

# Webinar

## ULI Toronto: NYC's Local Law 97: North America's Green Building High Bar

Date: September 28, 2021

00:00:29 --> 00:00:33: OK, for those of you just coming in welcome before  
 00:00:33 --> 00:00:34: we start,  
 00:00:34 --> 00:00:38: we're going to run a quick video that announces our  
 00:00:38 --> 00:00:42: upcoming ESG symposium on November the 4th and will  
 send  
 00:00:42 --> 00:00:45: you some more detail in the chat as well.  
 00:00:45 --> 00:00:46: But if we could run that video.  
 00:01:16 --> 00:01:19: Good afternoon everyone. My name is Richard Joy,  
 00:01:19 --> 00:01:25: executive director of the Urban Land Institute or ULI Toronto.  
 00:01:25 --> 00:01:29: Welcome. Considered the most progressive climate laws in  
 North America,  
 00:01:29 --> 00:01:32: nor New York City's 2019,  
 00:01:32 --> 00:01:36: local law 97 is designed to aggressively reduce the city's  
 00:01:36 --> 00:01:38: overall carbon emissions by 40%  
 00:01:38 --> 00:01:40: by the end of this decade and 80%  
 00:01:40 --> 00:01:44: by 2050. Targeting buildings in all asset classes,  
 00:01:44 --> 00:01:49: future and existing. Aligned with the controversial Green New  
 Deal  
 00:01:49 --> 00:01:49: agenda,  
 00:01:49 --> 00:01:52: local 97 is intended to be the cornerstone,  
 00:01:52 --> 00:01:57: a cornerstone of outgoing. Their de Blasio's legacy.  
 00:01:57 --> 00:01:58: But is such a standard,  
 00:01:58 --> 00:02:03: achievable? And should Canadian miss a pallet ease  
 realistically embraced such  
 00:02:03 --> 00:02:03: ambition?  
 00:02:03 --> 00:02:07: Factoring economics, affordability concerns, etc.  
 00:02:07 --> 00:02:11: We have set up our program today to learn some  
 00:02:11 --> 00:02:14: more about this New York City law and explore these  
 00:02:14 --> 00:02:18: questions in the context of the greater Golden Horseshoe.

00:02:18 --> 00:02:20: As a Toronto region based organization,  
00:02:20 --> 00:02:23: we acknowledged the land we are meeting on.  
00:02:23 --> 00:02:26: Virtually is the traditional territory of many nations,  
00:02:26 --> 00:02:28: including the Mississauga's of the credit,  
00:02:28 --> 00:02:31: the NS now back, the Chippewa Hood,  
00:02:31 --> 00:02:34: masoni, the Wendet peoples and is now home to many  
00:02:34 --> 00:02:35: diverse First Nations,  
00:02:35 --> 00:02:40: Inuit and Metis people. We acknowledge that Toronto is covered  
00:02:40 --> 00:02:43: by Treaty 13 with the Mississaugas of the credit.  
00:02:43 --> 00:02:45: We are all treated people.  
00:02:45 --> 00:02:47: Many of us have come here as settlers,  
00:02:47 --> 00:02:52: immigrants and newcomers in this generation or generations past.  
00:02:52 --> 00:02:56: Importantly, this week ULI stands in solidarity with indigenous communities,  
00:02:56 --> 00:03:01: demanding action and accountability for the ongoing legacy of the  
00:03:01 --> 00:03:03: residential school system.  
00:03:03 --> 00:03:06: You will I stand, I apologize,  
00:03:06 --> 00:03:09: we acknowledge and honor those we also like,  
00:03:09 --> 00:03:13: but acknowledge and honor those who've come here involuntarily.  
00:03:13 --> 00:03:17: Particularly descendants from those who were brought here through enslavement.  
00:03:17 --> 00:03:20: To better understand the meaning behind this land acknowledgement,  
00:03:20 --> 00:03:24: we recommend four programs that we have uploaded to YouTube  
00:03:24 --> 00:03:28: and these links will be made available in the attack.  
00:03:28 --> 00:03:31: 13,000 years of indigenous history in the GTA and why  
00:03:31 --> 00:03:33: it matters to planning and development.  
00:03:33 --> 00:03:35: Whose land and whose law?  
00:03:35 --> 00:03:40: Indigenous Toronto the stories are city paved over and colonialism  
00:03:40 --> 00:03:45: enslavement and abolition in the greater Golden Horseshoe.  
00:03:45 --> 00:03:48: A few house items housekeeping items before we start.  
00:03:48 --> 00:03:51: Everybody obviously will be automatically mute throughout the session.  
00:03:51 --> 00:03:55: To avoid audio interference. Closed captioning is available for this  
00:03:55 --> 00:03:57: session and you can access it by the button along  
00:03:57 --> 00:03:59: the bottom of the zoom platform.  
00:03:59 --> 00:04:02: If you have any questions and we encourage them,

00:04:02 --> 00:04:05: please use the Q&A function or up vote questions by  
00:04:05 --> 00:04:08: pressing the thumbs up button and will have probably about  
00:04:08 --> 00:04:10: 10 minutes at the end of this program.  
00:04:10 --> 00:04:13: For those, this is a recorded session at.  
00:04:13 --> 00:04:16: The recording will be sent to you after.  
00:04:16 --> 00:04:20: And if you want to take the conversation to social  
00:04:20 --> 00:04:20: media,  
00:04:20 --> 00:04:24: please tag us with the Twitter handle at Uli Toronto  
00:04:24 --> 00:04:25: or the hashtag.  
00:04:25 --> 00:04:30: Ask great questions. Today's event and all other UI  
programming  
00:04:30 --> 00:04:34: simply would not be possible without our annual sponsors,  
00:04:34 --> 00:04:37: and I'd like to say a major thank you for  
00:04:37 --> 00:04:39: all of them for that support.  
00:04:39 --> 00:04:41: Truly, now more than ever,  
00:04:41 --> 00:04:44: we rely on the support of these annual sponsors who  
00:04:44 --> 00:04:47: enable us to put on the quality program we do  
00:04:47 --> 00:04:49: to drive our mission to shape the future of the  
00:04:49 --> 00:04:54: built environment. For transformative impact in communities  
worldwide.  
00:04:54 --> 00:04:55: So again, to all of them,  
00:04:55 --> 00:04:58: we say thank you. An extra thank you to Cadillac  
00:04:58 --> 00:04:59: Fairview,  
00:04:59 --> 00:05:01: the annual sponsor of the UI Connect committee,  
00:05:01 --> 00:05:06: that's our committee that is comprised mostly of members  
under  
00:05:06 --> 00:05:09: 35 and we think and and who's program who produced  
00:05:09 --> 00:05:10: this.  
00:05:10 --> 00:05:13: Program today and we'd like to thank them and the  
00:05:13 --> 00:05:15: committee for their activity.  
00:05:15 --> 00:05:18: A quick note on membership.  
00:05:18 --> 00:05:21: Uh, October 1st our head office,  
00:05:21 --> 00:05:25: I guess recognizing that that that you like Toronto,  
00:05:25 --> 00:05:27: and you're like Canada, has grown significantly.  
00:05:27 --> 00:05:30: We are now the largest chapter in the global environment,  
00:05:30 --> 00:05:35: but our membership prices are significantly lower than they  
are  
00:05:35 --> 00:05:39: globally and certainly tested the border.  
00:05:39 --> 00:05:42: And there's going to be a stepping up of the  
00:05:42 --> 00:05:43: prices on October 1st,  
00:05:43 --> 00:05:47: but you can save. That yourself from that increase for  
00:05:47 --> 00:05:48: at least a year,  
00:05:48 --> 00:05:50: no matter when your anniversary date is.

00:05:50 --> 00:05:53: If you remember, if you're a new member to become  
00:05:53 --> 00:05:54: a member before October 1st,  
00:05:54 --> 00:05:57: but the prices will go up about 30%  
00:05:57 --> 00:06:01: on October 1st. To close that gap with the Canadian  
00:06:01 --> 00:06:03: membership value being so,  
00:06:03 --> 00:06:08: so great right now, please consider renewing or becoming a  
00:06:08 --> 00:06:09: member.  
00:06:09 --> 00:06:13: Enough advertising we're going to move now to our session  
00:06:13 --> 00:06:17: for today and I'm gonna say I'm gonna come back  
00:06:17 --> 00:06:19: in the Q&A session.  
00:06:19 --> 00:06:23: But it's now my great pleasure to introduce our moderator,  
00:06:23 --> 00:06:27: who in turn is going to introduce our panelists so  
00:06:27 --> 00:06:30: our our moderator is Sandra Oh Doll,  
00:06:30 --> 00:06:34: who's the Vice President of Social Impact and Sustainability  
at  
00:06:34 --> 00:06:35: Scotiabank?  
00:06:35 --> 00:06:37: So we agreed that will put the remainder of the  
00:06:38 --> 00:06:40: details in the chat for you to follow up.  
00:06:40 --> 00:06:41: Same with all the other panelists,  
00:06:41 --> 00:06:44: so with with very minimal introduction.  
00:06:44 --> 00:06:46: Sandra, it's my pleasure to hand it over to you.  
00:06:48 --> 00:06:50: Thank you very much, Richard.  
00:06:50 --> 00:06:53: Come yes, thank you and welcome to everyone who's joining  
00:06:53 --> 00:06:54: the session today.  
00:06:54 --> 00:06:56: I think it's it's going to be interesting.  
00:06:56 --> 00:07:00: I certainly found doing my own reading and speaking to  
00:07:00 --> 00:07:02: the panel is was fascinating,  
00:07:02 --> 00:07:05: so I'd like to introduce our four panelists and so  
00:07:05 --> 00:07:09: hopefully everyone's got their cameras on as well as the  
00:07:09 --> 00:07:12: you'll see their pictures up here on the screen.  
00:07:12 --> 00:07:14: So first we have Christopher,  
00:07:14 --> 00:07:17: Kate, and so Christopher is the partner and senior director  
00:07:18 --> 00:07:18: of Strategic.  
00:07:18 --> 00:07:23: That code green solutions. We also have Stewart debt field  
00:07:23 --> 00:07:28: Stewart is acting manager of public energy initiatives offer  
existing  
00:07:29 --> 00:07:34: buildings within the City of Toronto's Environment and  
Energy Division.  
00:07:34 --> 00:07:39: We've got Kirk Johnson. Kirk is president of Eco Efficiency  
00:07:39 --> 00:07:42: Consulting and last but not least,  
00:07:42 --> 00:07:46: we have Julia Langer. Julia is CEO of the Atmospheric  
00:07:46 --> 00:07:46: Fund,  
00:07:46 --> 00:07:50: also known as the Toronto Atmospheric Fund here in

Toronto.

00:07:50 --> 00:07:55: So for today's session we thought we would kick things  
00:07:55 --> 00:07:57: off with Chris of Code,  
00:07:57 --> 00:08:00: Green Solutions giving us an overview of how New York  
00:08:00 --> 00:08:05: City's local law 97 worth and following Christmas  
presentation will  
00:08:05 --> 00:08:08: then turn it over to a bit of a panel  
00:08:08 --> 00:08:13: discussion and some opportunities for the audience to ask  
their  
00:08:13 --> 00:08:14: own questions.  
00:08:14 --> 00:08:17: So with that, I'm going to turn it over to  
00:08:17 --> 00:08:19: Chris Caton and Chris.  
00:08:19 --> 00:08:21: We're looking forward to hearing.  
00:08:21 --> 00:08:24: More about local I97 over to you.  
00:08:25 --> 00:08:27: Sandra, thank you so much.  
00:08:27 --> 00:08:29: I will see if I can get my screen to  
00:08:29 --> 00:08:30: share properly.  
00:08:30 --> 00:08:32: That's always the first challenge.  
00:08:37 --> 00:08:44: Run. And switch. Does that look good?  
00:08:44 --> 00:08:46: Can you see the slides here?  
00:08:46 --> 00:08:50: Terrific, thank you Sandra. Thank you so much and thank  
00:08:50 --> 00:08:54: you to Richard and the ULI Toronto and ULI greater  
00:08:54 --> 00:08:57: for connecting me in New York City to the ULI  
00:08:57 --> 00:08:59: Toronto team. I'm really excited to be here.  
00:08:59 --> 00:09:01: I've spent a little bit of time in Toronto,  
00:09:01 --> 00:09:04: but probably not enough, and I've spent the last 13  
00:09:04 --> 00:09:07: years of my life in New York City before that.  
00:09:07 --> 00:09:10: About five years in Hong Kong and Madrid and Latin  
00:09:10 --> 00:09:10: America.  
00:09:10 --> 00:09:14: So you know, seeing? A lot of impacts of climate  
00:09:14 --> 00:09:15: change and loss.  
00:09:15 --> 00:09:18: A lot of really great work that you lie is  
00:09:18 --> 00:09:20: doing all over the world,  
00:09:20 --> 00:09:23: essentially to push climate. I have to admit finding quick  
00:09:23 --> 00:09:24: story about you.  
00:09:24 --> 00:09:25: Well, I when I was in architecture school I thought  
00:09:25 --> 00:09:26: you will.  
00:09:26 --> 00:09:29: I was only an environmental organization around real estate.  
00:09:29 --> 00:09:31: I had no idea, never touched any other topics of  
00:09:31 --> 00:09:32: real estate,  
00:09:32 --> 00:09:34: only the environment. So that's that's where you will.  
00:09:34 --> 00:09:37: I started for me back in College in architecture school.

