

# Webinar

## ULI British Columbia: Climate Change and the Effects on Urban Planning and Home Building in BC

Date: November 08, 2022

00:00:07 --> 00:00:09: OK. I'm just going to give it some.  
00:00:10 --> 00:00:12: Little less than a minute is.  
00:00:13 --> 00:00:15: People join us. We've got a great turnout for today's  
00:00:16 --> 00:00:16: event.  
00:00:41 --> 00:00:44: OK, I think I'm going to go ahead and start  
00:00:44 --> 00:00:47: so that we stay on schedule. My name is Rachel  
00:00:47 --> 00:00:51: Thaxton. I am the communications chair here at UL ICBC.  
00:00:51 --> 00:00:55: First, I wanted to do a land acknowledgement. I know  
00:00:55 --> 00:00:59: that we're all joining from different areas of British Columbia.  
00:00:59 --> 00:01:03: I'm in North Burnaby, so I'm on the unseated traditional  
00:01:03 --> 00:01:06: territory of the Muslim and Squamish peoples.  
00:01:08 --> 00:01:12: For those of you who are not as familiar, ULIBC  
00:01:12 --> 00:01:16: is a nonprofit education and Research Institute.  
00:01:17 --> 00:01:21: Members are from various professions and ULI is dedicated  
00:01:21 --> 00:01:25: to  
00:01:25 --> 00:01:30: excellence in city building. We would like to thank all  
00:01:30 --> 00:01:33: of our sponsors who help to make these events possible.  
00:01:30 --> 00:01:33: We have a great turnout for today's timely events on  
00:01:34 --> 00:01:38: climate change and considerations that we need to keep in  
00:01:38 --> 00:01:43: mind as we're planning cities, expanding cities, building  
00:01:44 --> 00:01:47: homes.  
00:01:44 --> 00:01:47: In our urban environments as we see various effects of  
00:01:47 --> 00:01:48: climate change.  
00:01:49 --> 00:01:52: And from there we will go to our three expert  
00:01:52 --> 00:01:53: panelists.  
00:01:55 --> 00:01:58: So I'm going to start by introducing our first panelist.  
00:01:58 --> 00:02:01: It's Dylan Clark who is research lead.  
00:02:02 --> 00:02:04: With the Canadian Climate Institute.  
00:02:05 --> 00:02:07: Dylan, I'm going to pass it over to you. Thank

00:02:07 --> 00:02:08: you so much for being here.

00:02:10 --> 00:02:13: Thank you, Rachel, and and a pleasure to be here

00:02:13 --> 00:02:16: today. I'm really looking forward to the discussion that we're

00:02:17 --> 00:02:17: going to.

00:02:17 --> 00:02:18: Have.

00:02:18 --> 00:02:21: Umm, I'll start by acknowledging to the I am guests

00:02:21 --> 00:02:22: on the lands of the the coast.

00:02:22 --> 00:02:27: Salish people, the home to Musqueam, Squamish and Sailor Tooth.

00:02:28 --> 00:02:31: And as Rachel said, I am a research lead at

00:02:31 --> 00:02:36: the Canadian Climate Institute. My team's work focuses on

00:02:36 --> 00:02:41: climate change adaptation, so kind of managing the risks that

00:02:41 --> 00:02:44: are baked in or that are on our horizon.

00:02:45 --> 00:02:47: And for those of you that aren't familiar with the

00:02:47 --> 00:02:49: the Canadian Climate Institute.

00:02:50 --> 00:02:54: We are a a nonprofit, independent policy think tank. We

00:02:54 --> 00:02:59: focus on climate policy issues of of national importance. And

00:02:59 --> 00:03:03: over the last few years we've been my team's been

00:03:03 --> 00:03:06: working on a series of reports looking at the costs

00:03:06 --> 00:03:10: of climate change to the country, and in ways that

00:03:10 --> 00:03:15: we can reduce those costs through adaptation and by

00:03:15 --> 00:03:17: reducing

00:03:15 --> 00:03:17: greenhouse gas emissions.

00:03:18 --> 00:03:22: So for my few minutes today, I want to talk

00:03:22 --> 00:03:29: about 3 substantial market failures that are playing out

00:03:29 --> 00:03:35: across

00:03:29 --> 00:03:35: Canada. Our research at the Institute has shown that these.

00:03:35 --> 00:03:39: These failures are are really at the heart of many

00:03:39 --> 00:03:41: of the climate risks across Canada.

00:03:42 --> 00:03:43: And the first.

00:03:43 --> 00:03:44: Of those is.

00:03:44 --> 00:03:48: A very large information asymmetry. So in other words.

00:03:49 --> 00:03:54: A select few individuals and organizations have fairly good

00:03:54 --> 00:03:58: and

00:03:54 --> 00:03:58: access to information about climate risks, but most people

00:03:58 --> 00:04:03: and

00:03:58 --> 00:04:03: organizations across the country have very little access to

00:04:03 --> 00:04:04: that

00:04:03 --> 00:04:04: information.

00:04:05 --> 00:04:06: And to articulate this.

00:04:07 --> 00:04:12: My team analyzed, Umm, actually a number of real estate

00:04:12 --> 00:04:16: investment trust properties. So we.

00:04:16 --> 00:04:16: Looked.

00:04:16 --> 00:04:21: Through financial filings of 11 of the largest real estate  
00:04:21 --> 00:04:23: investment trusts and.  
00:04:24 --> 00:04:27: These RIT's you know the 11 of them have a  
00:04:27 --> 00:04:32: market cap of 60 billion, so they're they're huge inventories  
00:04:32 --> 00:04:32: of assets.  
00:04:34 --> 00:04:38: And we looked at where their buildings were again by  
00:04:38 --> 00:04:44: looking at financial disclosures and we found about 1500  
buildings  
00:04:44 --> 00:04:45: across the country.  
00:04:46 --> 00:04:51: These include commercial buildings, residential buildings and  
about 230 senior  
00:04:51 --> 00:04:55: living facilities, all within those RIT portfolios. And I'm not  
00:04:55 --> 00:04:58: going to name the specific ones, but I would venture  
00:04:58 --> 00:05:02: to say that most of your institutions or personally you're  
00:05:02 --> 00:05:05: going to have these within your, your kind of portfolios.  
00:05:06 --> 00:05:09: And So what we did when we found those properties  
00:05:09 --> 00:05:10: is we we matched them up.  
00:05:10 --> 00:05:11: With.  
00:05:12 --> 00:05:18: Flood insurance maps, maps which getting back to that  
information  
00:05:18 --> 00:05:23: asymmetry most of you do not have access to and  
00:05:23 --> 00:05:28: we checked to see just how much flood risk these  
00:05:28 --> 00:05:32: top REI's are exposed to. We found that 17% of  
00:05:32 --> 00:05:37: RIT properties are in a 200 year floodplain. That's about  
00:05:37 --> 00:05:42: 6% higher risk concentration than the average non.  
00:05:42 --> 00:05:46: RIT property in the country, and this isn't just a  
00:05:46 --> 00:05:51: legacy issue, these aren't legacy assets. In 2019, over half  
00:05:51 --> 00:05:52: of those RIT.  
00:05:52 --> 00:05:53: That we looked at.  
00:05:53 --> 00:05:56: Actually added or acquired additional properties.  
00:05:56 --> 00:05:57: In in flood risk zones.  
00:05:58 --> 00:06:01: So information asymmetries are huge, a huge challenge in  
terms  
00:06:02 --> 00:06:03: of mitigating risks.  
00:06:04 --> 00:06:09: The second market failure that we're seeing playing out  
across  
00:06:09 --> 00:06:13: Canada when it comes to climate, climate risks and  
infrastructure  
00:06:13 --> 00:06:16: development is is moral hazard.  
00:06:17 --> 00:06:22: So moral hazard is is particularly dangerous because it's  
disincentivizes  
00:06:22 --> 00:06:23: risk management.  
00:06:24 --> 00:06:28: And one example of of moral hazard issue.  
00:06:28 --> 00:06:29: Is is the.

