

# Webinar

## ULI Global Sustainability Outlook 2025

Date: February 07, 2025

00:00:03 --> 00:00:04: Welcome everyone.

00:00:05 --> 00:00:06: We're going to start in a few minutes.

00:00:16 --> 00:00:18: Welcome to our attendees.

00:00:18 --> 00:00:22: This is the ULI Global Sustainability Outlook 2025.

00:00:22 --> 00:00:24: We're going to get started in a couple minutes.

00:00:24 --> 00:00:26: We're waiting for folks to join.

00:00:44 --> 00:00:46: Welcome to those just joining us.

00:00:46 --> 00:00:49: This is Uli's Global Sustainability Outlook webinar.

00:00:49 --> 00:00:52: We will be joining in just a few minutes time

00:00:52 --> 00:00:55: just waiting for folks to join the webinar.

00:01:05 --> 00:01:06: Welcome everyone.

00:01:06 --> 00:01:07: Thanks for joining us.

00:01:07 --> 00:01:09: We'll get started in just a minute or so.

00:01:10 --> 00:01:14: Our attendee number is slowly creeping up.

00:01:14 --> 00:01:15: Thank you for joining us.

00:01:15 --> 00:01:17: We're excited to see everyone.

00:01:29 --> 00:01:30: Welcome.

00:01:30 --> 00:01:32: We'll get started in about 30 seconds.

00:01:55 --> 00:01:56: OK.

00:01:56 --> 00:01:58: Welcome to all of those who have joined us.

00:01:58 --> 00:02:01: It looks like we still have some attendees joining the

00:02:01 --> 00:02:04: Zoom today, but I'll go ahead and get started.

00:02:04 --> 00:02:06: It's about two after the hour.

00:02:06 --> 00:02:11: You have joined the ULI Global Sustainability Outlook 2025.

00:02:11 --> 00:02:12: How do we move forward?

00:02:12 --> 00:02:16: Webinar based on the article that was published earlier in

00:02:16 --> 00:02:17: January.

00:02:19 --> 00:02:21: My name is Kara Kokernak.

00:02:21 --> 00:02:23: I am a senior Director on our D Carb team

00:02:23 --> 00:02:27: in the Center for Sustainability and I'm going to be  
00:02:27 --> 00:02:29: hosting you through this discussion today.  
00:02:30 --> 00:02:32: First thing I want to talk about is what is  
00:02:32 --> 00:02:34: our global sustainability outlook.  
00:02:35 --> 00:02:38: So a global sustainability outlook is a report or article  
00:02:38 --> 00:02:42: that utilize the Center for Sustainability produces each year.  
00:02:42 --> 00:02:45: Now we're on our 4th or 5th and we interview  
00:02:45 --> 00:02:50: you and I, member experts globally to inform the outlook  
00:02:50 --> 00:02:51: for the coming year.  
00:02:51 --> 00:02:56: So we talked to our sustainability focused product councils in  
00:02:56 --> 00:03:00: the Americas, in the EU and in Asia Pacific.  
00:03:00 --> 00:03:02: We talked to them about general ideas.  
00:03:02 --> 00:03:06: We don't really set an agenda or set specific topics,  
00:03:06 --> 00:03:10: but we ask them what sustainability topics and issues are  
00:03:10 --> 00:03:13: on the rise, why do they matter, and what actions  
00:03:13 --> 00:03:17: should should the industry or their own organizations pursue  
moving  
00:03:17 --> 00:03:18: forward?  
00:03:19 --> 00:03:23: So all of those conversations occurred towards the end of  
00:03:23 --> 00:03:24: 2024.  
00:03:24 --> 00:03:27: We look at all of our notes, we pull out  
00:03:27 --> 00:03:31: all the ideas and fantastic innovations that we talk about  
00:03:31 --> 00:03:34: on those calls, and we come up with our five  
00:03:34 --> 00:03:38: topics, and you can find all of these at [uli.org](http://uli.org)  
00:03:38 --> 00:03:39: #sustainability Outlook.  
00:03:39 --> 00:03:43: We've got our reports from 2021 all the way through  
00:03:43 --> 00:03:46: 2024, and this year we pivoted a little bit.  
00:03:46 --> 00:03:50: We focused on producing an article on urban land Online,  
00:03:50 --> 00:03:51: so please visit those links.  
00:03:51 --> 00:03:53: We will also have someone drop that in the chat  
00:03:53 --> 00:03:54: for you all.  
00:03:56 --> 00:03:57: So let's jump in here.  
00:03:57 --> 00:04:01: I want to introduce our fantastic panel and get started  
00:04:01 --> 00:04:04: on reviewing those big topics and why they are important  
00:04:04 --> 00:04:07: to the industry and how we move forward on that.  
00:04:07 --> 00:04:10: We started out here with a quote from one of  
00:04:10 --> 00:04:13: our participants in one of those round tables.  
00:04:13 --> 00:04:16: And that we don't want to distract from what's important  
00:04:16 --> 00:04:19: right now, prioritizing resilience and reduced carbon  
emissions.  
00:04:19 --> 00:04:22: And that really is a big focus of our discussion  
00:04:22 --> 00:04:24: moving forward is what to prioritize.  
00:04:26 --> 00:04:29: We're going to go quickly through these introductions, those

that

00:04:29 --> 00:04:31: overview of the key focus points and then AQ and

00:04:31 --> 00:04:31: A.

00:04:32 --> 00:04:34: But this is the the best part of my job

00:04:34 --> 00:04:35: today.

00:04:35 --> 00:04:38: And that is doing a quick introduction of our great

00:04:38 --> 00:04:41: panellists who are all part of that discussion in late

00:04:41 --> 00:04:41: 2024.

00:04:42 --> 00:04:43: So I'm going to pass this over to them if

00:04:43 --> 00:04:46: you want to come off mute and just introduce yourself

00:04:46 --> 00:04:48: really quickly before we dive into the topics.

00:04:48 --> 00:04:53: So we have Sonia Khanna, investment partner from Galway

00:04:53 --> 00:04:54: Sustainability

00:04:53 --> 00:04:54: Capital.

00:04:54 --> 00:04:55: Do you want to say hi quickly, Sonia?

00:04:56 --> 00:04:57: Hi everyone.

00:04:57 --> 00:05:00: I'm an investment partner at Galway Sustainable Capital.

00:05:00 --> 00:05:04: I run the green building sector for Galway.

00:05:04 --> 00:05:08: We are a specialty finance company that is focused on

00:05:08 --> 00:05:14: making investments that that promote environmental and

00:05:16 --> 00:05:16: social sustainability.

00:05:16 --> 00:05:16: Welcome.

00:05:16 --> 00:05:18: Thanks for joining us today, Mark.

00:05:19 --> 00:05:20: Thanks, Kara.

00:05:20 --> 00:05:21: I'm Mark Basin.

00:05:21 --> 00:05:24: I'm a Senior Vice President with Basis Investment Group

00:05:24 --> 00:05:25: here

00:05:24 --> 00:05:25: in New York City.

00:05:25 --> 00:05:27: We're a real estate investment manager and lender.

00:05:28 --> 00:05:30: I'm also an adjunct associate professor of finance at the

00:05:30 --> 00:05:33: NYU Stern School Business, where I teach two classes, a

00:05:33 --> 00:05:36: real estate capital markets class and a real estate finance

00:05:36 --> 00:05:37: and investments class.

00:05:37 --> 00:05:40: I'm the vice Chair of programs for the ULI Sustainable

00:05:40 --> 00:05:44: Development Council, member of the ULI New York Housing

00:05:44 --> 00:05:46: Council,

00:05:44 --> 00:05:46: and was a member of the 2018 cohort in the

00:05:47 --> 00:05:48: ULI Health Leaders.

00:05:48 --> 00:05:49: Pro program.

00:05:50 --> 00:05:51: Fantastic, Mark.

00:05:51 --> 00:05:52: Thanks for joining us today.

00:05:52 --> 00:05:53: And Antonio.

00:05:55 --> 00:05:55: Hi.

00:05:55 --> 00:05:56: Hi everyone.

00:05:56 --> 00:06:00: This is Antonio Marotta and I lead the Italian practice

00:06:00 --> 00:06:04: Catalyst where we work across a wide range of new

00:06:04 --> 00:06:09: developments and operational assets in basically all the asset classes

00:06:09 --> 00:06:10: across the market.

00:06:11 --> 00:06:14: And I'm focused of course in SGN sustainability.

00:06:15 --> 00:06:18: And yeah, probably we will touch all the points that

00:06:18 --> 00:06:21: we, that we used to see on a day-to-day basis.

00:06:22 --> 00:06:26: And I also hold a PhD in sustainable development where

00:06:26 --> 00:06:30: I forecasted the greenhouse gas emission forecast.

00:06:30 --> 00:06:33: So well, it will be 1 of the key topics.

00:06:33 --> 00:06:34: So I leave it back to you.

00:06:36 --> 00:06:36: Thanks.

00:06:36 --> 00:06:38: Antonio gave us a little bit of a sneak peek

00:06:38 --> 00:06:39: into what's coming ahead.

00:06:39 --> 00:06:40: I love that.

00:06:41 --> 00:06:45: So let's move on to our top five sustainability issues

00:06:45 --> 00:06:45: in 2025.

00:06:46 --> 00:06:48: And I want to be clear as we list these

00:06:48 --> 00:06:51: five issues or topics, this is not meant to show

00:06:51 --> 00:06:55: the entire landscape of what's coming ahead in 2025, but

00:06:55 --> 00:06:58: these are the top five items we talked about in

00:06:58 --> 00:07:01: those discussions and that we pulled out.

00:07:01 --> 00:07:03: There are certainly other topics.

00:07:03 --> 00:07:06: There are certainly other events that will occur that will

00:07:06 --> 00:07:09: push what we're doing in 2025, but these are based

00:07:09 --> 00:07:11: on those conversations.

00:07:11 --> 00:07:13: So we'll go through these one by one.

00:07:13 --> 00:07:16: We've got simplifying goals and prioritizing decarbonization.

00:07:16 --> 00:07:19: We talked about that a little bit already and #2

00:07:19 --> 00:07:22: was emphasizing the impact of building materials.

00:07:22 --> 00:07:25: So what goes into our buildings, how we transport those

00:07:25 --> 00:07:30: building materials, where we're finding them, where we're reusing them

00:07:30 --> 00:07:33: #3 is focusing on occupiers, demand, health and well-being.

00:07:33 --> 00:07:36: Something that we work on ULI quite a bit is

00:07:36 --> 00:07:40: the connection and collaboration between the building owner and operator

00:07:40 --> 00:07:42: and the building user and or occupier.

00:07:42 --> 00:07:45: So that's a big topic we want to focus on

00:07:45 --> 00:07:49: in 2025 #4 is sourcing and storing green power.

00:07:49 --> 00:07:50: That was a little bit of a highlight we just

00:07:50 --> 00:07:50: heard.

00:07:51 --> 00:07:54: And then #5 investing in resilience.

