# [00:00:00] Fireside Chat 2

[00:00:00] **Margareta Dovgal:** We're so excited to have the support of OZZ Clean Energy. Uh, thank you for making this conversation possible. I think it's a really important piece of enabling us all to talk about, uh, different forms that energy comes in and there's a role for many of them. So, at this point, I'd like to welcome our panelists to the stage for the fireside chat.

[00:00:22] **David Isaac:** Good day. Testing, testing. They got us the nice chairs. Nice. Well, wow, that's some, some bright light, but, uh, it's great to see everybody. Uh, it's also great to, to not be in front of a virtual, uh, background, so what a novel, uh, novel thing these days. So, um, anyways, I don't wanna take up too much time, but I'm just very grateful to, uh, A, be here in person and be, uh, be around, uh, leaders, uh, in, in Cleantech and actually, I've looked up to Chief Planes for, for many years. Uh, his, his project in, uh, T’Sou-ke, uh, featured prominently on all of my PowerPoint presentations for probably the last 20 years, so, uh, or maybe 15 years. I'm dating myself.

But, uh, anyways, without further ado, we wanna talk, um, you know, there, it's been a great conference so far. Um, there's been a lot of talk about some, some traditional business and, and, and I guess you could say some sunset industries but, but now we're here to talk about, uh, the sunrise industries and, and really what a historic time for, uh, not only First Nations, Indigenous communities in Canada, in Turtle Island, but, but really for the world 'cause we're, you know, as everybody's aware, we're in real time climate change. I think we're starting to see the vulnerabilities of an economy attached to a very, uh, what, what ke-, what do you call it? A very volatile, fragile, um, industry in, in petroleum.

So, it's really exciting to, to be able, as an Indigenous person, to, to be able to be part of a historic time to actually be part of an emerging sector that aligns with our, our Indigenous world views and traditional beliefs and in, in our value and respect of the land. So, without further ado, I perhaps should just, uh, allow these gentlemen to, to, to speak and I just wanted to actually maybe start off with rather bluntly, um, what is working and what's not working? As we go into this new energy economy, as we're, as we're starting to transition, um, maybe ask these gentlemen in their, in their respective experiences, what does it take? Is it just about policy? Is it public consciousness? Is it technology? Uh, what is working and, and what's not working? Maybe I'll start with, with Chief Planes and what's going on.

[00:03:15] **Chief Gordon Pl...:** Thank you, David. Uh, I think, uh, communications within our, in our nation is key. I think about community-driven process. Uh, without that, you're not gonna be successful. We always go to it, uh, in a way of thinkin' about our babies and I think that doin' that, we can all come to a really good consensus at home.

The other part of it too is, um, being able to have that communication base out there within the territory and within your demographic area, what you're trying to achieve. Uh, sometimes our needs don't match the needs of others, specifically the province, may it be with renewable energy, may it be the way that the business is ran in British Columbia, might differ from our view and for us, we like to maximize all the use of the resources within our territory and that we always listen to our elders because they give us those teachings that are very vital for us going forward.

So, in saying that, uh, I just think about, uh, when we were going to put wind turbines on Vancouver Island, 100 of 'em, 300 megawatt project with EDP renewables in, uh, Mosaic Logging Company and the province didn't need the power. They were building site C. And I just thought about it and I said, "Well, we live on an island. We're separated from the mainland. It wouldn't come out of the taxpayer's pocket and it would be a benefit for us to work together on Vancouver Island to strengthen ourselves into a new economy to make that transition. I see the opportunities and maybe that opportunity isn't now. Maybe that opportunity's in a few years from now."

I think we're all goin' there. We're all on a journey together. Everyone of us in this room and everybody on this planet, we're in it together and I think we need to make those changes. I actually believe that we're gonna be makin' changes faster because we have to. Thank you, [Indigenous language 00:40:43].

[00:05:51] **David Isaac:** Very good. Now, Steven, um, you actually as well, you're, you're also a very early adopter of, of Cleantech, uh, going back to your, some of your Ontario projects. You've seen things like the Feed-In Tariff in Ontario. You've, you've, uh, you've been part of that. You've seen the rollouts sort of from the east to west and the south to north with, with things like solar.

W-we talk a lot about the actual energy generation, but is it also broader than that? Sh-, is it also the infrastructure when, you know, people talk about things like smart grids and micro grids, it's, it's not just about smarts. If you're going to have a smart grid, you need to have telecommunications in place. You need the broadband. There's a lot that goes into it, isn't there? And perhaps you could sort of share some of that multi-systems approach to, uh, the energy transition.