00:06:29 --> 00:06:31: Securitization.

00:06:31 --> 00:06:32: Of of mortgage bonds.

00:06:32 --> 00:06:35: So again, we looked.

00:06:35 --> 00:06:35: At.

00:06:35 --> 00:06:39: Specific kind of case studies to articulate this and and

00:06:39 --> 00:06:43: found that between 2017 and 2020 about 10% of of

00:06:43 --> 00:06:47: building permits issued within the City of Vancouver were issued

00:06:47 --> 00:06:51: for for new builds that are within a 100 year

00:06:51 --> 00:06:55: floodplain again using that flood insurance risk mapping.

00:06:55 --> 00:06:56: Umm.

00:06:56 --> 00:06:58: Those permits alone.

00:06:59 --> 00:07:00: Had a total value of about a.

00:07:00 --> 00:07:06: Billion dollars. And so that's a huge financial liability that

00:07:06 --> 00:07:09: we know lenders generally sell.

00:07:11 --> 00:07:16: Through mortgages and mortgage securities transferring that financial risk to

00:07:16 --> 00:07:19: investors and and at the backstop by CMHC. So now

00:07:19 --> 00:07:23: if if physical risks were insured and disclosed, you know

00:07:23 --> 00:07:27: a properly functioning market, we would expect that the markets

00:07:27 --> 00:07:30: would price in that information.

00:07:31 --> 00:07:35: Into the security returns and risk disclosures. But most households

00:07:35 --> 00:07:40: in Canada do not have comprehensive flood risk insurance, and

00:07:40 --> 00:07:43: as I mentioned, very few investors have the data.

00:07:43 --> 00:07:44: To.

00:07:44 --> 00:07:45: Analyze.

00:07:46 --> 00:07:48: The risks especially.

00:07:48 --> 00:07:50: Once we bundle.

00:07:50 --> 00:07:54: The risks into mortgage-backed securities. So why is this a moral hazard? Well, you know generally the organizations who directly

00:07:54 --> 00:07:59: lend, not directly pay, if there is a catastrophic loss.

00:08:03 --> 00:08:07: And this is not pointing fingers, it's it's pointing out

00:08:07 --> 00:08:11: a a systemic kind of challenge and issue here. Institutional investors largely hold the risk in its backstop by the

00:08:11 --> 00:08:15: Government of Canada.

00:08:15 --> 00:08:16: Government of Canada.

00:08:17 --> 00:08:20: So the final kind of market failure I wanted to

00:08:20 --> 00:08:21: chat about briefly here is.

00:08:22 --> 00:08:27: Umm, negative externalities. And this means that economic decisions.

00:08:28 --> 00:08:31: Are negatively impacting a third party.

00:08:32 --> 00:08:35: I want to bring this home on, kind of bring

00:08:35 --> 00:08:36: it back to people.

00:08:37 --> 00:08:41: Last summer, obviously for those of us living in in.

00:08:41 --> 00:08:43: DC we saw.

00:08:44 --> 00:08:48: Umm, just a heart wrenching disaster within 600 people died

00:08:48 --> 00:08:52: from from the June heat wave. The vast majority of

00:08:52 --> 00:08:54: those people died in their homes.

00:08:55 --> 00:08:59: I'm, I'm. I'm a renter in Vancouver and I am

00:08:59 --> 00:09:03: fortunate to live in in quite a nice building that

00:09:03 --> 00:09:07: was built in the 90s, but like most households in

00:09:07 --> 00:09:10: the Lower mainland on that are are renting.

00:09:11 --> 00:09:16: I don't have many options for keeping my apartment

00:09:16 --> 00:09:19: temperatures

00:09:19 --> 00:09:23: from rising into the high 20s or 30s during most

00:09:23 --> 00:09:24: summer days, and like most people and and Vancouver, I

00:09:26 --> 00:09:29: don't have a scene.

00:09:29 --> 00:09:29: So here's the challenge that the strata developer and my

00:09:30 --> 00:09:31: landlord.

00:09:31 --> 00:09:35: Don't experience the.

00:09:35 --> 00:09:38: Effects of heat that that I experience. And again, I'm

00:09:38 --> 00:09:42: not. I'm certainly not saying there's malice.

00:09:42 --> 00:09:47: But there is a market failure happening. In this example,

00:09:47 --> 00:09:51: you know, 300,000 renters in Vancouver are seriously

00:09:51 --> 00:09:52: implicated by

00:09:53 --> 00:09:55: by the decisions made upstream and outside of their their

00:09:56 --> 00:09:57: control.

00:09:57 --> 00:09:59: So I said today that I was going to talk

00:10:03 --> 00:10:04: about the role of policy.

00:10:06 --> 00:10:10: And and adapting the fund to change.

00:10:10 --> 00:10:14: My team is continuing to to analyze various policy options

00:10:14 --> 00:10:17: and and levers and pathways.

00:10:18 --> 00:10:21: But almost all of those policies we analyzed are designed

00:10:21 --> 00:10:25: to address one of these three market failures, so information

00:10:25 --> 00:10:27: asymmetry, moral hazard, and and negative externalities.

00:10:28 --> 00:10:31: And fixing these market failures is going to be really

00:10:31 --> 00:10:33: essential in order to address some of our largest climate

00:10:33 --> 00:10:34: vulnerabilities in the country.

00:10:34 --> 00:10:38: And in order to create kind of a stable economy,

00:10:34 --> 00:10:38: it's going to be imperative.

00:10:34 --> 00:10:38: That these. These.

00:10:34 --> 00:10:38: Failures are addressed moving forward. So with that, I'll

00:10:34 --> 00:10:38: thank

00:10:38 --> 00:10:41: you for the time and look forward to the discussion.

00:10:41 --> 00:10:43: Back to you, Rachel.

00:10:47 --> 00:10:48: Thanks very much, Dylan.

00:10:49 --> 00:10:52: I appreciate your time and and and insight.

00:10:53 --> 00:10:57: I'm going to pass to our second panelist now. This

00:10:57 --> 00:11:00: is Malcolm Shield. He is the VP of Sustainability for

00:11:01 --> 00:11:02: West Group Properties.

00:11:03 --> 00:11:06: And I will pass it over to you, Malcolm. Thank

00:11:06 --> 00:11:06: you so much.

00:11:07 --> 00:11:12: Thanks, Rachel. Appreciate it. Thanks all for taking the time.

00:11:12 --> 00:11:15: I think today the the thrust of of what I'd

00:11:15 --> 00:11:19: like to talk about is really decision relevance and how

00:11:19 --> 00:11:22: we make decisions in a world that is is clearly

00:11:22 --> 00:11:26: clearly challenged. The the world we find ourselves in right

00:11:26 --> 00:11:30: now is being challenged in all sorts of ways, whether

00:11:30 --> 00:11:33: it be from the war in Ukraine, whether it be

00:11:33 --> 00:11:37: from the pandemic supply chain and of course climate risk.

00:11:37 --> 00:11:42: Has been identified for a long time, but systemically we've

00:11:42 --> 00:11:46: we've really struggled to integrate that with with decision

00:11:46 --> 00:11:50: making.

00:11:46 --> 00:11:50: And so from a practical perspective even when we know

00:11:50 --> 00:11:55: that something is happening something's taking place

00:11:55 --> 00:11:58: whether that be

00:11:58 --> 00:12:02: related to the need to reduce emissions or adapt to

00:12:02 --> 00:12:06: a changing climate. How do we build that into into

00:12:06 --> 00:12:08: our business structures and I think it's critical to to

00:12:08 --> 00:12:11: recognize that that the past.

00:12:11 --> 00:12:14: Is no longer an indicator of the future. It's not

00:12:15 --> 00:12:18: just the fact that it's not a good indicator. It

00:12:18 --> 00:12:21: is no longer an indicator of the future that we're

00:12:21 --> 00:12:26: going into. And yet, when we look to our decision

00:12:26 --> 00:12:29: makers to make appropriate choices, how do they formulate

00:12:29 --> 00:12:34: those

00:12:29 --> 00:12:34: choices? A lot of it is predicated on historic data.