00:07:54 --> 00:07:56: And we'll dive into a little bit about what that

00:07:56 --> 00:08:00: means and the nuances of investing in resilience, in particular

00:08:00 --> 00:08:01: in climate change coming up.

00:08:03 --> 00:08:06: So first, we're going to jump into that first one,

00:08:06 --> 00:08:08: simplifying goals and prioritizing decarbonization.

00:08:08 --> 00:08:12: As Daniel Chang, one of our participants with Europe ESG

00:08:12 --> 00:08:16: at Heinz, said, actionability and practical solutions are key.

00:08:16 --> 00:08:19: What do we do in in in a world where

00:08:19 --> 00:08:23: there are so many options and so many different strategies,

00:08:23 --> 00:08:27: so much different prop tech, different ideas, different ways to

00:08:27 --> 00:08:32: to hit net zero, different goals to set different requirements

00:08:32 --> 00:08:36: coming in different voluntary that you're being sent day by

00:08:36 --> 00:08:36: day.

00:08:36 --> 00:08:40: How do you simplify that, simplify that and really prioritize

00:08:40 --> 00:08:43: what works best for your organization and what works best

00:08:43 --> 00:08:46: for really increasing impact in the industry.

00:08:46 --> 00:08:49: So before we ask our panel to give their side

00:08:49 --> 00:08:52: of things, we do have something really quick we want

00:08:52 --> 00:08:55: to try today, and that is a quick poll of

00:08:55 --> 00:08:56: our our participants.

00:08:57 --> 00:08:59: So if you are at a computer or you have

00:08:59 --> 00:09:02: your cell phone or other device on you, you can

00:09:02 --> 00:09:06: join slido.com at that particular number or you can take

00:09:06 --> 00:09:10: a quick picture of that QR code and start answering

00:09:10 --> 00:09:11: this particular question.

00:09:12 --> 00:09:15: And what is the biggest priority for your company?

00:09:15 --> 00:09:17: Is it measuring energy use intensity?

00:09:18 --> 00:09:22: Is it growing ESG teams?

00:09:22 --> 00:09:23: Is it reducing material costs?

00:09:23 --> 00:09:25: It looks like we've got some folks already answering and

00:09:26 --> 00:09:28: obviously we don't know what this is going to result

00:09:28 --> 00:09:28: in.

00:09:28 --> 00:09:30: So it might change our conversation, you know, based on

00:09:30 --> 00:09:32: on what you all are thinking.

00:09:34 --> 00:09:36: I'm going to give it a just like a minute

00:09:36 --> 00:09:37: here.

00:09:37 --> 00:09:40: We're at, you know, almost 10 after after the hour.

00:09:43 --> 00:09:44: This is great.

00:09:47 --> 00:09:51: Not a complete surprise, but very interesting seeing these

numbers  
00:09:51 --> 00:09:52: come through.  
00:09:55 --> 00:09:57: How about as folks are still voting and let me  
00:09:57 --> 00:09:58: see how many folks are in their voting.  
00:09:58 --> 00:10:01: We have about 5859 people voting.  
00:10:01 --> 00:10:03: So we'll give it a little bit of time here.  
00:10:03 --> 00:10:04: And now it's up to 61.  
00:10:05 --> 00:10:10: Thank you all for for entertaining this new, new idea  
00:10:10 --> 00:10:12: we had to our panel.  
00:10:12 --> 00:10:15: Let's talk a little bit about simplifying goals and prioritization  
00:10:15 --> 00:10:18: and what what you all's biggest priority is for your  
00:10:18 --> 00:10:21: company and what you think about moving forward.  
00:10:23 --> 00:10:26: Sarah, I can start on this despite at the US  
00:10:26 --> 00:10:29: federal level, despite there being changes at the US federal  
00:10:29 --> 00:10:32: level, notably the US being taken out of the 2015  
00:10:33 --> 00:10:36: Paris Agreement for the second time, first time occurring in  
00:10:36 --> 00:10:37: 2017.  
00:10:37 --> 00:10:41: The good news for sustainability champions is that  
sustainability or  
00:10:41 --> 00:10:45: climate change sustainability, governor governance and  
leadership will continue to  
00:10:45 --> 00:10:48: occur at the sub national level, at the state, city  
00:10:48 --> 00:10:49: and local municipality levels.  
00:10:50 --> 00:10:53: So for example, Local Law 97 passed in 2019 as  
00:10:53 --> 00:10:56: part of the Climate Mobilization Act is likely going to  
00:10:56 --> 00:10:59: stay intact and that was a groundbreaking event.  
00:10:59 --> 00:11:03: Since 2019, fifty cities have enacted building performance  
standards laws  
00:11:03 --> 00:11:06: or will be enacting or in the process of enacting  
00:11:06 --> 00:11:09: building performance standard standards laws.  
00:11:10 --> 00:11:13: These other cities include Denver with it with it's energized  
00:11:14 --> 00:11:18: Denver program and the building performance standards  
laws in cities  
00:11:18 --> 00:11:20: such as Washington DC and and Seattle, WA.  
00:11:21 --> 00:11:24: So it will continue at the at the sub national  
00:11:24 --> 00:11:24: level.  
00:11:25 --> 00:11:28: Also related to that is the important role of public  
00:11:28 --> 00:11:32: private partnerships in addition to corporate initiatives, which  
are certainly  
00:11:32 --> 00:11:35: something that we should promote and embrace.  
00:11:35 --> 00:11:39: The combination of financial incentives and sub national  
climate policy  
00:11:40 --> 00:11:44: regulations taken together in what we've seen in studies

provides  
00:11:44 --> 00:11:47: the greatest greenhouse gas reduction benefit.  
00:11:49 --> 00:11:51: And then my second point will be on AI, artificial  
00:11:51 --> 00:11:52: intelligence.  
00:11:52 --> 00:11:54: This includes generative AI or Gen.  
00:11:54 --> 00:11:56: AI in those large language models.  
00:11:56 --> 00:11:59: Of course, this is a huge trend in business.  
00:11:59 --> 00:12:02: Generally what we find there are many use cases, positive  
00:12:02 --> 00:12:05: use cases along the real estate life cycle.  
00:12:05 --> 00:12:08: Many of these use cases tend to be high ROI,  
00:12:08 --> 00:12:09: low friction.  
00:12:09 --> 00:12:12: But some examples will be for in the pre development  
00:12:12 --> 00:12:16: phase estimating the sustainability or ESG impact, in the  
construction  
00:12:16 --> 00:12:20: phase minimizing waste and construction delays, and then in  
the  
00:12:20 --> 00:12:24: commissioning phase ensuring that sustainability goals are  
met.  
00:12:25 --> 00:12:28: I'd like to stop there and let some other panelists  
00:12:28 --> 00:12:28: contribute.  
00:12:28 --> 00:12:30: I do some other comments I can make later.  
00:12:30 --> 00:12:31: Thanks, Mark.  
00:12:31 --> 00:12:34: And you know really quickly before we go into Antonio  
00:12:34 --> 00:12:36: Antonia is that AI was really close to being one  
00:12:36 --> 00:12:38: of the five topics.  
00:12:38 --> 00:12:40: We talked about that in quite a bit of the  
00:12:40 --> 00:12:44: conversations and and we kind of ended that discussion in  
00:12:44 --> 00:12:47: in sort of folding that into some of the other  
00:12:47 --> 00:12:48: big topics.  
00:12:48 --> 00:12:49: I appreciate you bringing that up.  
00:12:49 --> 00:12:51: Thank you, Antonio or or Sonia.  
00:12:52 --> 00:12:54: Yeah, I'm happy to go.  
00:12:54 --> 00:12:59: So it's very interesting the link because we are developing  
00:12:59 --> 00:13:04: a platform internally called OB and we're actually addressing  
those  
00:13:04 --> 00:13:05: topics.  
00:13:05 --> 00:13:08: So we would like to first of all track the  
00:13:08 --> 00:13:12: KPI's that we set and secondly to, you know, manipulate  
00:13:12 --> 00:13:14: the data in the correct way.  
00:13:14 --> 00:13:17: So both in terms of, you know, data validation that  
00:13:17 --> 00:13:20: we have and in terms of, you know, automatic meter  
00:13:20 --> 00:13:20: reading.  
00:13:20 --> 00:13:23: So you know, so to the through the to the

00:13:23 --> 00:13:27: AI, we would like to automate all this process.

00:13:27 --> 00:13:31: Now I'd like to briefly mention also the since then,

00:13:31 --> 00:13:35: the only one in the panel from Europe, I would

00:13:35 --> 00:13:38: like to to quickly make a comparison.

00:13:39 --> 00:13:42: So here we have some, some regulations that are, you

00:13:42 --> 00:13:46: know, maybe you already heard about them, the SFDR, the

00:13:46 --> 00:13:48: Sustainable Finance Disclosure Regulation.

00:13:49 --> 00:13:52: So what what's happening in that part is that we

00:13:52 --> 00:13:55: are categorizing the funds.

00:13:56 --> 00:13:59: At the moment, we have 3 type of funds that

00:13:59 --> 00:14:03: are Article 98 and six that are green, light green

00:14:04 --> 00:14:07: and without a commitment with sustainability.

00:14:08 --> 00:14:11: And this is going to change in the SFDR 2

00:14:11 --> 00:14:15: point O where we're going to see, you know, different

00:14:15 --> 00:14:17: commitments with sustainability.

00:14:17 --> 00:14:20: So there is a sustainable, proper sustainable fund that is

00:14:20 --> 00:14:21: the first product.

00:14:22 --> 00:14:24: Then the second one is a transitioning product.

00:14:24 --> 00:14:27: The third one is only an ESG collection and then

00:14:27 --> 00:14:30: the last one where there is no ESG collection.

00:14:30 --> 00:14:34: So it's interesting to see how different continents are also

00:14:34 --> 00:14:36: approaching, you know, the same topic again.

00:14:42 --> 00:14:43: Yeah, no, I was going to.

00:14:43 --> 00:14:46: You know, go back to this survey that Cara put

00:14:46 --> 00:14:50: up and just talking about measuring energy use intensity for,

00:14:50 --> 00:14:53: you know, in the US, you know, often Europe is

00:14:53 --> 00:14:54: a little bit ahead of us.

00:14:54 --> 00:14:58: But in the USA, lot of this comes down to,

00:14:58 --> 00:15:02: you know, the very basic idea of measuring and tracking

00:15:02 --> 00:15:02: data.

00:15:03 --> 00:15:06: I'd say a lot of real estate owners in the

00:15:06 --> 00:15:10: US still need to begin by doing that in order

00:15:10 --> 00:15:13: to proceed along this path of decarbonization.

00:15:13 --> 00:15:17: So when we work with our portfolio companies and our

00:15:17 --> 00:15:20: real estate partners, what we first do is have them

00:15:20 --> 00:15:24: track energy usage, water usage, waste production, and then

00:15:24 --> 00:15:28: we

00:15:28 --> 00:15:30: can start looking for those low hanging fruits in terms

00:15:32 --> 00:15:36: of ways to decarbonize those buildings.

