



Webinar

Green Finance Unlocked

Date: April 11, 2025

00:00:06 --> 00:00:09: Welcome everyone, we'll get started in a few minutes.
00:00:09 --> 00:00:12: Just waiting for folks to join the webinar.
00:00:20 --> 00:00:23: Welcome everyone, we are getting started here.
00:00:25 --> 00:00:28: We'll start the webinar in a few minutes just waiting
00:00:28 --> 00:00:29: for folks to join.
00:00:29 --> 00:00:33: You are in Green Finance Unlocked, a You Alive hosted
00:00:33 --> 00:00:34: webinar.
00:00:34 --> 00:00:35: Welcome.
00:00:44 --> 00:00:46: If you're just joining us, we will get started in
00:00:46 --> 00:00:47: a few minutes.
00:00:47 --> 00:00:49: Welcome to Green Finance Unlocked.
00:00:49 --> 00:00:52: We'll get started just a few minutes after the hour
00:00:52 --> 00:00:54: waiting for some folks to join.
00:01:03 --> 00:01:04: OK, welcome everyone.
00:01:04 --> 00:01:06: We are ready to get started.
00:01:06 --> 00:01:08: My name is Kara Kokernak.
00:01:08 --> 00:01:10: I'm a Senior Director at ULI and I'll just be
00:01:10 --> 00:01:13: up here for a few minutes today introducing this webinar.
00:01:13 --> 00:01:16: We have a great webinar and very amazing panel.
00:01:16 --> 00:01:21: This is Green Finance Unlocked focused on a recent ULI
00:01:21 --> 00:01:21: report.
00:01:22 --> 00:01:26: We have a great group of moderators and panelists.
00:01:26 --> 00:01:31: Today we have Tamara George with our MY Lauren Moss
00:01:31 --> 00:01:36: with Vornado, Sandeep Singh, IFC, Dan Street with
Slipstream and
00:01:36 --> 00:01:39: Usam Mohammed with Ryze Engineering.
00:01:39 --> 00:01:41: And I'm going to just go over really quickly why
00:01:41 --> 00:01:44: we're here today and give a little introduction about ULI
00:01:44 --> 00:01:46: if you're joining the ULI webinar for the first time.
00:01:46 --> 00:01:49: And then I'm going to pass it over to Tamara
00:01:49 --> 00:01:52: George, our great moderator for the rest of the hour.
00:01:52 --> 00:01:56: So if you are unfamiliar with the Urban Land Institute,

00:01:56 --> 00:01:59: our mission is to shape the future of the built

00:01:59 --> 00:02:03: environment for transformative impact in communities worldwide.

00:02:03 --> 00:02:06: We do that through a variety of ways.

00:02:07 --> 00:02:10: I work in our Center for Sustainability and run the

00:02:10 --> 00:02:12: ULI decarbonization program.

00:02:12 --> 00:02:16: We really focus in the decarbonization program on research and

00:02:16 --> 00:02:17: thought leadership.

00:02:18 --> 00:02:21: We have content on making the business case for green

00:02:21 --> 00:02:25: building and the journey to net zero, which involves multiple

00:02:25 --> 00:02:28: strategies including green financing mechanisms.

00:02:28 --> 00:02:32: We also have our Greenprint community of practice, which is

00:02:32 --> 00:02:36: a collaborative of over 135 real estate owners committed to

00:02:36 --> 00:02:41: improving environmental performance of their buildings and their assets to

00:02:41 --> 00:02:42: Net 0 by 2050.

00:02:42 --> 00:02:45: I know we probably have some Greenprint members on the

00:02:45 --> 00:02:48: call, but they certainly are a part of our panel

00:02:48 --> 00:02:48: today.

00:02:49 --> 00:02:51: And then the last piece is local technical assistance.

00:02:51 --> 00:02:54: And I'm going to take just a couple more seconds

00:02:54 --> 00:02:57: on this because this is really our why this green

00:02:57 --> 00:02:58: finance primer came to life.

00:02:58 --> 00:03:02: So we have a program called the NET 0 Imperative,

00:03:02 --> 00:03:07: which is a series of on site technical technical assistance

00:03:07 --> 00:03:11: panels that work on a singular or very local issue

00:03:11 --> 00:03:13: with cities and communities.

00:03:13 --> 00:03:17: And often times out of these taps or technical assistant

00:03:17 --> 00:03:21: panels, the topic bubbles up that we realized we need

00:03:21 --> 00:03:22: to focus in on more.

00:03:23 --> 00:03:26: And that is how this green finance primer started.

00:03:26 --> 00:03:29: So sometimes it starts from thought leadership, sometimes it

00:03:29 --> 00:03:30: starts

00:03:29 --> 00:03:30: from a green community of practice.

00:03:30 --> 00:03:34: But this particular resource is interesting because it started

00:03:30 --> 00:03:34: from

00:03:34 --> 00:03:37: an on site tap where folks were really focused on

00:03:37 --> 00:03:41: the need for green finance mechanisms and understanding

00:03:37 --> 00:03:41: what they

00:03:41 --> 00:03:41: are.

00:03:42 --> 00:03:44: So today's agenda will do just that.

00:03:44 --> 00:03:49: We'll quickly look at the Green Finance Unlocked primer.

00:03:49 --> 00:03:51: I'll send a link so you all can look at
00:03:51 --> 00:03:52: that on your own if you haven't already.
00:03:53 --> 00:03:56: We'll go through some best practices on green financing mechanisms
00:03:56 --> 00:03:57: for your projects.
00:03:58 --> 00:04:01: And Lauren and Sandeep will run through some projects or
00:04:01 --> 00:04:04: some insights, and they were both involved in the development
00:04:04 --> 00:04:05: of the primer.
00:04:06 --> 00:04:09: And we'll talk about how you can use this primer,
00:04:09 --> 00:04:12: you know, day-to-day or on your projects in your in
00:04:12 --> 00:04:14: your organization or in your firm.
00:04:14 --> 00:04:17: So how to choose green finance mechanisms for your project.
00:04:17 --> 00:04:20: We'll get an overview of the beta program and some
00:04:20 --> 00:04:23: beta case studies and then we'll go through a panel
00:04:23 --> 00:04:26: discussion on if you have a project and it has
00:04:26 --> 00:04:31: these particular parameters, what are some green financing mechanisms that
00:04:31 --> 00:04:31: will work?
00:04:32 --> 00:04:34: I do want to note that you will not get
00:04:34 --> 00:04:35: the golden ticket today.
00:04:35 --> 00:04:37: We're not going to give you the one answer or
00:04:37 --> 00:04:39: the one mechanism that's going to work for your project.
00:04:39 --> 00:04:44: There's 19 mechanisms covered in this primer and there could
00:04:44 --> 00:04:46: be a combination of the 19.
00:04:46 --> 00:04:49: There could be, you know, one or two or maybe
00:04:49 --> 00:04:51: none, which is is not the best case scenario, but
00:04:51 --> 00:04:54: we really, really want to give you an opportunity to
00:04:54 --> 00:04:57: see all the different finance mechanisms we cover in this
00:04:57 --> 00:04:57: primer.
00:04:57 --> 00:04:59: It's up on the screen.
00:04:59 --> 00:05:01: You can use your phone and take a look at
00:05:01 --> 00:05:03: the QR code to look at that on your phone.
00:05:04 --> 00:05:06: And there's also a link on the bottom this webinar.
00:05:06 --> 00:05:10: And the recording will be shared to all registrants and
00:05:10 --> 00:05:11: participants.
00:05:11 --> 00:05:14: But now I'm going to hand it over to Tamara
00:05:14 --> 00:05:16: and you can take it away on a discussion of
00:05:16 --> 00:05:18: green financing strategies.
00:05:21 --> 00:05:21: Sounds good.
00:05:21 --> 00:05:24: Thanks so much, Kara, and good morning, everyone.