00:12:35 --> 00:12:37: It's predicated on lived experience. It's predicated on

00:12:37 --> 00:12:39: professional experience.

00:12:35 --> 00:12:37: And when we look to the future and we start

00:12:37 --> 00:12:39: to realize that.

00:12:39 --> 00:12:44: Under those conditions, our lived experience or professional

00:12:44 --> 00:12:47: experience doesn't

00:12:47 --> 00:12:50: apply. Historic data doesn't apply. How do we start to

00:12:47 --> 00:12:50: to to close that gap? And I'd posit that it

00:12:50 --> 00:12:53: that it really has to come down to values, whether

00:12:54 --> 00:12:57: Ness, not value, but values, because at some point we  
00:12:57 --> 00:13:01: have to recognize that data is incomplete. No amount of  
00:13:01 --> 00:13:04: additional analysis is going to get us to the point  
00:13:04 --> 00:13:07: of certainty that we might seek and in a traditional  
00:13:08 --> 00:13:09: decision making.  
00:13:09 --> 00:13:12: Framework. So, so off the back of that what what  
00:13:12 --> 00:13:15: does it mean to to build that into into decision  
00:13:15 --> 00:13:19: making processes. So if I might share one slide that  
00:13:19 --> 00:13:20: that puts this into.  
00:13:21 --> 00:13:26: Into some level of context, the Insurance Bureau of Canada  
00:13:26 --> 00:13:30: publishes each year report on on the losses within Canada  
00:13:31 --> 00:13:34: and this slide and the the content has has been  
00:13:34 --> 00:13:39: built over time. It's one you'll often see referenced in  
00:13:39 --> 00:13:43: in climate change circles and it shows there that the  
00:13:43 --> 00:13:49: catastrophic losses over 25 million and the loss adjustment  
00:13:49 --> 00:13:51: expenses  
00:13:51 --> 00:13:54: for for a series of losses.  
00:13:54 --> 00:13:58: Going back to 1983 and it's pretty clear that that  
00:13:58 --> 00:14:01: the last trend is increasing, but what is not clear  
00:14:01 --> 00:14:05: from from the content here is that this is in  
00:14:05 --> 00:14:08: short losses. You're absolute losses are depending on what  
00:14:08 --> 00:14:11: you  
00:14:12 --> 00:14:15: look at three or four times higher than this still.  
00:14:15 --> 00:14:17: But also particular note is that of the 10 largest  
00:14:17 --> 00:14:21: loss events lost years in Canada, seven of those have  
00:14:21 --> 00:14:25: been in the last decade.  
00:14:25 --> 00:14:30: And so particularly for for my industry when we think  
00:14:30 --> 00:14:30: about real estate and that multi decadal approach, um  
00:14:31 --> 00:14:34: understanding  
00:14:34 --> 00:14:38: what the implications going forward are are particularly  
00:14:38 --> 00:14:42: difficult.  
00:14:42 --> 00:14:47: For us.  
00:14:47 --> 00:14:52: And so in that sense, I think in a point  
00:14:52 --> 00:14:52: to realize that that when we think about how to  
00:14:54 --> 00:14:58: integrate information like this, we can't look at climate risk.  
00:14:58 --> 00:15:00: And as I would say, a wholly new consideration. Climate  
00:15:00 --> 00:15:04: change exacerbates existing risks. It tends not to introduce  
00:15:04 --> 00:15:10: new  
00:15:10 --> 00:15:10: risks.  
00:15:10 --> 00:15:10: Potentially you could, you could speak to uh, climate  
00:15:10 --> 00:15:10: migration,  
00:15:10 --> 00:15:10: uh as a new risk, but from a more physical  
00:15:10 --> 00:15:10: sense and certainly for for my industry that the physical  
00:15:10 --> 00:15:10: risks around wildfire, flooding, extreme precipitation, they've

always existed, but

00:15:10 --> 00:15:13: it's very different landscape. And so it's a question of

00:15:13 --> 00:15:17: how do we build that into our business processes and

00:15:17 --> 00:15:21: business systems so that you're not upending how any company

00:15:21 --> 00:15:23: makes its decisions or or makes.

00:15:23 --> 00:15:27: Business choices because the people aren't, it's not going to

00:15:27 --> 00:15:31: be effective. We have to look at the systems that

00:15:31 --> 00:15:33: we already have in place and how we tweak and

00:15:33 --> 00:15:37: augment those. And so if I might share my screen

00:15:37 --> 00:15:40: once more, I'll walk through a little bit of content

00:15:40 --> 00:15:42: as as to what that means and how we can

00:15:42 --> 00:15:45: tie it to what is data-driven and and what is

00:15:45 --> 00:15:49: objective and then what is subjective. So when we think

00:15:49 --> 00:15:53: about risk it's, it's pretty straightforward on the face of

00:15:53 --> 00:15:54: it, it's likelihood.

00:15:54 --> 00:15:57: Multiplied by consequence. I just need to find 2 pieces

00:15:57 --> 00:16:02: of information, right? Well, not quite. The likelihood is ultimately

00:16:02 --> 00:16:04: a frequency. How likely am I to to see a

00:16:04 --> 00:16:08: particular event or occurrence? But how do we measure consequence?

00:16:08 --> 00:16:12: What are we thinking about in terms of consequence? Well,

00:16:12 --> 00:16:15: that's the impact of the event. And then the the

00:16:15 --> 00:16:18: measure of vulnerability. Not so much of my asset, but

00:16:18 --> 00:16:21: the people who make the most of my asset or

00:16:21 --> 00:16:22: use it.

00:16:22 --> 00:16:26: But then taking that a step further, what is vulnerability?

00:16:26 --> 00:16:30: It's the exposure to what is taking place, our sensitivity

00:16:30 --> 00:16:33: to it, IE what's the detrimental effect to me. But

00:16:33 --> 00:16:36: then also do I have the ability to to undertake

00:16:36 --> 00:16:40: a positive outcome, to try and reduce, reduce that detrimental

00:16:40 --> 00:16:44: effect. So there's an interplay between these two aspects and

00:16:44 --> 00:16:47: then finally taking it down to the to the final

00:16:47 --> 00:16:51: level exposure, we can basically put down to how intense

00:16:51 --> 00:16:53: is is the power or the hazard.

00:16:53 --> 00:16:56: That I'm subjected to and how long am I subjected

00:16:56 --> 00:16:59: to it for? The challenge with this is a lot

00:16:59 --> 00:17:01: of this is subjective.