00:15:36 --> 00:15:40: For example, we recently invested in a portfolio of multifamily

00:15:36 --> 00:15:40: buildings in Washington, DC and began tracking these

00:15:36 --> 00:15:40: metrics like



00:15:40 --> 00:15:41: I described.

00:15:42 --> 00:15:46: And now we're looking at decarbonization measures, one of which

00:15:46 --> 00:15:50: an obvious one would be adding rooftop solar, but there

00:15:50 --> 00:15:53: are other there are other products out there and many

00:15:53 --> 00:15:56: of them using AI as was just discussed.

00:15:57 --> 00:16:01: One of them in particular is putting water sensors on

00:16:01 --> 00:16:05: each toilet and each faucet in in a building, in

00:16:05 --> 00:16:07: an apartment building.

00:16:07 --> 00:16:11: And that way, when there is excess usage or leakage,

00:16:11 --> 00:16:15: a property manager can be informed immediately.

00:16:15 --> 00:16:18: These sensors all report into a centralized system.

00:16:18 --> 00:16:21: It can report that to a property manager immediately and

00:16:21 --> 00:16:24: they can go ahead and do what's necessary to fix

00:16:24 --> 00:16:26: that problem and not have to wait till the end

00:16:26 --> 00:16:29: of the month when a water bill is actually received.

00:16:30 --> 00:16:33: And, you know, based on the cost that we've seen

00:16:33 --> 00:16:36: for this, the amount of cost for installing all of

00:16:36 --> 00:16:40: those sensors would be paid back within one year based

00:16:40 --> 00:16:44: on the projected water savings from those from those sensors.

00:16:44 --> 00:16:47: So this can be really something that cut that leads

00:16:47 --> 00:16:51: to, you know, expense savings, which I'm sure all real

00:16:51 --> 00:16:55: estate investors are interested in, while also promoting, you know,

00:16:55 --> 00:16:57: sustainability and and less water use.

00:16:58 --> 00:16:59: That's a great example.

00:16:59 --> 00:17:01: A one year payback is pretty hard to beat so

00:17:01 --> 00:17:03: appreciate sharing that example.

00:17:03 --> 00:17:05: Any other comments before we move on to the second

00:17:05 --> 00:17:05: topic?

00:17:06 --> 00:17:08: Here I have one final comment and just some examples

00:17:08 --> 00:17:11: of sub national policies at the state level that will

00:17:11 --> 00:17:12: stay intact.

00:17:12 --> 00:17:17: These include State bill 253-2261 in California and the CLCPA,

00:17:17 --> 00:17:20: the so-called Climate Act in New York State.

00:17:20 --> 00:17:22: We'll come back to this when we talk about the

00:17:22 --> 00:17:24: Chippy project in topic 4.

00:17:24 --> 00:17:26: But one final theme for me will be on C

00:17:26 --> 00:17:27: pace financing.

00:17:27 --> 00:17:30: This is a bit of an exotic type of financing

00:17:30 --> 00:17:32: that was created about 15 years ago.

00:17:32 --> 00:17:34: Today, there are about 40 states here in the US  
00:17:34 --> 00:17:38: authorized for C PACE financing, where it's an assessment  
on  
00:17:38 --> 00:17:42: a mortgage providing financing for owners to complete  
energy efficiency  
00:17:42 --> 00:17:44: upgrades to commercial real estate.  
00:17:44 --> 00:17:48: At the end of 2023, about \$7 billion of cumulative  
00:17:48 --> 00:17:49: C PACE loans were made.  
00:17:50 --> 00:17:54: About 30% of that 2 billion were made in 2023  
00:17:54 --> 00:17:55: alone.  
00:17:55 --> 00:17:57: So one of the biggest drivers for C pace is  
00:17:57 --> 00:17:58: what I mentioned earlier on, right?  
00:17:58 --> 00:18:01: Since 2019 50 cities in the US, about 50 cities have  
00:18:01 --> 00:18:05: enacted building performance standards loss or in the  
process of  
00:18:05 --> 00:18:06: doing it.  
00:18:06 --> 00:18:08: So C Pace is a type of financing that can  
00:18:08 --> 00:18:12: meet some of these building performance standards loss that  
are  
00:18:12 --> 00:18:15: now increasingly being put into effect throughout our great  
cities  
00:18:15 --> 00:18:16: here in the US.  
00:18:17 --> 00:18:17: Yeah.  
00:18:17 --> 00:18:18: You know, that's a great point.  
00:18:18 --> 00:18:21: And it really kind of speaks Mark to like what  
00:18:21 --> 00:18:25: we're seeing here on this survey that, you know, 51%  
00:18:25 --> 00:18:28: of participants and we have about 275 folks on the  
00:18:29 --> 00:18:32: call right now said measuring energy use intensity.  
00:18:32 --> 00:18:34: So half of the folks are looking at that.  
00:18:34 --> 00:18:38: Is that a voluntary priority or is that a priority  
00:18:38 --> 00:18:42: because you have to measure EUI because there are, you  
00:18:43 --> 00:18:47: know, requirements in your city or jurisdiction or, or state.  
00:18:47 --> 00:18:49: So that's really interesting to see.  
00:18:49 --> 00:18:52: It would, it would be interesting for me, you know,  
00:18:52 --> 00:18:54: at at UI looking at impact of of this webinar  
00:18:54 --> 00:18:57: and beyond if we add added follow up questions and  
00:18:57 --> 00:18:59: maybe we will next year.  
00:18:59 --> 00:18:59: Like why is that?  
00:18:59 --> 00:19:01: Is it because you are in a city that you  
00:19:01 --> 00:19:02: know...  
00:19:02 --> 00:19:04: but it is, you know, it kind of speaks to  
00:19:04 --> 00:19:05: what's happening in the industry.  
00:19:05 --> 00:19:07: Oh, and look, folks are answering it as I said

00:19:07 --> 00:19:10: that and flipped it a little bit, but not too  
00:19:10 --> 00:19:10: much.  
00:19:11 --> 00:19:15: All right, well, we'll move on here to number 2  
00:19:15 --> 00:19:18: and this one does not have a slide.  
00:19:18 --> 00:19:19: Oh quiz, but we will be doing a couple more.  
00:19:20 --> 00:19:24: So the second topic was emphasizing the impact of building  
00:19:24 --> 00:19:25: materials.  
00:19:25 --> 00:19:29: As Clemens, our Head of Head of Sustainability at Rediffco  
00:19:29 --> 00:19:33: said, we are making a bigger push towards reducing  
embodied  
00:19:34 --> 00:19:37: carbon in our development and retro retrofit activities.  
00:19:38 --> 00:19:41: For those of you that are on the webinar today,  
00:19:41 --> 00:19:44: this is really focusing on the carbon content of building  
00:19:44 --> 00:19:49: materials including the the carbon emissions associated with  
the extraction,  
00:19:49 --> 00:19:54: manufacturing, transportation, construction of buildings and  
building material.  
00:19:54 --> 00:19:58: So all of that taken into consideration in addition to  
00:19:58 --> 00:20:01: what I think we commonly haul and focus on, I  
00:20:01 --> 00:20:05: know an operation operational emissions what you what  
emissions are  
00:20:05 --> 00:20:07: associated with running.  
00:20:07 --> 00:20:08: Operating your building.  
00:20:08 --> 00:20:11: So I'd like to hear from the panel, how are  
00:20:11 --> 00:20:13: you emphasizing the impact of building materials?  
00:20:13 --> 00:20:16: What are you seeing ahead in 2025?  
00:20:17 --> 00:20:20: I know building material cost is a big piece of  
00:20:20 --> 00:20:24: that, but also the impact of the materials themselves.  
00:20:25 --> 00:20:27: I can start on this one.  
00:20:28 --> 00:20:31: Just picking up on the embodied carbon idea.  
00:20:32 --> 00:20:37: You know, some basic metrics are that building materials can  
00:20:37 --> 00:20:40: contribute up to 80% of the embodied carbon in a  
00:20:40 --> 00:20:45: building and the embodied carbon contributes 30% of overall  
carbon  
00:20:45 --> 00:20:47: emissions of a building.  
00:20:47 --> 00:20:50: So as, as you kind of mentioned there in the  
00:20:50 --> 00:20:53: intro, the most sustainable thing a developer can do is  
00:20:53 --> 00:20:56: to maintain an existing building and improve the energy  
efficiency  
00:20:56 --> 00:21:00: of that building versus building a new building, even if  
00:21:00 --> 00:21:03: that new building is say, lead platinum, for example.  
00:21:04 --> 00:21:07: This brings up the idea of adaptive reuse or conversion  
00:21:07 --> 00:21:11: of existing, perhaps stranded buildings into a use that makes

00:21:11 --> 00:21:13: more sense for that location.

00:21:14 --> 00:21:18: And you know, the most commonly heard one in the

00:21:18 --> 00:21:22: US at least today is office to multi family conversions.

00:21:22 --> 00:21:26: And while this can be very difficult to make work

00:21:26 --> 00:21:30: in certain situations from a cost and feasibility perspective, given

00:21:30 --> 00:21:33: the number of empty office buildings that we have in

00:21:33 --> 00:21:36: a number of our downtowns in the US, you're seeing

00:21:36 --> 00:21:41: developers and architects starting to become more and more creative

00:21:41 --> 00:21:44: as to how to convert these buildings and frankly, convert

00:21:44 --> 00:21:48: neighborhoods that are currently highly office focused to more live

00:21:48 --> 00:21:50: work play type locations.

00:21:50 --> 00:21:53: And, you know, picking up on what Mark mentioned on

00:21:53 --> 00:21:57: public private partnerships, I think you're going to see more

00:21:57 --> 00:22:00: of these public private partnerships try to solve these issues

00:22:00 --> 00:22:03: in terms of, you know, the vacant office stock and

00:22:03 --> 00:22:06: how we can convert those existing buildings.

00:22:06 --> 00:22:09: And that whole story has a great, you know, kind

00:22:09 --> 00:22:11: of sustainability story around it.

00:22:14 --> 00:22:14: Thank you.

00:22:14 --> 00:22:18: And for those of you who are familiar with ULIHQ

00:22:18 --> 00:22:21: and DC, right across the street from our HQ at

00:22:21 --> 00:22:25: 20th and L is an office to residential conversion.

00:22:25 --> 00:22:28: So if you're looking to see that in person near

00:22:28 --> 00:22:30: us, let us know and we're happy to to pop

00:22:30 --> 00:22:32: you over there and and take a tour.

00:22:32 --> 00:22:33: Mark or Antonio?

00:22:34 --> 00:22:35: I can go.

00:22:35 --> 00:22:38: So I think that in this point is interesting also

00:22:38 --> 00:22:41: related to the the answers that we that we got

00:22:41 --> 00:22:44: from the previous question, because at the end, you know,

00:22:44 --> 00:22:47: embodied carbon is almost a trade off with energy use

00:22:47 --> 00:22:50: intensity, because the more we increase the performance of a

00:22:51 --> 00:22:54: building, the more embodied carbon becomes important.