00:09:37 --> 00:09:39: So really glad to be here.

00:09:39 --> 00:09:41: I will try to keep this brief on this presentation

00:09:41 --> 00:09:43: so we can get into.

00:09:43 --> 00:09:45: Some discussion and move that forward.

00:09:45 --> 00:09:48: So as Sandra mentioned, I'm Chris Kate and I'm a

00:09:48 --> 00:09:51: partner at Code Green and Senior Director of Growth Code

00:09:51 --> 00:09:52: Green.

00:09:52 --> 00:09:54: Just a little bit of context of kind of where

00:09:54 --> 00:09:57: I'm coming from and how I see this law and

00:09:57 --> 00:09:59: the involvement I've had in this law.

00:09:59 --> 00:10:02: Based on my experience, both professionally and a lot of

00:10:02 --> 00:10:04: pro bono work that I've done code.

00:10:04 --> 00:10:05: Green is a consulting firm.

00:10:05 --> 00:10:09: We do energy and sustainability consulting to the to the

00:10:09 --> 00:10:10: real estate industry.

00:10:10 --> 00:10:13: We have about 50 plus staff where based.

00:10:13 --> 00:10:14: Primarily in New York City,

00:10:14 --> 00:10:17: really with staff all over North America all across EU

00:10:17 --> 00:10:18: S Some in Canada,

00:10:18 --> 00:10:20: some in and some in Mexico.

00:10:20 --> 00:10:24: But we provide really strategic portfolio and technical

00:10:24 --> 00:10:25: solutions to

00:10:24 --> 00:10:25: building,

00:10:25 --> 00:10:28: so we've really seen the types of initiatives that are

00:10:28 --> 00:10:32: required in order to meet these types of stringent goals.

00:10:32 --> 00:10:34: And that's really why the city asks us to be

00:10:34 --> 00:10:38: involved with some of the negotiations and discussion around

00:10:38 --> 00:10:39: the

00:10:38 --> 00:10:39: development of this law.

00:10:39 --> 00:10:41: Because we've been involved with the real estate industry for

00:10:41 --> 00:10:42: so long.

00:10:42 --> 00:10:44: Supporting these types of initiatives.

00:10:44 --> 00:10:47: That the building owners are are pushing for.

00:10:47 --> 00:10:50: We do work with a lot of great large investors.

00:10:50 --> 00:10:53: Many you align Members as well looking not only at

00:10:53 --> 00:10:54: individual assets,

00:10:54 --> 00:10:57: but portfolio wide. How do they push ESG initiatives forward

00:10:57 --> 00:10:59: now over the last say two years?

00:10:59 --> 00:11:02: How do you target net zero both at the individual

00:11:02 --> 00:11:05: asset level but also as a corporate policy?

00:11:05 --> 00:11:08: So again, that really does require us to look at

00:11:09 --> 00:11:10: multiple geographies,

00:11:10 --> 00:11:14: multiple jurisdictions to understand how these laws are impacting.

00:11:14 --> 00:11:19: Both existing and potentially new buildings in New York.

00:11:19 --> 00:11:22: Specifically, we have been working hand in hand with many

00:11:22 --> 00:11:26: of the organizations that really create the pathway that that

00:11:26 --> 00:11:28: real estate owners,

00:11:28 --> 00:11:31: operators and developers need to navigate everything from the New

00:11:31 --> 00:11:33: York City Mayor's Office,

00:11:33 --> 00:11:37: which has the one that really oversees and actually writes

00:11:37 --> 00:11:38: many of these laws.

00:11:38 --> 00:11:42: Some of the programs that manage these types of policies

00:11:42 --> 00:11:44: and create tools to allow compliance.

00:11:44 --> 00:11:48: Like EU. S EPA Energy Star platform,

00:11:48 --> 00:11:50: we are a Energy Star port.

00:11:50 --> 00:11:52: Excuse me, Energy Star partner of the year for a

00:11:52 --> 00:11:53: number of years now,

00:11:53 --> 00:11:57: dating back to 2017 and many other organizations within New

00:11:57 --> 00:12:00: York City on the building owner side between the building

00:12:00 --> 00:12:04: Boehme and Rodney who really represent most of the building

00:12:04 --> 00:12:06: owners and operators in New York City,

00:12:06 --> 00:12:09: as well as the programs like Urban Green and Nicer

00:12:09 --> 00:12:12: to that really are not just the the sticks that

00:12:12 --> 00:12:13: the city puts out,

00:12:13 --> 00:12:15: but some of the carrots in terms of the knowledge.

00:12:15 --> 00:12:18: The financial incentives. So we've really helped to organize many

00:12:18 --> 00:12:21: of and and work with many of the constituents that

00:12:21 --> 00:12:24: really create the landscape that the building owners have to

00:12:24 --> 00:12:27: navigate. So that's a little bit about us and me.

00:12:27 --> 00:12:29: I'm an architect. By training.

00:12:29 --> 00:12:31: I've been doing architecture for about.

00:12:31 --> 00:12:33: I did architecture for about 12 years,

00:12:33 --> 00:12:36: then real estate development and now sustainability consulting.

00:12:36 --> 00:12:39: So I spend most of my time working with private

00:12:39 --> 00:12:42: building owners to navigate these types of goals and targets,

00:12:42 --> 00:12:44: but I spend probably about 20%

00:12:44 --> 00:12:46: of my time pro bono working with.

00:12:46 --> 00:12:48: Policy makers like the New York City Mayor's office,

00:12:48 --> 00:12:51: so that's kind of how we've come to learn a

00:12:51 --> 00:12:54: lot about how these policies are built and have our  
00:12:54 --> 00:12:57: own opinions about how they've all turned out.  
00:12:57 --> 00:12:59: So of course, they're still in the works,  
00:12:59 --> 00:13:01: so taking a little bit of a step back,  
00:13:01 --> 00:13:02: many of you probably know this.  
00:13:02 --> 00:13:03: If you're on this call,  
00:13:03 --> 00:13:06: but always like to start with some context globally.  
00:13:06 --> 00:13:09: Buildings represent about 40% of our carbon footprint.  
00:13:09 --> 00:13:11: That's not only in the operations,  
00:13:11 --> 00:13:15: but in both embodied carbon and the operations of buildings.  
00:13:15 --> 00:13:18: But in large cities. Like New York City,  
00:13:18 --> 00:13:20: I'm interested to know if it's similar in Toronto.  
00:13:20 --> 00:13:22: I believe it probably is.  
00:13:22 --> 00:13:23: Building is account for about 70%  
00:13:23 --> 00:13:26: of the carbon footprint in most large cities.  
00:13:26 --> 00:13:30: That's because transportation industry, many of these other  
areas are  
00:13:30 --> 00:13:33: just far smaller in these dense urban cores.  
00:13:33 --> 00:13:37: So when buildings represent such a high level high  
percentage  
00:13:37 --> 00:13:39: of carbon emissions in these cities,  
00:13:39 --> 00:13:42: when cities create these carbon action plans,  
00:13:42 --> 00:13:45: which are long term plans to reduce carbon emissions,  
00:13:45 --> 00:13:48: city building owners building developers.  
00:13:48 --> 00:13:51: Building operators usually have a very big role to play  
00:13:51 --> 00:13:55: in helping cities target those those initiatives and achieve  
those  
00:13:55 --> 00:13:58: ambitious carbon emissions initiatives.  
00:13:58 --> 00:14:00: I almost always start with a slide like this.  
00:14:00 --> 00:14:03: This is thanks to IMT the Institute for Market Transformation.  
00:14:03 --> 00:14:06: If you're not familiar with that organization,  
00:14:06 --> 00:14:08: [imt.org](http://imt.org) is a great site.  
00:14:08 --> 00:14:10: They they do track a lot of these types of  
00:14:10 --> 00:14:11: policies around the US.  
00:14:11 --> 00:14:15: I think we're going to have to start increasing this  
00:14:15 --> 00:14:18: map so that we can see this more even outside  
00:14:18 --> 00:14:18: of the US.  
00:14:18 --> 00:14:22: But they are instrumental in supporting the development of  
these  
00:14:22 --> 00:14:25: types of policies and also our great resource to find  
00:14:25 --> 00:14:28: especially where the latest is on some of these policies.  
00:14:28 --> 00:14:31: This map has grown from just a few cities,  
00:14:31 --> 00:14:33: essentially that about 10 years ago,



00:14:33 --> 00:14:37: New York DC started out by requiring just basic transparency  
00:14:37 --> 00:14:40: around energy use in buildings.  
00:14:40 --> 00:14:43: So just an annual process where every building owner of  
00:14:43 --> 00:14:45: a certain size has to submit in a years worth  
00:14:45 --> 00:14:48: of energy used to the city so the city can  
00:14:48 --> 00:14:52: get to. Understand the building stock and to understand the  
00:14:52 --> 00:14:53: energy use trends.  
00:14:53 --> 00:14:57: These types of benchmarking laws proliferated from New  
York and  
00:14:57 --> 00:14:58: DC to many,  
00:14:58 --> 00:15:01: many other locations. That was just the beginning of  
transparency.  
00:15:01 --> 00:15:04: These early laws did not require buildings to do anything,  
00:15:04 --> 00:15:07: they just to make any improvements.  
00:15:07 --> 00:15:11: It just required them to to share that information.  
00:15:11 --> 00:15:14: IMT as a brand new map which starts starts out  
00:15:14 --> 00:15:16: looking like this today.  
00:15:16 --> 00:15:19: Just as the benchmarking map did say 12 years ago,  
00:15:19 --> 00:15:22: this is the new map for performance standards.  
00:15:22 --> 00:15:25: So BEPS BPS building performance standards seems to be  
the  
00:15:25 --> 00:15:28: term of art these days that talks about these regulatory  
00:15:28 --> 00:15:32: limits and requirements on actual building performance.  
00:15:32 --> 00:15:35: So instead of just requiring a building owner to submit  
00:15:35 --> 00:15:38: their data to the city and publish that information about  
00:15:38 --> 00:15:39: their energy performance,  
00:15:39 --> 00:15:43: these types of regulations. Actually require buildings to hit a  
00:15:44 --> 00:15:48: minimum performance or bear some type of penalty or  
compliance  
00:15:48 --> 00:15:49: payment if they don't,  
00:15:49 --> 00:15:51: so I'm sure in the next you know it'll be  
00:15:51 --> 00:15:52: months,  
00:15:52 --> 00:15:55: not years. This map will look just like this map  
00:15:55 --> 00:15:56: does,  
00:15:56 --> 00:15:58: with many more jurisdictions, so New York City was one  
00:15:58 --> 00:16:01: of the first New York and DC are always duking  
00:16:01 --> 00:16:03: it out as to which one I think DC passed  
00:16:03 --> 00:16:06: the bill, but New York's went into effect sooner,  
00:16:06 --> 00:16:09: so we're often duking it out.  
00:16:09 --> 00:16:11: So I do have a couple comparisons here for some  
00:16:11 --> 00:16:11: context.  
00:16:11 --> 00:16:16: Again, this is being recorded so people can go back,  
00:16:16 --> 00:16:17: pause it, and look more in depth.

