something that's producing this kind of energy and someone comes along and tells me this, it's got to sound pretty appealing. Do you have any obstacles to people adopting this or coming on board?

**Janice Tran:** Yeah. Neil, I think you're absolutely right. This kind of sounds like a no-brainer. In fact, when we make the capital investment in these projects, we actually also end up paying the host for that waste heat as well. So that host would be venting this heat into the atmosphere, they're not being able to monetize it. What we would be able to do is either give them electricity, sell them back electricity that's cheaper than the utility, and it's green electricity as well. Or if they don't want the electricity, we can sell the electricity to the grid or to someone else and we can just pay them a royalty.



So net, these hosts actually end up being revenue positive. Not having to put out a dime, but also getting this as a source of revenue. So you would think that companies would be very excited about this. And there are many that are. But one of the challenges that we actually end up facing is ... actually, it's not a technical one. It's not a financial one. It's a human one. A lot of the people we speak to say it's too much work, or we don't really believe in it, or we've got other priorities that we're working on.

And so it's just, this is new, it is innovative, it's new. And because of that, it's a little bit harder to grasp. We don't really fit into the traditional mold that a lot of these companies are used to, which is just buying equipment, installing it themselves. And this is a pretty tall order. The capital costs are usually pretty large, and at the same time, it's more technically comprehensive to integrate. So, yeah. And I think this is the case for many climate problems. This is actually a human problem, and we should address that as well.

**Neil Morrison:** How much untapped energy exists in these heat stacks and heat waste that's coming from these facilities?

**Janice Tran:** Yeah. There are various estimates out there, but it can be anywhere from two gigawatts to 20 gigawatts of potential power in North America alone. So there's a lot of wasted heat that's just vented that we could be doing something useful with it. So even if we are not able to exploit all of those gigawatts, every megawatt that we get is green, baseload electrons that we get to put onto the grid to stabilize our grid and to cut down emissions.

**Neil Morrison:** How much is 20 gigawatts? I have no idea what that means. Is that a small city, or a 100,000 houses?

**Janice Tran:** It's like multiple coal plants.

**Neil Morrison:** Is it really?

**Janice Tran:** Yeah.

**Neil Morrison:** That's amazing. Now, you are a CPA. You're not an engineer. And you're young, right? I'm not going to reveal your age, but I think relatively speaking, we can say you're young. How did you become the CEO of this highly technical company?

**Janice Tran:** Yeah, I don't have any gray hairs yet, although I think the stress is getting to me and I will pretty soon here. It's right, I don't have a technical background. My background prior to starting Kanin is actually as an investor. So I worked for a project finance and private equity firm



for about five years before starting Kanin. And then prior to that I was in Canada ... actually, I went to grad school and then prior to that I got my CPA letters.

I think the accounting training really helped build solid foundations on how do we evaluate businesses, how to operate businesses with financial discipline, and how to be very analytical and how to approach problems. And also, just being in a professional environment in general, understanding the value of culture and teamwork and who to hire, and when and why. So I think the business background and the accounting background really laid the right foundations for this work.

But on the technical side, I'm so lucky to have a group of highly technical and skilled engineers as part of the Kanin team. So our chief technology officer ... and we often joke. He's actually, he's studied rocket science for his undergrad and masters. And he also helped build a proprietary engine, a sterling engine, and has a lot of experience in execution of multi-billion dollar projects.

And so I am one of three founders. I'm so lucky to have an awesome technical brain, as Jake - as our CTO, but I also have a second co-founder. And he has a lot of experience in electricity markets and policy and environmental markets, which is the other, ... to use the overused analogy of the three legs of the stool. The third leg of the stool is understanding the product that we're creating, which is electricity, which is equally as important.

And so I think the three co-founders really complement and round out the fundamental skills that are required for this industry. And I, of course, bring the finance and some development and business acumen to the team.