00:22:55 --> 00:22:57: Also because, you know, we need more material to insulate

00:22:57 --> 00:22:58: our buildings.

00:22:58 --> 00:23:02: So it's interesting to see how how we approach this

00:23:02 --> 00:23:02: problem.

00:23:02 --> 00:23:05: So here in Europe, I can mention a few things.

00:23:05 --> 00:23:08: So first of all, for the new taxonomy alignment, we

00:23:08 --> 00:23:12: need to demonstrate the global warming potential and we demonstrated

00:23:12 --> 00:23:16: through the whole life cycle called carbon assessment of a

00:23:16 --> 00:23:20: building where we, you know, assess both the embodied carbon

00:23:20 --> 00:23:24: coming from materials and the, let's say operational carbon from,

00:23:25 --> 00:23:27: you know, the use of the building.

00:23:28 --> 00:23:31: The other thing that I wanted to mention is you

00:23:31 --> 00:23:33: know, one of the projects we have been working on

00:23:33 --> 00:23:35: was in Birmingham in the UK.

00:23:36 --> 00:23:40: And so the UK is one of the the countries

00:23:40 --> 00:23:44: that is you know pushing the most in this because

00:23:44 --> 00:23:49: we have seen that we have set threshold of embodied carbon that you can reach.

00:23:49 --> 00:23:51:

00:23:52 --> 00:23:54: So in that case was was 600 kilograms of CO2

00:23:55 --> 00:23:56: per square meter.

00:23:56 --> 00:24:00: And we had to demonstrate that, you know, the the

00:24:00 --> 00:24:03: development was not exceeding the the threshold.

00:24:04 --> 00:24:07: And in the case you exceed the threshold, you have

00:24:07 --> 00:24:10: to pay a certain amount for every tons of CO2

00:24:10 --> 00:24:13: that you exceed and you have to pay this amount

00:24:13 --> 00:24:14: for 30 years.

00:24:14 --> 00:24:18: So, you know, it introduces also the the carbon pricing

00:24:18 --> 00:24:22: and probably makes you know, it helps you know, make

00:24:22 --> 00:24:27: you know developers and then stakeholders aware of of of

00:24:27 --> 00:24:28: this issue.

00:24:32 --> 00:24:33: You're on mute, care.

00:24:35 --> 00:24:37: Mark, any thoughts on building materials?

00:24:38 --> 00:24:39: That's what happens.

00:24:39 --> 00:24:40: You have a cold when you're on a webinar.

00:24:40 --> 00:24:41: You want to mute your coffee?

00:24:42 --> 00:24:43: No, I.

00:24:44 --> 00:24:44: Don't.

00:24:44 --> 00:24:45: OK.

00:24:46 --> 00:24:47: I can just step, I can just step in a

00:24:47 --> 00:24:48: couple of the material.

00:24:48 --> 00:24:51: So if you are building ground up, you know some

00:24:51 --> 00:24:54: of the, you know, interesting building materials that are out

00:24:54 --> 00:24:54: there.

00:24:55 --> 00:24:58: Probably the most exciting from my point of view is

00:24:58 --> 00:25:02: mass timber or CLT cross laminated timber, which you know,

00:25:02 --> 00:25:06: is essentially wood you could manufactured wood that you

can

00:25:06 --> 00:25:09: go vertical into a high rise building with.

00:25:09 --> 00:25:13: And it's absolutely a beautiful product for those who have

00:25:13 --> 00:25:16: not seen it, but some other some other examples are

00:25:17 --> 00:25:21: green or low carbon concrete, which which includes industrial waste

00:25:21 --> 00:25:25: products like fly ash into the concrete mixture to reduce

00:25:25 --> 00:25:26: the carbon footprint.

00:25:27 --> 00:25:31: Hemp is a carbon sequestering material that can be used

00:25:31 --> 00:25:36: in insulation and recycled wood and recycled steel in buildings

00:25:36 --> 00:25:36: as well.

00:25:36 --> 00:25:38: So these are some of the, you know, the materials

00:25:38 --> 00:25:40: that are gaining traction out there.

00:25:41 --> 00:25:44: Yeah, thank you for for adding that, Sonia, because it's

00:25:44 --> 00:25:45: it's not always about it.

00:25:46 --> 00:25:49: Often times it's about value engineering and using less materials

00:25:49 --> 00:25:52: or looking about where your materials come from.

00:25:52 --> 00:25:55: But there also are lots of innovations in the building

00:25:55 --> 00:25:57: material space as well.

00:25:57 --> 00:25:59: So looking at the different options, seeing where you can

00:25:59 --> 00:26:02: source that, seeing what the cost comparison is, there certainly

00:26:02 --> 00:26:05: are lots of tools available to help you through that.

00:26:05 --> 00:26:07: And we're happy to, you know, share some resources about

00:26:07 --> 00:26:08: that as well.

00:26:10 --> 00:26:10: OK.

00:26:10 --> 00:26:15: We are going to move on to #3 focusing on

00:26:15 --> 00:26:20: occupiers, demand, health and well-being.

00:26:20 --> 00:26:23: So as Paul Stephen with JLL mentioned during our conversations,

00:26:23 --> 00:26:27: don't forget about the energy and transport transitions too.

00:26:27 --> 00:26:29: These are a huge value pool.

00:26:29 --> 00:26:31: Landlords never had a chance to play it and now

00:26:31 --> 00:26:32: they do.

00:26:32 --> 00:26:35: This could result in more income from the site than

00:26:35 --> 00:26:36: they even receive in rent.

00:26:36 --> 00:26:38: So this is really just a focus on occupiers.

00:26:38 --> 00:26:42: We need to look at who is actually using, working

00:26:42 --> 00:26:45: and living in the buildings.

00:26:45 --> 00:26:47: We do have another quick Slido for everyone.

00:26:47 --> 00:26:51: So you all can again join slido.com at that number

00:26:51 --> 00:26:54: on the bottom or take a quick picture of the  
00:26:54 --> 00:26:56: QR code with your cell phone.  
00:26:56 --> 00:26:59: And as you all start in answering the question of  
00:26:59 --> 00:27:02: what is the best way for your company to engage  
00:27:02 --> 00:27:05: with tenants in 2025, obviously this is your two building  
00:27:05 --> 00:27:08: owners and operators, but certainly want to hear from you  
00:27:08 --> 00:27:09: all.  
00:27:09 --> 00:27:13: Is it focused on affordability and cost saving for tenants,  
00:27:13 --> 00:27:14: improve measurability?  
00:27:14 --> 00:27:18: So these are your smart meters, prop tech really to  
00:27:18 --> 00:27:22: meet those occupier expectations or to really focus on social  
00:27:22 --> 00:27:23: impact.  
00:27:23 --> 00:27:26: How do you measure the impact of your social KPIs?  
00:27:26 --> 00:27:30: So as folks are answering that question, let's go to  
00:27:30 --> 00:27:34: our panel and and see what you all are thinking  
00:27:34 --> 00:27:36: about tenant engagement in 2025.  
00:27:36 --> 00:27:39: And it's so interesting to see these answers come through.  
00:27:39 --> 00:27:42: So feel free to comment on that as well.  
00:27:43 --> 00:27:44: Kara, I could start here.  
00:27:45 --> 00:27:48: So the healthy building movement in real estate, this was  
00:27:48 --> 00:27:50: a trend with you and I before the pandemic.  
00:27:50 --> 00:27:54: And of course, the pandemic has accelerated this trend  
00:27:54 --> 00:27:55: towards  
00:27:55 --> 00:27:59: healthier buildings.  
00:27:59 --> 00:28:02: We could see this very prominently through the International  
00:28:03 --> 00:28:06: Well  
00:28:06 --> 00:28:09: Building Institute's WELL certification and other well related  
00:28:09 --> 00:28:12: products.  
00:28:12 --> 00:28:16: And we could see this in the office sector, including  
00:28:16 --> 00:28:20: this bifurcation between Class A trophy office buildings today  
00:28:20 --> 00:28:24: and  
00:28:24 --> 00:28:27: then Class A commodity and then B&C office space.  
00:28:27 --> 00:28:27: These Class A trophy office buildings, as we know we're  
00:28:28 --> 00:28:31: outperforming the market as tenants are really seeking out  
00:28:31 --> 00:28:34: spaces  
00:28:34 --> 00:28:35: that are most amenitized, best located, but also most  
00:28:35 --> 00:28:38: sustainable,  
00:28:38 --> 00:28:42: healthy and also modern with things such as modern HVAC  
00:28:42 --> 00:28:42: systems.  
00:28:42 --> 00:28:42: So key examples here will be such as One Vanderbilt  
00:28:42 --> 00:28:42: with its dual ESG certifications of lead and well Platinum  
00:28:42 --> 00:28:42: certification.  
00:28:42 --> 00:28:42: Also, Taipei 101, if you want to go overseas, one  
00:28:42 --> 00:28:42: of the most prominent Class A trophy office buildings in

00:28:42 --> 00:28:42: Asia.

00:28:42 --> 00:28:45: But also, you know, just thinking about the operators, the

00:28:45 --> 00:28:49: tenants, some of these owner occupied buildings just recently, Microsoft

00:28:49 --> 00:28:53: Silicon Valley campus, just well certified at the platinum level.

00:28:53 --> 00:28:56: Their Silicon Valley campus here in New York City, Citigroup's

00:28:56 --> 00:29:00: world headquarters in Tribeca, well certified platinum, other 2.6 million

00:29:00 --> 00:29:04: square feet, It's the largest well certified project in the

00:29:04 --> 00:29:04: world.

00:29:05 --> 00:29:09: And Pfizer's office at Hudson Yards just achieved well certification

00:29:09 --> 00:29:10: at the platinum level.

00:29:11 --> 00:29:13: There's also a new program that IWBI, which is the

00:29:14 --> 00:29:16: largest certification body for healthy buildings in the world.

00:29:17 --> 00:29:19: They just rolled out a well for residential program.

00:29:20 --> 00:29:22: And regardless of where you fall on the political spectrum,

00:29:22 --> 00:29:25: I think we can all agree one thing we should

00:29:25 --> 00:29:27: all promote is greater support for a military.

00:29:27 --> 00:29:30: Or if yes, one of the largest military housing operators

00:29:30 --> 00:29:34: in the US committed 22,000 homes to this welfare residential

00:29:34 --> 00:29:37: program and it's meant to improve the living conditions of

00:29:37 --> 00:29:38: our military.

00:29:38 --> 00:29:43: IWBI is also going through prototype installations with other major military

00:29:43 --> 00:29:44: housing operators in the US.

00:29:47 --> 00:29:48: Fantastic, Mark.

00:29:49 --> 00:29:53: I really like that, you know, focus on different types

00:29:53 --> 00:29:54: of tenants, right?

00:29:54 --> 00:29:57: It's not just a, a commercial tenant or a residential

00:29:57 --> 00:29:57: tenant.

00:29:57 --> 00:29:59: You, you really spoke to all the tenants across the

00:29:59 --> 00:30:00: the industry.

00:30:00 --> 00:30:02: So appreciate that insight, Antonio.