00:16:17 --> 00:16:18: So I'm not going to read through all of these,  
00:16:18 --> 00:16:20: but I have a few cities here and I do  
00:16:20 --> 00:16:23: like to highlight kind of the areas and the structures  
00:16:23 --> 00:16:27: of these different policies across different cities just to get  
00:16:27 --> 00:16:28: a sense of what are some of these nuances.  
00:16:28 --> 00:16:32: What are some of these differences understanding,  
00:16:32 --> 00:16:36: typically within a city? What is the the building representative  
00:16:36 --> 00:16:37: carbon emissions?  
00:16:37 --> 00:16:39: What is the metric that that city chose to use?  
00:16:39 --> 00:16:41: There are a few options there.  
00:16:41 --> 00:16:43: The timeline. Of when this will go into effect,  
00:16:43 --> 00:16:48: whether or not offsite actions like purchasing renewable  
certificates or  
00:16:48 --> 00:16:49: carbon offsets,  
00:16:49 --> 00:16:54: if those are allowed. Understanding what the states  
renewable electricity  
00:16:54 --> 00:16:57: target is and what that regions renewable electricity target is,  
00:16:57 --> 00:17:01: because that really does impact how you are pushing  
building  
00:17:01 --> 00:17:03: owners to reduce carbon emissions.  
00:17:03 --> 00:17:06: Is it through moving to an all electric building and  
00:17:06 --> 00:17:07: electrification as it's called?  
00:17:07 --> 00:17:10: Or is it? Other means has a lot to do  
00:17:10 --> 00:17:12: with what that regions?  
00:17:12 --> 00:17:15: Renewable electricity target is in that timeline,  
00:17:15 --> 00:17:19: the fine structure. Again, cities have taken different  
approaches to  
00:17:19 --> 00:17:20: this and then the engagement process.  
00:17:20 --> 00:17:23: So for New York City you can see the stats  
00:17:23 --> 00:17:24: that are up here.  
00:17:24 --> 00:17:26: I do finally have to update the bottom of this,  
00:17:26 --> 00:17:30: which says the industry engagement process essentially  
came after this  
00:17:30 --> 00:17:30: law was passed.  
00:17:30 --> 00:17:34: So some other cities you'll see the engagement process was  
00:17:34 --> 00:17:36: really prior to the law being passed.  
00:17:36 --> 00:17:40: NYC essentially put the law on the books with with  
00:17:40 --> 00:17:42: this framework and then created a pretty.  
00:17:42 --> 00:17:47: A pretty robust engagement process with the industry  
experts,  
00:17:47 --> 00:17:51: not with average population but with industry experts to  
weigh  
00:17:51 --> 00:17:52: in on that process.

00:17:52 --> 00:17:54: Washington DC is doesn't look terribly different,  
00:17:54 --> 00:17:57: but I will highlight here that instead of carbon emissions  
00:17:57 --> 00:17:58: per square foot per year,  
00:17:58 --> 00:18:02: Washington DC has chosen to use the EPA Energy Star  
00:18:02 --> 00:18:05: score as their compliance metric.  
00:18:05 --> 00:18:08: So not going to go into exactly all those nuances.  
00:18:08 --> 00:18:10: But Energy Star does account not only for your carbon  
00:18:11 --> 00:18:11: emissions,  
00:18:11 --> 00:18:15: but some other uses within the building and normalizes for  
00:18:15 --> 00:18:18: them so they do have the option of switching over  
00:18:18 --> 00:18:20: to a GHG metric in 2023 if they feel that  
00:18:20 --> 00:18:22: would be a help them align.  
00:18:22 --> 00:18:24: And hit their citywide targets.  
00:18:24 --> 00:18:27: Similar fine structure. If you look at this fine structure  
00:18:27 --> 00:18:29: over over the same course of time,  
00:18:29 --> 00:18:32: these are in the dollar to \$2 square foot fine  
00:18:32 --> 00:18:33: structure as well,  
00:18:33 --> 00:18:36: and they really did have a robust engagement process.  
00:18:36 --> 00:18:41: Boston actually just enacted past their law a week ago,  
00:18:41 --> 00:18:43: so a lot of this is brand brand new.  
00:18:43 --> 00:18:47: They did set their targets using GHT per square foot.  
00:18:47 --> 00:18:50: They are allowing some renewable certificates,  
00:18:50 --> 00:18:53: but only locally sourced, which is similar to New York  
00:18:53 --> 00:18:53: City.  
00:18:53 --> 00:18:56: Rule and then the fine structure is actually quite similar  
00:18:56 --> 00:18:57: to New York's.  
00:18:57 --> 00:19:01: You know, in a similar order of magnitude and that  
00:19:01 --> 00:19:04: payment actually will go into a fund to help fund  
00:19:04 --> 00:19:05: retrofit projects,  
00:19:05 --> 00:19:07: which is a great use of those types of funds.  
00:19:07 --> 00:19:10: It's not considered a fine or a violation.  
00:19:10 --> 00:19:14: It's considered a compliance payment that goes to fund other  
00:19:14 --> 00:19:15: types of upgrade projects.  
00:19:15 --> 00:19:17: So as you saw the,  
00:19:17 --> 00:19:19: there are variations and programs.  
00:19:19 --> 00:19:22: There are variations in the types of decisions they make  
00:19:22 --> 00:19:23: around each of these.  
00:19:23 --> 00:19:26: Usually that are crafted and the direction is comes from  
00:19:27 --> 00:19:30: how it aligns with the city or the region's broader  
00:19:30 --> 00:19:33: climate action plan and how they're trying to mitigate  
emissions.  
00:19:33 --> 00:19:37: Again, all of these pieces really need to work together

00:19:37 --> 00:19:41: with relation to the current utilities that are available in  
00:19:41 --> 00:19:42: an area.  
00:19:42 --> 00:19:44: What are those utility grids?  
00:19:44 --> 00:19:46: Can they be repurposed? How?  
00:19:46 --> 00:19:49: How are you? Working with everyone that supplies gas,  
00:19:49 --> 00:19:52: electricity, New York City has a central steam system as  
00:19:52 --> 00:19:56: well that building owners are working with to understand how  
00:19:56 --> 00:19:57: to decarbonize that too.  
00:19:57 --> 00:20:00: So these pieces are all very much in need to  
00:20:00 --> 00:20:03: work in concert and then one of the last pieces  
00:20:03 --> 00:20:04: time of use.  
00:20:04 --> 00:20:06: Carbon emissions is kind of the state of the art.  
00:20:06 --> 00:20:10: This question of wonder identifying if the carbon emissions of  
00:20:10 --> 00:20:13: the electricity grid is say worse in the middle of  
00:20:13 --> 00:20:14: the day,  
00:20:14 --> 00:20:16: 'cause you're running peaker plants and some of these gas  
00:20:16 --> 00:20:16: plans,  
00:20:16 --> 00:20:17: but it may be. Better at night.  
00:20:17 --> 00:20:19: Maybe you're getting more wind,  
00:20:19 --> 00:20:23: and in those times, could you actually regulate compliance  
based  
00:20:23 --> 00:20:24: on time of use emissions?  
00:20:24 --> 00:20:27: So there's a lot of factors that go into making  
00:20:27 --> 00:20:30: a successful program so to jump into New York City  
00:20:30 --> 00:20:30: specifically,  
00:20:30 --> 00:20:32: this is a dense slide,  
00:20:32 --> 00:20:33: but I think it tries to.  
00:20:33 --> 00:20:35: I've tried to summarize kind of a long history of  
00:20:36 --> 00:20:37: New York City climate plans.  
00:20:37 --> 00:20:41: This is really specifically only to the building sector back  
00:20:41 --> 00:20:41: in 2005.  
00:20:41 --> 00:20:44: Under Bloomberg he created was called plan YC.  
00:20:44 --> 00:20:47: At that point they had a.  
00:20:47 --> 00:20:49: I guess it was 30 by 30 was that was  
00:20:49 --> 00:20:53: the the really big splash was let's reduce our carbon  
00:20:53 --> 00:20:54: footprint 30%  
00:20:54 --> 00:20:56: by 2030 from 2005 levels.  
00:20:56 --> 00:20:58: As you can see, that's been ratcheted up.  
00:20:58 --> 00:21:00: Then it became 40, then it became 80.  
00:21:00 --> 00:21:02: Now it's essentially carbon neutral by 2050,  
00:21:02 --> 00:21:05: so in that course of that history,  
00:21:05 --> 00:21:07: in 2009, a number of laws were passed in New

00:21:07 --> 00:21:10: York City under what they called the green are the  
00:21:10 --> 00:21:10: greeter?  
00:21:10 --> 00:21:13: Excuse me, the greener, greater buildings plan.  
00:21:13 --> 00:21:16: I helped to work on that.  
00:21:16 --> 00:21:18: The development of those laws.  
00:21:18 --> 00:21:22: And that really paved the way and created the foundation  
00:21:22 --> 00:21:23: for the collecting.  
00:21:23 --> 00:21:27: The data that the city policy makers needed in order  
00:21:28 --> 00:21:32: to build an emissions compliance law like local on 97.  
00:21:32 --> 00:21:35: So it's really only because of both the energy data  
00:21:35 --> 00:21:38: that's been collected from what's called local law 84,  
00:21:38 --> 00:21:43: which is annual Energy Star benchmarking and the  
equipment level  
00:21:43 --> 00:21:47: data which is collected by local law 87 where buildings  
00:21:47 --> 00:21:49: have to do energy audits and.  
00:21:49 --> 00:21:54: Energy and HVAC mechanical equipment.  
00:21:54 --> 00:21:57: Uh, road maps and essentially equipment lists.  
00:21:57 --> 00:22:01: That information was pivotal in being able to develop a  
00:22:01 --> 00:22:02: law like local law 97.  
00:22:02 --> 00:22:05: There have been a lot of other laws that are  
00:22:05 --> 00:22:07: listed up here that have been kind of baby steps  
00:22:07 --> 00:22:10: to getting building owners to think about these types of  
00:22:10 --> 00:22:13: these ideas clearly local on 97 is really the major  
00:22:14 --> 00:22:17: milestone that says this is performance based.  
00:22:17 --> 00:22:18: We don't care how you get here,  
00:22:18 --> 00:22:22: but you need to hit this certain emissions by a  
00:22:22 --> 00:22:23: certain year.  
00:22:23 --> 00:22:25: So just a quick aside to understand a little bit  
00:22:25 --> 00:22:26: about the housing stock.  
00:22:26 --> 00:22:28: This made that the building stock.  
00:22:28 --> 00:22:29: This may come back to our just into our discussion  
00:22:29 --> 00:22:30: a little bit,  
00:22:30 --> 00:22:33: but to give you all a little bit of background  
00:22:33 --> 00:22:34: NYC essentially,  
00:22:34 --> 00:22:37: you know most of the buildings by count our multifamily  
00:22:37 --> 00:22:38: buildings,  
00:22:38 --> 00:22:40: but most of the you know the high rise buildings  
00:22:41 --> 00:22:43: are office buildings and that's what you think of the  
00:22:43 --> 00:22:44: New York City.  
00:22:44 --> 00:22:46: But about 2/3 of the square footage in 2/3 of  
00:22:46 --> 00:22:50: their missions actually come from residential and multifamily  
buildings.

00:22:50 --> 00:22:53: So when you think about tackling carbon emissions across the

00:22:53 --> 00:22:54: city,

00:22:54 --> 00:22:58: we really have to tackle existing multifamily mid and high-rise

00:22:58 --> 00:23:03: buildings to reduce carbon emissions of the existing housing stock.

00:23:03 --> 00:23:07: These laws, local on 97 at the moment,

00:23:07 --> 00:23:12: only impacts buildings, 25,000 square feet and above.

