October 02, 2024

How can we stay on track in the energy transition? Who needs to be involved in the important conversations and decision-making around building, financing and implementing new energy projects? What role does AI play? How can North America remain competitive in the energy transition?

These important questions and more were explored when BLG's Sonya Savage sat down with Energy Disruptors: UNITE CEO, Graeme Edge.

Here are some key takeaways from the conversation:

- The energy transition is well underway. There may be curveballs, ups and downs, and new and unexpected innovations but it is happening, and much of that innovation is taking place in Alberta.
- Stakeholder consultation is key in successful energy transition projects. Corporations and governments must proactively work with community residents, Indigenous groups, local businesses and more. A collaborative approach will be necessary to move energy projects ahead and to ensure projects stay on time and on budget.
- The energy transition is complex. There are many factors to consider from regulations and policies to stakeholder relations and rapid changes in technology, which is why it is vital that governments, corporations and stakeholders come together.
- Good climate policy is essential. Governments must collaborate to advance the energy transition forward. In Canada, the provinces are leading the charge, but cooperation with the federal government is necessary to stay on course.
- AI is a crucial tool in the energy transition. AI technologies are being used in various ways, including to lower emissions in traditional oil and gas sectors. However, proper regulation is needed to ensure their effective and safe use.

Watch the full video or read the transcript below.

BLG's Energy, Resources & Renewables group has the expertise to help with any energy transition matter. If you have any questions about energy transition, please reach out to any of the key contacts below.

Transcript

EDU Video Transcript (2024-09-24 @ 2:44 pm MDT)

Graeme	Okay, so where do we want to begin?
Sonya	Well, you could start off about the conference, maybe.
Graeme	Yeah. Well, first, do you know the origin story?
Sonya	I do, I'm somewhat familiar with it, but let's hear it again.
Graeme	Yeah. And maybe for folks listening in. Um, so my background was 20 years in executive search. Grew up in the north of Scotland. Moved to Calgary in 2007. And I used to do a lot of work for the gas companies and petrochemicals and also in power and utilities. 2016 I got it into my head that I was going to start an energy transition focused search firm, and as part of that, I ended up going to Europe to a bunch of different events. So I wanted to get connected with all these entrepreneurs who are doing cool stuff in batteries and electric vehicles. One of those events I went to was hosted by a lady called Holly Ransom, and Holly will come back in the story in a second. So I go to this event in London. Really kind of mind blowing. I'm flying back to Calgary and I'm thinking, why is there not something like this in Canada? And what if we started an event that would bring together the entire energy value chain? So what if we put oil and gas in the same room as renewables, as battery people? People from the world of finance, lawyers, consultants, entrepreneurs.
Sonya	Academics.
Graeme	Academics.
Sonya	Students.
Graeme	Students as well. And try to get a multi-generational audience.
Sonya	Oh, that's great.
Graeme	And it sounds like a you know, it was a very simple idea. But when we started looking around, we said, okay, there's nothing, no one's done this. Everyone's sitting in their silos. So I threw the idea out there into the world. And I, you know, because of my previous job, I used to have a lot of coffee meetings. And you always feel a little bit trepidatious when you throw an idea out there because you're thinking, God, are people going to think this is dumb? But I immediately, you know, the first coffee meeting I had the boss said, I love that idea.
Sonya	Yeah.