00:17:02 --> 00:17:05: Like when we look back and previously impact, what is

00:17:05 --> 00:17:07: impact that comes down to to what's the level of

00:17:07 --> 00:17:10: service that I want to maintain. And then my ability



00:17:10 --> 00:17:14: to respond either positively or negatively to a situation is  
00:17:14 --> 00:17:17: not the same for every individual. It's not the same  
00:17:17 --> 00:17:20: for every group of people. And then there's the aspects  
00:17:20 --> 00:17:22: to to when we look at risk that can be  
00:17:22 --> 00:17:25: tied to data, the intensity, the duration, this can come  
00:17:25 --> 00:17:28: from climate modelling of all sorts. And so I I  
00:17:28 --> 00:17:31: would say that my point is at some point we  
00:17:31 --> 00:17:32: have to start closing.  
00:17:32 --> 00:17:35: The gap between these two here and that is driven  
00:17:35 --> 00:17:39: by a value system and a values approach. You just  
00:17:39 --> 00:17:43: end up being paralyzed through through analysis and looking  
for  
00:17:43 --> 00:17:47: more and more certainty and at some point as as  
00:17:47 --> 00:17:51: individuals, as a corporation you need to make to choice  
00:17:51 --> 00:17:54: on on how to close that gap. And really it's  
00:17:54 --> 00:17:58: that perspective I think that comes from inclusive approaches  
and  
00:17:59 --> 00:18:03: bringing an entire organization along in the decision making  
process.  
00:18:04 --> 00:18:06: So with that I'll I'll pass it back and and  
00:18:06 --> 00:18:09: very much look forward to the the conversation and the  
00:18:09 --> 00:18:09: questions.  
00:18:14 --> 00:18:17: Thank you very much, Malcolm. Appreciate that information.  
00:18:19 --> 00:18:23: OK, our third panelist today, I'm going to introduce Bill  
00:18:23 --> 00:18:26: Cunningham, Vice President of Community, business and  
real estate at  
00:18:26 --> 00:18:29: Van City. Bill, look forward to hearing what you have  
00:18:29 --> 00:18:32: to say and I will pass the floor to you.  
00:18:33 --> 00:18:36: Wonderful. Thank you, Rachel, and thank you for that land  
00:18:36 --> 00:18:39: acknowledgement off the top of this presentation because I  
too  
00:18:40 --> 00:18:42: would also like to thank the Co Salish peoples for  
00:18:42 --> 00:18:45: their caretaking of this land for time immemorial. And I  
00:18:46 --> 00:18:49: pay my respects to elders past, present and future. As  
00:18:49 --> 00:18:52: you stated, I am the Vice President of Community business  
00:18:52 --> 00:18:54: and real estate with Man City. I'm not a client,  
00:18:55 --> 00:18:58: scientist or environmental specialist of of any sort. I'm a  
00:18:58 --> 00:19:01: business lender with over 25 years experience lending on real  
estate to builders and developers.  
00:19:01 --> 00:19:03: And in this context, I think that's that's OK because  
00:19:04 --> 00:19:07: that experience is about assessing and mitigating risk when it  
00:19:07 --> 00:19:10: comes to lending money.  
00:19:10 --> 00:19:11:

00:19:12 --> 00:19:15: And climate risk is quickly rising to the top of  
00:19:15 --> 00:19:18: the list of lenders we'll be paying attention to.  
00:19:18 --> 00:19:21: When it comes to financing home building and real estate  
00:19:21 --> 00:19:25: development with climate considerations, these will be driven  
by lenders  
00:19:25 --> 00:19:28: net zero commitments, which are becoming more and more  
prevalent.  
00:19:30 --> 00:19:33: Let me talk a little bit about net zero, because  
00:19:33 --> 00:19:36: some folks in my industry get carbon neutral and net  
00:19:36 --> 00:19:37: zero mixed up.  
00:19:38 --> 00:19:42: Carbon neutral can often mean just measuring emissions  
and then  
00:19:42 --> 00:19:45: purchasing an equivalent amount of offsets. Net zero is more  
00:19:45 --> 00:19:49: than that though. Being net 0 means committing to reducing  
00:19:49 --> 00:19:52: emissions as much as possible, and then only then can  
00:19:52 --> 00:19:55: you use offsets to manage the remaining emissions.  
00:19:57 --> 00:20:01: Density was one of the founding members of the United  
00:20:01 --> 00:20:04: Nations Net Zero Banking Alliance Alliance. In fact, we were  
00:20:04 --> 00:20:07: the only ones from Canada at the outset. Since then,  
00:20:07 --> 00:20:10: Canada's big six banks have all signed on, as well  
00:20:10 --> 00:20:11: as coast capital.  
00:20:13 --> 00:20:17: In the net Zero banking alliance, there's 117 banks now  
00:20:17 --> 00:20:22: representing over 41 countries accounting for 39% of global  
banking  
00:20:22 --> 00:20:27: assets. That's just to\_ that this is something that the financing  
00:20:27 --> 00:20:31: world is really taking serious and it will drive lending  
00:20:31 --> 00:20:33: decisions going forward.  
00:20:34 --> 00:20:36: Let me attempt to pop up a slide here for  
00:20:36 --> 00:20:37: a quick moment.  
00:20:40 --> 00:20:42: And chat about the road to net zero.  
00:20:47 --> 00:20:50: So the stages for financial institutions who have made net  
00:20:50 --> 00:20:53: zero commitments are on the screen here. One is to  
00:20:53 --> 00:20:56: state the ambition and to make that net zero.  
00:20:57 --> 00:21:01: Commitment. In fact, in Canada, for all the major lenders,  
00:21:01 --> 00:21:04: we can say check the net Zero Banking Alliance has  
00:21:04 --> 00:21:07: members commit to being net 0 by 2050.  
00:21:08 --> 00:21:11: Then cities commitment, I'm proud to say, is to be  
00:21:11 --> 00:21:11: net 0 by 2040.  
00:21:12 --> 00:21:13: The second step.  
00:21:14 --> 00:21:18: Or is to establish government and oversight and measure  
and  
00:21:18 --> 00:21:22: disclose your emissions. Again, check then city has done  
this,

00:21:22 --> 00:21:25: but so have many of the other Canadian banks that  
00:21:25 --> 00:21:28: are involved in the net Zero banking alliance. Now this  
00:21:28 --> 00:21:32: measurement is highly estimated. It's based on industry  
averages. It's  
00:21:32 --> 00:21:36: based on building averages and it's not quite at the  
00:21:36 --> 00:21:40: level where it's actually accounting for the emissions of  
distinct  
00:21:40 --> 00:21:44: borrowers or distinct real estate assets that we're financing.  
We  
00:21:44 --> 00:21:44: all know that.  
00:21:45 --> 00:21:47: We need better data and industry is going to play  
00:21:47 --> 00:21:49: the biggest part of that and I'm going to come  
00:21:49 --> 00:21:50: back to that in a bit.  
00:21:51 --> 00:21:54: The next part is to establish and disclose near term  
00:21:54 --> 00:21:58: emission reduction targets and the plans to get so. And  
00:21:58 --> 00:22:01: again in that City's case, I can say check again  
00:22:01 --> 00:22:04: not just Van City, I noticed very recently that RBC  
00:22:04 --> 00:22:07: has also recently published their initial targets as well.  
00:22:08 --> 00:22:12: Advanced City, we've set interim targets for 2025 and the  
00:22:12 --> 00:22:16: reason we've done this 2050 seems like almost a generation  
00:22:16 --> 00:22:20: away for many 28 years from now. Our targets of  
00:22:20 --> 00:22:23: 2040 again 18 years into the future, which is why  
00:22:23 --> 00:22:28: we've set interim targets to begin disclosing and reporting on  
00:22:28 --> 00:22:29: those for 2025.  
00:22:30 --> 00:22:34: And this is part of developing emission reduction strategies,  
creating  
00:22:34 --> 00:22:37: that sense of urgency. Here's where Vancity is. I'm going  
00:22:37 --> 00:22:39: to talk a little bit more about some of these  
00:22:39 --> 00:22:40: strategies in a second.  
00:22:46 --> 00:22:49: I showed just the slide and I'll ask to be  
00:22:49 --> 00:22:52: popped in the chat link. If you want to learn  
00:22:52 --> 00:22:56: more about Van City in particular, you can check out  
00:22:56 --> 00:23:00: the [rethink.vancity.com](https://rethink.vancity.com) address. It's got much more on some  
of  
00:23:00 --> 00:23:03: our emissions plans and strategies.  
00:23:05 --> 00:23:08: So when it comes to measurement and data on emissions  
00:23:08 --> 00:23:12: for borers, you know, look the banks, regulators, Ossipee has  
00:23:12 --> 00:23:16: draft guidelines out in market now indicating that the  
regulator  
00:23:16 --> 00:23:19: is looking at mandating this type of measurement. That city  
00:23:19 --> 00:23:23: is planning to work proactively with our boarders and  
members  
00:23:23 --> 00:23:26: to gather this data. And there's a few different ways  
00:23:26 --> 00:23:28: we're doing that. We're working.