00:23:12 --> 00:23:14: So the way local law 97 works just to get

00:23:14 --> 00:23:16: into the little weeds and give us a little bit

00:23:16 --> 00:23:18: of context for the discussion later.

00:23:18 --> 00:23:23: Local 97 essentially put in place carbon emissions limits per

00:23:23 --> 00:23:24: square foot.

00:23:24 --> 00:23:28: For based on various building type usages and essentially they

00:23:28 --> 00:23:31: did this by using leveraging all of that data they

00:23:31 --> 00:23:35: had collected over 10 years and striking these two lines,

00:23:35 --> 00:23:39: striking a 20th percentile line and striking and 80th percentile

00:23:39 --> 00:23:42: line based on these types of functions that they saw

00:23:42 --> 00:23:44: within the existing building stock.

00:23:44 --> 00:23:49: So roughly the first deadline essentially impacts only buildings that

00:23:49 --> 00:23:53: are the worst 20th percent of that type of building,

00:23:53 --> 00:23:56: and this next performance. Period beginning in 2030 hits the

00:23:57 --> 00:23:57: 80th percentile.

00:23:57 --> 00:24:00: So statistically speaking, if you're an average building,

00:24:00 --> 00:24:04: you will be fine under the first performance period,

00:24:04 --> 00:24:06: you will hit those limits,

00:24:06 --> 00:24:09: but by 2030 you'll need to make reductions and then

00:24:09 --> 00:24:13: beginning in 2035 they haven't announced yet what those targets

00:24:13 --> 00:24:14: will be,

00:24:14 --> 00:24:19: but the goal ultimately is carbon neutral by 2050.

00:24:19 --> 00:24:21: So I have another slide in the moment to kind

00:24:21 --> 00:24:24: of shows how you apply those limits to your buildings,

00:24:24 --> 00:24:26: but some of the rest of the structure of this

00:24:26 --> 00:24:26: law,

00:24:26 --> 00:24:29: in addition to the emissions limits per property type,

00:24:29 --> 00:24:31: are some other accommodations as you do when you get

00:24:31 --> 00:24:34: into the weeds of this within the building stock in

00:24:34 --> 00:24:34: your own city,

00:24:34 --> 00:24:38: there's nonprofits, there's schools, there's public housing.

00:24:38 --> 00:24:41: There's a lot of different types of buildings that they

00:24:41 --> 00:24:44: had to create some different kind of different landing paths  
00:24:44 --> 00:24:47: for those various types of buildings you know,  
00:24:47 --> 00:24:49: based on age based on ability to pay.  
00:24:49 --> 00:24:50: Some of those other types of impacts,  
00:24:50 --> 00:24:54: so there are some alternative compliance for certain types of  
00:24:54 --> 00:24:58: buildings they are currently working on some adjustments  
and variances  
00:24:58 --> 00:25:01: depending on some of these heavier types of users.  
00:25:01 --> 00:25:05: It's phone switching. You know some of these really did  
00:25:05 --> 00:25:07: heavy data users and then the fine structure.  
00:25:07 --> 00:25:13: As I mentioned, they also did create two new governance  
00:25:13 --> 00:25:13: bodies.  
00:25:13 --> 00:25:16: One is the new office that this now reports into.  
00:25:16 --> 00:25:18: We call it the OBP office of Building Energy and  
00:25:19 --> 00:25:22: Emissions Performance and then this Advisory Board which  
is really  
00:25:22 --> 00:25:25: running this whole comment period which is happening now.  
00:25:25 --> 00:25:27: So just a little bit of nuts and bolts,  
00:25:27 --> 00:25:30: and then I've got some kind of ideas here on  
00:25:30 --> 00:25:33: kind of how are how we see the real estate  
00:25:33 --> 00:25:36: industry attacking this and approaching this.  
00:25:36 --> 00:25:38: That so in order to calculate your limit in a  
00:25:38 --> 00:25:39: specific building,  
00:25:39 --> 00:25:42: you essentially take the square footage of each of those  
00:25:42 --> 00:25:44: types of spaces within your building and multiply it by  
00:25:44 --> 00:25:45: the limit.  
00:25:45 --> 00:25:50: So you essentially ultimately get this prorated limit for your  
00:25:50 --> 00:25:50: building.  
00:25:51 --> 00:25:53: If it's a mixed use building.  
00:25:53 --> 00:25:55: And then the complicated part is then you also in  
00:25:55 --> 00:25:57: order to understand your emissions.  
00:25:57 --> 00:25:59: We've got a lot of questions people calling,  
00:25:59 --> 00:26:01: saying. How do I measure the emissions from my building?  
00:26:01 --> 00:26:03: Is it? Is there a meter that just tells me  
00:26:04 --> 00:26:04: my emissions is?  
00:26:04 --> 00:26:06: Do I go up to the roof and I hold  
00:26:06 --> 00:26:09: something up there and I measure this emissions coming out  
00:26:09 --> 00:26:10: of the building?  
00:26:10 --> 00:26:12: No to either one of those?  
00:26:12 --> 00:26:16: Essentially you take every utility that's being consumed at the  
00:26:16 --> 00:26:19: building and you have to multiply it by a factor  
00:26:19 --> 00:26:23: that converts it from its utility consumption into carbon carbon

00:26:23 --> 00:26:25: emissions, or CO2. Equivalent as it's called,  
00:26:25 --> 00:26:29: so some of those are physical constants like oil and  
00:26:29 --> 00:26:29: gas.  
00:26:29 --> 00:26:33: Others are really based on factors out of your control,  
00:26:33 --> 00:26:35: potentially as a building owner,  
00:26:35 --> 00:26:38: which on the electricity front right now is based on  
00:26:38 --> 00:26:41: the renewable content that is in the grid.  
00:26:41 --> 00:26:45: So a more renewable, more renewable electricity grid will  
give  
00:26:45 --> 00:26:48: you a lower carbon footprint for the same amount of  
00:26:48 --> 00:26:49: energy used.  
00:26:49 --> 00:26:51: And then ultimately, for here in New York City,  
00:26:51 --> 00:26:52: the way this is written,  
00:26:52 --> 00:26:54: you take your emissions. You see,  
00:26:54 --> 00:26:56: if you're over or under that limit.  
00:26:56 --> 00:26:58: And for every metric ton of carbon per year that  
00:26:58 --> 00:26:59: you're over the limit,  
00:26:59 --> 00:27:02: you have this \$268 fund.  
00:27:02 --> 00:27:03: And then there are some adjustments.  
00:27:03 --> 00:27:07: They did create some directions that allow for some  
purchase  
00:27:07 --> 00:27:10: if you are over this limit and you are not  
00:27:10 --> 00:27:12: able to reduce your energy usage,  
00:27:12 --> 00:27:14: which drives emissions to get to these limits,  
00:27:14 --> 00:27:18: there are some essentially some adjustments that you can  
make  
00:27:18 --> 00:27:21: some off-site purchases at the moment you can purchase  
carbon  
00:27:21 --> 00:27:22: offsets for up to 10%  
00:27:22 --> 00:27:26: of your footprint, or you could potentially purchase these  
renewable  
00:27:26 --> 00:27:27: energy certificates.  
00:27:27 --> 00:27:31: At the moment there are no renewable energy certificates  
that  
00:27:31 --> 00:27:32: meet the laws definition.  
00:27:32 --> 00:27:34: In the market, so that's changing.  
00:27:34 --> 00:27:35: We do see some coming.  
00:27:35 --> 00:27:37: Potentially there was an announcement last week.  
00:27:37 --> 00:27:40: We could talk more about to bring more renewable electricity  
00:27:40 --> 00:27:41: into New York City,  
00:27:41 --> 00:27:44: but at the moment these two pathways we really tell  
00:27:44 --> 00:27:45: our building owner,  
00:27:45 --> 00:27:49: clients wait and see. Don't don't consider these as part  
00:27:49 --> 00:27:50: of your initial strategy.



00:27:50 --> 00:27:54: Let's try to drive down energy use as your primary  
00:27:54 --> 00:27:54: strategy.  
00:27:54 --> 00:27:57: An example here that just just bring this home for  
00:27:57 --> 00:27:59: a specific building.  
00:27:59 --> 00:28:01: This is an actual client of ours,  
00:28:01 --> 00:28:06: 1.1 million square foot. Building an average energy intensity  
00:28:06 --> 00:28:07: average  
00:28:07 --> 00:28:09: carbon intensity is 30%  
00:28:09 --> 00:28:13: below the first limit, but it's 30%  
00:28:13 --> 00:28:14: above the second limit, resulting in about a \$400,000 annual  
00:28:14 --> 00:28:17: fine.  
00:28:17 --> 00:28:18: So if you put that into a savings calculator for  
00:28:18 --> 00:28:20: upgrades,  
00:28:20 --> 00:28:24: that really will accelerate your payback.  
00:28:24 --> 00:28:28: If you start to include these the avoiding these files.  
00:28:28 --> 00:28:30: So last couple slides here that this will go into  
00:28:30 --> 00:28:33: effect in May of 2025 2020,  
00:28:33 --> 00:28:34: four is actually the first year that will be measured  
00:28:34 --> 00:28:37: against these limits.  
00:28:37 --> 00:28:39: In 2025 you will submit and I will not read  
00:28:39 --> 00:28:42: through everything on the right side here,  
00:28:42 --> 00:28:45: but there are definitely some details within the law that  
00:28:45 --> 00:28:47: are being worked out by committee currently and then the  
00:28:47 --> 00:28:49: last two slides here are really just kind of my  
00:28:49 --> 00:28:52: commentary and I may want to put this back to  
00:28:52 --> 00:28:54: conversation and maybe we'll skip over some of this  
00:28:54 --> 00:28:57: commentary,  
00:28:57 --> 00:29:00: but the main one really here is.  
00:29:00 --> 00:29:03: What this has meant in the real estate industry in  
00:29:03 --> 00:29:05: New York is that every discussion of every intervention in  
00:29:05 --> 00:29:06: the building always hinges and always touches on what the  
00:29:06 --> 00:29:08: impact on the carbon emissions will be.  
00:29:08 --> 00:29:11: It can be, you know,  
00:29:11 --> 00:29:12: tenant renewals, end of life upgrades,  
00:29:12 --> 00:29:14: cosmetic upgrades. Any of these discussions that you have  
00:29:14 --> 00:29:15: in  
00:29:15 --> 00:29:17: a building,  
00:29:17 --> 00:29:20: new tenants moving in. What are we doing?  
00:29:20 --> 00:29:23: Oh, let's update the lobby.  
00:29:23 --> 00:29:25: What are we doing? We are always called in.  
00:29:25 --> 00:29:26: Everyone always has to be part of that discussion to  
00:29:26 --> 00:29:27: say how will this project impact the carbon emissions of  
00:29:27 --> 00:29:28: the building and how will it.