00:30:04 --> 00:30:04: Yeah.

00:30:04 --> 00:30:07: And I have a comment here that is not specifically

00:30:07 --> 00:30:11: related to the occupier itself, but a little bit broader.

00:30:11 --> 00:30:15: So I would consider also the the, the surrounding community

00:30:15 --> 00:30:18: and you know the benefits you do on the basically

00:30:18 --> 00:30:20: the place where the building is located.

00:30:20 --> 00:30:22: So I had the luck to to be participant of

00:30:23 --> 00:30:26: the the 7th cohort of the Health Leaders Network that



00:30:26 --> 00:30:28: Mark was mentioning at the beginning.

00:30:28 --> 00:30:32: And I was really, you know, I visited, we went

00:30:32 --> 00:30:35: to Vancouver and to Philadelphia.

00:30:35 --> 00:30:38: So, and this is a sponsor for this amazing QLI

00:30:38 --> 00:30:39: program.

00:30:39 --> 00:30:43: And then it really helped me, you know, increase my

00:30:43 --> 00:30:45: awareness on these, on these aspects.

00:30:46 --> 00:30:48: And at the end, you know, there are, there are

00:30:48 --> 00:30:51: tools we use also in Europe to, to measure the

00:30:51 --> 00:30:53: SROY, so the social return on investment.

00:30:54 --> 00:30:57: And as I was mentioning, for, for the carbon also

00:30:57 --> 00:31:00: these, you know, if you give a monetary value of

00:31:00 --> 00:31:05: financial quantification of the social benefit, it can really help,

00:31:05 --> 00:31:08: you know, to, to, to, to improve both the awareness

00:31:08 --> 00:31:12: and the end of positive effect of such initiatives.

00:31:12 --> 00:31:15: Just to give you an example, the project we worked

00:31:15 --> 00:31:19: on when we measured it was public spaces, job creation,

00:31:19 --> 00:31:22: accessibility to public transportation.

00:31:22 --> 00:31:25: So all of these really, you know, helped quantify the

00:31:25 --> 00:31:28: benefits that at the end the built environment was giving

00:31:28 --> 00:31:30: to to to the surrounding community.

00:31:33 --> 00:31:35: Thank you, Antonio, Sonia.

00:31:39 --> 00:31:40: Nothing to add on this one.

00:31:42 --> 00:31:43: OK, fantastic.

00:31:43 --> 00:31:48: I am noticing a couple comments from the participants that

00:31:48 --> 00:31:50: they are not seeing the presentation.

00:31:51 --> 00:31:54: If you answered SLIDO on your computer, you might have

00:31:54 --> 00:31:56: went over to a Slido screen.

00:31:56 --> 00:31:58: So you have to shift back to Zoom.

00:31:58 --> 00:32:03: Right now we are showing the SLIDO results for topic

00:32:03 --> 00:32:07: area #3 and now we are showing the screen that

00:32:07 --> 00:32:10: says #3 focusing on occupiers.

00:32:11 --> 00:32:14: So find your Zoom link if you missed that.

00:32:14 --> 00:32:18: And we are going to move on now to topic

00:32:18 --> 00:32:22: #4 sourcing and storing green power.

00:32:22 --> 00:32:26: So as John Hafner, Deputy Director of sustainability with

00:32:26 --> 00:32:30: Hang

00:32:30 --> 00:32:33: Leung mentioned, we have got a lot more renewables on

00:32:33 --> 00:32:36: the grid and a lot more electric vehicles coming online.

00:32:36 --> 00:32:37: So that is less about what they're doing, but war,

00:32:37 --> 00:32:40: what Hang Lung is looking towards in the future and

00:32:40 --> 00:32:43: how they have to see these renewables coming online and

00:32:43 --> 00:32:46: more electric vehicles coming into play.  
00:32:46 --> 00:32:49: And how are we going to work with the grid  
00:32:49 --> 00:32:53: and infrastructure to be able to power this increased demand.  
00:32:53 --> 00:32:55: So we don't have a Slido for this one, but  
00:32:55 --> 00:32:58: maybe Antonio, do you want to start us out?  
00:32:59 --> 00:33:01: I'm going to leave the other one to start with  
00:33:01 --> 00:33:01: this.  
00:33:02 --> 00:33:03: OK, Sonia.  
00:33:04 --> 00:33:05: Yeah, sure, sure, I can.  
00:33:05 --> 00:33:06: I can talk a little bit about this.  
00:33:07 --> 00:33:11: There are a couple of, you know, concepts or ideas  
00:33:11 --> 00:33:12: relative to the grid.  
00:33:12 --> 00:33:16: Grid is certainly something that is a major concern right  
00:33:17 --> 00:33:20: now here in the US So I'll start with talking  
00:33:20 --> 00:33:23: about the idea of a virtual power plant, which is  
00:33:24 --> 00:33:28: essentially a collection of distributed energy resources.  
00:33:28 --> 00:33:32: These can be rooftop solar, battery storage, EV charging,  
and  
00:33:32 --> 00:33:37: in in a virtual power plant, there's essentially a control  
00:33:37 --> 00:33:40: mechanism in place such that energy can be produced by  
00:33:40 --> 00:33:44: solar panels and then stored by the batteries and used  
00:33:44 --> 00:33:47: when, you know, at the times of most needs.  
00:33:47 --> 00:33:51: So this system has a significant benefit to owners in  
00:33:51 --> 00:33:55: that they can use stored energy during times of peak  
00:33:55 --> 00:33:59: demand and sell excess energy to the grid when that  
00:33:59 --> 00:34:00: pricing makes sense.  
00:34:01 --> 00:34:06: In addition, many times the transmission system operator will  
pay  
00:34:06 --> 00:34:09: a company to be part of a virtual power plant  
00:34:09 --> 00:34:13: network, which also helps with stability of the grid.  
00:34:14 --> 00:34:18: And then just, I saw that there was a question  
00:34:18 --> 00:34:21: that came up in the chat also related to AI  
00:34:21 --> 00:34:26: and, you know, energy uses, usage requirements caused by,  
and  
00:34:26 --> 00:34:29: I'll just add to it and say data centers that  
00:34:29 --> 00:34:34: are, you know, that have growing power requirements and  
needs  
00:34:34 --> 00:34:35: here in the US.  
00:34:35 --> 00:34:40: And you know, I'd say the what's new and interesting,  
00:34:40 --> 00:34:45: newish and interesting is the growth of SMRS or small  
00:34:45 --> 00:34:46: modular reactors.  
00:34:46 --> 00:34:51: There's a growing sentiment that the solution for powering  
data

00:34:51 --> 00:34:54: centers is nuclear power in the form of SMRS, as  
00:34:54 --> 00:34:58: they provide a number of key benefits, one of them  
00:34:58 --> 00:35:03: being a reliable, uninterrupted power supply, carbon free  
energy, and  
00:35:03 --> 00:35:06: they're compact and secure and scalable.  
00:35:07 --> 00:35:10: There's obviously a number of hurdles in the growth of  
00:35:10 --> 00:35:14: SMRS, mainly due to regulatory issues and just public  
perception  
00:35:14 --> 00:35:17: of their safety, But there's a lot of money being  
00:35:17 --> 00:35:20: poured into SMR businesses right now by companies such  
as  
00:35:20 --> 00:35:22: Amazon, Microsoft, and Google.  
00:35:22 --> 00:35:25: So it's definitely a space to watch going forward and  
00:35:25 --> 00:35:29: can be, you know, part of this solution with the  
00:35:29 --> 00:35:29: grid.  
00:35:30 --> 00:35:31: Great.  
00:35:31 --> 00:35:31: Thank you.  
00:35:31 --> 00:35:34: And for those of you who haven't seen the the  
00:35:34 --> 00:35:37: Q&A yet, an attendee asked is the enormous energy and  
00:35:37 --> 00:35:41: water usage of AI taken into account with the sustainability  
00:35:41 --> 00:35:43: carbon reduction efforts?  
00:35:43 --> 00:35:46: And that is another big user obviously that we are  
00:35:46 --> 00:35:47: keeping an eye out for.  
00:35:47 --> 00:35:50: UI is looking into that in 2025.  
00:35:51 --> 00:35:55: And Utili is also looking at this number four topic,  
00:35:55 --> 00:36:00: sourcing green power, sourcing and storing green power and  
our  
00:36:00 --> 00:36:02: work with utilities in 2025.  
00:36:03 --> 00:36:06: So we're really looking to see how real estate can  
00:36:06 --> 00:36:08: get green power direct from utilities.  
00:36:08 --> 00:36:11: So one of our work streams starting last year and  
00:36:11 --> 00:36:15: moving really quickly into 2025 is working with regional and  
00:36:15 --> 00:36:18: local utilities and local develop developers to figure out the  
00:36:18 --> 00:36:21: best path for getting green power to buildings.  
00:36:21 --> 00:36:24: But before we talk more about Uli, Mark, did you  
00:36:24 --> 00:36:27: have anything to add to to sourcing and storing green  
00:36:27 --> 00:36:28: power?  
00:36:28 --> 00:36:30: I, I do so this past fall at one of  
00:36:30 --> 00:36:34: our NYU Stern sustainability conferences, I had the pleasure  
of  
00:36:34 --> 00:36:39: moderating the keynote with Justin Sauber, CEO of  
Transmission Developers  
00:36:39 --> 00:36:42: and we discussed the Chippy project.

00:36:42 --> 00:36:45: They're the, that they're the developer on which is the  
00:36:45 --> 00:36:47: Champlain Hudson Power Express project.  
00:36:47 --> 00:36:50: It's one of those fascinating sustainability projects around.  
00:36:50 --> 00:36:52: If you haven't heard of it, you should look into  
00:36:52 --> 00:36:52: it.  
00:36:52 --> 00:36:56: It's a 339 mile transmission wire from the US Canada  
00:36:57 --> 00:37:00: border from from Quebec to Astoria, Queens.  
00:37:01 --> 00:37:04: And it's going to help New York State meet requirements  
00:37:04 --> 00:37:08: under the CLCPA, which I mentioned earlier on the Climate  
00:37:08 --> 00:37:12: Act, which is requiring New York State to lower fossil  
00:37:12 --> 00:37:16: fuel, fossil fuel energy use relative to a 1990 baseline.  
00:37:16 --> 00:37:19: But once this project is operational in a rough in  
00:37:19 --> 00:37:23: spring 2026 as it's expected, it's going to provide, depending  
00:37:23 --> 00:37:25: on the study, you look at 10 to 20% of  
00:37:25 --> 00:37:29: New York City electricity needs going forward, which is a  
00:37:29 --> 00:37:30: massive amount.  
00:37:30 --> 00:37:34: It's the largest infrastructure project in New York history, and  
00:37:34 --> 00:37:38: transmission developers, they're working on one or two other  
similar  
00:37:38 --> 00:37:41: projects, not to the same scale as Chippy, but it's  
00:37:42 --> 00:37:46: really a fascinating infrastructure project and something we  
should all  
00:37:46 --> 00:37:49: look to as an example of being able to source  
00:37:49 --> 00:37:49: green power.  
00:37:51 --> 00:37:52: Great, thank you.  
00:37:53 --> 00:37:55: I think we are ready to move on to #5  
00:37:55 --> 00:37:59: and I do see Q&A questions coming through quickly.  
00:37:59 --> 00:38:01: So we're going to save plenty of time for that.  
00:38:01 --> 00:38:03: If you do have any questions, please put it in  
00:38:03 --> 00:38:05: the Q&A box and we will address it.  
00:38:06 --> 00:38:11: Let's move on to the next slide #5 is investing  
00:38:11 --> 00:38:12: in resilience.  
00:38:12 --> 00:38:16: As Peter Tami mentioned, how do we maintain resiliency of  
00:38:16 --> 00:38:21: operations and purpose for our facilities and communities in the  
face of unprecedented weather extremes?  
00:38:21 --> 00:38:24: Obviously, we have seen that a lot already in 2025,  
00:38:24 --> 00:38:28: so it's very fresh on our minds.  
00:38:28 --> 00:38:30: With that, this is our last Slido for you all  
00:38:31 --> 00:38:34: today.  
00:38:34 --> 00:38:34: And again, please use either your cell phone to take  
00:38:35 --> 00:38:37: a picture of the QR code or visit slido.com.  
00:38:37 --> 00:38:40: If you do visit slido.com and you want to come  
00:38:40 --> 00:38:42:

00:38:42 --> 00:38:45: back to the Zoom call, make sure if you do  
00:38:45 --> 00:38:47: come back to the Zoom or you'll be stuck on,  
00:38:47 --> 00:38:49: you know, your web browser.  
00:38:49 --> 00:38:52: So investing in resilience, Why should your organization  
invest in  
00:38:52 --> 00:38:53: resilience?  
00:38:53 --> 00:38:56: Why do you think the best reason for investing in  
00:38:56 --> 00:39:01: resilience is reduce physical climate risk, reduce transitional  
climate risk  
00:39:01 --> 00:39:04: or improve climate risk assessment tools or sort of the  
00:39:04 --> 00:39:07: catch all, all of the above, which already is getting  
00:39:07 --> 00:39:09: a lot of attention here.  
00:39:09 --> 00:39:10: That was kind of our our freebie.  
00:39:12 --> 00:39:16: So as folks are answering this slide out, let's address  
00:39:16 --> 00:39:17: this last topic.  
00:39:19 --> 00:39:20: You'd like to go first.  
00:39:22 --> 00:39:24: I can start, I can start.  
00:39:24 --> 00:39:28: So the the issue of, you know, climate risk is  
00:39:28 --> 00:39:33: very much a daily task we are we are facing.  
00:39:33 --> 00:39:38: So in terms of transitional risk, what you are seeing  
00:39:38 --> 00:39:43: actually there is also here a good program called Sea  
00:39:43 --> 00:39:45: Change from ULI.  
00:39:45 --> 00:39:49: And the thing we are seeing here is basically to  
00:39:49 --> 00:39:53: you know, quantify the transitional risk.  
00:39:53 --> 00:39:57: This goes, you know, with the, you know, eventual, you  
00:39:57 --> 00:39:59: know, carbon taxes or policy changes.  
00:40:00 --> 00:40:04: In terms of physical risks, we can see both, you  
00:40:04 --> 00:40:06: know, the, the acute risks.  
00:40:06 --> 00:40:08: So you know, the, the one, the, the wildfires in  
00:40:08 --> 00:40:11: LA was one of them, but also, you know, chronic  
00:40:11 --> 00:40:11: events.  
00:40:11 --> 00:40:14: So we see here, you know, there there will be  
00:40:14 --> 00:40:16: Winter Olympics in Milan next year.  
00:40:16 --> 00:40:19: And you know, the issue of, you know, global warming  
00:40:19 --> 00:40:21: is, is, is something chronic and it's going to be  
00:40:21 --> 00:40:22: there for sure.  
00:40:23 --> 00:40:27: And what we're seeing, you know, lately is also again,  
00:40:28 --> 00:40:34: converting those technical quantification quantifications into  
monetary value.  
00:40:34 --> 00:40:39: So into financial modelling, what we use is, you know,  
00:40:39 --> 00:40:43: value at risk, but you know, translated and also, you  
00:40:43 --> 00:40:46: know, that considers climate risks.

00:40:46 --> 00:40:50: So we try to estimate what, what is the, the  
00:40:50 --> 00:40:55: loss of valuation of a property due to these events.  
00:40:55 --> 00:40:58: And you know, there are several algorithms that help to  
00:40:58 --> 00:40:59: calculate this.  
00:41:00 --> 00:41:03: And at the end this also relates to, you know,  
00:41:03 --> 00:41:05: insurance premiums.  
00:41:05 --> 00:41:10: So once we know and we can quantify this, you  
00:41:10 --> 00:41:13: know, the sooner the better.  
00:41:13 --> 00:41:16: So if we can quantify the development stage or before  
00:41:16 --> 00:41:20: acquiring an asset, it can really helps us and you  
00:41:20 --> 00:41:23: know to mitigate the risk once the asset is, is  
00:41:23 --> 00:41:24: in our hand basically.  
00:41:27 --> 00:41:29: Thank you, Antonio, Mark, Sonia, Mark.  
00:41:31 --> 00:41:31: Yeah.  
00:41:31 --> 00:41:32: Thanks, Kara.  
00:41:34 --> 00:41:36: Irrespective of where you fall in the political spectrum, one  
00:41:36 --> 00:41:39: thing that all owners are dealing with today with the  
00:41:39 --> 00:41:42: industries dealing with today is higher insurance premiums  
across the  
00:41:42 --> 00:41:42: board.  
00:41:42 --> 00:41:45: It's not just for properties located in climate prone areas  
00:41:45 --> 00:41:47: of Florida and Texas and Louisiana.  
00:41:48 --> 00:41:51: It's across the board and they're three main drivers behind  
00:41:51 --> 00:41:54: this very precipitous rise in insurance premiums.  
00:41:55 --> 00:41:57: One is that in the 1990s, we had a billion  
00:41:57 --> 00:41:59: dollar climate event once every four months.  
00:41:59 --> 00:42:02: Today, we're having this billion dollar climate event once  
every  
00:42:02 --> 00:42:02: two weeks.  
00:42:03 --> 00:42:05: Second factor is the higher inflation we've seen since the  
00:42:05 --> 00:42:06: pandemic.  
00:42:06 --> 00:42:09: And the third reason is the higher cost in the  
00:42:09 --> 00:42:13: reinsurance market driven by the higher number of billion  
dollar  
00:42:13 --> 00:42:16: and severe climate events that we're seeing more, more  
often.  
00:42:17 --> 00:42:19: So it's something we're grappling with in the industry and  
00:42:19 --> 00:42:21: it's really throwing a lot of underwriting.  
00:42:21 --> 00:42:23: Underwriting is out of whack, right?  
00:42:23 --> 00:42:25: If you want to wrote a property with 100 grand  
00:42:26 --> 00:42:29: insurance premium in 2019 and now it's double or something  
00:42:29 --> 00:42:32: along those lines, it can have very significant impacts on  
00:42:32 --> 00:42:36: your underwriting in terms of meeting your debt service

coverage  
00:42:36 --> 00:42:36: levels.  
00:42:37 --> 00:42:39: Also, one of the trends that was in place before  
00:42:39 --> 00:42:42: the pandemic was this out migration from the gateway  
markets  
00:42:42 --> 00:42:43: to the Sunbelt.  
00:42:43 --> 00:42:47: Of course, these prominent Sunbelt markets like Austin and  
Nashville.  
00:42:47 --> 00:42:50: We, we, we think about and that trend was accelerated  
00:42:50 --> 00:42:51: by the pandemic.  
00:42:51 --> 00:42:54: One thing we're seeing now is that those trends are  
00:42:54 --> 00:42:55: starting to reverse.  
00:42:55 --> 00:42:58: In some cases, they're actually going -1 of the reasons  
00:42:58 --> 00:43:00: behind that is, is climate change.  
00:43:00 --> 00:43:02: You know, you're now moving to areas that are more  
00:43:02 --> 00:43:04: prone to climate risk and climate change.  
00:43:04 --> 00:43:08: Also, the higher insurance premiums are driving potential  
people away  
00:43:09 --> 00:43:10: from, from those areas.  
00:43:11 --> 00:43:14: And in some cases, properties just aren't insurable.  
00:43:14 --> 00:43:17: So the industry's really just starting to grapple with all  
00:43:17 --> 00:43:20: of these issues along insurance premiums.  
00:43:21 --> 00:43:22: Yeah.  
00:43:22 --> 00:43:25: I mean that that brings up the whole concept there  
00:43:25 --> 00:43:29: of climate migration, right, where you start seeing people  
move  
00:43:29 --> 00:43:33: away from locations that have that are prone to these  
00:43:33 --> 00:43:35: kind of traumatic weather events.  
00:43:36 --> 00:43:40: I'll just bring up, you know, in terms of resilience  
00:43:40 --> 00:43:44: measures in buildings and in homes, you know, what comes  
00:43:44 --> 00:43:47: to mind for me are the recent fires in LA  
00:43:47 --> 00:43:50: and my heart goes out to all of those affected.  
00:43:50 --> 00:43:53: I realize, you know, in the US and in California  
00:43:53 --> 00:43:55: particularly, this is a very raw topic.  
00:43:55 --> 00:43:59: But in the midst of all the destruction, you may  
00:43:59 --> 00:44:03: have seen pictures of a single home, for example, that  
00:44:03 --> 00:44:07: is standing amongst an area that is completely burned down.  
00:44:07 --> 00:44:10: And some, some of it, sometimes this is due to  
00:44:10 --> 00:44:11: luck.  
00:44:11 --> 00:44:15: But you know, I've seen certain cases of homes that  
00:44:15 --> 00:44:21: had specific resilience characteristics to them that prevented  
them from  
00:44:21 --> 00:44:25: from perhaps burning down due to these fires.