00:05:24 --> 00:05:26: Thanks so much for joining us.

00:05:26 --> 00:05:29: I'm Tamara George, I'm a manager at RMII work on

00:05:29 --> 00:05:33: our carbon free building steam and my focus is leveraging

00:05:33 --> 00:05:36: finance for building the carbonization.

00:05:37 --> 00:05:40: So today we will kick off with a conversation with

00:05:40 --> 00:05:44: two of our distinguished guests today, Lauren Moss from

00:05:44 --> 00:05:48: Vernado

00:05:49 --> 00:05:52: and Sandeep Singh from the International Finance

00:05:52 --> 00:05:55: Corporation.

00:05:55 --> 00:05:58: Lauren and Sandeep are both experienced practitioners.

00:05:58 --> 00:06:00: They were both interviewed and quoted in the primary that

00:06:01 --> 00:06:03: Kara just mentioned and explained how to choose green

00:06:03 --> 00:06:05: financing

00:06:06 --> 00:06:09: mechanisms for your projects.

00:06:10 --> 00:06:12: And they both have a wealth of knowledge about how

00:06:13 --> 00:06:17: best to finance real world green projects.

00:06:17 --> 00:06:18: Lauren and Sandeep, can I ask you for brief introductions?

00:06:19 --> 00:06:22: We can maybe start with Lauren.

00:06:22 --> 00:06:23: Thank you for having me and including Pornado in the

00:06:23 --> 00:06:27: Green Primer.

00:06:27 --> 00:06:27: I'm the Senior Vice President and Chief Sustainability Officer

00:06:28 --> 00:06:32: at

00:06:32 --> 00:06:32: Pornado Realty Trust.

00:06:34 --> 00:06:36: We're a public REIT mostly located in and around New

00:06:36 --> 00:06:38: York City.

00:06:38 --> 00:06:42: Commercial office and retail being most of us work that

00:06:42 --> 00:06:46: we do.

00:06:47 --> 00:06:50: So if you go to the next slide, I'll just

00:06:51 --> 00:06:52: give you a quick overview of Vornado.

00:06:53 --> 00:06:56: We have a commitment to carbon neutrality in 20-30.

00:06:56 --> 00:06:59: There are components of that journey to carbon neutrality,

00:06:59 --> 00:07:02: the

00:07:02 --> 00:07:03: first being at 50% reduction in consumption against a 2009

00:07:03 --> 00:07:06: baseline for our portfolio.

00:07:06 --> 00:07:10: The second being recovery, waste tea recovery, etcetera.

00:07:10 --> 00:07:13: Really thinking through how we run our buildings even more

00:07:13 --> 00:07:14: efficiently so that we don't have to take more power

00:07:14 --> 00:07:16: off of the grid.

00:07:16 --> 00:07:19: And the third is renewables, Recs and offsets.

00:07:19 --> 00:07:22: And that's really been the driver for the work that

00:07:22 --> 00:07:25: we've been doing over at least the past 15 years

00:07:25 --> 00:07:28: at 4 Natos.

00:07:28 --> 00:07:31: If we go to the next slide, I thought this

00:07:16 --> 00:07:17: was important.

00:07:17 --> 00:07:20: And just so everybody knows, we have a sustainability report.

00:07:20 --> 00:07:23: All of this information that you're seeing is in there

00:07:23 --> 00:07:24: and it's on our website.

00:07:24 --> 00:07:28: And one of the big components of the work that

00:07:28 --> 00:07:31: we do to make decarbonisation a part of the puzzle

00:07:32 --> 00:07:37: of financing, repositioning, acquisitions is to look towards incentives and

00:07:37 --> 00:07:38: rebates.

00:07:39 --> 00:07:41: We also spend a lot of time thinking through what

00:07:41 --> 00:07:44: the actual savings have been from the projects we've done.

00:07:44 --> 00:07:47: So we think it's really important to show how much

00:07:47 --> 00:07:50: we have done, how we calculate that and be really

00:07:50 --> 00:07:53: honest about the journey towards decarbonization.

00:07:53 --> 00:07:57: If you go to the next slide, it will show

00:07:57 --> 00:08:02: you we previously in 2021, completed a green bond offering.

00:08:02 --> 00:08:06: This was to reposition 3 buildings in the Penn District.

00:08:06 --> 00:08:09: Their existing buildings, I don't know if anyone's in around

00:08:09 --> 00:08:12: New York City, but the Penn District is where Penn

00:08:12 --> 00:08:13: Station is.

00:08:13 --> 00:08:16: And we really looked at those three buildings and we

00:08:16 --> 00:08:19: used a green bond offering mostly as a way to

00:08:19 --> 00:08:23: demonstrate our commitment to the repositioning of these buildings.

00:08:23 --> 00:08:26: We really tried to create a campus across the Penn

00:08:26 --> 00:08:29: District where we have about 9,000,000 square feet of space.

00:08:29 --> 00:08:34: So we focus on facade replacements, window replacements, mechanical system

00:08:35 --> 00:08:40: upgrades, community engagement, public spaces, air quality and that using

00:08:40 --> 00:08:44: the green bond offering, it's we used LEED gold as

00:08:44 --> 00:08:48: the driver and that became the North Star, right, for

00:08:48 --> 00:08:49: everything that we did.