Graeme	You should do this. And it's funny, when you get one person who does that, how then there's this, like, chain reaction that happened. So one of the other things we did straight after that was my wife, Michelle, who's my co-founder as well, we went and looked up the domain Energy Disrupters.com, and it was $15 to buy it. We kind of took this, it sounds a bit corny, but it's a sign from the universe that we meant to go and do this. And then I reached out to Holly on LinkedIn and said, I've had this idea for an event. I was amazed how you moderated this conference in London. Would you like to get involved? And then Holly and I had a Zoom call and she said, right, you can get this off the ground, I'm in. And then and then we went on this kind of crazy journey to get this going. We cashed in our pensions and our RSPs.
Sonya	Took a lot of risk.
Graeme	Took a lot of risk. But I really believe you can do this in many places in the world.
Sonya	Well thank you for doing it. And it's such ah, you know, such a thrill for BLG to be a part of it. We could see, I can see from my background in energy and government that there's, this is an event that's absolutely needed to bring all sides together. We tend to speak in silos.
Graeme	Yup.
Sonya	You speak in echo chambers, you'll go to these conferences and everybody's saying the same thing and you're not hearing the other, the other side, you're not hearing different points of views, and you're certainly not hearing what the young people are saying. And I love how you're, you're bringing in young people to these events.
Graeme	I think, yeah. I appreciate you saying that because I think that, that generation obviously trying to drive a lot of change and that there is this intergenerational tension around a lot of topics, including energy and climate. And so what we're trying to do, is how do you create a space where you can bring those different generations together? You can create a little bit of levity in a fun environment to open up their thinking and try to get them collaborating. So we tried to be quite intentional.
Sonya	I'm so glad you're doing this in Alberta.
Graeme	Well, you know, I think that, there's just a generosity of spirit here, isn't there?
Sonya	There is. There's so many reasons to do an event like what you're doing in Alberta. And I think you start with, take a look at who's at your, your conference, the companies that are there. These are these are companies that are investing in clean technology. Investing in decarbonization solutions. And it's, especially in Alberta, like Alberta has one of the, you know, higher carbon footprints where there's a higher emissions profile in the country and industrial emissions profile and these companies want to find solutions. So it's, it's a great place to hold a conference like this. And we've been at it in Alberta for a long time, over several decades. Different governments, different, different political parties and different governments have been focused on, on reducing emissions and putting money into innovation and technology. Alberta Innovates, Emissions Reduction Alberta have created a whole culture around innovation and, technology. So I think it's, it's wonderful that you're bringing this here to, to Alberta, where so much is happening. The other thing happening in Alberta is, is all of these, CCUS hubs and it's not just about carbon capture, utilization and storage hubs, but it's attracting all sorts of businesses, like sustainable aviation fuel, hydrogen, biodiesel, more renewables to power data centers. So we have so much going on in Alberta and I'm just, to bring this conference here is, is a highlight.
Graeme	But you know, just to build on that, Sonja, in terms of, investment. And if you think about, the future of energy, we need more low carbon molecules. We're going to need more clean electrons. We have this natural advantage. We have this incredible history and energy. So there's so much institutional knowledge here. There's financing. There's talent. So what we're also really trying to do is get people to think about energy transition as an incredible opportunity. So how do we lean into that? When we started Disruptors back in 2016, it was such a hard time in the province.
Sonya	We were in an economic downturn with the oil and gas.
Graeme	Yeah.
Sonya	And looking for new for new, opportunities.
Graeme	Yeah. And it's easy to forget that, you know, it's only about eight years forward, but it does feel like such a different environment. I mean, we're obviously filming this in Calgary at the moment. Calgary's got that vibrancy back. Back in 2016, it was almost missing that kind of narrative.
Sonya	It was tough. It was tough.
Graeme	It was super tough. So it's been exciting to kind of see that change. But you know, one of the things I'm curious about is, you know, how did you get into what you're doing in terms of your obviously legal career and also your political career and, and what you're now currently doing with BLG?
Sonya	Well, it's sort of back to where I started. You know, in, in the legal industry and I from, from there I went into, the energy sector, into the pipeline sector, worked at Enbridge and the Canadian Energy Pipeline Association, then government, and now back to, back to the private sector, back to BLG. But the interesting thing about it is most of the work I'm working on at BLG is energy transition. Some traditional oil and gas utilities, electricity, but it's all connected. And one of the interesting things is, is a lot of these companies are trying to find solutions to lower emissions and decarbonize, and, and, it's an opportunity and it's a venue at BLG to really put all of that background experience to work helping clients right across the value chain in BLG from financing to construction to corporate to attracting investment. And we're doing all of it and it's a pretty interesting place to be.
Graeme	Awesome. So what about, so do you think about, we're going to need to build lots of new infrastructure. And that's been extremely challenging, you know, it's tough from a stakeholder perspective. It's long timelines. It can be really capital intensive. And as we've seen acceleration of energy transition, we basically need to build more stuff. How do we get better at this? What's your views on how we can improve that area?