00:23:29 --> 00:23:32: With open technologies to help set up members with  
00:23:32 --> 00:23:36: free Energy Star portfolio manager accounts. This will link  
their  
00:23:36 --> 00:23:40: utility bills, provide reports to Members that provide insights  
about  
00:23:41 --> 00:23:44: their buildings how they stack up and how they might  
00:23:44 --> 00:23:48: reduce emissions. We're also looking at launching in the  
coming  
00:23:48 --> 00:23:52: quarters for our business borrowers a business emissions  
calculator. We're  
00:23:52 --> 00:23:56: starting by running a pilot which is actually underway right  
00:23:56 --> 00:23:59: now and again the the benefit here is for Members.  
00:23:59 --> 00:24:03: And borrowers to understand their emissions and what are  
the  
00:24:03 --> 00:24:07: opportunities for cost savings and emission reductions. It's  
this engagement  
00:24:07 --> 00:24:10: with industry that is going to be key to meeting  
00:24:10 --> 00:24:12: some of these emission targets.  
00:24:13 --> 00:24:17: And then from there it's about working with those borrowers  
00:24:17 --> 00:24:20: on climate transition plans. As I stated, I'm a lender,  
00:24:20 --> 00:24:23: we're not the experts, but we know who the experts  
00:24:23 --> 00:24:25: are. And so one of the roles we can play  
00:24:25 --> 00:24:29: as lenders is to make introductions to those experts. In  
00:24:29 --> 00:24:32: van Cities case, we're we're planning on supporting some of  
00:24:32 --> 00:24:36: our Members showing leadership in this industry by setting  
them  
00:24:36 --> 00:24:39: up so that they can develop climate transition plans based  
00:24:39 --> 00:24:41: on the emissions data.  
00:24:41 --> 00:24:42: That they've covered.  
00:24:44 --> 00:24:48: We're looking at the commercial retrofit financing pilots again  
where  
00:24:48 --> 00:24:52: we are directly financing those building and house owners  
that  
00:24:52 --> 00:24:56: are are looking to retrofit their existing properties to reduce  
00:24:56 --> 00:24:57: emissions.  
00:24:58 --> 00:25:01: And then we're also looking at bringing together our network  
00:25:01 --> 00:25:04: of resources in the climate industry, again to help our  
00:25:04 --> 00:25:07: Members develop the strategies they need to do to reduce  
00:25:07 --> 00:25:10: their emissions. And I want to just end by talking  
00:25:10 --> 00:25:12: a little bit about how bad City is helping the  
00:25:13 --> 00:25:17: most vulnerable populations prepare for climate effects,  
because the climate  
00:25:17 --> 00:25:20: emergency will have the greatest impact on those who have  
00:25:20 --> 00:25:23: actually contributed the least to it. In particular, this would

00:25:23 --> 00:25:27: include urban and remote indigenous communities, unhoused people's low income

00:25:27 --> 00:25:28: houses.

00:25:28 --> 00:25:30: Households and racialized people.

00:25:31 --> 00:25:34: So our commitment is to not only be net 0

00:25:34 --> 00:25:38: by 2040, but also help finance and equitable climate transition.

00:25:38 --> 00:25:42: And we're doing this by standing up nonprofit housing retrofit

00:25:42 --> 00:25:46: grants to nonprofits to offer strategic grants to many to

00:25:46 --> 00:25:49: help complete their own net zero plans for their buildings

00:25:49 --> 00:25:54: on reserve retrofit grants for those indigenous communities who are

00:25:54 --> 00:25:57: looking to reduce their emissions. And there's there's quite a

00:25:58 --> 00:26:01: bit more, but I really bring some of these examples

00:26:01 --> 00:26:01: forward.

00:26:01 --> 00:26:05: To show you that not only our lenders.

00:26:05 --> 00:26:09: Being forced to consider how to reduce climate risk. But

00:26:09 --> 00:26:12: they're actually more advanced in that we are in the

00:26:12 --> 00:26:16: stages of of implementing plans, working with our borrowers to

00:26:16 --> 00:26:20: help them reduce their emissions, to address the climate emergency.

00:26:21 --> 00:26:21: Thanks very much.

00:26:26 --> 00:26:31: Thank you, bill. I appreciate that information. Three wonderful panelists.

00:26:31 --> 00:26:35: The concept for the event came from a recent ULI

00:26:35 --> 00:26:40: research report. The organization identified climate change as a significant

00:26:41 --> 00:26:45: factor to consider as we move forward. Urban planning, home

00:26:45 --> 00:26:48: building of all types, and I think all three of

00:26:49 --> 00:26:54: you offered very different yet vital information to this discussion.

00:26:54 --> 00:26:58: We're fortunate today to have an excellent moderator who will

00:26:58 --> 00:27:00: walk us through a Q&A session.

00:27:01 --> 00:27:04: I'd like to welcome Laura Lynch with CBC Radio. She's

00:27:04 --> 00:27:07: the host of what on Earth? An award-winning journalist. Lots

00:27:07 --> 00:27:10: and lots of experience and a lot more specialty in

00:27:10 --> 00:27:14: the sustainability field than than I have certainly. So I

00:27:14 --> 00:27:16: lost it. Over to you, Laura, and I'll let you

00:27:16 --> 00:27:19: lead the Q and a dialogue from here. Thanks.

00:27:19 --> 00:27:21: So much. Thank you very much. And I just remind

00:27:21 --> 00:27:24: anyone else who's watching, if you have questions of the

00:27:25 --> 00:27:27: panelists, please pop them into the chat and and I  
00:27:27 --> 00:27:29: will try to get to some of them as we  
00:27:29 --> 00:27:30: go along.  
00:27:31 --> 00:27:34: I actually just want to go in the reverse order  
00:27:34 --> 00:27:36: of how all of you spoke. You all had really  
00:27:37 --> 00:27:40: interesting things to say and and to be quite honest  
00:27:40 --> 00:27:43: with you I kind of wish I wasn't here today  
00:27:43 --> 00:27:46: I wish I wasn't sure Mel shake at the cop  
00:27:46 --> 00:27:49: 27 meetings but we didn't have the money to go.  
00:27:49 --> 00:27:52: I do know however that this morning the a high  
00:27:52 --> 00:27:56: level group at the UN released its own recommendations  
about  
00:27:56 --> 00:27:59: net zero and private companies and and how the all  
00:27:59 --> 00:28:01: of that is operating and.  
00:28:01 --> 00:28:04: Needless to say, the belief is it's not operating very  
00:28:04 --> 00:28:08: well that most private organizations, lenders for example, are  
not  
00:28:08 --> 00:28:12: being very transparent or are not actually living up to  
00:28:12 --> 00:28:15: the promises they're making about getting to net zero. And  
00:28:15 --> 00:28:19: one of the things that they are recommending is that  
00:28:19 --> 00:28:22: it be regulated that government step in and regulate that  
00:28:22 --> 00:28:27: kind of information sharing that private corporations such as  
lenders  
00:28:27 --> 00:28:30: or oil and gas companies are doing. And I'm wondering,  
00:28:30 --> 00:28:31: Bill, how you view?  
00:28:31 --> 00:28:35: That, if I'm not mistaken, Ben City does not lend  
00:28:35 --> 00:28:38: to fossil fuel companies. Is that correct?  
00:28:39 --> 00:28:43: That's correct, Laura. But most other lenders do. I I  
00:28:43 --> 00:28:46: think you're right. The public policy is going to play  
00:28:46 --> 00:28:50: such a huge part in all lenders getting their managed  
00:28:50 --> 00:28:54: portfolios to net zero. So that type of information gathering  
00:28:54 --> 00:28:57: and sharing I think is very important on this path  
00:28:57 --> 00:29:01: in advance of any of that becoming mandated. We're working  
00:29:01 --> 00:29:06: with our borrowers to actually voluntarily disclose, which is  
what  
00:29:06 --> 00:29:09: we've done. We've measured our missions, we've voluntarily.  
00:29:10 --> 00:29:14: Disclosed, we voluntarily disclosed our targets and our early  
plans  
00:29:14 --> 00:29:15: to get there.  
00:29:15 --> 00:29:18: You know, when I look at the lending industry, we're  
00:29:18 --> 00:29:21: still fairly early in this net zero path. We're not  
00:29:21 --> 00:29:26: climate or building specialists. We're well-rounded  
generalists. And similarly there's