[00:06:48] **Steven Muzzo:** Um, yes, definitely. Um, I'll, I'll speak to this with my OZZ Electric head on 'cause we wire up a lot of high rise, uh, projects. We're seeing First Nation lands that are now lookin' at high density, multi-res projects. I can tell you that every day of the week, we're putting up buildings that are based on 1970, 1980 engineered drawings. Not much has changed.

So, when you talk about what, what, where do we get frustrated in the process, it's really takin' the time to sit down with a customer, to sit down with the engineers to understand all the stakeholders, um, you know, uh, concerns and how do you future-ready a building? Um, so infrastructure becomes critically important, David. Um, we look at these high rise projects that sit on smaller, small parcels of land. We don't have the ability to put, uh, you know, megawatts of solar in, into the, into the ground there. So, we have to think about energy, uh, within the design of the building.

Um, so when you think about decarbonization, if you think about, you know, electric domestic hot water, for example, um, that's one way to get away from fossil fuels. Um, if you look at, uh, uh, a communication network in a building, um, you'll have a communication network, um, that supports the smart metering platform. You'll have another one that supports some IOT initiatives, say leak detection in a building with a-a low p-, low power wide network.

Um, you'll have the ISP provider in the building, um, and you have these multiple networks that are redundant and they're costing the developer a ton of money and it's really about getting everyone in a room together and thinkin' in through more intelligently and, and building it right from the start, but build it in a manner where you can then think about the future. You can add other products and services in from a sustainability and energy efficiency perspective that'll just make that project a better project for the long term.

[00:08:36] **David Isaac:** Fantastic. Yeah, I-I think it really is, is about, you know, the word I believe future-proof was, was, was used here, but, you know, really the future is now and, um, we're, we're, again, we're in, we're sorta real time climate change. We also have an opportunity to als-, you know, aside from this year, I would say, um, talking about global supply chains, et cetera, I, you know, things like solar and wind have precipitously dropped in price per watt price.

I remember when, uh, you know, as an early adopter, uh, and really as a, as a flagship for what a future community looks like in T’Sou-ke Nation, um, the price of solar back then, and that wasn't that long ago. What was that? Maybe 10, 12 years ago when, 12 years ago, I-I would reckon the price per watt was probably four or five dollars a watt, just a rough guess and you're looking at it t-, you know, fast forward to, to today. That price at a utility scale is, should be less than one dollar a watt. So, um, there are some exceptions to this year for obvious reasons.

But, um, we've seen, you kn-, you know, policy, uh, or actual actionable projects and demonstrating what the community of the future looks like. We've seen that happen and, and then we've also seen, you know, these, these market forces that have caught up and, and that's very encouraging.

Um, so do you think it's, when you're thinking about the sequence of change and how, how things actually change, how do we actually move towards decarbonization? Is it doing projects like, like yours, Chief Planes, Planes, or is it, or do we just wait for policy? Do we wait for market prices? I think you're, uh, stating the obvious here, but do you think there's anything else that needs to happen or should we really be waiting, going back to your comment? Is it gonna be a few years still? Like I-I feel like given, given the, the global crises and, and, uh, technology advancements, uh, public awareness, public consciousness? May-, you know, maybe it'll be happening, you know, a little bit [laughs] faster. What are your thoughts on that?

[00:10:49] **Chief Gordon Pl...:** Well, I think, uh, we have to look at things in our lands. I can't say First Nations lands. I gotta say T’Sou-ke lands and the reason for that is my, uh, elders taught me, uh, how our older people used to live off the land and we should never forget that and it was done in a way that was simplistic, very easy life because it was, uh, passed down through hundreds of years of teaching. And I always learned that we never forget that because those, uh, lessons learned, you never, those are gifts and when you think about the work we did with our solar voltaic project, it wasn't about solar. It was about the old way of our people. And to match that with food security because you have to add everything together within your territory and think about it.

So, when you're doing a solar project, you're actually doin' a food security project at the same time. And, uh, you gotta see that under our lens. You gotta know that, uh, our people, the way we lived, we were dependent on the ocean. We are the salmon people and we're also dependent on the terrestrial. So, those teachings that I was able to obtain as a small boy growing up are so key to our survival, but going forward, it's gonna be key for our young people to learn and then that's gonna be the foundation for us to go forward.

And if I just wanna, uh, just put this out there as a visionary note, imagine if you're in the harbor in T’Sou-ke and you're standing at the beach and you're overlookin' the beach and you see nothin' but clams and oysters and cockles and you see a healthy ecosystem with eelgrass and then right behind you, you have a garden and that garden stems up in the, into the village right at the, right on the shore. So, in saying that, you have a sea garden on one side and a terrestrial garden on the other and that always ensured you food that wasn't very far away, but when you did have to go away, you went away on your territory for different reasons.