Sonya	Well we have to attract billions of dollars of capital to build these projects. A lot of infrastructure, especially in electrification, carbon capture, utilization and storage and the more you're building, and as you're building a lot of these things, you're having to deal with very diverse stakeholders. And in rural communities, you're dealing with indigenous groups, you're dealing with, all sorts of stakeholders that have concerns about rapid development. You have to bring them along. You have to bring stakeholders along, or you're going to run into trouble building things. So there's, there's a lot of opportunities. But fortunately, we have good experience here in Alberta. We've had an industry that's been for decades, been based on oil and gas, where we have a culture of people that are that are used to economic development and used to, used to building things in their communities. So this, as we build forward and we're building, more electrification and new types of projects like hydrogen, biodiesel, sustainable aviation fuels, carbon capture, utilization and storage, you have communities that are used to dealing with companies that are building things in their area.
Graeme	Yeah. We have a speaker coming to Disruptors this year who, a guy called Dan Gartner. So he's an award winning journalist, and he just coauthored a book called How to Get Big Things Done, with a professor out of Oxford University called Ben Friedberg. And Ben Friedberg for the last 30 years has been building a database of major capital projects. And I think I'm right in saying they've studied 18,000 major capital projects. So in every area imaginable. So oil and gas, transportation, petrochemicals, and basically what they've found is that 91% of major projects, over $1 billion in CapEx run over budget and by average 56%. And one thing that I'm really interested in is, as we think about the next 30, 40, 50 years of infrastructure build, how are we going to do that? How are we going to break that cycle of major projects running into problems?
Sonya	Well, I think a lot of the problems when they they're running late and over budget is because they haven't brought stakeholders along with them at the inception of, of the idea. And if you don't get that right, if you don't bring the stakeholders along with you, you're going to run into problems later on. And I think what you're doing with Energy Disruptors is really helpful to bring various groups with different opinions, different ideas together to talk about these things. I think that's extremely helpful. Some of our companies in Alberta are very good at stakeholder engagement, very good and especially what we're seeing, which I'm pretty excited about, is companies that are bringing in indigenous partners. Indigenous partners as equity owners and as true partners. And as you start, if you're building a project with that site in mind and that, idea in mind that you're going to treat your stakeholders as partners and as it, you know, as relevant in your in your project, I think you're going to you're going to avoid some of the problems at the end, whether it be litigation or, you know, slower project development, because you've bumped into stakeholder relation problems, which longer time frames mean usually your capital costs go up for equipment and capital expend, your advisers go up whether it's your bank costs, your legal costs...
Graeme	Your lawyers. [Laughter]
Sonya	...lawyers or advisors. So I think one of the things we can we can help with from a background from a legal, legal firm, is helping companies understand how you start with stakeholders and how you can de-risk projects from inception to, to build. And we're pretty good in Alberta. You know, I mean, we have we have a lot of history and experience and in building complicated projects with complicated stakeholders, whether it's a linear project like transmission or pipelines, we know how to do it in Alberta. And by we, I mean, companies, I mean advisors, governments, communities, municipalities. So I think, as we look to the future, we're going to need to have a very collaborative approach. But I also think we have to be careful to not ever get ahead of our stakeholders of our communities. You need to bring them along.
Graeme	Yeah. Yeah. I think we've seen some of this, haven't we, if you think about CEDA, LNG in BC right now. It's kind of a watershed where you're seeing it's real true economic partnership. With the Haisla Nation and Pembina, so I think we've seen these kind of groundbreaking initiatives here in Canada, which probably a lot of people should be more familiar with.
Sonya	Um hmm.
Graeme	And maybe that gets into the next area that perhaps we can talk about is, how do we, how do we engage the general public when it comes to energy topics and climate and the complexity of this? Because we live in a world that's very polarized.
Sonya	Very polarized.
Graeme	Short Tweets, kind of soundbites of information. What's the solution?
Sonya	Well. And it's more polarized than it was three years ago. It's more polarized then than it was five years ago. We're really in, an extremely polarized area with climate and, and the role of fossil fuels and oil and gas right at the heart of that. And it's getting more and more polarized. I saw over the last ten years, both in industry and in government, how some of that is played out. And it hasn't been, it hasn't been helpful. But when you when you get right down to, when you talk to most people, they see both sides. They see both sides. They see the, the important necessity to, to take action to reduce carbon emissions and to address climate change. But they also see the need, the long term role of fossil fuels in the, in the mix. So if we get into the polarized conversation that is either or, one or the other, we're never going to get anywhere. We're not going to bring people together to find solutions on how to, how to lower emissions in general in, in oil and gas and bring on more renewals, renewables. So it's pretty polarized. You're right.
Graeme	Now, I think one way that we're trying to think about this is when you're hiding behind the keyboard.
Sonya	Ha ha.
Graeme	And yet you must have seen this far more than I've seen this. Before I talk a little bit about what, what we see is maybe part of that solution. How do you deal with that when you're getting hate?
Sonya	Yeah, yeah.
Graeme	And criticism.
Sonya	You have to have a tough, tough skin. And I think, politics plays a big, big role in that because it's, if there's anything politics is polarized.
Graeme	Yeah.