00:29:26 --> 00:29:29: an understanding that those in the real world, in the  
00:29:30 --> 00:29:33: real estate sector, there are also fairly early stages about  
00:29:33 --> 00:29:37: learning about client impacts, climate impacts of the built  
environment.  
00:29:37 --> 00:29:41: So building up that knowledge base and generating that  
buying  
00:29:41 --> 00:29:43: is a very key part of that and then I  
00:29:43 --> 00:29:45: think once we got a foundation of that.  
00:29:45 --> 00:29:50: Then things like mandated disclosure and public policy  
initiatives really  
00:29:50 --> 00:29:53: do play a key next step in this journey.  
00:29:53 --> 00:29:56: OK. I don't know if either one of you, Malcolm  
00:29:56 --> 00:29:59: or or Dylan want to weigh in on that as  
00:29:59 --> 00:30:00: well.  
00:30:01 --> 00:30:03: Let's leave that out for you, no.  
00:30:03 --> 00:30:07: OK, I'm happy to. I I think certainly from West  
00:30:07 --> 00:30:12: groups perspective we don't see the climate conversation or  
sustainability,  
00:30:12 --> 00:30:17: sustainability more broadly as say a unique selling point or  
00:30:17 --> 00:30:21: a differentiator for us. We absolutely believe and there is  
00:30:21 --> 00:30:25: a need for built forms to change and in all  
00:30:25 --> 00:30:28: respects and and we believe in in a rising tide  
00:30:28 --> 00:30:31: floats all boats and we want to see.  
00:30:31 --> 00:30:34: The industry in its entirety move and respond to the  
00:30:34 --> 00:30:38: challenges and compared to some real estate companies  
where we're  
00:30:38 --> 00:30:41: very modestly sized. And so the the role that we  
00:30:41 --> 00:30:44: can play in moving an industry I wouldn't say is  
00:30:45 --> 00:30:47: to be understated, but we need to find ways to  
00:30:47 --> 00:30:50: to affect a larger change and that is also the  
00:30:50 --> 00:30:54: role of government. It doesn't necessarily need to be through  
00:30:54 --> 00:30:58: regulation and I'm not talking about the specific case, but  
00:30:58 --> 00:31:01: government has a role to convene a conversation.  
00:31:01 --> 00:31:04: And guidance here that is the the role of government  
00:31:04 --> 00:31:08: is to steer society through through its biggest questions. And  
00:31:08 --> 00:31:11: we, we don't obviously wish to be at a competitive  
00:31:12 --> 00:31:15: disadvantage to an uneven landscape. And so I think that  
00:31:15 --> 00:31:18: there is certainly a role for government in in changing  
00:31:19 --> 00:31:21: how the conversation is taking place.  
00:31:21 --> 00:31:24: OK. I just follow up with with the second question  
00:31:25 --> 00:31:28: for you Malcolm. I noticed that just in the last  
00:31:28 --> 00:31:31: few days the state of Washington has passed a a  
00:31:31 --> 00:31:32: bill requiring.

00:31:32 --> 00:31:35: All new residential construction from July forward to be built  
00:31:35 --> 00:31:38: only with electric powered heat pumps. And I'm wondering what  
00:31:38 --> 00:31:41: you think of that and and that's also, that's also  
00:31:41 --> 00:31:43: for you Dylan, because I think that may be the  
00:31:43 --> 00:31:46: kind of policy ideas that you're talking about, but I'm  
00:31:46 --> 00:31:49: not sure. But Malcolm, can we start with you? Does  
00:31:49 --> 00:31:51: that seem like a good way forward?  
00:31:52 --> 00:31:56: I think my word of caution always when I hear  
00:31:56 --> 00:32:00: actions like this is I don't like to see government  
00:32:00 --> 00:32:05: being technology specific. I want government to be  
00:32:05 --> 00:32:10: technology agnostic  
00:32:10 --> 00:32:14: and regulate the outcomes that it wishes to achieve. Leave  
00:32:14 --> 00:32:18: it to industry to establish how to meet that, how  
00:32:18 --> 00:32:22: to respond, how to be more dynamic and attain the  
00:32:22 --> 00:32:25: target rather than regulating the technology itself.  
00:32:25 --> 00:32:29: Please set up that target so that it screens out  
00:32:29 --> 00:32:31: some obvious non starters and certainly we don't don't take  
00:32:31 --> 00:32:35: issue with that.  
00:32:35 --> 00:32:38: Would say for clarity, in BC we have ample clean  
00:32:38 --> 00:32:43: supply, reliable grids. I I do think BC is well  
00:32:43 --> 00:32:46: primed for electrification, but in general I think government  
00:32:46 --> 00:32:50: needs  
00:32:50 --> 00:32:53: to be technology agnostic. Leave it to industry to to  
00:32:53 --> 00:32:58: figure out how to achieve, achieve the goals that government  
00:32:58 --> 00:33:03: wishes, wishes to try and try and strive.  
00:33:03 --> 00:33:04: For.  
00:33:04 --> 00:33:07: Yeah, I agree with with Malcolm generally, I think.  
00:33:07 --> 00:33:13: What we see as the role of of.  
00:33:13 --> 00:33:18: Public policy here is is.  
00:33:18 --> 00:33:22: Again to to drive those.  
00:33:22 --> 00:33:26: Contracts forward and create pathways different pathways  
00:33:26 --> 00:33:29: for.  
00:33:29 --> 00:33:30: Individuals, industry, lower orders of government to to meet  
00:33:30 --> 00:33:32: those  
00:33:32 --> 00:33:36: broader goals and objectives. So Umm, you know, certainly  
00:33:36 --> 00:33:37: my  
00:33:37 --> 00:33:41: teams looking at heat wave impacts, that's one of the  
00:33:41 --> 00:33:46: areas of research we're working on now.  
00:33:46 --> 00:33:51: Umm.  
00:33:51 --> 00:33:56: A policy?  
00:33:56 --> 00:34:01: That that you know could be explored, that would make  
00:34:01 --> 00:34:06: maybe up a level would.



00:33:37 --> 00:33:38: Be.  
00:33:38 --> 00:33:39: Around.  
00:33:40 --> 00:33:45: Kind of mandatory safe temperatures for housing and then you  
00:33:45 --> 00:33:50: would let industry builders, developers figure out how they're going  
00:33:50 --> 00:33:54: to design for that standard. So I think that's generally  
00:33:54 --> 00:33:58: the path we see forward most, mostly for climate risks.  
00:33:59 --> 00:34:01: OK. Dylan, I'm just going to stay with you for  
00:34:01 --> 00:34:04: a SEC. We have a first question from people who  
00:34:04 --> 00:34:07: are tuning in. This is from Matt Strand. Dylan, do  
00:34:07 --> 00:34:10: you know of any municipality in Canada or globally that  
00:34:10 --> 00:34:13: is publicly disclosing climate risk to the public? I don't  
00:34:13 --> 00:34:15: think I know of anyone and we've done, we've done  
00:34:15 --> 00:34:18: this, covered this before and the and Matt says I  
00:34:18 --> 00:34:21: appreciate the reluctance given that if the risk is disclosed,  
00:34:21 --> 00:34:25: the municipality is responsible for managing those risks more actively.  
00:34:25 --> 00:34:26: Do I have that correct?  
00:34:28 --> 00:34:33: It's a really important question and a lot of attention  
00:34:33 --> 00:34:34: has gone into.  
00:34:35 --> 00:34:39: Risk assessments over the last three or four years within  
00:34:39 --> 00:34:40: this this space.  
00:34:41 --> 00:34:45: We've seen that the the province of BC published its  
00:34:45 --> 00:34:49: first risk assessment in in 2019. Other jurisdictions have been  
00:34:49 --> 00:34:52: doing kind of these climate risk assessments as well.  
00:34:53 --> 00:34:57: And and a few municipalities certainly some of the Lower  
00:34:57 --> 00:35:01: mainland Surrey has been a leader in this area for.  
00:35:01 --> 00:35:01: A.  
00:35:01 --> 00:35:05: Decade Calgary, and I've been 10, have just completed  
00:35:05 --> 00:35:07: some  
00:35:05 --> 00:35:07: kind of modeling work, too.  
00:35:09 --> 00:35:10: But I think.  
00:35:10 --> 00:35:10: As.  
00:35:11 --> 00:35:11: This kind of gets.  
00:35:11 --> 00:35:14: Back to what Malcolm was talking about here we we  
00:35:14 --> 00:35:17: have a, a, a growing understanding of what the risks  
00:35:17 --> 00:35:17: are.  
00:35:18 --> 00:35:20: But at the end of the day.  
00:35:21 --> 00:35:25: There is a need for more adaptive management and there's  
00:35:25 --> 00:35:29: always going to be uncertainty in terms of those risks  
00:35:29 --> 00:35:31: and part of the the key here in terms of  
00:35:32 --> 00:35:33: moving forward is.