But just in saying that concept of food security, you gotta think about that of what we're doing here. Well, how are we gonna change? We're in a global marketplace today and the way our elders say is that we always gotta think of home 'cause we're not movin' anywhere. We're gonna stay there forever. How can we manage our territory accordingly? And we're gonna use the teachings of our ancestors to do that 'cause we really feel that, that is the way that will bring our little babies forward to know what has to be done next. Thank you, [Indigenous language 00:48:56].

[00:14:03] **David Isaac:** [Indigenous language 00:48:57] Steven, so i-in your work, um, and again, yo-you, you cover a lot of infrastructure here, um, a-again maybe, uh, you know, this is I think very timely and you, you look at prices at the pump, you look at the cost of living, um, inflation, et cetera. Um, I love examples like, and truth be told, and you know, BC First Nations and, and, and I think it's, is it three out of five clean energy projects in Canada, um, have, are either led or co-led by an Indigenous, uh, community.

Um, we really are, um, well, Indigenous communities have really been [laughs] um, in sort of a post-pandemic world for a lot longer than, than the rest of us. Um, we are really creating, you know, there's talks of circular economy. There's, there's, there's, um, very sustainable living, but, but I-I actually, you know, the way things are trending, it looks like this Indigenous concept and, of design and economy are really going to be essential not, not just for in-Indigenous people, but really the world at large. Um, so what's that gonna take? Tha-, so from Steven's perspective, obviously it's, we need to generate power, we need energy storage, but with-we also need this plan for our urban centers, don't we?

[00:15:32] **Steven Muzzo:** Uh, absolutely. We're, we're growing vertically in, in all of these, um, big cities. Um, you know, you talked about what the price of solar was, you know, 10 years ago, like four or five dollars. In, in, in the solar world, it's a bit of a perfect storm. The, the, the same size panel is kickin' out triple the amount of power, the cost of that panel has come down from $2 a watt to 50 cents a watt. Um, certainty and, and demonstrated performance, um, confidence in the irradiance of any given city is givin' banks a reason to feel more confident and support financially these types of projects.

And, and I think, you know, there's a level of maturity in, in the energy sector now that allow for low cost capital to come to the table and, uh, Chief Planes, when you talk about the opportunities for First Nation, future generations and I think there's incredible opportunities, um, to, to, uh, own a lot of the assets. There's confidence, uh, behind the class A banks and there's a lotta great things that you can do in these high density developments that allow you to prosper over the next 25 years and again, it just goes back to taking the right amount of time to plan and, and put that into the design before the sto-, the shovels start, uh, going. Um, so I think there's incredible opportunities.

[00:16:49] **David Isaac:** Steven, would, would you say that, um, you, you talked about sort of technology or energy maturation, but how would you look back going back a-a decade or so to now in terms of finance? What's, what's the financing and, and uh, sort of ecosystem like back then and, and today and where is it heading?

[00:17:11] **Steven Muzzo:** Well, it's, it's headed in, in the right direction. It's, it's a dramatic change from 10 years ago to today. Um, you know, under the FIT1 tariff in Ontario when our Ontario provincial government got drunk and gave out 71.3 cents [laughs] a kilowatt hour for 20 years, um, you know, it was, um, you know, even, even at that rate and that return, I mean, we were seeing unlevered returns of 23%. Um, but the banks weren't stepping up. They didn't really understand it. There's alternative, uh, debt providers that were taking more than their fair share of the pie. Um, today there's so much confidence in, in, in the market that you, you can, you can do some incredible things.

So, um, again, um, you, one, your earlier questions, David, was, you know, are there any other, you know, government policy or incentive programs or whatnot to help drive these initiatives? I think one of the really important things is, you know, coordinating with what I would call a host utility. So, you have an opportunity in a high density project that could sit on First Nation unseated territory and have at this micro grid that you can own, but e-eventually you're gonna have to talk to the host utility and make sure that that's an opportunity that makes sense.

Um, when you look at energy, uh, holistically in a, in a development, the foundation of energy is metering and, um, there's a bit of a disconnect right now. In, in Ontario, we went through this gener-, this sort of evolution where, um, metering electricity inside a multi-res building, um, you know, sort of moved out of the, the regulated, uh, you know, host utility business. It became a competitive business and that drove innovation and that drove, um, this platform where we can measure electricity, hot water, cold water, thermal heating, thermal cooling. We could put that on one bill and send that to the tenant or the condo unit owner and that's the most cost-effective way of delivering individual utility consumption bills to those te-, those occupants and if you wanna effect behavioral change, you have to be responsible for your own utility costs.