00:08:49 --> 00:08:52: And what that enabled us to do was to ensure

00:08:53 --> 00:08:57: that sustainability was a thread through every single, every part

00:08:57 --> 00:08:58: of the project.

00:08:59 --> 00:09:02: If you go to the, I think final slide, we

00:09:02 --> 00:09:05: try and this is again on our website, I feel

00:09:05 --> 00:09:09: like there's a lot of information to try and distill.

00:09:09 --> 00:09:12: But if you look at the Farley building, which is

00:09:12 --> 00:09:15: fully occupied by a single tenant, we did achieve LEED

00:09:15 --> 00:09:16: Gold mode score platinum.

00:09:17 --> 00:09:20: We really looked at Embody Carbon and all of these

00:09:20 --> 00:09:23: projects because we were retaining the essence of the buildings.

00:09:23 --> 00:09:27: At Penn One, we did 8000 plus window replacements that

00:09:27 --> 00:09:31: drives down the mechanical sizing, but also improves the acoustics

00:09:31 --> 00:09:32: for our tenants.

00:09:32 --> 00:09:35: At Penn Two, we did a full facade replacement.

00:09:36 --> 00:09:38: And again, all of this is on our website, so

00:09:38 --> 00:09:40: I'm not going to go through every single thing so

00:09:40 --> 00:09:41: you can see.

00:09:41 --> 00:09:44: But what it meant was that we were constantly evaluating

00:09:44 --> 00:09:47: projects not just from a sustainability angle, but from a

00:09:47 --> 00:09:51: financial angle, from an operations angle, how the buildings would

00:09:51 --> 00:09:54: perform once we did the work and how our tenants

00:09:54 --> 00:09:55: would react.

00:09:55 --> 00:09:58: And if you go to the final slide, I think

00:09:58 --> 00:10:01: we sort of try and translate that into more tangible

00:10:01 --> 00:10:06: or reasonable ways that everybody could understand the impact of

00:10:06 --> 00:10:07: the work that we've done.

00:10:08 --> 00:10:11: And we find that with our shareholders and our tenants,

00:10:11 --> 00:10:14: this is a really positive outcome and that the green

00:10:14 --> 00:10:18: bond that we issued allowed us to really differentiate the

00:10:18 --> 00:10:18: project.

00:10:19 --> 00:10:22: And again, it's a very public statement around the work

00:10:22 --> 00:10:24: that we're we are doing and that we're committed to

00:10:24 --> 00:10:27: doing on our journey towards decarbonization.

00:10:29 --> 00:10:29: I'm.

00:10:33 --> 00:10:34: Going to think turn it over to Sandeep.

00:10:36 --> 00:10:38: Thanks so much, Lauren Sandeep.

00:10:39 --> 00:10:39: Yeah, Thank you.

00:10:40 --> 00:10:41: My name is Sandeep Singh.

00:10:41 --> 00:10:44: I work with the International Finance Corporation, which is part

00:10:44 --> 00:10:46: of the World Bank Group.

00:10:47 --> 00:10:48: Maybe we can go to the next slide.

00:10:50 --> 00:10:53: World Bank Group, as you are probably aware is a

00:10:53 --> 00:10:59: large development finance institution comprising of these five entities focused

00:11:00 --> 00:11:03: on developmental impact in the emerging markets.

00:11:03 --> 00:11:05: In the developing economies.

00:11:05 --> 00:11:09: IFC is the private sector arm of the World Bank.

00:11:09 --> 00:11:12: So the rest of the World Bank IBRD specifically works

00:11:12 --> 00:11:14: with the governments in emerging markets.

00:11:14 --> 00:11:20: We work to activate the private sector for developmental impact.

00:11:21 --> 00:11:25: So essentially we are the largest development finance institution in

00:11:25 --> 00:11:27: the world that's focused on the private sector.

00:11:28 --> 00:11:32: And specific to the topic today, we are focused on

00:11:32 --> 00:11:37: climate finance and we have committed to about 35% of

00:11:37 --> 00:11:41: all our investments to be in climate finance.

00:11:41 --> 00:11:46: So in the last financial year 2024 IFC invested about

00:11:46 --> 00:11:50: \$56 billion in climate and no not in climate all

00:11:50 --> 00:11:57: together and about 20 billion nineteen point something in climate

00:11:57 --> 00:12:01: as a whole of which \$4.2 billion went into green

00:12:01 --> 00:12:05: buildings in different forms of mechanisms.

00:12:06 --> 00:12:09: So if you go can go to the next slide

00:12:09 --> 00:12:09: please.

00:12:11 --> 00:12:14: So the team that I work with is part of

00:12:14 --> 00:12:19: the climate Business Department, Green Buildings and Green Cities team.

00:12:20 --> 00:12:26: And to facilitate investments that IFC does and also to

00:12:26 --> 00:12:31: provide three tools which are metrics driven and focus on

00:12:31 --> 00:12:36: resource efficiency of buildings and cities.

00:12:36 --> 00:12:40: We have this tool kit of these three tools, Apex

00:12:40 --> 00:12:42: for green cities.

00:12:42 --> 00:12:46: Cities, as you probably are aware, are the epicenters of

00:12:46 --> 00:12:47: of emissions.

00:12:47 --> 00:12:50: 70% of global GHG emissions come from cities.

00:12:51 --> 00:12:55: Then there is Edge, which is about 10 years old.

00:12:55 --> 00:12:58: So off the three tools, that's the older one, more

00:12:58 --> 00:13:03: established one which is focused on the mitigation aspects of

00:13:03 --> 00:13:03: buildings.

00:13:03 --> 00:13:10: So essentially looking at resource efficiency and carbon emissions, I

00:13:10 --> 00:13:15: am Edge has certified about more than 100 million square

00:13:15 --> 00:13:19: metres across the world in 113 countries.

00:13:19 --> 00:13:20: That number keeps changing.

00:13:20 --> 00:13:24: So every time I put it, it's already outdated.

00:13:24 --> 00:13:28: And then the third tool is on the resilience sites,

00:13:28 --> 00:13:32: again focused on buildings, but this is focused on adaptation

00:13:33 --> 00:13:37: and helping owners of buildings assess the resilience, which is

00:13:37 --> 00:13:41: basically we look at two things, the physical integrity and

00:13:41 --> 00:13:46: the operational continuity of the building in case there is

00:13:46 --> 00:13:49: a, there is a climate disaster or, or you know,

00:13:49 --> 00:13:50: exposure to hazards.

00:13:51 --> 00:13:54: So those three tools are all freely accessible.

00:13:54 --> 00:13:58: The USB is that they are focused on metrics, unlike

00:13:58 --> 00:14:01: other, let's say, you know, if I'm talking about Edge,

00:14:01 --> 00:14:06: which is a green building certification, The, the main differentiating

00:14:06 --> 00:14:08: factor is the context is always local.