00:35:34 --> 00:35:34: Umm.

00:35:35 --> 00:35:36: Figuring out.

00:35:36 --> 00:35:38: How to?

00:35:38 --> 00:35:42: Implement policy in a world where there is uncertainty and

00:35:42 --> 00:35:46: risk. Disclosures are an important step, but that's not going

00:35:46 --> 00:35:50: to solve the problem. So I'm not aware of municipalities

00:35:50 --> 00:35:54: that are disclosing I'm I know there are some that

00:35:54 --> 00:35:58: are doing risk assessments. There's a fine line, perhaps

00:35:58 --> 00:36:01: semantics

00:35:58 --> 00:36:01: between the two, but it's a step forward. It's not

00:36:02 --> 00:36:03: the the final step though.

00:36:04 --> 00:36:06: And I said so. I'm sorry. Not Ian, forgive me,

00:36:06 --> 00:36:08: Malcolm, I said. You're nodding your head. Did you want

00:36:08 --> 00:36:09: to weigh in?

00:36:10 --> 00:36:13: Yeah, I think it's part of the challenge that we'll

00:36:13 --> 00:36:16: always face is that the list list of physical climate

00:36:16 --> 00:36:20: hazards is extensive and it varies hugely based upon which

00:36:20 --> 00:36:24: we know which municipality we're talking about, where it

00:36:24 --> 00:36:27: situates

00:36:24 --> 00:36:27: itself in Canada, and even down, right down to the

00:36:27 --> 00:36:31: specific property level itself, there's this this full spectrum of

00:36:31 --> 00:36:36: information that needs to be managed. And unfortunately,

00:36:31 --> 00:36:36: unfortunately, generalities

00:36:36 --> 00:36:39: don't work when you're when you're looking to understand

00:36:36 --> 00:36:39: your

00:36:40 --> 00:36:40: risk.

00:36:40 --> 00:36:45: More importantly than your responses to that risk, it's.

00:36:46 --> 00:36:49: The the level of insight needed is, is significant and

00:36:49 --> 00:36:52: that places a lot of burden on on all the

00:36:52 --> 00:36:55: different parts of of the chains when we look to

00:36:55 --> 00:36:57: to what it means to to look to our urban

00:36:57 --> 00:37:02: form, what's built, what's where, how it's transferred, who's

00:36:57 --> 00:37:02: paying

00:37:02 --> 00:37:04: for what, so on and so forth.

00:37:05 --> 00:37:08: Oh, great. I have another question from Wendy Waters to

00:37:08 --> 00:37:12: everyone. I'm not sure who would want to tackle this.

00:37:12 --> 00:37:16: It's fairly specific. What are some solutions you've seen or

00:37:16 --> 00:37:16: used?

00:37:16 --> 00:37:19: Uh, to retrofit multifamily buildings for air conditioning while

00:37:16 --> 00:37:19: also

00:37:19 --> 00:37:22: trying to keep their emissions down. Why do I feel

00:37:22 --> 00:37:25: like we're going back to heat pumps and not overloading

00:37:25 --> 00:37:27: the electrical system in the building or the grid in

00:37:27 --> 00:37:30: the local area, which typically wasn't built to manage higher  
00:37:30 --> 00:37:33: electricity loads? Anybody want to take that on?  
00:37:34 --> 00:37:38: It's clear that in in BC in particular electrification, the  
00:37:38 --> 00:37:42: replacing of fossil fuel furnaces and air conditioners with with  
00:37:43 --> 00:37:46: heat pumps is low hanging fruit. That that's a solution  
00:37:46 --> 00:37:51: that's there, that's implementable today. And those that have  
are  
00:37:51 --> 00:37:56: already benefiting from reducing their emissions, keeping  
their their their  
00:37:56 --> 00:38:00: buildings either cool or hot as required. But they are  
00:38:00 --> 00:38:03: part of a building is a system, it's a network  
00:38:03 --> 00:38:05: the heating and cooling.  
00:38:05 --> 00:38:08: Only one component of it, there's building materials. So  
we've  
00:38:09 --> 00:38:12: seen the the testing and use of different building materials,  
00:38:12 --> 00:38:16: the way that buildings are insulated, glazing on windows for  
00:38:16 --> 00:38:20: example. These are all areas that are available. There's  
technology  
00:38:20 --> 00:38:24: available today to minimize emissions, so it's not just the  
00:38:24 --> 00:38:27: electrification and I often hear about the concerns of.  
00:38:27 --> 00:38:27: You know.  
00:38:28 --> 00:38:31: We're we're not going to have enough electricity to support  
00:38:31 --> 00:38:34: the totality of electrification that's needed. Well, then part of  
00:38:35 --> 00:38:35: the solution is.  
00:38:36 --> 00:38:39: Upgrading those grids and upgrading that as well. It's not  
00:38:39 --> 00:38:42: just throwing up our hands and saying we can't handle  
00:38:42 --> 00:38:45: this, therefore we shouldn't do it. The current technology is  
00:38:45 --> 00:38:50: that electrification is the lowest hanging fruit to reducing  
emissions,  
00:38:50 --> 00:38:53: and we're we're a far ways away from overloading, at  
00:38:53 --> 00:38:55: least here in the British Columbia context.  
00:38:56 --> 00:38:56: Anyone else?  
00:39:00 --> 00:39:03: Yeah, I I think it's a really important piece and  
00:39:03 --> 00:39:07: some of my colleagues at the Institute are are working  
00:39:07 --> 00:39:09: on a project over the next year to look at  
00:39:09 --> 00:39:12: heat pumps and the transition to heat pumps.  
00:39:13 --> 00:39:16: So I think there is a really important piece there.  
00:39:18 --> 00:39:20: I I do also want to point out that you  
00:39:20 --> 00:39:24: know whether we're talking about reducing emissions or  
adapting at  
00:39:24 --> 00:39:27: the end of the day we're, we're we're talking about  
00:39:27 --> 00:39:29: protecting people and.  
00:39:30 --> 00:39:33: Those 600 people that died last summer would not have