Um, so we, we need to figure out how to get there in BC and, and then that becomes a platform when you can do so much more, even when you look at, um, say e-equipment financing. So, you know, l-let's look at it from a condo corp-, uh, perspective. A developer wants to build that condo. He's focused on his bottom line. If he puts something super energy efficient in a building, he's ultimately not the beneficiary of that. It's the occupants.

So, how do you figure out how to get that higher level energy efficient design in? How do you finance it? And, and using your in suite bill for utilities is a way you could put a little line item and, and, and pass down that charge. Um, at the end of the day, it has to be a win-win-win. The, ultimately you design around the occupant of, of that condo tower, um, to make sure that he's getting high value at the lowest cost possible and if that works, then you make sure that the developer manages his construction costs and then I believe that there's this incredible opportunity for First Nation groups to, um, take advantage of this infrastructure and, and, and own it long-term.

[00:20:24] **David Isaac:** Fantastic. Maybe, maybe following that path, i-, so, so you mentioned, and it's been mentioned a couple of times the Feed-In Tariff system. So, that's one mechanism. That's on one sort of policy and regulatory m-mechanism or lever that you can have to accelerate, uh, clean to-, Cleantech adoption. Chief Planes, wha-what, what would you consider from say a policy and energy utility environment, what, what kind of things do we need to promote, um, more programs and what, what is it, what's it gonna take to get more communities to, to sort of follow your lead and other, other communities leads in terms of adoption?

[00:21:05] **Chief Gordon Pl...:** I think, um, the best approach is, uh, relationships. Uh, that takes time. Uh, you can't put a time on it. Um, I think it's important that, uh, if we look at our demographic where we live and then we think about all those other Coast Salish communities that live nearby and all of the municipalities that live near them, we're beside a city of Victoria and, uh, we have an opportunity to do something together and I think communications is so important to get that work done and we need to invest in communications, not just internally and it, it has to be where we can all come together and have a good, strong consensus moving forward.

And, uh, I really believe this on Vancouver Island because we do live on a rock. I think there's an opportunity there and I'm gonna keep kickin' that can until we get somethin' done and I think that's an approach that, uh, I've heard from different nations on Vancouver Island. Uh, we have to change. We don't have a choice. We have to. Let's do it in a good way.

And I, and I always like what the elders said. You do it for your children and your children not born yet because that's who you're doin' it for. And when we did our solar project, uh, we as community got together and, and we said, "What kinda project should we do?" And um, the elders said, "Do a project for the children and the children'll lead the way." So, we did a solar project and it's, it, it's, it's been awesome because we feel they're the ones that'll make that shift. They're the ones that'll make those decisions. They're the ones that could speed things up and, uh, I think that approach is, should go right into the school systems to, uh, get everyone onboard to, we need to move things along and I think we need to move 'em faster and we have to find a way of doin' it and we addressed that. Thank you.

[00:23:26] **David Isaac:** Agreed, agreed. Um, one of the things I notice whenever I visit universities or schools is also just the difference. Um, it used to be about sort of priming, um, people about the possibilities of things like Cleantech and sustainability and now this next generation is radical. They are all so well-versed, so intelligent and they have much higher expectations of, of, uh, our, of community design and, and energy transformation than, um, previous. And so, I'm, I'm very, uh, thanks to projects like that, I'm very, uh, optimistic. Um, hopefully they don't have to grow up to, to be policy makers and changers and things can [laughs] can accelerate a little bit quicker, um, and hopefully logic and, can rhyme with, uh, with, uh, decarbonization and decolonization as it does, um, in, in some communities.

Um, so maybe wi-with that, if, if anybody had any sort of final thoughts and I'm not sure about the [laughs] format if, uh, if it's okay to take any questions, but um, certainly if anybody has any questions, this would be a good time. If not, I would like to, uh, pass the, the last, uh, few moments off to, off to these gentlemen for, for some final thoughts or words.

[00:24:46] **Steven Muzzo:** My final thoughts?

[00:24:47] **David Isaac:** Yeah, please.

[00:24:49] **Steven Muzzo:** Um, I-I think it just goes right, right back to, um, you know, uh, working, uh, with, uh, our, our First Nation partners, uh, to create long-term, uh, revenue opportunities, um, that they can profit from, um, and that's really just about planning and, and, um, just it's a, it's just a small investment in time to create a-a lifetime of opportunity and, um, to the extent we can s-, leverage our First Nation partner, uh, relationships and sit down with, um, government and host utilities to make sure we're all doing the right thing. Um, that would yield the best results.