00:14:09 --> 00:14:13: The focus is on metrics and the baselines are robust

00:14:13 --> 00:14:17: and, and you know, again, I said locally contextual.

00:14:17 --> 00:14:20: So those are the main things why we had to

00:14:20 --> 00:14:23: create something like this so that we can, you know,

00:14:23 --> 00:14:27: we, we can avoid transposing a Western standard onto emerging

00:14:27 --> 00:14:30: markets where it doesn't make sense.

00:14:30 --> 00:14:34: And and we take the mid and the bottom of

00:14:34 --> 00:14:39: the pyramid and help the whole ecosystem upgrade into a

00:14:39 --> 00:14:41: low carbon phase.

00:14:42 --> 00:14:43: So yeah, that's it from my side.

00:14:43 --> 00:14:44: Back to you, Tamara.

00:14:45 --> 00:14:50: Thanks so much, Sandeep and Lauren, for those introductions.

00:14:50 --> 00:14:53: We're all excited to have you today and would love

00:14:53 --> 00:14:56: to hear more about your experience and how it relates

00:14:56 --> 00:15:00: to insights and best practices relating to this primer and

00:15:00 --> 00:15:03: how to choose green financing mechanisms for specific assets and

00:15:03 --> 00:15:04: project types.

00:15:05 --> 00:15:07: So to start us off, I'd love to hear about

00:15:08 --> 00:15:12: what you've observed recently in terms of these innovative financing

00:15:12 --> 00:15:12: mechanisms.

00:15:12 --> 00:15:16: Did you see them work well anywhere, either in developed

00:15:16 --> 00:15:17: or developing markets?

00:15:17 --> 00:15:20: And if so, which would you like to see replicated

00:15:20 --> 00:15:20: the most?

00:15:25 --> 00:15:25: OK, I'll start.

00:15:25 --> 00:15:28: And then Sandy, I, I work in the developed market,

00:15:28 --> 00:15:29: so I'm not going to, I, I can't speak to

00:15:29 --> 00:15:30: what Sandy is doing.

00:15:30 --> 00:15:33: And he's doing it on a scale that is truly

00:15:33 --> 00:15:35: astounding and inspiring.

00:15:35 --> 00:15:38: I think what we see in the work that we're

00:15:38 --> 00:15:42: doing when you think through decarbonisation is a variety of

00:15:42 --> 00:15:45: mechanisms that go into creating almost the same kind of

00:15:45 --> 00:15:49: capital stack when you're thinking about the financing of your

00:15:49 --> 00:15:50: buildings, right?

00:15:50 --> 00:15:55: So whether it's driven because of building performance standards or

00:15:55 --> 00:15:59: regulation or is a voluntary determination that the organization has

00:15:59 --> 00:16:03: made, the critical component to it is to sort of

00:16:03 --> 00:16:06: think through how each asset is financed and to match

00:16:06 --> 00:16:09: that with how is it possible to do the work,

00:16:09 --> 00:16:09: right?

00:16:09 --> 00:16:13: Is it an existing asset with fully occupied, is it

00:16:13 --> 00:16:17: residential where there's access that you're going to have to

00:16:17 --> 00:16:18: negotiate?

00:16:18 --> 00:16:21: Can you do it on overtime?

00:16:21 --> 00:16:25: And so those financing mechanisms then become really important, right?

00:16:25 --> 00:16:28: So if you're looking at energy as a service where

00:16:28 --> 00:16:32: you're financing it, the sort of manufacturer or organization representing

00:16:32 --> 00:16:35: the manufacturer is going to come in and replace everything

00:16:35 --> 00:16:38: and run everything, which is a fantastic opportunity for lots

00:16:38 --> 00:16:41: of building owners that don't maybe have the capital to

00:16:41 --> 00:16:42: do it.

00:16:42 --> 00:16:44: And, or the, and they're not operating their buildings or

00:16:44 --> 00:16:47: they're needing support in operating their buildings.

00:16:47 --> 00:16:50: You see that a lot in schools and universities and

00:16:50 --> 00:16:53: things like that, that they're, this is a helpful way

00:16:53 --> 00:16:56: of ensuring consistent operating costs over a long period of

00:16:56 --> 00:16:56: time.

00:16:57 --> 00:17:01: Or there's a green bond because you can then use

00:17:01 --> 00:17:05: the sustainability work to reposition the property.

00:17:05 --> 00:17:07: So there's lots of ways you have to think through

00:17:07 --> 00:17:08: this.

00:17:09 --> 00:17:12: But we see, I think in the work that I've

00:17:12 --> 00:17:16: done previous there prior to Vornado Energy as a service

00:17:16 --> 00:17:19: was a really important product, product and opportunity.

00:17:19 --> 00:17:22: I think C Pace is growing a lot because of

00:17:22 --> 00:17:25: where it sits in the capital stack, right?

00:17:25 --> 00:17:27: It sits on a property tax bill as opposed to

00:17:27 --> 00:17:31: in the financing of the building, which sometimes makes it

00:17:31 --> 00:17:33: easier, sometimes it makes it harder.

00:17:34 --> 00:17:37: I think green bonds are really used by large organizations

00:17:37 --> 00:17:40: who are going out to raise huge amounts of money,

00:17:40 --> 00:17:40: right?

00:17:41 --> 00:17:43: It's not for a small project.

00:17:43 --> 00:17:46: So I think all of these pieces, which is why

00:17:46 --> 00:17:49: like looking at the financing mechanisms, it's about understanding the

00:17:49 --> 00:17:52: size of the property, where the property stands in terms

00:17:52 --> 00:17:54: of its financial viability.

00:17:54 --> 00:17:56: And also if you're looking to hold or flip that

00:17:56 --> 00:17:58: property will also come into effect.

00:18:03 --> 00:18:08: Maybe I can add the developing economies angle here and

00:18:08 --> 00:18:13: you know the lenses different for us the main motivation

00:18:13 --> 00:18:19: is impact, you know first the developmental impact overall

00:18:19 --> 00:18:23: and

00:18:19 --> 00:18:23: then within that climate impact as well.

00:18:23 --> 00:18:28: So we have been you know, using various mechanisms like

00:18:28 --> 00:18:35: sustainability, like finance, otherwise just straightforward

00:18:35 --> 00:18:36: green loans and green

00:18:35 --> 00:18:36: bonds.