Sonya	You score points by, by criticizing your, your opposition.
Graeme	Yeah.
Sonya	And opposition scores points by criticizing the government when really in most cases you're, you're moving towards the same objective, but it gets very polarizing. You have to have a really tough skin. And I always, I always myself approached it to, to not make it political and to, to look at a dual objective that we need to have climate policy, sensible, sound climate policy with a goal to, end goal to, to lowering emissions and getting to net zero. But at the same time, we have to have an energy policy. An energy policy that considers energy security. Where's your energy coming from? Energy affordability, um, and technology. You can't just create climate goals without having technology to get there. So you have to have a balance and you have to keep politics out of it, and you have to have a tough skin cause no matter what you're going to do, you will be, [*laughing*] you will be criticized.
Graeme	This tension ...
Sonya	And you don't look at Twitter.
Graeme	I was about to say....
Sonya	Don't look at Twitter.
Graeme	That's something I've really struggled about, um, or struggled with through this process of you get, you can have 100 nice comments on something and you get two horrible ones, and you tend to get, it's human nature isn't it, you tend to get fixated on the...
Sonya	On the horrible ones.
Graeme	On the horrible ones, isn't it. And it's and I found that emotionally quite difficult. But how I've reconciled that is if you're trying to do something that's impactful and it sounds very cheesy, but if you're in the arena, it's very easy when you're not in the arena to throw stones and criticize.
Sonya	Oh for sure.
Graeme	And it's almost that reminder of, okay, well, perhaps if we're getting criticism or people wading in, they obviously could feel very, um, passionate about what we're doing, good or bad. At least we're actually trying to do something. But there's times when that has certainly got to me on a, on a personal level.
Sonya	Yeah.
Graeme	For sure.
Sonya	Yeah. No. And it's, it's I think it's more polarized now. It's getting more and more polarized. And I think it's, it's, part of it's caused by, by not coming to, together.
Graeme	Yeah.
Sonya	And recognizing that you have to have climate policy and you have to have energy policy. And it's not mutually exclusive. They're together.
Graeme	Yeah.
Sonya	Good climate policy is good energy policy. Good energy policy is good climate policy. And, if you come together and have it correct, it's also going to be good economic policy
Graeme	Yeah.
Sonya	that'll attract new business. It'll attract new industries that are low carbon and at the same time keep energy affordable, create jobs. So if you get it right, you can, you can get a win. But unfortunately in a polarized environment people are just trying to attack.
Graeme	Yeah, yeah. I also think there's an element of, if you think about energy transition and emissions globally, it's a massive challenge.
Sonya	It is.
Graeme	And it's a complex problem and you've got multiple sources of emissions. And we tend to look at this like one solution is going to fix all of this stuff. So the oil and gas tend to go well if we can just do a CCUS we're going to solve the problem.
Sonya	Yeah.
Graeme	

	The battery industry, well this new one, the battery is going to come and change the world. And what we're really trying to, ah, land is a message is we're going to need multiple solutions across this whole value chain, and it's going to be complex and messy. But that doesn't sit very nicely with people, because what they want to hear is what's the silver bullet, um, versus actually this. We're, we're going to need multiple solutions and it's going to go at different pace in different geographies as well.
Sonya	Yeah, yeah. And it's, ah, the one thing I've, I've looked at and seen over the especially during, during, my time in government, I don't think there was a more impactful four years in government of twists and turns and curves and unexpected events when it involves climate and energy.
Graeme	Remind me, what year did you start in government?
Sonya	2019.
Graeme	[*laughing*] good timing.
Sonya	Yeah, so we saw so much and I came in from the energy sector. And at that time, I don't think anybody would have thought our government would ultimately bring in a net zero climate policy. That was the last thing I did before retiring from politics is announce the net zero climate aspiration. Ah, 2019 nobody would have said our government would, would be bringing in that kind of policy. But I think as I look at energy transition, I look at it as being unstoppable.
Graeme	Yeah.
Sonya	It's coming.
Graeme	It must surprise some people.
Sonya	We are moving to net zero. It's, it's unstoppable. But the difference is it, nobody can predict how fast it's going to, to happen, how slow, how fast. I think it's going to take longer that a lot of people want. It's going to cost more than a lot of people expect, and there's going to be twists and turns, but it really is unstoppable as you look at new technology coming along. If you look at places, even China, as the adoption rate of electric vehicles and renewable electricity, nobody was expecting that four years ago that China would be all in on investing in, in renewable electricity and electric cars. So it's been, if anything, it's been unpredictable.
Graeme	Yeah.
Sonya	And, we saw a lot of that. Um, I guess I could, I could, you know, retrace some of that in 2020 when COVID hit, the COVID pandemic hit. I, the first thing I thought is well, this is probably going to inevitably be a bit of a renaissance for, for oil and gas, because people need affordable energy and we need fast economic recovery as we're coming out of the pandemic and countries all over the world, were, were, um, we're launching economic recovery plans. But what we saw was those economic recovery plans were about building back green, about aggressively investing in green and renewable energy, clean energy as part of economic recovery. That wasn't expected. So in Alberta, we said, well, why don't we lead that? Why don't we lead that? And, um, we developed a hydrogen strategy, a critical minerals strategy. We did work on, on geothermal, on battery storage, on, on all sorts of clean, renewable and lower carbon energy carbon capture, utilization and storage. We went heavy into moving forward with policy there, and nobody would have expected that.
Graeme	No. And well, it's complimentary, isn't it? In some ways it's how do we play to our strengths here as, as a province. And also and we're obviously talking a lot about Alberta, but also what's the role of Canada on the global stage ...
Sonya	Global stage.
Graeme	As we think about energy transition? How do we get more cohesion around our energy strategy at national level? Because it feels like a somewhat uniquely Canadian problem that we have. It's very provincial, um, energy strategies. Is it possible to have a more unified national energy strategy?
Sonya	I think, I definitely think it is, um, but I think the starting point in all of that is to recognize the, that Canada is a federation. We have provincial jurisdiction, we have federal jurisdiction. And we have to live within that reality. The provinces have primary responsibility over energy and natural resources, the federal government doesn't. So I think as we move forward, that, that area has to be led by the provinces. It hasn't worked with, um, with, ah, federal, federal, strat – it's just created some constitutional challenges and it's created regional tensions. But I think we will get there. We have to get there. If you look at what the provinces are doing right across the country, they're, they're, they're leading in, in clean energy. They're leading in, in, strategies to, to lower, lower emissions. We just need to find a way to work together with the federal government. But it starts there, I mean, I observed that for quite a while it's going to have to start with, with what the Constitution says. Like you're not going to get anywhere very fast if you're not following the Constitution, which is different from a lot of, a lot of countries where ...
Graeme	I think for people who are joining us from outside of Canada.
Sonya	Yeah.
Graeme	This is, this is a obviously unique perspective.
Sonya	Yeah. It is very, it is very unique and it's, it's challenging, but it's not something that's, it certainly isn't slowing things down in this country. It's just making a, making it a little more challenging. In fact, I think Canada is, is, Canada is leading in a lot of these areas of energy transition. Certainly my province, Alberta, is in, in a lot of development of innovation and technology. We're leading, we're leading in spite of those constitutional challenges. And we'll get we'll, we'll get through that because we have to.
Graeme	I'm very curious as well. You mentioned China. So let's go there.