00:29:25 --> 00:29:28: How will we? Be approaching or not approaching those limits  
00:29:28 --> 00:29:31: of local law 97 so I think I'll leave it  
00:29:31 --> 00:29:31: there.  
00:29:31 --> 00:29:33: I want to. I want to be able to get  
00:29:33 --> 00:29:34: into our conversation,  
00:29:34 --> 00:29:35: but as I said this,  
00:29:35 --> 00:29:38: the result of this law really is that carbon emissions  
00:29:38 --> 00:29:41: is now in the forefront of everybody's thinking when they're  
00:29:41 --> 00:29:43: designing new buildings.  
00:29:43 --> 00:29:45: When they're modifying existing buildings,  
00:29:45 --> 00:29:47: and when they're when they're buying buildings,  
00:29:47 --> 00:29:49: everyone is asking if you buy a building.  
00:29:49 --> 00:29:50: How does it compare to these limits,  
00:29:50 --> 00:29:51: and what does that mean for my?  
00:29:51 --> 00:29:54: For my purchase price? So thank you,  
00:29:54 --> 00:29:56: and I look forward to our conversation.  
00:29:56 --> 00:29:59: So I will stop sharing and give it back to  
00:29:59 --> 00:30:00: you.  
00:30:00 --> 00:30:01: Sandra, thank you so  
00:30:01 --> 00:30:03: much. Thank you so much.  
00:30:03 --> 00:30:06: Chris fascinating. So I have a couple of questions for  
00:30:06 --> 00:30:08: you and then I'm going to invite some thoughts and  
00:30:08 --> 00:30:11: comments from our other panelists as well.  
00:30:11 --> 00:30:14: And of course, we're inviting the audience to to weigh  
00:30:14 --> 00:30:14: in.  
00:30:14 --> 00:30:17: But Chris, I want to start with like we're really  
00:30:17 --> 00:30:20: curious about how something like this gets implemented.  
00:30:20 --> 00:30:23: And I I'm interested to know who were the Champions  
00:30:23 --> 00:30:27: and what was the a-ha moment that actually enabled this.  
00:30:27 --> 00:30:30: Poppin up in New York City because of course we  
00:30:30 --> 00:30:35: want to create that same magical combination that if we  
00:30:35 --> 00:30:37: can in other parts of North America.  
00:30:38 --> 00:30:40: Uhm, it's a great question.  
00:30:40 --> 00:30:41: There are a few pieces to this,  
00:30:41 --> 00:30:44: some more cynical than others.  
00:30:44 --> 00:30:47: One that the the the pathway we've been on in  
00:30:47 --> 00:30:51: New York City with all the legislation that's been passed.  
00:30:51 --> 00:30:52: You know, going back. Like I said,  
00:30:52 --> 00:30:56: almost 15 years now. It was this unstoppable train,  
00:30:56 --> 00:30:59: so there was no end and even building owners and  
00:30:59 --> 00:31:01: we work with a lot of building owners,  
00:31:01 --> 00:31:05: some who are very old school and potentially you know,

00:31:05 --> 00:31:07: on the wrong side of some of these topics.  
00:31:07 --> 00:31:10: They knew this wasn't. Stop over train so when when  
00:31:10 --> 00:31:12: they looked at and I have it does go back  
00:31:12 --> 00:31:15: somewhat to politics when they looked at the politics in  
00:31:15 --> 00:31:18: New York in both in the city and the state,  
00:31:18 --> 00:31:22: there's really no chance that that even if somehow the  
00:31:22 --> 00:31:26: lobbying effort could kind of diminish or delay and immediate  
00:31:26 --> 00:31:29: effort to make these changes,  
00:31:29 --> 00:31:30: that it was never there was going to come back  
00:31:30 --> 00:31:30: again,  
00:31:30 --> 00:31:32: but it was. There's no way this was going away  
00:31:32 --> 00:31:32: forever.  
00:31:32 --> 00:31:34: So that's the cynical side of it,  
00:31:34 --> 00:31:36: which is like even even some of those folks who  
00:31:36 --> 00:31:36: said,  
00:31:36 --> 00:31:37: hey, can we avoid this?  
00:31:37 --> 00:31:39: They said there's no way.  
00:31:39 --> 00:31:40: We can avoid this forever,  
00:31:40 --> 00:31:43: so, but so that brought them to the table because  
00:31:43 --> 00:31:45: they couldn't just be the the you know,  
00:31:45 --> 00:31:48: the party of no, they actually said OK,  
00:31:48 --> 00:31:50: let's roll up our sleeves and let's let's discuss how  
00:31:50 --> 00:31:52: to make this better because there's no way it's going  
00:31:52 --> 00:31:53: to go away.  
00:31:53 --> 00:31:56: So I think that that tidal wave of energy and  
00:31:56 --> 00:31:56: like I said,  
00:31:56 --> 00:31:59: this unstoppable train meant that they had to get on  
00:31:59 --> 00:32:01: it or they were just going to get run over.  
00:32:01 --> 00:32:03: So it's great man, I like that one,  
00:32:03 --> 00:32:03: but  
00:32:03 --> 00:32:06: can you? Sorry, I just want to know who was  
00:32:06 --> 00:32:07: driving the train  
00:32:07 --> 00:32:10: driving the train. There are a lot of nonprofits.  
00:32:10 --> 00:32:14: There are a lot of sustainability groups in New York  
00:32:14 --> 00:32:17: City that advocate for energy advocate for the environment.  
00:32:17 --> 00:32:19: Some specifically in real estate.  
00:32:19 --> 00:32:22: Some more broadly outside of real estate,  
00:32:22 --> 00:32:25: there's EDF. There's NRDC there's ULI is Urban Green  
00:32:25 --> 00:32:30: Council,  
00:32:25 --> 00:32:30: there's building energy exchange. There's a number of  
00:32:30 --> 00:32:33: groups that  
00:32:30 --> 00:32:33: have really gotten a lot of support.

00:32:33 --> 00:32:34: From a lot of the private enterprise,  
00:32:34 --> 00:32:38: right, there is definitely a private sector.  
00:32:38 --> 00:32:42: Leaders who know that we need to do this so  
00:32:42 --> 00:32:46: they're really championing those groups to lobby to discuss.  
00:32:46 --> 00:32:49: To bring this to the forefront of the discussion so  
00:32:49 --> 00:32:51: that policymakers know that it is a priority.  
00:32:51 --> 00:32:54: So it's kind of it's both private and public sector.  
00:32:54 --> 00:32:55: I would say both together  
00:32:56 --> 00:33:00: great. OK, thanks. I'm gonna actually ask Kirk question on  
00:33:00 --> 00:33:01: this front.  
00:33:01 --> 00:33:06: So Kirk. You've you've led the design and delivery of,  
00:33:06 --> 00:33:10: you know, millions and millions of dollars worth of green  
00:33:10 --> 00:33:13: incentive and market transformation projects across Canada.  
00:33:13 --> 00:33:16: You know the Canadian marketplace really well.  
00:33:16 --> 00:33:19: So when you listen to.  
00:33:19 --> 00:33:24: Chris is presentation and and with your knowledge of this  
00:33:24 --> 00:33:25: program.  
00:33:25 --> 00:33:29: How you know, does the building inventory differ a lot  
00:33:29 --> 00:33:32: in New York compared to Toronto,  
00:33:32 --> 00:33:36: and what are the takeaways and the learnings that we  
00:33:36 --> 00:33:40: can take from New York City's experience and apply them  
00:33:40 --> 00:33:41: in Toronto?  
00:33:41 --> 00:33:47: Any thoughts on that? I think you're on mute.  
00:33:49 --> 00:33:50: Great, great points,  
00:33:50 --> 00:33:54: that's better, that's better. Great question.  
00:33:54 --> 00:33:59: The landscape between Toronto and New York City and in  
00:33:59 --> 00:33:59: fact,  
00:33:59 --> 00:34:03: in fact, the Greater Golden Horseshoe area is similar on  
00:34:03 --> 00:34:05: the commercial side,  
00:34:05 --> 00:34:07: but on the large volume of buildings.  
00:34:07 --> 00:34:09: The large number of buildings there.  
00:34:09 --> 00:34:11: It's both in cases they're multi res,  
00:34:11 --> 00:34:13: but the multi res side.  
00:34:13 --> 00:34:17: There's a lot of low rise pre war buildings so  
00:34:17 --> 00:34:21: when you look at how these cities compare there's a  
00:34:21 --> 00:34:25: big demographic of real estate with Taz.  
00:34:25 --> 00:34:28: Very poor efficiency and fuel and things like that and  
00:34:28 --> 00:34:31: we don't have that issue in in Toronto,  
00:34:31 --> 00:34:33: so we're ahead on the technical side.  
00:34:33 --> 00:34:35: So there's basically three areas,  
00:34:35 --> 00:34:38: technical, financial and capacity building.  
00:34:38 --> 00:34:41: Number one is the actual inventory is different when you

00:34:41 --> 00:34:44: go to a mid rise and high-rise situation.  
00:34:44 --> 00:34:47: Particularly on the multifamily, they're very similar in terms of  
00:34:47 --> 00:34:49: stock and style etc etc.  
00:34:49 --> 00:34:51: A lot of post war buildings and a lot of  
00:34:51 --> 00:34:52: work being done on that.  
00:34:52 --> 00:34:55: The second thing from a technology standpoint.  
00:34:55 --> 00:34:56: Is or a technical standpoint?  
00:34:56 --> 00:34:59: Is that the fuel sources they're using?  
00:34:59 --> 00:35:03: Steam and fuel oil as opposed to gas and hot  
00:35:03 --> 00:35:04: water,  
00:35:04 --> 00:35:07: and that is important because our big solution is heat  
00:35:07 --> 00:35:10: pump on electrification and they have an extra step that  
00:35:11 --> 00:35:13: they need to do that us in Toronto don't.  
00:35:13 --> 00:35:15: So there's a benefit to us there,  
00:35:15 --> 00:35:18: right? The third thing that I would say is it's  
00:35:18 --> 00:35:20: not so so much technical,  
00:35:20 --> 00:35:21: but it is a logistic issue.  
00:35:21 --> 00:35:23: And now it's feeding into the financial part of the  
00:35:23 --> 00:35:24: equation,  
00:35:24 --> 00:35:26: which is the majority of New Yorkers.  
00:35:26 --> 00:35:29: Don't pay for their utilities right?  
00:35:29 --> 00:35:33: As opposed to the majority of apartment dwellers in private  
00:35:33 --> 00:35:35: rental and condos etc in the City of Toronto and  
00:35:36 --> 00:35:37: especially in the commercial.  
00:35:37 --> 00:35:40: They all pay for their utilities by and large so  
00:35:40 --> 00:35:43: it really changes the split incentive conversation.  
00:35:43 --> 00:35:47: I'll quickly go through the rest of the financials and  
00:35:47 --> 00:35:49: that is that there is some.  
00:35:49 --> 00:35:53: There's different rent control policies within both  
environments and both  
00:35:53 --> 00:35:56: create some distortive regulatory issues where there's a.  
00:35:56 --> 00:35:57: There's a maximum that you can.  
00:35:57 --> 00:36:01: Invest in in a retrofit before you can't recover that  
00:36:01 --> 00:36:03: out of rent increases.  
00:36:03 --> 00:36:05: And even if there's affordability issues,  
00:36:05 --> 00:36:08: you want to make sure that those are addressed as  
00:36:08 --> 00:36:08: well,  
00:36:08 --> 00:36:12: right? So there's a lot of opportunities on the financial  
00:36:12 --> 00:36:16: business case for valuation improvements.  
00:36:16 --> 00:36:18: The markets are very hot in Toronto,  
00:36:18 --> 00:36:21: and there's a lot of transactions that are happening.  
00:36:21 --> 00:36:25: We're in a state where we have intergenerational wealth,

00:36:25 --> 00:36:28: right? That is getting out of the real estate.  
00:36:28 --> 00:36:31: Games, so there's a lot of sales being done from  
00:36:32 --> 00:36:35: families into REITs or larger institutional investors,  
00:36:35 --> 00:36:39: and so at those times assailing capitalization,  
00:36:39 --> 00:36:41: there's some real opportunities there.  
00:36:41 --> 00:36:43: The last thing else talk about is on the capacity  
00:36:43 --> 00:36:44: building side,  
00:36:44 --> 00:36:47: and. Taft has done some really great work on the  
00:36:47 --> 00:36:48: accelerator side.  
00:36:48 --> 00:36:50: They've put in the resources,  
00:36:50 --> 00:36:51: the capacity building and the financing.  
00:36:51 --> 00:36:53: The city's done a lot as well,  
00:36:53 --> 00:36:57: but New York has a green Bank that is operational.  
00:36:57 --> 00:37:00: They have one that is conducive for energy services and  
00:37:00 --> 00:37:03: service agreements and PP as especially 'cause we have a  
00:37:03 --> 00:37:05: lot of opportunities on district.  
00:37:05 --> 00:37:10: So there's some financing supports that aren't in Canada yet,  
00:37:10 --> 00:37:12: and specially in Toronto that we could build in.  
00:37:12 --> 00:37:17: Secondly, I would say there is things like BX.  
00:37:17 --> 00:37:20: And capacity building institutions that we don't have yet that  
00:37:20 --> 00:37:25: provide centers of communication and recourse for owners  
that are  
00:37:25 --> 00:37:27: interested in doing this work.  
00:37:27 --> 00:37:28: To be able to get up to speed on that.  
00:37:28 --> 00:37:31: So those are places where we are different and what  
00:37:31 --> 00:37:33: we can and can't pull from.  
00:37:33 --> 00:37:37: Well, thanks, well I'm actually gonna pull the thread on  
00:37:37 --> 00:37:40: the financing and turn it over to Julia.  
00:37:40 --> 00:37:44: So Julia, you know we just heard her talk about  
00:37:44 --> 00:37:47: a number of the areas where in New York and  
00:37:47 --> 00:37:52: Toronto are quite different and thinking about the  
financing  
00:37:52 --> 00:37:56: side as we know, deep retrofits have the opportunity for  
00:37:56 --> 00:37:59: return on investment up to a point and but they  
00:37:59 --> 00:38:01: obviously require capital.  
00:38:01 --> 00:38:03: And Taft has a ton of experience.  
00:38:03 --> 00:38:08: In helping a fund. Projects fund demonstrations move the  
needle  
00:38:08 --> 00:38:12: to enable building retrofits and decarbonization,  
00:38:12 --> 00:38:15: so I actually have a double barrel question for you  
00:38:15 --> 00:38:16: is number one is,  
00:38:16 --> 00:38:20: where do you see the rule of the governments at  
00:38:20 --> 00:38:24: different levels and enabling all this and number two?