00:18:36 --> 00:18:40: You know, we've been working with banks across emerging

00:18:41 --> 00:18:44: markets,

00:18:44 --> 00:18:48: you know, for instance like Bank Columbia, the the largest

00:18:44 --> 00:18:48: bank in Columbia, we help them issue a green bond.

00:18:49 --> 00:18:53: This was few years back and then they were able

00:18:53 --> 00:18:57: to subsequently issue three more rounds of green bonds

00:18:57 --> 00:18:59: which

00:18:57 --> 00:18:59: were then subscribed locally.

00:18:59 --> 00:19:02: So, so that's the main job of IFC which is

00:19:02 --> 00:19:05: basically paving the road where there is none and then

00:19:05 --> 00:19:09: letting private sector come in and make the impact.

00:19:09 --> 00:19:12: So we, if we do a lot of SLF, we

00:19:12 --> 00:19:16: do a lot of bank financing where the banks then

00:19:16 --> 00:19:21: have on lending programs, which are green financial

00:19:21 --> 00:19:25: products like

00:19:21 --> 00:19:25: green mortgages and green construction loans.

00:19:28 --> 00:19:31: To my mind, if, if you, if you're, if I

00:19:31 --> 00:19:35: had to recommend one instrument that is, that is my

00:19:35 --> 00:19:36: favorite.

00:19:36 --> 00:19:37: Of course, they're all needed.

00:19:37 --> 00:19:41: But I think green mortgages is probably from an impact

00:19:41 --> 00:19:46: perspective, the more important one because as you're probably aware,

00:19:46 --> 00:19:49: you know, I'll give you 2 sets of data.

00:19:49 --> 00:19:53: One is by the year 2060, the entire floor space

00:19:53 --> 00:19:57: that is there in the world today will be two

00:19:57 --> 00:19:57: X.

00:19:57 --> 00:20:00: So we will build the world one more time and

00:20:00 --> 00:20:03: 80% of that will come in emerging markets.

00:20:03 --> 00:20:06: So unless we help them get that right in the

00:20:06 --> 00:20:10: 1st place, you know the inefficiencies will get locked in.

00:20:11 --> 00:20:15: So, so, so that's one and of this of everything,

00:20:15 --> 00:20:20: but specifically the the second X that we're building 70%

00:20:20 --> 00:20:22: again is residential.

00:20:22 --> 00:20:27: So if we can address that segment, we can, we

00:20:27 --> 00:20:30: can you know, we have a large size of the

00:20:30 --> 00:20:33: overall emissions impacted.

00:20:34 --> 00:20:36: So you know, so that that's my favorite.

00:20:36 --> 00:20:40: One of the things that you know, talking about impact

00:20:41 --> 00:20:45: is a majority of that residential that I'm talking about

00:20:45 --> 00:20:50: is now these are small homes in emerging markets, self

00:20:50 --> 00:20:50: built.

00:20:50 --> 00:20:53: You know, the values are way less than what we're

00:20:53 --> 00:20:57: probably talking about here, you know, maybe 20 to \$50,000

00:20:57 --> 00:20:57: a home.

00:20:57 --> 00:21:01: And how do you get them to take the necessary

00:21:01 --> 00:21:03: steps to, to become green.

00:21:03 --> 00:21:08: So we're piloting a program for under our edge project.

00:21:08 --> 00:21:11: We're piloting a program for self built homes in India

00:21:11 --> 00:21:14: and and that's working very well and that's kind of

00:21:14 --> 00:21:17: addressing the bottom of the the, you know, not the

00:21:17 --> 00:21:19: absolute bottom, but the next run.

00:21:20 --> 00:21:23: And and so those are the few things we can

00:21:23 --> 00:21:26: talk about a few other things like, you know, the

00:21:26 --> 00:21:30: more innovative ones like property link finance or or on

00:21:30 --> 00:21:34: bill financing, but we'll tackle those as we progress forward

00:21:34 --> 00:21:35: in this discussion.

00:21:35 --> 00:21:36: Back to you, Tamara.

00:21:37 --> 00:21:40: Now that is very interesting both and I, I like

00:21:40 --> 00:21:43: how you said Sandeep paving the road where there is

00:21:44 --> 00:21:47: none, because I think a lot of the time when

00:21:47 --> 00:21:51: it comes to innovative finance or innovative technology, it's really

00:21:51 --> 00:21:54: hard to get started and get going.

00:21:54 --> 00:21:56: And I would love to hear from both of you

00:21:56 --> 00:21:58: like how you see that happening.

00:21:58 --> 00:22:00: I know that you've both been in the field for

00:22:00 --> 00:22:01: a long time.

00:22:01 --> 00:22:04: Is there one piece of advice that you would share

00:22:04 --> 00:22:08: about how you get these mechanisms that can really help

00:22:08 --> 00:22:09: moved a needle?

00:22:10 --> 00:22:12: How you proliferate them?

00:22:12 --> 00:22:15: How do you get them to become more mainstream?

00:22:19 --> 00:22:23: I mean, I would from the private market side of

00:22:23 --> 00:22:28: things, I think the really important piece of this conversation

00:22:28 --> 00:22:32: for us has been to get our capital markets and

00:22:32 --> 00:22:38: asset management teams educated as to what sustainability means.

00:22:39 --> 00:22:43: And there's lots of different words used around sustainability.

00:22:43 --> 00:22:47: There's decarbonization, there's resilience, there's risk mitigation.

00:22:48 --> 00:22:51: I think we're seeing the insurance companies coming more into

00:22:51 --> 00:22:52: the conversation.

00:22:52 --> 00:22:55: So when we look at sort of an asset that

00:22:55 --> 00:22:59: we know either we want to acquire, we want to

00:22:59 --> 00:23:03: invest in, we want to reposition, we have a fine

00:23:03 --> 00:23:04: against etcetera.

00:23:06 --> 00:23:11: This work is being done at the sort of financial

00:23:12 --> 00:23:14: determination level.

00:23:14 --> 00:23:17: And the idea for what I'm doing is to try

00:23:17 --> 00:23:20: and ensure that we can meet the targets, right.

00:23:20 --> 00:23:23: So whether if it's C pace financing, because now the

00:23:23 --> 00:23:26: interest rates are sort of on on par with what

00:23:26 --> 00:23:29: we're seeing in the private market or it is energy

00:23:29 --> 00:23:31: as a service, which is in some ways a risk

00:23:31 --> 00:23:33: for us to give up control, right.

00:23:33 --> 00:23:37: Like where the risk points and how can I provide

00:23:37 --> 00:23:39: support in that conversation?

00:23:39 --> 00:23:44: Because banks have financed things traditionally in a very specific

00:23:44 --> 00:23:44: way.