Sonya	Yeah.
Graeme	Because it's such a hot topic right now. Um, fairly recently it was announced 100% tariffs on Chinese EVs coming into, into Canada. What's your thoughts on the role of China over the next 20-30 years from an energy transition perspective?
Sonya	Well, I think it's, I, I look, China has been probably a decade ahead of where we are in North America and Western democracies in looking at critical minerals and, and looking at the future role of critical minerals everywhere from every part of the supply chain, from extraction to battery processing to manufacturing to electric vehicle manufacturing. They're ahead.
Graeme	Yeah.
Sonya	And they've really kind of tied up some of those supply chains. So now if you're, you step forward and you see a world that's moving towards, um, lower, lower carbon, China's got a hold of a lot of those, ah, critical markets and, and the supply chain and that's, that becomes not only an issue of, of, you know, energy security, it becomes national security, economic security. It becomes who is going to be leading the, a whole new, you know, economic strategy, a whole new industrial, ah, revolution. Like, who's going to be leading that? Is it going to be China or is it going to be North America? So I think we have to start developing those supply chains here. We have to start developing and supporting, um, our, our industry and critical minerals and battery processing and manufacturing. We have to do it here in North America, or we will see a shift of economic power over to China.
Graeme	Yeah. And I think we're already seeing that, aren't we?
Sonya	We are.
Graeme	There's obviously a huge amount of tension. My son, you know, a little bit controversial, but I, I think a lot of the North American automotive manufacturers are in real trouble because this whole new value chain's been developed.
Sonya	Um hmm.
Graeme	Um, and it's such a different skill set in some ways to the, their existing businesses. And so is that classic innovator's dilemma. If you have an existing business that's kind of laying the, the golden eggs, so to speak, and then you're having to divert your attention and capital investment into a brand new area and it's much harder to do that as an existing successful enterprise company than if you're starting from a clean slate.
Sonya	Um hmm.
Graeme	So it's going to be very interesting to see how these companies navigate this. And I, I, I'm a bit cynical perhaps about how they will well, how they're doing that.
Sonya	Well we're going to have to, to decide as Western democracies, not just Canada or North America, but Western democracies in general, whether we're going to support developing our own supply chains for critical minerals and processing, battery processing and manufacturing, because if we don't, we know that China is, will and already is and is a decade ahead of us. So we, I, I just see that as so imperative from not only climate policy to lower emissions, not only economic policy, but national security policy, because some of these critical minerals are used in defense applications. Um, it's, it's I, I and I and I think we're getting it right. I'm seeing a lot of government support for, um, the entire sector from critical minerals extraction both here and in the United States. So I think we've got our eye tuned to it and we, we see the challenge and I think our governments are up to that challenge
Graeme	Yeah, I think it's going to be a situation of only time's going to tell, isn't it?
Sonya	Yeah.
Graeme	Whether this is going to work or not. And, um, from some of the folks that we're bringing this year, what one person in particular, I think it's going to be, it'll be fascinating to get this person's perspective on China and this whole kind of battery race that's happening globally. So we're, um, bringing in an individual called Bob Galilee.
Sonya	Yeah.
Graeme	And Bob ...
Sonya	That's great.
Graeme	Yeah, and Bob's like this remarkable battery person. He spent 50 years in the battery industry, um, and he spent seven years in China with a company called Contemporary Amperex Technology Limited, which is a bit of a mouthful, but CATL, CATL now have the distinction of being the number one, ah, battery manufacturer in the world by volume now. Ten years ago they weren't even in the top ten. And Bob was one of the architects of how CATL were able to massively scale up. He spent seven years in China and saw this first hand. And, and he's an American. So it's going to be really interesting to get his take on can we outcompete China? I think a lot of people would be probably think that's not possible. So if we can outcompete China, what strategies can we deploy to catch up? Because I think you're absolutely right in saying that we're ten years behind Maybe some people might argue, maybe even more in terms of building these supply chains.
Sonya	Well, I think, um, that's the, that's where disruptive technology comes in that, um, you know, there will always be new applications and new, new, new technology. And I, I just don't know if we know which direction this is going to go. There's always curveballs. Whenever it comes to, to, energy, energy transition we, it slow, it's fast. There's curveballs. We can't predict which way it goes, but I think it's, we're, we're going to see a lot in the, in the battery, the battery area and technology. But I think we, you know, we have to get this right. Like, I don't think anybody wants to see economic and power shift to, to countries that don't share our values. Don't share our democratic values, don't share our human rights values.