00:44:25 --> 00:44:28: There's one in particular that I looked at that you  
00:44:28 --> 00:44:32: know, for example, the yard had no vegetation or very  
00:44:32 --> 00:44:34: sparse desert style landscaping.  
00:44:35 --> 00:44:38: There was a concrete type fence or wall around the  
00:44:38 --> 00:44:38: house.  
00:44:40 --> 00:44:43: The deck was made of Class A wood, which was  
00:44:43 --> 00:44:46: which is as fire resistant as concrete or steel.  
00:44:46 --> 00:44:51: There's a metal roof, tempered glass for the windows.  
00:44:51 --> 00:44:54: And so these types of measures, they're very expensive, but  
00:44:54 --> 00:44:57: they may be what is required to kind of live  
00:44:57 --> 00:44:59: in these types of locations going forward.  
00:45:01 --> 00:45:05: I'll also touch on an interesting business that I looked  
00:45:05 --> 00:45:07: at as an investment.  
00:45:07 --> 00:45:09: And there are many of these types of businesses, I'm  
00:45:09 --> 00:45:10: sure out there.  
00:45:10 --> 00:45:14: But this one in particular is modular homes that are  
00:45:14 --> 00:45:16: made or built out of steel.  
00:45:17 --> 00:45:22: So modular homes themselves are sustainable because of  
the lack  
00:45:22 --> 00:45:26: of waste in the building process, but in this case  
00:45:26 --> 00:45:31: using steel, and this is recycled light gauge steel that  
00:45:31 --> 00:45:36: that you know, that obviously helps with the fire issue  
00:45:36 --> 00:45:38: that I was just talking about.  
00:45:38 --> 00:45:41: And these homes in particular are built to almost passive  
00:45:41 --> 00:45:42: house standards.  
00:45:42 --> 00:45:47: In addition, when this group builds these homes, they build  
00:45:47 --> 00:45:50: them in a community and have them essentially be an  
00:45:50 --> 00:45:55: integrated virtual power plant amongst the homes in a  
community.  
00:45:56 --> 00:46:00: So it's solutions like these that are I think super  
00:46:00 --> 00:46:03: interesting and could be some of the some of the  
00:46:04 --> 00:46:07: path in terms of rebuilding parts of LA or other  
00:46:07 --> 00:46:11: communities that are hurt by natural disasters.  
00:46:12 --> 00:46:13: Yeah, agree.  
00:46:13 --> 00:46:15: Sonia, thank you for that really fascinating take on that  
00:46:15 --> 00:46:18: and about what some options are we're looking at in  
00:46:18 --> 00:46:19: the future ahead.  
00:46:20 --> 00:46:22: We have about, we have less than 15 minutes left.  
00:46:22 --> 00:46:24: So I'm going to move ahead to the Q&A because  
00:46:24 --> 00:46:25: we have quite a few coming through.  
00:46:26 --> 00:46:29: But Antonio and Mark wanted to give you just an  
00:46:29 --> 00:46:33: opportunity to say some less words on investing in resilience



00:46:33 --> 00:46:34: if you would like it.

00:46:35 --> 00:46:35: Yeah, sure.

00:46:36 --> 00:46:38: I see also that there is a question asking what

00:46:38 --> 00:46:42: data are you using for entrance forecasting in high risk

00:46:42 --> 00:46:42: areas.

00:46:43 --> 00:46:48: And that's a good question because of course there, there

00:46:48 --> 00:46:52: are both, you know, open databases that you can use

00:46:52 --> 00:46:56: and where you know, based on the past events, you

00:46:56 --> 00:47:01: can forecast future events and, but you can also look

00:47:01 --> 00:47:05: for, you know, databases provided by interim companies.

00:47:07 --> 00:47:11: So those databases are typically private and they have a

00:47:11 --> 00:47:14: cost and it's hard to, to get to, to get

00:47:14 --> 00:47:15: to know them.

00:47:15 --> 00:47:19: But the more you know, the, the, the calculations are,

00:47:19 --> 00:47:24: are, are populated with, with data, the better and the

00:47:24 --> 00:47:25: more refined they are.

00:47:26 --> 00:47:30: So for Europe, we are using, for example, Eurostar database

00:47:31 --> 00:47:35: or other other public available, you know, databases.

00:47:36 --> 00:47:39: And yet knowing you know what, what has been happening

00:47:39 --> 00:47:42: in the past, you can really forecast the future.

00:47:42 --> 00:47:45: Also, I don't know if you've seen, you know, the

00:47:45 --> 00:47:46: recent increase of temperature.

00:47:46 --> 00:47:52: So, you know, the Paris Agreement aimed to, you know,

00:47:52 --> 00:47:58: keep the temperature well below 2?? by 2050 and preferably

00:47:58 --> 00:47:59: below 1.5.

00:47:59 --> 00:48:04: Well, actually in 2024 we already exceeded at 1.5 S

00:48:05 --> 00:48:11: Actually, all the estimations done in the past were probably

00:48:11 --> 00:48:13: too overly optimistic.

00:48:14 --> 00:48:19: So that's the realities or yeah, we should, even though,

00:48:19 --> 00:48:23: you know, the results give a very scary picture, but

00:48:23 --> 00:48:24: it's the reality.

00:48:24 --> 00:48:27: So I think we need to accept it and and

00:48:27 --> 00:48:28: then just go for it.

00:48:30 --> 00:48:31: Appreciate that take Antonio.

00:48:31 --> 00:48:32: Thank you.

00:48:32 --> 00:48:34: Mark any final words before we move on to to

00:48:34 --> 00:48:34: the Q&A?

00:48:35 --> 00:48:35: No.

00:48:36 --> 00:48:37: OK, thank you.

00:48:38 --> 00:48:40: So I did want to share with you before we

00:48:40 --> 00:48:43: do move on to the Q&A is that since we

00:48:43 --> 00:48:47: were just speaking about resilience, I wanted to share with

00:48:47 --> 00:48:51: the participants that our ULI spring meeting is in Denver  
00:48:51 --> 00:48:55: in May and we are holding a specific resilience summit  
00:48:55 --> 00:48:57: at the end of that meeting.  
00:48:57 --> 00:49:02: So if you are interested in attending, participating, please  
register  
00:49:02 --> 00:49:04: or reach out to us For more information.  
00:49:04 --> 00:49:08: Again, there's AQR code or you can visit ULI dot  
00:49:08 --> 00:49:10: org\ resilience summit.  
00:49:11 --> 00:49:15: So right now, I am going to think I'm going  
00:49:15 --> 00:49:20: to stop the screen share right now and go right  
00:49:20 --> 00:49:21: into Q&A.  
00:49:21 --> 00:49:23: There are quite a few Q&A questions.  
00:49:24 --> 00:49:26: We'll start from the top.  
00:49:26 --> 00:49:29: So we're going to be going backwards a little bit  
00:49:29 --> 00:49:32: to some of the first topics and feel free to  
00:49:32 --> 00:49:35: jump in and answer these questions as you feel able  
00:49:35 --> 00:49:36: to.  
00:49:36 --> 00:49:37: Mark, I think this one is for you.  
00:49:38 --> 00:49:41: When folks use C Pace, they lose the opportunity to  
00:49:41 --> 00:49:43: apply for other funding because of the lands to the  
00:49:43 --> 00:49:44: property.  
00:49:44 --> 00:49:46: How have you worked around that?  
00:49:47 --> 00:49:47: That's true.  
00:49:47 --> 00:49:50: The C pace, the C pace lien does prime the  
00:49:50 --> 00:49:53: senior mortgage lien, but there are ways to get around  
00:49:53 --> 00:49:53: that.  
00:49:54 --> 00:49:57: First off, a default under the C pace loan doesn't  
00:49:57 --> 00:50:00: accelerate the loan in the same way that a senior  
00:50:00 --> 00:50:02: mortgage loan default would.  
00:50:03 --> 00:50:06: And I, I just think as the industry matures more  
00:50:06 --> 00:50:09: and more, more and more senior lenders, more and more  
00:50:09 --> 00:50:13: lenders are just getting comfortable with the C pay structure.  
00:50:13 --> 00:50:16: At first blush, certainly, you know, when you have a  
00:50:16 --> 00:50:19: lien priming the senior lien, it's problematic, but some lenders  
00:50:19 --> 00:50:21: are getting comfortable with it and you have to just  
00:50:21 --> 00:50:23: get comfortable with the structure.  
00:50:23 --> 00:50:26: And like an important point is that it doesn't accelerate  
00:50:26 --> 00:50:26: that loan.  
00:50:27 --> 00:50:29: Remember, it's also an assessment, not a mortgage, right?  
00:50:29 --> 00:50:33: So any type of default doesn't, you just have to  
00:50:33 --> 00:50:36: deal with it from future tax payments.  
00:50:37 --> 00:50:39: And you know, I just think we just need more

00:50:39 --> 00:50:42: maturation in the industry and just more knowledge sharing to

00:50:43 --> 00:50:44: get people comfortable with it.

00:50:45 --> 00:50:48: You're, you're also seeing more and more companies come up

00:50:48 --> 00:50:51: with a dual solution C pays plus senior type of

00:50:51 --> 00:50:51: product.

00:50:52 --> 00:50:53: So that's something to also look into.

00:50:57 --> 00:50:57: Great.

00:50:57 --> 00:50:58: Thank you both.

00:50:58 --> 00:51:02: The next question states that is is measuring EUI a

00:51:02 --> 00:51:06: priority for more than half the respondents because the metric

00:51:06 --> 00:51:10: is tied to a value proposition around the costs of

00:51:10 --> 00:51:11: those materials?

00:51:11 --> 00:51:14: In other words, if the materials cost more but have

00:51:14 --> 00:51:18: some level of payback through EUI levels, maybe that'll drive

00:51:18 --> 00:51:22: the economic decision to use those higher cost materials versus

00:51:22 --> 00:51:23: less expensive materials.

00:51:23 --> 00:51:25: This is a great, great question and sort of why

00:51:25 --> 00:51:28: I think in the future when we pull respondents, we

00:51:28 --> 00:51:30: want to get some more information there.

00:51:30 --> 00:51:33: But do the three of you have any thoughts on,

00:51:33 --> 00:51:37: you know, EUI versus higher cost materials and less expensive

00:51:37 --> 00:51:39: materials and what that link is?

00:51:40 --> 00:51:42: Yeah, I can take the question.

00:51:42 --> 00:51:45: So this is similar to what we were discussing before.

00:51:45 --> 00:51:49: So the trade off between and the more the materials

00:51:49 --> 00:51:51: and the the energy is intensity.

00:51:52 --> 00:51:54: What you can do in this case is to to

00:51:54 --> 00:51:58: run a life cycle cost analysis where you basically not

00:51:58 --> 00:52:02: only calculate you know the initial CapEx and the operational

00:52:02 --> 00:52:06: expenditure, but you also understand the the end of life

00:52:06 --> 00:52:08: of the material itself.

00:52:08 --> 00:52:11: So in that case, you, you can make, you know,

00:52:11 --> 00:52:15: thought decisions based on, you know, the best material and

00:52:15 --> 00:52:18: the best, let's say, design solution to optimize it.

00:52:18 --> 00:52:22: Because again, at the end, if you over, you know,

00:52:22 --> 00:52:27: use materials with very high embodied carbon, probably it's not

00:52:27 --> 00:52:31: worth, you know, this is this also, you know, goes

00:52:31 --> 00:52:34: with the what has been done for the EPBD.

00:52:34 --> 00:52:40: So the energy performance of building directives in Europe where

00:52:40 --> 00:52:44: basically you know, it was undertaken a study of you

00:52:44 --> 00:52:49: know, optimal cost and optimal efficiency based again on the

00:52:49 --> 00:52:53: on the level of insulation basically to to optimize the

00:52:53 --> 00:52:56: the final energies intensity.

00:52:58 --> 00:52:58: Great.

00:52:58 --> 00:52:59: Thank you, Antonio.

00:52:59 --> 00:53:01: I'm going to move ahead to some more questions because

00:53:01 --> 00:53:02: we have so many open right now.