00:23:44 --> 00:23:49: And to put any sort of any writer on that

00:23:49 --> 00:23:55: or any extra metric creates a moment of risk that

00:23:55 --> 00:23:59: we need to ensure we can meet.

00:23:59 --> 00:24:03: And I think that the innovation is, is slow, but

00:24:03 --> 00:24:06: I think we're seeing as we did the green bond

00:24:06 --> 00:24:10: and, and met the targets, then it becomes like, oh,

00:24:10 --> 00:24:12: we can do that again, right?

00:24:12 --> 00:24:14: As we see our peers.

00:24:14 --> 00:24:17: And I do think things like this Uli playbook come

00:24:17 --> 00:24:20: into play because you then hear from people who've done

00:24:20 --> 00:24:20: it.

00:24:20 --> 00:24:24: So you can take that as a model and keep

00:24:24 --> 00:24:25: going with it, right.

00:24:26 --> 00:24:28: And as we see the banks come out with more

00:24:28 --> 00:24:32: and more products actually pushing the real estate industry, it's

00:24:32 --> 00:24:36: really exciting if they start to put in place, you

00:24:36 --> 00:24:39: know, how can you measure money carbon in a project,

00:24:39 --> 00:24:40: not just operational carbon.

00:24:40 --> 00:24:43: So we are starting to see it and I think

00:24:43 --> 00:24:47: it markets are you know have since COVID at least

00:24:47 --> 00:24:51: been very complicated from an interest rate perspective.

00:24:51 --> 00:24:55: But I do think we are start, we have seen

00:24:55 --> 00:25:01: innovation in the financing tools and in acceptance of innovation

00:25:01 --> 00:25:05: because traditional finance hasn't been as available.

00:25:06 --> 00:25:08: And so I think scarcity is also that, whatever that

00:25:08 --> 00:25:12: phrase is around scarcity and innovation, I think that's happened

00:25:12 --> 00:25:13: a little bit.

00:25:16 --> 00:25:17: Yeah, absolutely.

00:25:17 --> 00:25:20: And I, you know, I think I'll kind of build

00:25:20 --> 00:25:23: on what Lauren said and you know how you take

00:25:23 --> 00:25:27: some things that's been done already and then help others

00:25:27 --> 00:25:30: emulate that and and maybe adapt that to their context

00:25:30 --> 00:25:32: and, and, and build on that.

00:25:32 --> 00:25:36: And that's from a development impact perspective.

00:25:36 --> 00:25:39: We what we are looking at as a World Bank

00:25:39 --> 00:25:43: group is to take examples like property link finance is,

00:25:43 --> 00:25:47: is a classic example, which is very effective and common

00:25:47 --> 00:25:48: here in the US.

00:25:48 --> 00:25:50: But in the emerging market, it's not been done.

00:25:51 --> 00:25:56: So in our recent engagement with Poison City in in

00:25:56 --> 00:26:01: Philippines, where we help the city develop an apex assessment,

00:26:01 --> 00:26:06: like a whole city view of what the possibilities are
00:26:06 --> 00:26:11: across different sectors and how they can reduce emissions.
00:26:13 --> 00:26:18: And they are now exploring how they can use a
00:26:18 --> 00:26:24: property linked finance mechanism to help the private sector
move
00:26:24 --> 00:26:27: into low carbon phase.
00:26:27 --> 00:26:30: So that, you know, these things, once they are done
00:26:31 --> 00:26:33: and if they get done at A, at a city
00:26:33 --> 00:26:37: level through maybe not hard policies, but maybe as an,
00:26:37 --> 00:26:42: as something that's an incentive, they become very effective.
00:26:42 --> 00:26:45: And, and so those are things I mean, so, you
00:26:45 --> 00:26:50: know, just to clarify, I, I to the audience, property
00:26:50 --> 00:26:54: link finances is a mechanism where the financing is done
00:26:55 --> 00:26:59: at the property level and, and not the owner level.
00:26:59 --> 00:27:03: And you know, let's the owners change and and the
00:27:03 --> 00:27:07: and the debt obligation stays there with the property and,
00:27:07 --> 00:27:12: and and that enables or overcomes the mismatch of
ownership
00:27:12 --> 00:27:16: versus long term tenure of these long long term payback
00:27:16 --> 00:27:18: periods of these retrofits.
00:27:19 --> 00:27:23: So then, you know, the other other one that comes
00:27:23 --> 00:27:28: to mind is on bill financing, which which is basically
00:27:29 --> 00:27:34: like in, in property link finance, the repayment is done
00:27:34 --> 00:27:35: through taxes.
00:27:35 --> 00:27:38: You know, when people get property tax bills, you know,
00:27:38 --> 00:27:41: they, there's a line item added there on bill financing
00:27:41 --> 00:27:43: is that through their utility bills.
00:27:43 --> 00:27:45: That's that's how the repayment happens.
00:27:45 --> 00:27:51: And so the World Bank supported in Mexico the Mexican
00:27:51 --> 00:27:56: utility CFE with the \$250 million loan to to to
00:27:56 --> 00:28:02: implement an on bill finance program for replacement of old
00:28:02 --> 00:28:06: equipment, which was energy inefficient.
00:28:07 --> 00:28:11: So almost 2 million pieces of refrigerators and and old
00:28:11 --> 00:28:16: air conditioners were replaced through that program, which
was an
00:28:16 --> 00:28:18: on bill financing.
00:28:18 --> 00:28:22: So the the beneficiaries would were able to pay back
00:28:22 --> 00:28:26: the the cost of the new equipment through an additional
00:28:26 --> 00:28:29: line item on their utility bills.
00:28:29 --> 00:28:32: So, so yeah, it's you know, the idea is to
00:28:33 --> 00:28:38: pick up these potential structures which are essentially a
means
00:28:38 --> 00:28:39: to an end.