Graeme	Yeah.
Sonya	We don't want to see that. And we do have advantages here. If you look across North America, we have here huge reserves and huge supplies of all of these minerals that are needed for energy transition, that are needed for batteries, that are needed for technology, right in Alberta, right across North America. We did a Critical Minerals Strategy in Alberta, released it in 2021, along with funding the geologic survey to explore what we have here, where it's abundant and where to find it. And we've got as good a resource profile in, here in Alberta as anywhere globally. Um, things like lithium, uranium, cobalt, um, we, we have all this, all of the minerals here and we have them right across North America.
Graeme	Yeah.
Sonya	We just have to be able to have the will.
Graeme	We've got to unlock that, don't we.
Sonya	We have to be able to have the, the will and the drive to compete.
Graeme	Yeah. Interesting. I think one of the, one of the things that, and we talked earlier in the conversation around we're going to need to build a lot of infrastructure. And maybe this comes back to that point of how do we? Because we've been building infrastructure the same way for the last 50 or 100 years. And I'll go off on a side tangent. But if I think about what's happened in the space industry in the last, kind of, ten years, the traditional space industry is being completely disrupted. And a lot of that was because of, excuse me, Elon Musk coming in.
Sonya	Yeah, private sector money.
Graeme	Private sector coming in and not just private sector money, but also this kind of incredible emphasis on reducing costs and accelerating timelines. So ten years ago, if you're going to launch a satellite in space, it's going to cost you 100 million bucks. To launch that equipment and satellite today it's going to be less than $10 million. So you've seen so much inefficiency and cost stripped out of this space. Um, can we do that in energy and climate? Can we deliver this infrastructure in a revolutionary, much more cost effective manner?
Sonya	Well we should, but we have to be cognizant, um, on doing it that we, we have to go back to bringing our basic stakeholders along, our communities, along. And we have to have a clear mind to the affordability crisis and the cost of inflation and what the experience of their lives are. If they see that, you know, things are going to become more expensive, a rapid buildout is going to cost their, result in inflation, more inflation, more higher costs of energy. You're going to, to not bring those people ...
Graeme	You're going to lose people.
Sonya	You're going to lose, you're going to lose people and you're going to see it even more polarized. And we're seeing that across Europe.
Graeme	Yeah.
Sonya	Um, you know, it's like we're, we're in a global supercycle for election supercycle. It's something like 60% of the global population in democratic countries are in an election year this year, and they're in an election year at the same time that people are feeling inflationary pressure, the cost of groceries, the cost of housing, like they're, it's, it's a very unpredictable time because people are, people are feeling.
Graeme	Their hurting aren't they?
Sonya	They are hurting.
Graeme	And there's, people are feeling disenfranchised and, and angry about this.
Sonya	Yeah.
Graeme	And wanting to blame.
Sonya	They want to blame something...
Graeme	They want to blame governments.
Sonya	Yeah.
Graeme	For, for all or the "elites" for what's happening right now in the world.
Sonya	And one of them, so energy costs have to be within the realm of what people can afford. Um, you're seeing protests across Europe, farmers' protests, um, which is quite shocking, but the cost of fertilizer and production costs and input costs are going up. And they're not seeing, they're, they're seeing things are tougher.