00:39:34 --> 00:39:37: died if they had air conditioning or heat pumps. And  
00:39:37 --> 00:39:39: so I think we have to.  
00:39:40 --> 00:39:40: Umm.  
00:39:42 --> 00:39:47: Start thinking about that counterfactual and you know and  
likelihood  
00:39:47 --> 00:39:49: there is going to be.  
00:39:50 --> 00:39:53: Multi pronged approach here where some buildings get  
retrofits or  
00:39:53 --> 00:39:56: feet pumps, but we also can't shy away from the  
00:39:56 --> 00:39:59: fact that some of the people are are just going  
00:39:59 --> 00:40:02: to need an air conditioning unit in their apartment to  
00:40:02 --> 00:40:03: make it a livable environment.  
00:40:06 --> 00:40:09: Yeah, I think for from my perspective it is about  
00:40:09 --> 00:40:13: a more integrated and sophisticated conversation with BC  
Hydro as  
00:40:13 --> 00:40:17: to what future electrification looks like in our urban centres.  
00:40:17 --> 00:40:21: We've got generation capacity broadly speaking, we've got  
transmission to  
00:40:21 --> 00:40:24: get it into our urban centers. Once it gets into  
00:40:24 --> 00:40:28: there, it is difficult. The the grid, the distribution system  
00:40:28 --> 00:40:32: is is certainly challenged and electric vehicles are not going  
00:40:32 --> 00:40:36: away. The move towards heat pumps is not going away.  
00:40:36 --> 00:40:39: The the need for AC is not going away. What  
00:40:39 --> 00:40:41: is it? What is the the role of smart grids?  
00:40:42 --> 00:40:47: What's the role of local generation, distributed generation  
currently with  
00:40:47 --> 00:40:50: NBC, it's really there's there's not a lot of benefit  
00:40:50 --> 00:40:54: to be seen from from doing rooftop solar systems of  
00:40:54 --> 00:40:58: significant scale. There's vast amounts of warehouse roof  
space that  
00:40:58 --> 00:41:03: is perfectly primed for significant PV generation potential.  
And so  
00:41:03 --> 00:41:05: I think it's a case of how we how we  
00:41:05 --> 00:41:06: make.  
00:41:06 --> 00:41:08: The most of them were integrated system.  
00:41:08 --> 00:41:11: And then there this may not, this may seem like  
00:41:11 --> 00:41:14: a minor step to do, but it certainly works in  
00:41:14 --> 00:41:17: some locales. And that is the this evolution of simple  
00:41:17 --> 00:41:20: thing like reflective white paint on buildings that can keep  
00:41:20 --> 00:41:24: buildings cooler as well. There's other smaller things to be  
00:41:24 --> 00:41:28: done, but you're right, it's a incredibly complicated question. I  
00:41:28 --> 00:41:30: I just want to get another one in here. How  
00:41:30 --> 00:41:33: do we gather and share data more effectively so that

00:41:33 --> 00:41:37: the average Canadian understands the impacts of climate change and

00:41:37 --> 00:41:39: what needs to change to protect people?

00:41:39 --> 00:41:43: In places as we move to more extreme weather, that's

00:41:43 --> 00:41:46: to everyone. So who wants to take that? I think

00:41:46 --> 00:41:49: that that that maybe Dylan should start us off there

00:41:49 --> 00:41:52: because you were talking about that.

00:41:54 --> 00:41:55: Yeah, it's a.

00:41:55 --> 00:41:58: This is another live conversation and and certainly we've seen

00:41:58 --> 00:42:01: the federal government moving to this area with their.

00:42:03 --> 00:42:08: Canadian Center for Climate Services, so CCCS under Environment Canada.

00:42:11 --> 00:42:13: You know, I think there's never going.

00:42:13 --> 00:42:16: To be a one stop shop for all of the

00:42:16 --> 00:42:20: different data, there's a huge continuum of data needs and

00:42:20 --> 00:42:24: users and we've also seen a lot of consulting firms

00:42:24 --> 00:42:27: really grow in this area in terms of, you know,

00:42:27 --> 00:42:32: engineering firms ability to look at climate data and think

00:42:32 --> 00:42:35: about that as they design new infrastructure.

00:42:37 --> 00:42:39: So I think, I think this is an area where

00:42:39 --> 00:42:43: we're seeing improvements. There is not going to be, I'm

00:42:43 --> 00:42:46: not confident there'll be a silver bullet ever and in

00:42:46 --> 00:42:49: this area and I think it's just going to take.

00:42:50 --> 00:42:53: Time for kind of the the data users to grow

00:42:53 --> 00:42:57: familiar, more familiar with with what's out there and how

00:42:57 --> 00:43:00: to use it. I know a lot of or there's

00:43:00 --> 00:43:03: a number of groups across the country that are are

00:43:03 --> 00:43:08: kind of setting up certificate programs for individuals that are

00:43:08 --> 00:43:12: interested in in gaining these tool sets on the job

00:43:12 --> 00:43:15: and I think that's an important area as well.

00:43:16 --> 00:43:18: Bill or Malcolm, if you want to weigh in, we've

00:43:18 --> 00:43:20: got just a short amount of time left.

00:43:23 --> 00:43:24: I see I've inspired you to speak further.

00:43:26 --> 00:43:29: I mean I'm just going yes that I think public

00:43:29 --> 00:43:32: policy as I stated earlier plays such a huge role

00:43:32 --> 00:43:36: in this and and the the collection and disclosure of

00:43:36 --> 00:43:39: data is is 1 where I do see various levels

00:43:39 --> 00:43:42: of government playing a role. You know when I look

00:43:42 --> 00:43:46: at things like energy labeling of homes and buildings that

00:43:46 --> 00:43:49: may be one that you we're going to need some

00:43:49 --> 00:43:53: some government direction and enforcement a lot of this data

00:43:53 --> 00:43:55: is out there we just don't know how.

00:43:55 --> 00:43:56: To.

00:43:56 --> 00:44:00: Collect it and bring it together. Uh, so these aren't

00:44:00 --> 00:44:04: insurmountable tasks. It's just that motivation to to make it

00:44:04 --> 00:44:06: happen and and I, you know, I do think that

00:44:07 --> 00:44:10: government is going to be the catalyst in many cases.

00:44:11 --> 00:44:13: Malcolm, I see your audio cut out. Are you back?

00:44:13 --> 00:44:14: Are you able to speak to us?

00:44:16 --> 00:44:17: I guess.

00:44:17 --> 00:44:20: Not sure. OK, well, I think we're going to leave

00:44:20 --> 00:44:23: it there. There's a few more questions and observations in

00:44:23 --> 00:44:25: the chat, but I don't think we can get to

00:44:25 --> 00:44:27: them, Rachel, because I think we're running out of time

00:44:27 --> 00:44:28: here.

00:44:32 --> 00:44:35: Hi there. Thank you so much, Laura. I appreciate that

00:44:35 --> 00:44:38: moderation. And for all of the panelists for participating in

00:44:38 --> 00:44:40: the dialogue, I think we go on for quite a

00:44:40 --> 00:44:43: while. I see there's quite a few questions here. So

00:44:43 --> 00:44:44: like I said, this is a

00:44:46 --> 00:44:48: A topic that is extremely timely. I was saying I

00:44:48 --> 00:44:51: was gardening in the backyard with my children in the

00:44:52 --> 00:44:54: heat a few weeks ago and we look out the

00:44:54 --> 00:44:57: window and they're screaming and delighted over the snow.

00:44:57 --> 00:45:00: So

00:45:00 --> 00:45:03: I don't know whether to cry or laugh when I

00:45:03 --> 00:45:06: see that. So we are seeing you know, such extreme

00:45:06 --> 00:45:09: changes in in weather and in in our air quality

00:45:09 --> 00:45:12: here in British Columbia. So thank you so much to

00:45:12 --> 00:45:15: the experts, all four of you, for being here today,

00:45:15 --> 00:45:16: for being a part of this dialogue and for sharing

00:45:16 --> 00:45:20: your expertise and insight.

00:45:16 --> 00:45:20: With us, we appreciate it very much. These events are

00:45:20 --> 00:45:24: extremely, extremely insightful to our audiences and our

00:45:24 --> 00:45:28: community. So

00:45:28 --> 00:45:31: thank you again and we encourage you to join you

00:45:31 --> 00:45:34: Li events. Check out the website, have a look to

00:45:34 --> 00:45:38: see what's coming up. A lot of education knowledge on

00:45:38 --> 00:45:41: you can find on the website ULIBC. And yes, thank

00:45:41 --> 00:45:42: you all for being here and I'll sign off from

00:45:42 --> 00:45:43: here. Thank you so much.

00:45:43 --> 00:45:43: Thank you.

00:45:44 --> 00:45:45: Thanks, Laura. Thanks, Rachel.

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