00:28:39 --> 00:28:42: And the end is to have large scale impact which
00:28:42 --> 00:28:46: becomes a structural change in the society from there on.
00:28:50 --> 00:28:50: Very true.
00:28:51 --> 00:28:53: So many mechanisms.
00:28:53 --> 00:28:55: There is a lot more to talk about when it
00:28:55 --> 00:28:56: comes to incentives, I'm sure.
00:28:56 --> 00:29:00: And I'm seeing some questions from the audience too about
00:29:00 --> 00:29:04: both of those aspects and you know, ultimately how to
00:29:04 --> 00:29:07: match capital with the pipeline and decarbonization need.
00:29:09 --> 00:29:11: So thank you for kicking us off with those thoughts
00:29:11 --> 00:29:12: and valuable insights.
00:29:13 --> 00:29:16: I think for now we will have to transition to
00:29:17 --> 00:29:21: our next section about bringing this primer and everything
we've
00:29:21 --> 00:29:24: talked about to life via a specific resource.
00:29:24 --> 00:29:28: But I definitely look forward to hearing more from you
00:29:28 --> 00:29:30: during our second conversation and the Q&A.
00:29:31 --> 00:29:32: Thank you both.
00:29:33 --> 00:29:35: I for the next section, I will pass it to
00:29:35 --> 00:29:38: Dan and Hossum who will talk to us about the
00:29:38 --> 00:29:44: Massachusetts Clean Energy program developed resource
called the Building Electrification
00:29:44 --> 00:29:46: Transformation Accelerator or Beta.
00:29:47 --> 00:29:50: Dan and Hassam, might I ask for introductions from you
00:29:50 --> 00:29:51: both?
00:29:53 --> 00:29:54: Wonderful.
00:29:55 --> 00:29:58: Thank you very much, Tamara and good morning or good
00:29:58 --> 00:30:01: afternoon to everybody on the call.
00:30:01 --> 00:30:03: My name is Dan Straight.
00:30:03 --> 00:30:05: I am a senior researcher at Slipstream.
00:30:06 --> 00:30:10: We are a nonprofit organization that works nationally with a
00:30:10 --> 00:30:15: mission to accelerate climate solutions for everyone, with a
primary
00:30:15 --> 00:30:20: focus on and reducing emissions in the built environment
equitably.
00:30:21 --> 00:30:23: So Hassan, would you like to introduce yourself?
00:30:24 --> 00:30:24: Sure.
00:30:25 --> 00:30:26: Good afternoon everyone.
00:30:26 --> 00:30:29: My name is Hassan Mahmoud and I'm a Senior Energy
00:30:29 --> 00:30:32: Engineer at Tri's where I've been for the past eight
00:30:32 --> 00:30:32: years.
00:30:32 --> 00:30:36: We're based on New England and we're primarily focused on
00:30:36 --> 00:30:41: sustainable building design implementation for existing

buildings, and we support also the energy efficiency programs here in New England for multiple states.

I personally support the massive programs for commercial industrial buildings and also try to have building owners as part of the program to implement energy efficiency electrification measures.

I'm also part of the technical team for the Mass EC Beta project, which is driving education and recognition strategies across Massachusetts.

Additionally, I've been conducting research on net zero energy optimization for commercial building retrofits across different climates as part of my PhD studies at UMass Amherst, and I'm excited to be part of this panel and look forward to today's discussion.

Thanks, Dan.

All right.

Thanks, Rosa.

Let's see.

Can we move on to the next slide here please?

All right.

So as was mentioned, we are primarily going to be speaking about the beta program.

This is a pilot program funded through the Massachusetts Clean Energy Center.

Mass CC Beta stands for Building Electrification Transformation Accelerator and Slipstream is the project manager.

Rise is an engineering firm as this was some described when and he among as well as other colleagues and some other providers are the ones who are actually out working with the building owners walking through the buildings and to create some of these strategies to move forward.

Next slide please.

So the project has three primary goals and those are all within an overarching objective of creating strategic and scalable decarbonization frameworks for a spectrum of commercial

building typologies.

00:32:39 --> 00:32:43: I think one of the themes that was starting to

00:32:43 --> 00:32:48: emerge within the panel discussion earlier is that there there

00:32:48 --> 00:32:52: are a lot of innovative ways of doing financing and

00:32:52 --> 00:32:58: of doing decarbonization, but commercial buildings are such

00:32:58 --> 00:33:03: a diverse

00:32:58 --> 00:33:03: array of building stock and they have many different needs.

00:33:03 --> 00:33:06: There are a wide variety of types of owners of

00:33:06 --> 00:33:09: these very different buildings.

00:33:09 --> 00:33:13: And so that creates a really interesting challenge of how

00:33:13 --> 00:33:18: to significantly reduce emissions from all of these building

00:33:18 --> 00:33:21: types

00:33:18 --> 00:33:21: within the next next couple decades.

00:33:22 --> 00:33:24: So we know that.

00:33:25 --> 00:33:28: So one of the goals of the project is to

00:33:28 --> 00:33:32: create frameworks for different building typologies.

00:33:32 --> 00:33:35: The project is because it's funded through Mass CC and

00:33:35 --> 00:33:38: it's focusing primarily on the state of or only on

00:33:38 --> 00:33:40: the state of Massachusetts, I should say.

00:33:41 --> 00:33:46: And so the goal is to start from individual decarbonization

00:33:47 --> 00:33:52: plans for buildings that then become frameworks or Rd.

00:33:52 --> 00:33:56: maps that can be applied to other buildings within the

00:33:56 --> 00:34:00: same topology and to do so as cost effectively and

00:34:00 --> 00:34:03: straightforwardly as possible.

00:34:04 --> 00:34:07: So we know that even a strategic and least cost

00:34:07 --> 00:34:10: commercial decarbonization project is still challenging.

00:34:11 --> 00:34:15: So to support that work, there are also goals of

00:34:15 --> 00:34:20: seeking to develop recommendations related to policy as well

00:34:20 --> 00:34:25: as

00:34:20 --> 00:34:25: related to funding and financing to enable the acceleration of

00:34:25 --> 00:34:28: these types of upgrades around the state.

00:34:29 --> 00:34:30: Next slide, please.

00:34:35 --> 00:34:39: So there are, I covered some of this already, but

00:34:39 --> 00:34:43: for each project, each property that the team works on,

00:34:43 --> 00:34:49: we create an individualized decarbonization plan for that

00:34:49 --> 00:34:53: building, how

00:34:49 --> 00:34:53: to take them from where they are now down to

00:34:53 --> 00:34:58: fully electrifying or nearly fully electrifying, as well as the

00:34:58 --> 00:35:01: enabling measures that go along with that.

00:35:02 --> 00:35:05: And these plans then create case studies and templates that

00:35:05 --> 00:35:09: can be reputable and scalable to other buildings within the

00:35:09 --> 00:35:10: same technology.

00:35:11 --> 00:35:17: As noted, we're also identifying the enabling policies and

financing

00:35:17 --> 00:35:22: mechanisms that building owners can work to leverage in order

00:35:22 --> 00:35:26: to make these plan, put these plans into action.

00:35:26 --> 00:35:30: One thing I would like to call out is for

00:35:30 --> 00:35:35: anyone who is on the webinar today who owns commercial

00:35:35 --> 00:35:40: property and commercial property includes multi family that is so

00:35:40 --> 00:35:45: we are still looking for participants and I Wassam and

00:35:45 --> 00:35:49: I we can put our e-mail addresses in the chat.