00:53:03 --> 00:53:07: The next question states that projects in Vancouver move so

00:53:07 --> 00:53:08: quickly.

00:53:08 --> 00:53:11: How do you do these types of assessments like life

00:53:11 --> 00:53:14: cycle carbon assessments in the design process quick enough to

00:53:14 --> 00:53:18: inform the design and take action while still meeting the

00:53:18 --> 00:53:19: project schedule?

00:53:20 --> 00:53:21: Great question.

00:53:25 --> 00:53:26: I can take it.

00:53:26 --> 00:53:28: I mean, you have to do it as soon as

00:53:28 --> 00:53:31: possible before starting the construction.

00:53:32 --> 00:53:35: Then of course, if it's designing construction at the same

00:53:35 --> 00:53:37: time, it's going to be harder.

00:53:37 --> 00:53:40: But if you know the design phase is comes first

00:53:40 --> 00:53:43: and then the construction phase where you have to start

00:53:43 --> 00:53:45: as soon as possible with, with, with this type of

00:53:46 --> 00:53:49: analysis and then you have to proceed with the construction.

00:53:49 --> 00:53:52: Actually, there are some charts that you can find where

00:53:52 --> 00:53:55: you see that the sooner you approach, you know, those

00:53:55 --> 00:53:58: sustainability topics, the easier and, and the less is the

00:53:58 --> 00:54:01: final impact on the, on the overall, you know, business

00:54:02 --> 00:54:03: plan of the development.

00:54:06 --> 00:54:08: Any other thoughts there, Mark Sonia?

00:54:09 --> 00:54:12: OK, so this next question, I'm going to combine the

00:54:12 --> 00:54:13: next two questions it's asking.

00:54:13 --> 00:54:15: This isn't the materials category.

00:54:16 --> 00:54:19: What do you see in construction cost variance with energy

00:54:19 --> 00:54:22: efficient products and other popular building materials?

00:54:22 --> 00:54:25: And is there a energy cost savings for using energy

00:54:25 --> 00:54:26: efficient materials?

00:54:27 --> 00:54:29: And what do you see as an average payback for

00:54:29 --> 00:54:31: investing in these energy efficient measures?

00:54:31 --> 00:54:33: So Sonia, I know that you mentioned your, your 1,  
00:54:33 --> 00:54:36: you know, one year payback, which is fantastic.  
00:54:37 --> 00:54:39: But what are you all seeing in sort of that  
00:54:39 --> 00:54:39: variance in costs?  
00:54:39 --> 00:54:41: Like is it worth it to get a better payback?  
00:54:41 --> 00:54:43: What are some other examples you have if you want  
00:54:43 --> 00:54:43: to share?  
00:54:44 --> 00:54:46: I can I can share another example.  
00:54:47 --> 00:54:51: We have an investment for example, in a company that  
00:54:51 --> 00:54:56: builds panelized walls and floors for typically apartment  
buildings and  
00:54:56 --> 00:54:59: they build out of mass, mass timber CLT.  
00:54:59 --> 00:55:02: And what we find is that the cost can be  
00:55:02 --> 00:55:04: higher to to use these materials.  
00:55:04 --> 00:55:05: This process.  
00:55:05 --> 00:55:10: However, the time savings associated with it essentially  
make make  
00:55:10 --> 00:55:13: up for the cost because the the panels are built  
00:55:13 --> 00:55:17: inside of a factory essentially and then taken out to  
00:55:17 --> 00:55:18: the field and installed.  
00:55:18 --> 00:55:20: So they can be installed extremely quickly.  
00:55:20 --> 00:55:23: The building goes up very, very fast and so it  
00:55:24 --> 00:55:28: saves on labor and time associated with the development  
process.  
00:55:28 --> 00:55:32: So it's not always necessarily exactly looking at that building  
00:55:32 --> 00:55:35: material, but it could be, you know, the process associated  
00:55:35 --> 00:55:38: with another savings that could happen in other pieces of  
00:55:38 --> 00:55:39: the construction budget.  
00:55:40 --> 00:55:43: But with the other types of building materials that are  
00:55:43 --> 00:55:45: out there, I think it's just on a on a  
00:55:45 --> 00:55:47: material by material basis, you have to look at it  
00:55:47 --> 00:55:48: varies.  
00:55:50 --> 00:55:50: Yeah, great.  
00:55:50 --> 00:55:51: Thank you, Antonio Ormark.  
00:55:54 --> 00:55:57: I can give quickly a few examples.  
00:55:57 --> 00:56:00: So we are working on a few net 0 Carbon  
00:56:00 --> 00:56:00: Rd.  
00:56:00 --> 00:56:05: maps here where we basically address, you know,  
improvement measures.  
00:56:05 --> 00:56:09: And we see that the return on investment, it goes,  
00:56:09 --> 00:56:12: you know, from three years to 1015 years.  
00:56:12 --> 00:56:16: But I would say when it's more than 15 years,  
00:56:16 --> 00:56:20: probably it's not the best approach because probably in 15

00:56:20 --> 00:56:25: years, you know, the building will already be sold or  
00:56:25 --> 00:56:28: you know, there will be another scenario.  
00:56:28 --> 00:56:32: So what we recommend is to undertake measures with an  
00:56:32 --> 00:56:36: SROY, oh sorry, an ROI less than 10 years I  
00:56:36 --> 00:56:36: would say.  
00:56:39 --> 00:56:39: Great.  
00:56:39 --> 00:56:40: Thank you.  
00:56:40 --> 00:56:42: I'm going to move on so we can answer a  
00:56:42 --> 00:56:44: couple more questions before we end here.  
00:56:44 --> 00:56:46: So this is an interesting question.  
00:56:47 --> 00:56:51: Are there any regulatory requirements being discussed to  
provide sub  
00:56:51 --> 00:56:53: meter data to tenants at state levels?  
00:56:53 --> 00:56:56: This has been a hurdle in collecting scopes 1 and  
00:56:56 --> 00:56:59: 2, carbon accounting, not that I know of at the  
00:56:59 --> 00:57:00: state level.  
00:57:00 --> 00:57:03: Certainly that's something we're talking to utilities about at  
the  
00:57:03 --> 00:57:05: utility or utility region level.  
00:57:05 --> 00:57:08: But have you all heard of anything in terms of  
00:57:09 --> 00:57:10: regulatory data sharing?  
00:57:10 --> 00:57:13: Obviously that'd be, that'd be the dream to just have  
00:57:13 --> 00:57:13: it.  
00:57:13 --> 00:57:14: You have to share all your data.  
00:57:14 --> 00:57:17: But I haven't seen that.  
00:57:20 --> 00:57:23: I think that maybe not, but we'll take a look  
00:57:23 --> 00:57:25: and see what what's on the horizon.  
00:57:26 --> 00:57:30: And then there's another question from from Melissa that  
says  
00:57:30 --> 00:57:34: with sustainability and resilience programs limited to the sub  
national  
00:57:34 --> 00:57:37: level, what do you see as some of the biggest  
00:57:37 --> 00:57:43: challenges in sustainability and resiliency, wildfires, sea level  
rise, infrastructure  
00:57:43 --> 00:57:44: grids, etcetera.  
00:57:44 --> 00:57:47: So many of these topics span across state borders.  
00:57:47 --> 00:57:50: Do you envision more states working together on these  
issues?  
00:57:50 --> 00:57:51: That's a great question.  
00:57:53 --> 00:57:56: Again, sort of the dream the answer would be yes,  
00:57:56 --> 00:57:59: but have any of you seen that in action or  
00:57:59 --> 00:58:03: worked with your, you know, projects or portfolio across  
states?  
00:58:04 --> 00:58:05: Well, I know.

00:58:05 --> 00:58:07: There's I'll just talk about green banks.

00:58:08 --> 00:58:10: So one of the things that came up during a

00:58:10 --> 00:58:14: lot during the last during the Biden administration essentially are

00:58:14 --> 00:58:18: these green banks and each state and even local, local

00:58:18 --> 00:58:22: municipalities, etcetera or counties have green banks in certain cases.

00:58:23 --> 00:58:26: And then so they they've been trying to finance green

00:58:26 --> 00:58:29: projects within their specific locations.

00:58:29 --> 00:58:33: But this idea of a national green bank had come

00:58:33 --> 00:58:34: off.

00:58:34 --> 00:58:37: And I think that's the closest thing that I've seen

00:58:37 --> 00:58:41: to, you know, state green banks kind of working together

00:58:41 --> 00:58:45: or having this umbrella kind of national green bank organization

00:58:45 --> 00:58:49: that could then farm out opportunities to to state level

00:58:49 --> 00:58:50: green banks.

00:58:50 --> 00:58:52: But that's the only thing that I've seen so far.

00:58:52 --> 00:58:56: But, you know, I think it's definitely a possibility going

00:58:56 --> 00:58:58: forward that we see more of that.

00:58:59 --> 00:59:03: Kara, Kara, if we go back to the Chippy project,

00:59:03 --> 00:59:07: I mentioned, right, that's a 339 mile, 339 mile transmission

00:59:07 --> 00:59:10: line of hydropower being delivered into Astoria.

00:59:11 --> 00:59:13: And obviously for that project, you have to have the

00:59:13 --> 00:59:15: land rights from all of those states.

00:59:15 --> 00:59:19: So there was definitely collaboration between those States and the

00:59:19 --> 00:59:23: developer transmission developers to get that project to come together.

00:59:24 --> 00:59:27: So that's another another example we could look at, slightly

00:59:27 --> 00:59:29: different than what I think the question was, but it's

00:59:29 --> 00:59:30: it's related.

00:59:31 --> 00:59:33: Appreciate that, Mark, and maybe you could drop that a

00:59:33 --> 00:59:35: link to that project in the chat.

00:59:35 --> 00:59:37: As we close out here, we do have quite a

00:59:37 --> 00:59:39: few of unanswered questions.

00:59:39 --> 00:59:42: We will make sure to copy those questions and get

00:59:42 --> 00:59:45: them to our panelists so they can respond to you

00:59:45 --> 00:59:47: if they have a fulfilling answer.

00:59:48 --> 00:59:50: But right now, we are on the top of the

00:59:50 --> 00:59:50: hour.

00:59:50 --> 00:59:54: I really appreciate this fantastic panel for going through the

00:59:54 --> 00:59:56: global sustainability outlook with us today.

**00:59:57 --> 00:59:59:** Really, what's on the horizon for 2025?  
**01:00:00 --> 01:00:00:** These 5 topics?  
**01:00:01 --> 01:00:03:** Amongst many, many, many others.  
**01:00:04 --> 01:00:05:** Thank you all for joining us.  
**01:00:05 --> 01:00:07:** If you have any questions, let us know.  
**01:00:07 --> 01:00:10:** We will be sharing the recording and the transcript of  
**01:00:10 --> 01:00:13:** this webinar so you can get some more information and  
**01:00:13 --> 01:00:14:** share it.  
**01:00:14 --> 01:00:15:** Thanks all, have a great Friday.  
**01:00:16 --> 01:00:17:** Thank you.

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