**Neil Morrison:** You know, in many ways, climate change feels like it's an engineering problem, but you just mentioned all these other areas that need to collaborate with. How important is that ability to collaborate between finance, engineering, and the policy side of things?

**Janice Tran:** Yeah, I think it's really important to clarify that the climate problem is not just a technical problem. And I come across this a lot. People often think that innovation equals invention, that we need to invent our way out or engineer our way out of these solutions. And while technology is part of the solution, there's a lot of technologies out there that already exist and work, but they haven't crossed that valley of death. And that valley of death is a human problem, it's a financial problem, it's a markets problem.

And so for a company like ours, which is really focused on taking technology that's commercially already available and applying some innovations maybe to the technology, but really working through the rest of that gap, which is commercial and financial, that's where magic happens and



real innovation is created. So the technology piece is important, but it only happens if we have the rest of the puzzle.

**Neil Morrison:** I find that a really fascinating way of looking at it. I'm definitely guilty of thinking of climate change, thinking of sustainability as a technical problem. But in many cases, it's actually a financing problem.

**Janice Tran:** Yeah, exactly. It's alignment of capital is really important. It's the ... we'll say again, using that stool analogy. It's one of the legs of the stool. It's technology, it's markets, it's finance. And I guess policy and financing also go hand-in-hand as well, because having the right policy environment creates the right financing environment. The alignment of capital ... what we're seeing in the markets today is so much more money being put into the sustainability ESG world.

So whether that's in the creation of new technology with venture capital, growing exponentially, whether that's in project finance for projects that have commercially available tech, whether that's debt, whether that's grants. All of it has scaled multiple times over the past, I want to even say just 24 months, and even in the past 12 months. So I think we're seeing that the sophistication of the financial markets is accelerating the adoption of climate technologies, ESG technologies and solutions. I think it needs more of it and more nuanced views of how change is created in terms of sustainability. But we're certainly getting there and we're certainly seeing a gigantic shift here.

**Neil Morrison:** You mentioned that initiatives like this require the right policy environment. And I have to admit when I hear that up to 20 gigawatts of energy is just floating into the ether instead of being captured, and I wonder, is there a role for government to be more aggressive in this space? Possibly, I don't know, stepping in and regulating this, just saying it needs to happen instead of leaving it to the private sector to try and convince businesses to do this. Do you think we maybe need government to take this on, to intervene more in this space?

**Janice Tran:** So I think if we're looking for governments to take on the full burden, we're just not going to get there in time. So we're talking about 50% reductions by 2030, and 100% net zero carbon by 2050. If we just focus on government alone, we're just not going to get there. There's estimates out there that say we need \$3.5 trillion in annual investment to get to a 2050 target. \$3.5 trillion is a lot of money every single year. The government just doesn't have that in their budget to commit to these solutions. And globally, it doesn't have that type of money to commit, but the private markets do. And there's also just a lot of money to be made in this sector as well.

So if the government set the right policies in place ... and we're not talking about grants. We're talking about prices in carbon, which Canada has. We're talking about streamlining permitting, we're talking about tax credits, we're talking about other incentives to mobilize infrastructure



deployment and manufacturing. All of these things together will help us be able to deploy that \$3.5 trillion. And also, to get the people that are required to work in this field and make it all happen. But again, government alone can't do it. It's got to have the private markets to work at that scale and at that pace.

**Neil Morrison:** I'm wondering, just looking ahead, we've talked about just how much the space has changed in five years or seven years that you've been involved. Just looking ahead to five years, what's your sense of where things are going to be?

**Janice Tran:** Yeah. I think that there's going to be a lot more innovation that comes into play of new technologies coming to market. I think that the venture capital community has been very active over say, the past three years. And every single year for the past three years, even more and more. There's just so many more venture funds, and these venture funds are taking these technology bets, which is exciting to me. I mean, there's going to be a lot of losers, and that's just the way that venture capital works, is that there's going to be the one or two companies that just pay back the entire fund and more.