[00:25:27] **Chief Gordon Pl...:** Uh, yeah, I just wanna, uh, say, you know, from our perspective as T’Sou-ke nation, uh, we always lookin' for a way to reduce and that's consistent with our Coast Salish values. I think we're in a material world where we buy way too much stuff and at the end of the year, we throw it away. I think we have to have a campaign of how we can be sustainable for future generations. Uh, it's so easy to order somethin' from Amazon. It'll be here within a few days. It's sittin' right at your front door and somebody actually delivers it to you and, um, that's where those teachings come in that are so vital from the elders to say, "Remember where you're from. Remember your territory always took care of you and everything's right in front of you. You can see it. But right now, you're not lookin' at it."

We gotta start lookin' at that because, you know, for us to survive in the future, we have to look outside the box. We have to think about how we're gonna make those kinda changes that we have to make and I'll just leave it with this and some of the teachings that I learnt and I know I'm, uh, getting down to the clock, but I just wanted to say this. Uh, my elders told me, um, about 70 years ago when you paddled a canoe from T’Sou-ke over to Port Angeles, uh, you went the opposite direction and that's might sound a little strange, but you paddle out up the straits with the tide and when the, you get to the middle of the straits, the tide turns and it gets you into Port Angeles and Lower Elwha twice as fast. The reason being, you get the wind with the tide and, uh, the great thing about it is you don't have to paddle.

So, think about those resources that were there for everyone to share and our ancestors shared that knowledge with us and when I see somebody paddling across over to Elwha and, um, I try to tell 'em that. I said, "Hey, you're doin' it wrong. You should be goin' that way." So, anyway, it's, it's, it's good lu-, it, those kinda teachings are very vital for the future of our people and we need to always keep those teachings 'cause that's how we're gonna go forward. Thank you. [Indigenous language 01:03:05]

[00:28:13] **David Isaac:** Thank you.

[00:28:21] **Margareta Dovgal:** What a segment. I feel like it covered, uh, so many of the areas, uh, that we've seen throughout the course of this day, uh, last two days really. We've seen, uh, a lot of phenomenal subject matter expertise and, uh, Steven, I really appreciated the perspectives you brought on the ways that we can structure, uh, things on the energy side. I feel like that's a necessary piece in this energy transition. Really appreciated, uh, Chief Planes', uh, I think the final note that he had just around, uh, ways that we can restructure our thinking on things like energy transition where there's major paradigms of what. Um, so thank you so much and, uh, thank you as well to, uh, David for your, uh, rather, uh, uh, what's the word I'm looking for? Uh, you came into this, uh, fairly recently and we really appreciate your willingness to, to be here for us and to lead this conversation. Another round of applause for our panelists and thanks so much.

All right. Uh, at this point, I'm gonna introduce you to our next, uh, speaker. We're getting quite close here, but, uh, I hope that, uh, everyone resists the temptation to, uh, go take a little nap or duck out early. There's phenomenal content planned after the break here and you do not wanna miss it. We're gonna start off with some short remarks from, uh, Tim Shaw representing the sponsor of this afternoon networking break, NorthRiver Midstream. Thank you.

[00:29:53] **Tim Shaw:** Yeah, recognizing we're right up against the break and that next cup of coffee to fuel you through the, the end of the afternoon. I'll keep it, uh, nice and brief here, but appreciate the opportunity. I did wanna say thanks to our host for welcoming us here, uh, over the past couple days. Thanks to the organizers for putting on such a great event and thanks for all the speakers for coming out and sharing your stories and all the lessons learned. It's been an amazing couple days, um, with more to come this afternoon.

Just a couple of things that've really struck me over the past two days. One was that we're at a point in time right now and looking back, you know, we have a history of some things that have worked well and some things that, uh, some lessons that we can learn, but we're going forward together on the journey from this point. So, uh, this is, this is the starting point for the, the rest of the journey and, uh, I think that's a great, great takeaway.

The second one is the importance of conversations like what we've been doing, uh, over these past couple of days. My favorite line so far was, "Put on the tea. I'm coming over," um, and I think that that's a great challenge for all of us is to put on the tea, get ready to have those conversations, welcome people in and, and let's keep the conversation going. So, thanks for, uh, having us here. Thanks for opening up all these conversations and thanks to everybody for sharing. We look forward to keeping it going.