00:38:24 --> 00:38:28: Is there anything on your wish list for the City  
00:38:28 --> 00:38:32: of Toronto that would help make task role and the  
00:38:32 --> 00:38:37: whole ecosystem of financing this stuff work more smoothly?  
00:38:37 --> 00:38:37: Hey,  
00:38:38 --> 00:38:41: thanks Sandra and thanks Chris for that presentation  
because we  
  
00:38:42 --> 00:38:44: always look for inspiration and best practice.  
00:38:44 --> 00:38:48: You know how we can sort of let you fail  
00:38:48 --> 00:38:53: fast so that we can go faster and really definitely  
00:38:53 --> 00:38:58: see a requirement and a carbon focus requirement as a  
00:38:58 --> 00:39:01: key driver. Our profile is a little bit different as  
00:39:01 --> 00:39:05: Kirk was saying and from the admissions perspective  
buildings are  
  
00:39:05 --> 00:39:05: about 50%  
00:39:05 --> 00:39:07: we I think we would probably have more industry.  
00:39:07 --> 00:39:10: Then New York City? Uhm,  
00:39:10 --> 00:39:12: yeah, so that's the balance is out,  
00:39:12 --> 00:39:16: but still it's it's half and UM,  
00:39:16 --> 00:39:19: and that and we we really need to get some  
00:39:19 --> 00:39:24: drivers that are actually going to really focus the mind  
00:39:24 --> 00:39:28: and focus the the activity on reducing carbon in that  
00:39:28 --> 00:39:31: space. And right now we have just like and it's  
00:39:32 --> 00:39:32: great.  
00:39:32 --> 00:39:35: We you know we incubated and and see if Toronto  
00:39:35 --> 00:39:38: and and the province actually moved ahead with the.  
00:39:38 --> 00:39:41: Energy and water reporting requirement,  
00:39:41 --> 00:39:43: but that's truly just information,  
00:39:43 --> 00:39:45: it's energy and you can do a multiplier or get  
00:39:45 --> 00:39:46: the coefficient.  
00:39:46 --> 00:39:50: So it's very it's. It's a good solid base for  
00:39:50 --> 00:39:54: us that that gives us some intelligence about where our  
00:39:54 --> 00:39:58: carbon is and we can build on this and use  
00:39:58 --> 00:40:03: it to you know to actually make some smart interventions.  
00:40:03 --> 00:40:06: And you know, like building on this analysis that that  
00:40:06 --> 00:40:09: Kirk was indicating of what kinds of buildings?  
00:40:09 --> 00:40:10: Where is the carbon like?  
00:40:10 --> 00:40:13: Let's use a follow the carbon approach and and just  
00:40:13 --> 00:40:14: start.  
00:40:14 --> 00:40:17: You know, moving strategically and the real opportunity here  
is  
  
00:40:17 --> 00:40:20: the multiple benefits and so I will get to your  
00:40:20 --> 00:40:22: point about the financing.  
00:40:22 --> 00:40:26: You know we there, there's jobs available in retrofitting and

00:40:26 --> 00:40:27: their local jobs.  
00:40:27 --> 00:40:29: They're not jobs, and you know any other place.  
00:40:29 --> 00:40:32: They're right here, they're savings,  
00:40:32 --> 00:40:34: you know, at the at the utility,  
00:40:34 --> 00:40:37: and at the consumer level there's healthier buildings.  
00:40:37 --> 00:40:41: There's multiple benefits. Come and there's an opportunity to involve  
00:40:41 --> 00:40:43: a whole range of other players,  
00:40:43 --> 00:40:48: and including players that have capital and want to invest  
00:40:48 --> 00:40:50: it in with impact,  
00:40:50 --> 00:40:53: and there's no better impact,  
00:40:53 --> 00:40:56: you know, and everybody's talking about impact investing.  
00:40:56 --> 00:41:00: There's no better impact with a return on investment investment  
00:41:00 --> 00:41:05: with a return on investment and impact than than energy  
00:41:05 --> 00:41:05: efficiency.  
00:41:05 --> 00:41:08: It pays. It doesn't cost it pays,  
00:41:08 --> 00:41:10: and so. The real champ.  
00:41:10 --> 00:41:14: The real trick, as you were saying,  
00:41:14 --> 00:41:16: and we have a lot of experience with this,  
00:41:16 --> 00:41:20: is to structure appropriately to identify who the owners are  
00:41:20 --> 00:41:22: and what their what,  
00:41:22 --> 00:41:26: their opportunity for reduction is to try to do it  
00:41:26 --> 00:41:29: now rather than sort of in the future and sort  
00:41:29 --> 00:41:34: of disaggregate the savings so you know to optimize their  
00:41:34 --> 00:41:37: savings and you know, and there's nothing that focuses the  
00:41:37 --> 00:41:38: mind more than a fine,  
00:41:38 --> 00:41:40: so you know, looking to the future.  
00:41:40 --> 00:41:42: And saying, you know what's it?  
00:41:42 --> 00:41:44: Not what's going to happen in?  
00:41:44 --> 00:41:47: You know, 18 months, which is the usual sort of  
00:41:47 --> 00:41:48: business mentality?  
00:41:48 --> 00:41:50: What's going to happen in the first period?  
00:41:50 --> 00:41:52: The second period? The third period?  
00:41:52 --> 00:41:55: So that I can mitigate my risk financial risk and  
00:41:56 --> 00:42:01: and then structure investment opportunities based on availability of the  
00:42:01 --> 00:42:04: owners capital or third party capital?  
00:42:04 --> 00:42:07: We have utilities. We have the Canon Infrastructure Bank.  
00:42:07 --> 00:42:10: We've got so many players with capital.  
00:42:10 --> 00:42:14: Looking to invest that what's missing and this is what  
00:42:14 --> 00:42:15: Kirk was referring to.



00:42:15 --> 00:42:19: Taft Retrofit accelerator is that concierge?  
00:42:19 --> 00:42:21: And that's when I'm curious about Christmas.  
00:42:21 --> 00:42:25: In terms of you know who's playing that concierge role?  
00:42:25 --> 00:42:27: What can we learn from that experience?  
00:42:27 --> 00:42:30: We've certainly shocked the world and in in terms of  
00:42:30 --> 00:42:32: structuring the the retrofit accelerator,  
00:42:32 --> 00:42:37: because that capacity that pulling together and stacking all of  
00:42:37 --> 00:42:41: the financing and keeping the eye on the carbon.  
00:42:41 --> 00:42:45: And the social as well as environmental and financial benefits  
00:42:45 --> 00:42:45: is,  
00:42:45 --> 00:42:49: you know, that's our opportunity that we shouldn't be  
squandering.  
00:42:50 --> 00:42:53: OK, uhm. Thanks very much for that,  
00:42:53 --> 00:42:57: Julia. Uhm, I guess some you know.  
00:42:57 --> 00:43:00: I'm thinking now I'd like to.  
00:43:00 --> 00:43:04: I'd like to put a question to Stewart.  
00:43:04 --> 00:43:08: Stuart, when you think about the City of Toronto's strategy  
00:43:08 --> 00:43:08: for,  
00:43:08 --> 00:43:13: you know, net zero existing buildings which were very  
interested  
00:43:13 --> 00:43:14: in at the bank.  
00:43:14 --> 00:43:20: Actually, because a lot of people think that financed  
emissions  
00:43:20 --> 00:43:25: in banking or all about our financing oil and gas,  
00:43:25 --> 00:43:30: which is completely untrue. It's actually housing and  
buildings.  
00:43:30 --> 00:43:33: So yeah, I don't see the protests in St telling  
00:43:33 --> 00:43:34: us we should.  
00:43:34 --> 00:43:39: Start financing peoples homes but it is the biggest part  
00:43:39 --> 00:43:39: of them.  
00:43:39 --> 00:43:44: In many cases that financed emissions for UM for banks  
00:43:44 --> 00:43:46: and it's really challenging.  
00:43:46 --> 00:43:51: So I was wondering about in the City of Toronto's  
00:43:51 --> 00:43:53: net zero strategy.  
00:43:53 --> 00:43:56: You know one of the top action items that I  
00:43:56 --> 00:44:01: found really interesting was requiring annual energy and  
emissions performance  
00:44:01 --> 00:44:02: reporting,  
00:44:02 --> 00:44:05: and public disclosures, and it sounds to me like all  
00:44:05 --> 00:44:06: of these strategies,  
00:44:06 --> 00:44:10: including New York cities and certainly Taft,  
00:44:10 --> 00:44:13: helping move the needle in Toronto.  
00:44:13 --> 00:44:18: They all start with having good information characterizing the

problem.

00:44:18 --> 00:44:21: So just how hard is that kind of be to  
00:44:21 --> 00:44:23: accomplish in Toronto?  
00:44:23 --> 00:44:25: And are there lessons that we can learn from the  
00:44:25 --> 00:44:26: way it unfolded  
00:44:26 --> 00:44:27: in New York City?  
00:44:28 --> 00:44:30: Sure, thank you very much for the question and again  
00:44:30 --> 00:44:33: we would love to talk to you about the building's  
00:44:33 --> 00:44:33: peace.  
00:44:33 --> 00:44:36: 'cause we we see this huge opportunity there.  
00:44:36 --> 00:44:38: You know Chris was saying,  
00:44:38 --> 00:44:40: you know, we we compare with Washington DC.  
00:44:40 --> 00:44:42: I think we also like to compare with Vancouver,  
00:44:42 --> 00:44:45: BC but also look at regions across the GTA and  
00:44:45 --> 00:44:48: there's a lot of music policies that are doing great  
00:44:48 --> 00:44:51: work in this space and really moving the needle.  
00:44:51 --> 00:44:54: But that that you know,  
00:44:54 --> 00:44:57: we're we're the strategy got adopted in July and we're  
00:44:57 --> 00:44:59: in the weeds of the implementation,  
00:44:59 --> 00:45:02: planning and considerations now. And you really hit the  
hammer  
00:45:02 --> 00:45:04: on the head in that sense,  
00:45:04 --> 00:45:07: and that data is really fundamental to this.  
00:45:07 --> 00:45:09: And so, as Julie was saying,  
00:45:09 --> 00:45:12: about 55% of emissions come from buildings,  
00:45:12 --> 00:45:14: in particular close to 60%  
00:45:14 --> 00:45:17: of that. 50% is coming from homes at 31%  
00:45:18 --> 00:45:21: of the makeup and multi units at about 29%.  
00:45:21 --> 00:45:25: And you know, we're lucky in the sense that we've  
00:45:25 --> 00:45:25: had.  
00:45:25 --> 00:45:28: We have had EWR be in the market,  
00:45:28 --> 00:45:29: but that is again targeted,  
00:45:29 --> 00:45:34: a relatively small subsection of buildings over the last little  
00:45:34 --> 00:45:34: bit,  
00:45:34 --> 00:45:38: and that the. The window is getting smaller,  
00:45:38 --> 00:45:40: so we're getting more and more buildings recording so that  
00:45:40 --> 00:45:41: that's good.  
00:45:41 --> 00:45:44: There's progress there, but I think we really need to  
00:45:44 --> 00:45:47: rapidly accelerate and get as much information as we can,  
00:45:47 --> 00:45:49: and So what. Our strategy is basically saying is that  
00:45:49 --> 00:45:52: we want to roll this out to a smaller subset  
00:45:52 --> 00:45:52: of buildings.