And so they're taking these "moonshots." I think that's how we make those giant leaps in technical progress, is for some entity, whether it's venture capital, it's government or whatnot, to take those moonshots. So I'm excited in the next five years where those moonshots land. And hopefully, we come out with some pretty breakthrough technologies that are ready for commercialization.

I think the other thing that I'm excited about in the next five years is just the amount of people that are going into the sector. So we're seeing a lot of folks graduating now or have graduated maybe in the last five to 10 years, that working in necessarily oil and gas or the extractive industries aren't appealing to them. And instead, they're wanting to get into the energy industry, and they want to go work in it rather than in, say, oil and gas.

And so there's a lot of people being attracted to this sector. And with more people, means more innovation. It means more voting power. It means just a shift in the creation of this industry and the growth of this industry. So, yeah. I'm just excited about the talent that's coming into this workforce. And just the horsepower that they can bring to the table.

I'm also really excited about where I think policy will go. I think we saw some really breakthrough legislation in the United States. I'm excited to see if Canada will follow suit with more legislation that ... the Inflation Reduction Act in the United States was very much full of carrots. It's entirely carrots, right? It's a big giant bag of carrots. But in Canada, I think we have still a approach that is a lot of sticks. So where are the carrots and how do we create that? So yeah, I'll be excited to see



what comes up in the next five years, especially in Canada. And how the sectors that are emitting sectors, how they internalize that and move forward.

**Neil Morrison:** And what is the CPA's role in that future that you're describing?

**Janice Tran:** I think that CPAs can play multiple disciplines within in this sector. So there's obviously the reporting requirements and their compliance requirements here. So that's a natural fit. But there's also just ... CPAs are talented business people. And we need people who understand fundamentals of business, of finance, and to use that as a foundation to grow the next evolution of businesses in the green space.

And so I think that outside of just the traditional roles, accountants can really just have creativity on how they want to participate as extending their skills, extending what's out of their comfort zone. But just the more people that we have who are committed to building greener companies and building them on a solid business foundation, the better off we are as growing this industry.

**Neil Morrison:** And do you see the demand for that type of CPA? The CPA who is focused on sustainability, is interested in this field, is excited by this field. Do you see ... is the demand exploding the same way that you're seeing investment explode and everything else explode in this field?

**Janice Tran:** Yeah, absolutely. I mean, with more money, it means more businesses, faster growing businesses. It means there's just more roles in general. And a CPA that has a passion for this space understands, again, business fundamentals, there's just naturally going to be a role here for them. And my encouragement of CPAs is to build their skillset in here. So I think knowledge of energy, knowledge of carbon markets, knowledge of just what's going on in the industry as it quickly changes, I think is important.

And the beauty of this sector too, is that it's fairly new. And so especially for young CPAs, you don't actually have too much of a disadvantage to older CPAs or older folks in general, because the rules are being written in real-time right now. And so just paying attention and having a passion for it and a desire to work through problems and really create this industry as we go, is I think an important trade. And it will land you with some success in the sector as it pans out.

**Neil Morrison:** Janice Tran, I've really enjoyed this. Thanks so much for talking to me.

**Janice Tran:** Yeah, absolutely. Thanks so much for having me.

**Neil Morrison:** Janice Tran is CEO and Co-Founder of Kanin Energy.



And that is a wrap for season three of Foresight: The CPA Podcast. This season we looked at whether sustainability is an opportunity for CPAs, how they can future-proof their careers. We spoke to Desjardins Group's CEO, Guy Cormier, on the rise of stakeholder capitalism, and we looked at what skills CPAs can bring to the table when it comes to this important topic of sustainability.

Thanks so much for listening to our latest six episodes. We'll be back in 2023 with season four. In the meantime, if you haven't already, check out seasons one and two. There's lots of great stuff there, like Jon Lukomnik on whether or not financial statements are dead. Or José Hernandez on the CPA's role in fighting corruption and money laundering.

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