Graeme	Yeah.
Sonya	Um, we feel that in, across rural areas in Alberta that input costs are tougher. So we have to bring people along. We have to bring people along and we, we can but I think we just, we need to be extremely, as we're implementing climate policy, we have to have a very keen eye to affordability, and, along with energy security and, and, you know, economic security. We have to balance all of those things together and then we can bring people along. But we have to do it at a pace and scale that isn't going to, to, to be disruptive to people's lives.
Graeme	How do we get better at looking at the future and trying to predict? Because you mentioned earlier, you know, you came in 2019.
Sonya	Yeah.
Graeme	We all know what happened in 2020. I'm sure we don't necessarily want to talk about that too much.
Sonya	Oh but then 2022, that was another disruption.
Graeme	Yeah.
Sonya	Russian, Russia invaded Ukraine. And all of a sudden we ...
Graeme	We saw the energy security back on the table.
Sonya	Energy security is back on the front page. And the, the need to cut out, ah, Russian oil and gas out of the global supply chain. At the same time then I said, well, here comes a renaissance of oil and gas, North American oil and gas, because there's going to be huge volumes taken off of the, the market to weed out Russian barrels. But what we saw was, you know, a very, you know, focus on energy security for a while. But then we saw in places across Europe saying, well, energy security means we need to focus on renewables. We need to build other supply, supply sources for, for energy to make sure we have energy security. So again, you saw a lot of government investment into renewables and alternative supply. We saw the Inflation Reduction Act in, in the United States.
Graeme	Which is an ironic name, isn't it?
Sonya	Yeah.
Graeme	You're pumping money into the economy and calling it inflation reduction. I always find that slightly odd about the naming.
Sonya	So I saw that, that all go down too, so I thought, yeah it's a real, that's going to be a real renaissance in oil and gas. And, you know, it, it, it was to a certain extent, but it's also, um, you know, showcased the need to bring on other forms of energy as, as well. So that's when it when I said a while ago that I really do think the energy transition is unstoppable. In spite of all of those things over the last four years that would suggest that, um, that it's going to slow down, it, it hasn't. Um, but I just think we, we just have to expect that it's going to have a lot of ups and downs. We don't know what's going to be next.
Graeme	Yeah.
Sonya	Who would have predicted 2020 or 2022. And, and there's, there will be other things that happen that nobody's going to predict. But I think it's, it's just a, it's a matter of the pace and scale. How fast and how much is going to cost. But we're, we're moving in that direction.
Graeme	Yeah. Yeah. It is, it's very difficult, isn't it, when you've got so many, all those disruptions coming together at the same time. And one, one area that we've not touched on yet is artificial intelligence. And before we talk about this, I love that everyone wants to be an AI expert. [*laughing*] Have you noticed that culture in the last two years?
Sonya	Just look on the internet. Everybody's putting stuff up.
Graeme	Yes, I hear that. Anyways, I'm, I'm not going to pretend to be an expert in AI, but I'm curious to get your take both as Sonya as the individual, but also from a BLG perspective. What are you seeing right now around AI in energy?
Sonya	Well, we're, we're seeing a lot of our, our clients are I mean, you bring, there, there are AI applications to all sorts of things that our clients are pursuing. And in the energy sector, we're seeing AI is, it helps in traditional oil and gas to help better produce at a lower cost and understand the reservoirs better. So they're deploying AI in the subsurface space to be able to produce a better...
Graeme	Drill in better place [•39:33] fluid mechanics.
Sonya	Drill in better places. And to also lower emissions to better understand methane emissions and how they can reduce. But we're also seeing AI come in in data centers where we're going to need a lot more electricity. We will need a lot more electricity to power up the AI data centers. They, they require a lot more electricity than a traditional data center. So that means we're going to need more clean electricity. It means we're going to need more renewables. We're going to need more battery storage, and we're going to need more, natural gas. Natural gas coupled with CCUS to lower the emissions. And at BLG we have clients in all those spaces. So we're helping clients navigate all of that in the energy transition to understand the opportunities, um, as we need more electricity, as we need more energy to help them understand the complicated, ah, government policy framework they're operating in. To understand the complicated regulatory framework and regulatory processes, stakeholders, as well as the very complicated financing. Um, it's, it's not easy to finance these projects. Just imagine the billions of dollars of, of capital that's required to move these projects forward. So there's, it's, it's quite an exciting time to be, to be in the legal, legal industry now, and especially in a firm like BLG that, that practices in all of these areas and has a national profile, a national network of lawyers and experts in every one of these areas. So, um, I do see, I do see a huge, you know, a busy time ahead. There's going to be no shortage of work.