00:45:52 --> 00:45:56: You know 25,000 square feet and above as soon as  
00:45:56 --> 00:45:57: possible.  
00:45:57 --> 00:45:59: That is because that's fundamental,  
00:45:59 --> 00:46:03: so we cannot do the oldest remake commissioning work.  
00:46:03 --> 00:46:04: We cannot do performance targets.  
00:46:04 --> 00:46:08: We're really without that data and that fundamental and the  
00:46:08 --> 00:46:11: other part of this is home energy labeling reporting.  
00:46:11 --> 00:46:14: So there's more than 400,000 homes in the city,  
00:46:14 --> 00:46:16: and so that's the next sort of target area in  
00:46:16 --> 00:46:16: terms of that,  
00:46:16 --> 00:46:18: data is getting that home data,  
00:46:18 --> 00:46:21: and really, in that case we really need to work  
00:46:21 --> 00:46:25: quite closely with the federal government to get that  
information.  
00:46:25 --> 00:46:27: So I I think that's really key and I you  
00:46:28 --> 00:46:29: know a couple of people mentioned,  
00:46:29 --> 00:46:31: you know, I think we need to say where we're  
00:46:31 --> 00:46:34: going and so that's what the strategy was really about.  
00:46:34 --> 00:46:37: Articulating is that in the next few years this is  
00:46:37 --> 00:46:39: this we're in transition.  
00:46:39 --> 00:46:41: We're going to encourage. We're gonna ask people to do  
00:46:41 --> 00:46:42: this voluntarily,  
00:46:42 --> 00:46:45: but in 2025 we're going to start to do these  
00:46:45 --> 00:46:47: things in a mandatory way so you know,  
00:46:47 --> 00:46:49: this is a public document.  
00:46:49 --> 00:46:51: You know this is a public discourse we're having.  
00:46:51 --> 00:46:53: We really want to get it out there.  
00:46:53 --> 00:46:57: That this is coming. Think what you know what's really  
00:46:57 --> 00:47:00: exciting about New York and Julie alluded to this too,  
00:47:00 --> 00:47:03: is you know New York being ahead.  
00:47:03 --> 00:47:04: Having done this for 10 years,  
00:47:04 --> 00:47:07: we will definitely be knocking on know New York store.  
00:47:07 --> 00:47:10: Whether it's through C40 or or other organizations.  
00:47:10 --> 00:47:13: Select where did things go right and where did they  
00:47:13 --> 00:47:13: go wrong?  
00:47:13 --> 00:47:16: Because I think that's going to be a real challenge.  
00:47:16 --> 00:47:20: Is is articulating the value for this and as I  
00:47:20 --> 00:47:20: said,  
00:47:20 --> 00:47:22: I think there's different types of building owners,  
00:47:22 --> 00:47:24: right? There's building owners who are our own lots of  
00:47:25 --> 00:47:25: buildings.  
00:47:25 --> 00:47:28: They have energy managers. Been really savvy about how to

00:47:28 --> 00:47:31: do this and then this building owners that don't.  
00:47:31 --> 00:47:32: This is going to come as a shock and a  
00:47:32 --> 00:47:34: surprise and we don't want that too.  
00:47:34 --> 00:47:38: So I think really, really critical.  
00:47:38 --> 00:47:42: Critical engagement with these building owners is is going to  
00:47:42 --> 00:47:44: be key and I think for the city.  
00:47:44 --> 00:47:46: The other thing is we don't want unintended consequences,  
00:47:46 --> 00:47:49: right? So I think we really need to think carefully  
00:47:49 --> 00:47:51: about the equity impacts of these policies,  
00:47:51 --> 00:47:56: in particular on multi unit residential properties,  
00:47:56 --> 00:47:59: single family homes with a makeup that is already stretched  
00:47:59 --> 00:48:01: giving our housing conditions.  
00:48:01 --> 00:48:04: So how can we make sure that yes with decarbonizing  
00:48:04 --> 00:48:06: but we're not forcing people out of their homes and  
00:48:06 --> 00:48:08: so that's a key focus for the work going.  
00:48:08 --> 00:48:12: Forward as well as understanding the equity impacts on on  
00:48:12 --> 00:48:16: key building types and owners and tenants and residents as  
00:48:16 --> 00:48:16: well.  
00:48:18 --> 00:48:21: Yeah, you don't want to solve one problem obviously and  
00:48:21 --> 00:48:23: create another problem that's so that's the whole.  
00:48:23 --> 00:48:27: I guess the whole reason why sustainability is a thing.  
00:48:27 --> 00:48:29: It's you've got to make sure you're keeping an eye  
00:48:29 --> 00:48:32: at all the pillars of sustainability and not pushing so  
00:48:32 --> 00:48:34: hard on one that you're you're playing whack a mole  
00:48:34 --> 00:48:37: with the creating a host of other problems.  
00:48:37 --> 00:48:41: I'm Chris. I'm gonna ask you come so when Stewart  
00:48:41 --> 00:48:43: knocks on your door to say,  
00:48:43 --> 00:48:46: uh, OK, you did this in New York City.  
00:48:46 --> 00:48:50: It's 2025. We have to start moving to make this  
00:48:50 --> 00:48:50: mandatory.  
00:48:50 --> 00:48:54: Please Chris tell us which he would do differently now  
00:48:54 --> 00:48:56: that you know what you know.  
00:48:56 --> 00:48:59: What have you learned and what would you tell us  
00:48:59 --> 00:49:01: to some of the things that are must do's and  
00:49:02 --> 00:49:04: some of the things that are must not do so.  
00:49:04 --> 00:49:06: If you had to sum up a couple in each  
00:49:06 --> 00:49:07: column,  
00:49:07 --> 00:49:08: what would you tell Stewart?  
00:49:09 --> 00:49:12: First, I'd say, do you have a week so that  
00:49:13 --> 00:49:14: we could sit down?  
00:49:14 --> 00:49:16: So no, it's been really interesting,  
00:49:16 --> 00:49:17: you know. And like I said,

00:49:17 --> 00:49:19: we we work with the city policymakers,  
00:49:19 --> 00:49:21: but we also work a lot with the private sector  
00:49:21 --> 00:49:24: who has to navigate these things so we actually get  
00:49:24 --> 00:49:25: to see both sides of it.  
00:49:25 --> 00:49:27: Some of the policymakers don't get the feedback if you're  
00:49:27 --> 00:49:28: just a policymaker,  
00:49:28 --> 00:49:31: you don't see how people try to comply with these,  
00:49:31 --> 00:49:32: so we get to play kind of both roles there,  
00:49:32 --> 00:49:36: which is great. There are a few things I would  
00:49:36 --> 00:49:37: say.  
00:49:37 --> 00:49:40: One is coordination and bringing all the right stakeholders to  
00:49:40 --> 00:49:40: the table.  
00:49:40 --> 00:49:44: I think like you mentioned Stuart that being public about  
00:49:44 --> 00:49:45: where you're going.  
00:49:45 --> 00:49:47: What is that broader goal you do need?  
00:49:47 --> 00:49:48: As I mentioned the beginning,  
00:49:48 --> 00:49:52: you'd need all these stakeholders to understand their part.  
00:49:52 --> 00:49:56: You need to speak to the utilities you have to  
00:49:56 --> 00:49:58: speak to building owners.  
00:49:58 --> 00:49:59: All of them have a lot,  
00:49:59 --> 00:50:00: a lot of impact on this,  
00:50:00 --> 00:50:03: so if you you know if you don't know what  
00:50:03 --> 00:50:06: the utilities direction is or what they're planning,  
00:50:06 --> 00:50:09: you could be talking about one initiative and at the  
00:50:09 --> 00:50:10: same time they're out.  
00:50:10 --> 00:50:12: You know, asking for a new rate case to go  
00:50:12 --> 00:50:16: increase infrastructure in a certain area that totally doesn't  
align  
00:50:16 --> 00:50:18: with you know what what you've said this.  
00:50:18 --> 00:50:21: This broader mission is so one is getting all the  
00:50:21 --> 00:50:22: right people to the table.  
00:50:22 --> 00:50:26: Other I would say is what 11 missing link that  
00:50:26 --> 00:50:27: we have in our law,  
00:50:27 --> 00:50:29: which is the energy audit law,  
00:50:29 --> 00:50:34: local law 87, which is does require commissioning of  
systems,  
00:50:34 --> 00:50:37: does require inventorying of mechanical systems.  
00:50:37 --> 00:50:42: It excludes tenant equipment, which is just a gaping hole  
00:50:42 --> 00:50:44: in all of our analysis.  
00:50:44 --> 00:50:49: So when we're looking to analyze citywide opportunities for  
energy  
00:50:49 --> 00:50:50: reduction,  
00:50:50 --> 00:50:52: you know. Even in the office.

00:50:52 --> 00:50:54: So in multifamily it's almost all you know it's all  
00:50:55 --> 00:50:55: tenant,  
00:50:55 --> 00:50:57: right? You maybe have a boiler common,  
00:50:57 --> 00:50:59: but the rest of the energy is all tenant,  
00:50:59 --> 00:51:01: so that could be 80%  
00:51:01 --> 00:51:05: tenant. And then in commercial buildings maybe it's fifty  
6070%  
00:51:05 --> 00:51:08: tenant, which just means you're missing all of the road  
00:51:08 --> 00:51:12: map you need in order to find those opportunities for  
00:51:12 --> 00:51:12: savings.  
00:51:12 --> 00:51:14: So like we atco green,  
00:51:14 --> 00:51:16: we do a lot of energy audits of buildings for  
00:51:16 --> 00:51:16: local law.  
00:51:16 --> 00:51:19: 87 were always pushing the owners.  
00:51:19 --> 00:51:21: The law only requires common area based building.  
00:51:21 --> 00:51:24: System analysis, but we also think we should analyze the  
00:51:24 --> 00:51:28: tenant systems because ultimately when you look back at  
that  
00:51:28 --> 00:51:28: report,  
00:51:28 --> 00:51:31: and I've analyzed a lot of that city level data  
00:51:32 --> 00:51:35: so the city gets this inventory of every building,  
00:51:35 --> 00:51:37: it has an inventory, but only of the common systems.  
00:51:37 --> 00:51:39: It doesn't have an inventory of the tenant system,  
00:51:39 --> 00:51:43: so when we're trying to develop citywide policies that can  
00:51:43 --> 00:51:48: have the largest impact for major reductions were missing,  
00:51:48 --> 00:51:50: you know how many buildings have window air conditioners?  
00:51:50 --> 00:51:53: How many buildings have? All of those tenant controlled  
systems  
00:51:53 --> 00:51:54: we have.  
00:51:54 --> 00:51:56: We're totally flying blind, so one I would say in  
00:51:56 --> 00:52:00: that sense make sure you're collecting all the data you're  
00:52:00 --> 00:52:03: going to need and its whole building in order to  
00:52:03 --> 00:52:06: drive that, that to find those opportunities for savings so  
00:52:06 --> 00:52:09: that that's a really big piece of it,  
00:52:09 --> 00:52:10: because like you said, Julia,  
00:52:10 --> 00:52:14: the data collection process of benchmarking this and getting  
that  
00:52:14 --> 00:52:18: information in that will be the foundation of your plans,  
00:52:18 --> 00:52:20: because that's where you're starting.  
00:52:20 --> 00:52:21: So I would say you know.  
00:52:21 --> 00:52:23: That's probably the main one.  
00:52:23 --> 00:52:24: Those two are the main ones you know.  
00:52:24 --> 00:52:28: Collaborating in right? People to the table and making sure