Graeme	I think that's very true. I mean, one other area that I think about from an AI energy perspective is we potentially see rising tension around communities.
Sonya	Oh yes.
Graeme	And where we place these data centers, because if you're hyperscale or a big tech company and you're building out this infrastructure, you basically, you're probably gonna have to bring the electrons with you. Because if you're driving up electricity prices or creating, um, supply crunches in secondary sections
Sonya	Or the reliability of the grid.
Graeme	Yes.
Sonya	Like we need, we need the power supply to keep our grid reliable for consumers.
Graeme	Yeah.
Sonya	Um, and that's, that's, that's a key component where you cite these facilities, especially an AI center, whether it's you're citing a CCUS project or a facility of production facilities, facility for sustainable aviation fuel. You have to know your communities. You have to know where to put, where to put facilities and where you're going to community buy in. Because if you don't get that start, that piece right at the outset, you're going to have troubles and delays and problems, and you're going to have a community that, that's skeptical of what you're doing. So, you know, and I think that's also a place where Alberta has some advantages. We have communities that are very open to development. They understand it from years of the oil and gas sector being in the community. So it's just got to be done at the pace and scale and it's got to be done right. And being fast is not necessarily being right.
Graeme	One of the other angles around AI that I'm, I'm keen to get your take on and not to go too dystopian here, because there's lots of dystopian scenarios and talk around what AI is going to be for humanity and the planet. But one of the speakers that we have, um, this year, I'm probably most looking forward to hearing is Yuval Noah Harari, who's this kind of renowned historian and philosopher and, wrote the best selling book, Sapiens. He just has a new book that came out last week, called Nexus. And one of the things that Yuval touches upon is the threat from AI is probably not one supercomputer in the movies taking over the planet. The threat is likely at almost the boring bureaucratic level on a government level where if you think about millions or billions of AI systems and you or I are trying to apply for a new mortgage or financing for something, and suddenly you're taking all of these decisions away from human beings and they're being done by AI systems. It's almost like a death by a thousand cuts and we, we basically, as human beings, give up all our autonomy. But because it's maybe boring stuff, we're not necessarily paying attention. I'd love to kind of get your take on, well, what do you think about that?
Sonya	Well, I mean, it's, it, it needs to be regulated properly. We can't go so fast down that area. You, even talking about some mortgages and taking away some of the AI decisions on who you give financing to. It, probably if you, if you turn it all over to AI, it's going to be more problematic for disadvantaged communities, for women, for people on the margins.
Graeme	Well, are the systems being designed holistically that take in a broad range of stakeholders?
Sonya	And they're going to have to, um, otherwise you're going to make life more difficult for people whose lives are already difficult, um, and are more, are more marginalized. Access to, ah, to loans, access to credit cards is probably going to be more difficult for people that are on the margins if we don't get it right.
Graeme	Yeah. Interesting. What, what are some of the topics that you're paying attention to that you think more people should be following, ah, as we try to understand everything's happening from this kind of energy, geopolitics and climate landscape?
Sonya	Well, I'm really following the, ah, the election super cycle.
Graeme	Yeah.
Sonya	Like, I don't think anybody can predict where, where these elections are going to go in Europe. Um, but I do think climate change is, is being, to some degree right now, it's not being spoken about as much as it was five years ago. And I think...
Graeme	It was 47 seconds in the presidential debate the other day. You may or may not want to go there, but that's, I think it tells, it's quite telling.
Sonya	Yeah, well I think it's telling, you know, in the area because people are, because of high inflation...
Graeme	Yeah.
Sonya	Global inflation, the cost of living. It's not just North America, it's not just the United States or Canada, it's global. People are having a challenging time and it's, ah, you know, when, when people's lives are difficult and the economy's in trouble, typically, um, climate change and environmental issues fall a little bit down the chain on, on importance to voters. So we'll see where it goes in, in the global, global super cycle. What we're also seeing is, is some countries that had strong climate commitments are backing off on them.
Graeme	Yeah.
	Um, and so it is something to watch. But as I say, I think it, that goes to the pace and scale of how fast, um, countries ambition – how fast we will be moving towards, ah, energy transition. Um, how likely we are to hit our global targets for net zero, um, particular country

Sonya	targets. I think that's, I'm watching that very carefully because these global super cycles are going to be quite relevant in, in that. And in Europe, you're seeing, you're seeing a bit of a shift to, to, um, parties, political parties who are maybe less ambitious on addressing climate change. So it's, it's something to watch and it's something I know investors are watching. It's something to be, to be, it's top of mind to me and I'm following it in Canada. I'm following it in the United States. On how, where the Inflation Reduction Act is going to sit at the, you know, at the end of the election cycle in the United States. How fast does that investment going to continue to pour out? Um, how does that affect Canada? Is that going to mean that we can attract more investment in Canada, or is more investment from Canada going to go down to the United States? And those are pretty relevant questions.
Graeme	Absolutely, absolutely. Well, I'm excited to obviously get into this stuff of Energy Disruptors. We're filming this a couple of weeks ahead of the Summit.
Sonya	Yeah.
Graeme	I've got bags under my eyes and...
Sonya	You're going to be busy.
Graeme	Look exhausted. The, the next couple of weeks is still lots of planning.
Sonya	I'm really looking forward to coming and hearing some of these global thinkers. Like you've attracted for the, the conference, you've, you've got everyone there. You've got CEOs and a lot of C-suite CEOs that are focused on energy transition. You've got academics, you've got a lot of youth. You've got thought leaders, you've got some, um, former prime ministers, global prime ministers coming. So it's going to be fascinating. You've got everybody there and it will be interesting.
Graeme	Fingers crossed. Yes it's 24 hour work at the moment.
Sonya	Yeah.
Graeme	Putting it all together. But we'll be looking forward to seeing you there, obviously, and the rest of BLG team. Thank you for taking time out of your busy schedule to have this conversation.
Sonya	It's a real honor to be part of, part of your, your vision. Part of, part of your conference to be a sponsor. Um, I think it's important. I think the work you're doing is, is pivotal to bring everybody together to bring those different views together and you're one of the only venues who's doing that. Um, bring all the voices together so that we're not just speaking in echo chambers of everybody who has the same ideas. You're pulling them all together at one conference and I think that's great.
Graeme	Fantastic. Well I think that's probably a wrap.
Sonya	Great.
Graeme	That was a lot of fun.
Sonya	That was a lot of fun.
Graeme	Thank you, yeah.

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