00:52:28 --> 00:52:30: you're collecting all that right data.  
00:52:30 --> 00:52:32: Those those to me and also I would say and  
00:52:32 --> 00:52:34: we've tried it in New York,  
00:52:34 --> 00:52:37: even though this law doesn't go into effect until 2025  
00:52:37 --> 00:52:41: is get building owners to start measuring that that energy  
00:52:41 --> 00:52:42: usage.  
00:52:42 --> 00:52:44: It sounds like Kurt, what you're saying is that there's  
00:52:44 --> 00:52:46: more direct payment of utility bills.  
00:52:46 --> 00:52:49: There's more visibility. I was listening to a podcast yesterday,  
00:52:49 --> 00:52:53: said homeowners spend 8 minutes a year thinking about their  
00:52:53 --> 00:52:54: utilities.  
00:52:54 --> 00:52:56: 8 minutes for the whole year.  
00:52:56 --> 00:52:59: Thinking about the utilities so they have no idea what  
00:52:59 --> 00:53:00: they used.  
00:53:00 --> 00:53:01: I have no idea what they spend,  
00:53:01 --> 00:53:03: it's just you know your bill comes in.  
00:53:03 --> 00:53:07: It gets paid so that the the homeowner side of  
00:53:07 --> 00:53:11: things and getting awareness I would say is another piece  
00:53:11 --> 00:53:15: and the last piece I'll say is that that that.  
00:53:15 --> 00:53:18: The peer pressure that's that's as part of this,  
00:53:18 --> 00:53:20: I've been surprised it's actually interesting,  
00:53:20 --> 00:53:23: little tidbit that there's there's two laws right now that  
00:53:23 --> 00:53:26: we're that we're talking to clients about one.  
00:53:26 --> 00:53:27: Is this carbon emissions law,  
00:53:27 --> 00:53:30: which could have huge penalties come in 2025.  
00:53:30 --> 00:53:32: The other is a law that makes you put a  
00:53:32 --> 00:53:34: letter grade for energy on your front door,  
00:53:34 --> 00:53:38: which has no no penalties for having a bad grade.  
00:53:38 --> 00:53:39: It's just on your front door.  
00:53:39 --> 00:53:43: Clients are more worried about that letter grade on their  
00:53:43 --> 00:53:46: front door than a potential \$1,000,000 fine.  
00:53:46 --> 00:53:50: In 2025, because that peer pressure of the CEO,  
00:53:50 --> 00:53:52: the penthouse owner in it,  
00:53:52 --> 00:53:53: this is multi family also,  
00:53:53 --> 00:53:56: right? So it's the penthouse owner and the brand new  
00:53:56 --> 00:53:56: condo.  
00:53:56 --> 00:54:00: It's the CEO of a financial institution who walks into  
00:54:00 --> 00:54:03: their Class A office that they're spending 150 bucks,  
00:54:03 --> 00:54:06: a square foot on, and it says energy grade D  
00:54:06 --> 00:54:09: on the front door they call the owner that they  
00:54:09 --> 00:54:11: call the CEO of the of the landlord and say

00:54:11 --> 00:54:14: what in the world? Why do I have a D?  
00:54:14 --> 00:54:16: You said this was a Class A building.  
00:54:16 --> 00:54:18: That they're more concerned with those letter grades than they  
00:54:18 --> 00:54:19: are about these emissions limits,  
00:54:19 --> 00:54:23: so I would say never underestimate the competitive spirit.  
00:54:23 --> 00:54:24: Again, this is a New York thing,  
00:54:24 --> 00:54:25: but I presume it works in real estate.  
00:54:25 --> 00:54:30: Most places. Never underestimate the competitive spirit and that kind  
00:54:30 --> 00:54:32: of peer communication around these things.  
00:54:32 --> 00:54:35: So doing this behind closed doors,  
00:54:35 --> 00:54:38: it will have much less effectiveness than doing it out  
00:54:38 --> 00:54:39: in the open.  
00:54:39 --> 00:54:40: With that kind of peer pressure.  
00:54:42 --> 00:54:43: I just jump in on something.  
00:54:43 --> 00:54:46: Yeah please. 'cause utilities  
00:54:46 --> 00:54:48: you know and this sort of eight minutes is an  
00:54:48 --> 00:54:49: interesting statistic.  
00:54:49 --> 00:54:51: I mean, not only do people spend very little time  
00:54:51 --> 00:54:52: thinking about it,  
00:54:52 --> 00:54:56: they actually don't know what's in their utilities and and  
00:54:56 --> 00:54:59: we have a particular situation like it.  
00:54:59 --> 00:55:03: You know, I look at the the transformed to plan  
00:55:03 --> 00:55:08: and any any plan for decarbonizing in cities and decarbonizing  
00:55:08 --> 00:55:11: buildings is includes electrification,  
00:55:11 --> 00:55:13: right? This is. In every city,  
00:55:13 --> 00:55:16: in every jurisdiction, so you know,  
00:55:16 --> 00:55:21: moving from gas, heating or oil like fossil fuels to  
00:55:21 --> 00:55:22: electricity,  
00:55:22 --> 00:55:26: because we can make zero carbon electrons and and so  
00:55:26 --> 00:55:30: the carbon intensity of the grid is a really key  
00:55:31 --> 00:55:36: factor that will allow or undermine building owners ability to  
00:55:36 --> 00:55:40: meet those targets. And so obviously you know we're New  
00:55:40 --> 00:55:42: York City and operates,  
00:55:42 --> 00:55:44: I presume within the New York State.  
00:55:44 --> 00:55:47: Electric grid and in fact you know even a broader  
00:55:47 --> 00:55:49: North American grid.  
00:55:49 --> 00:55:53: There's Quebec Hydro now going to go to New York  
00:55:53 --> 00:55:57: City and and we have a situation where the forecast  
00:55:57 --> 00:56:02: is for the carbon intensity of the grid to increase  
00:56:02 --> 00:56:04: by like 4 to 500%



00:56:04 --> 00:56:08: because gas fired generation is increasing.

00:56:08 --> 00:56:09: I mean, we phased out coal.

00:56:09 --> 00:56:10: We made some great gains,

00:56:10 --> 00:56:12: but now we're going in the opposite direction.

00:56:12 --> 00:56:14: So I'm curious how this is.

00:56:15 --> 00:56:19: Playing into the situation in New York City and and

00:56:19 --> 00:56:23: that you know the real estate sector's response to to

00:56:24 --> 00:56:27: you know what they buy from the grid.

00:56:27 --> 00:56:29: Like do they have control or do they have a

00:56:29 --> 00:56:29: say?

00:56:31 --> 00:56:33: Chris, I'm gonna give you one minute to answer,

00:56:33 --> 00:56:35: one minute to answer, and then we're going to have

00:56:35 --> 00:56:38: to turn it back over to Richard because we're actually

00:56:38 --> 00:56:39: going to have to wrap things up.

00:56:40 --> 00:56:41: So what I will say,

00:56:41 --> 00:56:43: and this sort of quick two part answer that what

00:56:43 --> 00:56:44: I will say is that yes,

00:56:44 --> 00:56:47: that piece I said originally coordination with the utility must

00:56:47 --> 00:56:48: be a part of this,

00:56:48 --> 00:56:49: especially if you're talking about emissions.

00:56:49 --> 00:56:50: If a law was based on,

00:56:50 --> 00:56:53: say, EU energy use intensity,

00:56:53 --> 00:56:54: it could just be within the building,

00:56:54 --> 00:56:57: but if you know you have to have coordination with

00:56:57 --> 00:56:59: the utility currently there was a lot of discussion to

00:56:59 --> 00:57:01: pin down what those emissions.

00:57:01 --> 00:57:04: Factors will be what that renewable content will be and

00:57:04 --> 00:57:07: the other I'll say is that it has broadened their

00:57:07 --> 00:57:10: horizons of our building owner clients to not just think

00:57:10 --> 00:57:11: about what they're doing with in the building,

00:57:11 --> 00:57:14: but how they impact the broader context of where they're

00:57:14 --> 00:57:15: buying that energy.

00:57:15 --> 00:57:16: So in that sense, it's good.

00:57:16 --> 00:57:19: It's broadened their exposure, but it has made them

00:57:19 --> 00:57:21: accountable

00:57:19 --> 00:57:21: for some things that are outside of their immediate control,

00:57:21 --> 00:57:23: so it is a huge part of this puzzle.

00:57:25 --> 00:57:28: Thank you so much. Come I have a million more

00:57:28 --> 00:57:31: questions and in my mind and I'm sure that the

00:57:31 --> 00:57:36: other panelists would love to pepper each other with

00:57:36 --> 00:57:39: questions,

00:57:36 --> 00:57:39: but we are essentially out of time and so I

00:57:39 --> 00:57:42: want to say thank you to everyone for that.  
00:57:42 --> 00:57:44: And I want to turn it back over to Richard  
00:57:44 --> 00:57:46: for some wrap up remarks.  
00:57:46 --> 00:57:52: Thank you Sandra. That was brilliantly executed discussion  
and to  
00:57:52 --> 00:57:55: the point about having a million more questions.  
00:57:55 --> 00:57:57: That's what we're here for.  
00:57:57 --> 00:58:01: We are going to be unpacking these these many,  
00:58:01 --> 00:58:05: many questions and we just really applaud the leadership of  
00:58:05 --> 00:58:10: of New York City and other US jurisdictions for setting  
00:58:10 --> 00:58:13: up a very nice high bar for the work that  
00:58:13 --> 00:58:16: that is is being done here in Toronto.  
00:58:16 --> 00:58:18: And there's some incredible leadership here as well.  
00:58:18 --> 00:58:23: Led by the city led by by Taft and others.  
00:58:23 --> 00:58:26: And so we're going to.  
00:58:26 --> 00:58:30: Our audience here can expect us to be unpacking those  
00:58:30 --> 00:58:33: very questions in the coming weeks in fact,  
00:58:33 --> 00:58:35: and and obviously into the long term.  
00:58:35 --> 00:58:40: We've talked to Stuart about that and we're looking forward  
00:58:40 --> 00:58:45: to really digging into Toronto's July legislation that that that  
00:58:45 --> 00:58:51: really dictates a very interesting future shift for both existing  
00:58:51 --> 00:58:54: future and existing buildings. You see on the slide here  
00:58:54 --> 00:58:56: a number of other slides that are.  
00:58:56 --> 00:58:59: There are other other events that are coming and hopefully  
00:58:59 --> 00:59:02: you'll have a chance to talk into to these as  
00:59:02 --> 00:59:03: well.  
00:59:03 --> 00:59:06: We always have a large variety of programs.  
00:59:06 --> 00:59:10: The annual trends program is a must attend for everybody.  
00:59:10 --> 00:59:14: Very, very interesting report that will be revealed in two  
00:59:14 --> 00:59:18: weeks time and and and discuss later that week.  
00:59:18 --> 00:59:20: The geography of jobs is fascinating.  
00:59:20 --> 00:59:24: Program are Curtner Urban leadership program is still taking  
applications  
00:59:24 --> 00:59:26: for mid career professionals.  
00:59:26 --> 00:59:28: This is that six year really,  
00:59:28 --> 00:59:31: really popular program. If you are a mid career professional  
00:59:31 --> 00:59:32: or know some,  
00:59:32 --> 00:59:36: please join this program. I'm now at time.  
00:59:36 --> 00:59:39: So with that I have to thank Christopher so much  
00:59:39 --> 00:59:43: for doing this Sandra for leading their conversation.  
00:59:43 --> 00:59:46: Kirk Julia Stewart. Thank you and have a great week  
00:59:46 --> 00:59:48: and will talk to you very soon.

00:59:48 --> 00:59:48: Bye bye.  
00:59:49 --> 00:59:51: Thank you all. Thanks  
00:59:51 --> 00:59:53: very much. Who's pleasure? Bye bye.  
00:59:54 --> 00:59:56: Thanks everybody by day  
00:59:56 --> 00:59:57: later.

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