00:35:49 --> 00:35:53: And if you happen to be have property in Massachusetts

00:35:53 --> 00:35:56: and are interested in learning more, please do reach out

00:35:56 --> 00:35:59: to us directly and would love to love to talk

00:35:59 --> 00:36:00: with you.

00:36:01 --> 00:36:02: So next slide please.

00:36:02 --> 00:36:11: So this is an overview slide of the process that's

00:36:11 --> 00:36:12: used.

00:36:13 --> 00:36:18: Start with a detailed site analysis by folks like Hossam

00:36:18 --> 00:36:24: that identify understands the current energy and emissions performance, building

00:36:24 --> 00:36:30: benchmarks that against several different standards identifies the efficiency and

00:36:30 --> 00:36:34: other enabling upgrades that are needed, as well as the

00:36:35 --> 00:36:40: putting together a plan for electrification and decarbonization of the

00:36:40 --> 00:36:42: building as a whole.

00:36:43 --> 00:36:47: To support that we there's a significant capital planning element

00:36:47 --> 00:36:52: to that, we create a road map for financing opportunities

00:36:52 --> 00:36:56: aligned with other planned upgrades for the building and potential

00:36:56 --> 00:37:01: investment triggers that the property owner may encounter within the

00:37:01 --> 00:37:05: coming years that could be leveraged in order to really

00:37:05 --> 00:37:08: optimize the financing pathway.

00:37:08 --> 00:37:13: Together, this becomes a holistic plan that prepares for implementation.

00:37:14 --> 00:37:17: With that, I'll once again put a call out for

00:37:17 --> 00:37:20: inviting participation and I'll hand it off to Hassan to

00:37:20 --> 00:37:23: talk about a couple of the properties that I use

00:37:23 --> 00:37:24: work with.

00:37:26 --> 00:37:28: Thank you, Dan, next slide please.

00:37:30 --> 00:37:33: So as part of the beta program, we have put

00:37:33 --> 00:37:40: together multiple plans, decomposition plans for multiple

types of buildings.

00:37:40 --> 00:37:44: And we thought maybe bringing two of those plans to

00:37:44 --> 00:37:48: life here through the webinar as case studies.

00:37:49 --> 00:37:52: Because, you know, part of the program and part of

00:37:52 --> 00:37:55: the assessment and the strategic plan is trying to also

00:37:55 --> 00:37:59: find ways of financing either through incentives or, you know,

00:38:00 --> 00:38:04: traditional financing or green financing for our building owners.

00:38:04 --> 00:38:08: So the first case study, which is located in Boston,

00:38:08 --> 00:38:14: it's typical Boston mixed-use building with groceries and offices.

00:38:15 --> 00:38:20: It's an old building like many buildings here in Massachusetts

00:38:21 --> 00:38:22: built in 1899.

00:38:22 --> 00:38:26: You know it had some a major innovation sense 55,000

00:38:26 --> 00:38:27: square feet.

00:38:28 --> 00:38:31: It has an age ageing HVAC system that's consists of

00:38:31 --> 00:38:36: gas fired boilers, windows, you know, envelope also that needs

00:38:36 --> 00:38:40: replacement for Windows and need improvement over the next few

00:38:40 --> 00:38:44: years for the roof as well as well as replacing

00:38:44 --> 00:38:45: some of the gas.

00:38:45 --> 00:38:48: RT US the building ownership is a non profit community

00:38:48 --> 00:38:52: Development Corporation that owns a few buildings in this area

00:38:52 --> 00:38:55: and it's managed by a commercial research provider.

00:38:56 --> 00:39:00: They do have some reserve funds for some of the

00:39:00 --> 00:39:05: replacement and capital projects and they mainly the revenue is

00:39:05 --> 00:39:09: mainly from their commercial lease and tenant rents.

00:39:09 --> 00:39:13: And the future goals for this program was to eliminate

00:39:13 --> 00:39:16: the use of natural gas and meet the Berdo benchmark.

00:39:16 --> 00:39:20: And a Berdo is the building ordinance in Boston, which

00:39:21 --> 00:39:24: has benchmarks set for the next, you know, 25 years

00:39:24 --> 00:39:29: until 2050 to decrease the emission of commercial buildings.

00:39:29 --> 00:39:30: Next slide, please.

00:39:34 --> 00:39:37: As part of the road map, We call the road

00:39:37 --> 00:39:38: map for the conversation.

00:39:39 --> 00:39:42: We look at the business as usual, business users mainly

00:39:42 --> 00:39:46: kind of doing the same, you know, placing like for

00:39:46 --> 00:39:48: like not trying to improve what you have.

00:39:48 --> 00:39:54: So that's usually the baseline efficiency and baseline scenario that

00:39:54 --> 00:39:55: we look at.

00:39:55 --> 00:39:59: In this case, you know, replacing the gas boiler with
00:39:59 --> 00:40:02: other gas fired boiler, replacing RT us with gas fired
00:40:02 --> 00:40:07: RT us, replacing the windows with baseline code windows,
double
00:40:07 --> 00:40:11: pane windows and replacing the roof with code compliant
standard
00:40:11 --> 00:40:12: roof.
00:40:12 --> 00:40:15: In our case, the proposed case or the optimised scenario?
00:40:17 --> 00:40:20: Is what we call it is a scenario where we
00:40:20 --> 00:40:24: try to improve on the business as usual case and
00:40:24 --> 00:40:29: at the same time decarbonize and typically we would look
00:40:29 --> 00:40:33: to decrease the load through blood reduction measures.
00:40:33 --> 00:40:37: So in this case here, we're trying to have an
00:40:37 --> 00:40:40: immediate replacement of the boiler with an air to our
00:40:40 --> 00:40:43: heat pump since the boiler is at the end of
00:40:43 --> 00:40:47: its use of life, same with the windows and then
00:40:47 --> 00:40:50: have replaced the RTU over a number of years and
00:40:50 --> 00:40:51: the roof.
00:40:51 --> 00:40:54: So the financial challenge here and as you can see
00:40:54 --> 00:40:57: in the graphs like we have quite a bit of
00:40:57 --> 00:41:02: incremental cost difference between the business as usual
case which
00:41:02 --> 00:41:06: they have the reserve funds for and the proposed case
00:41:06 --> 00:41:10: which we are proposing to improve the building efficiency
also
00:41:10 --> 00:41:13: to meet the future BIRDO benchmarks.
00:41:13 --> 00:41:16: So, but the challenge is divided into two like immediately,
00:41:16 --> 00:41:19: because they actually need to replace the boiler like now.
00:41:19 --> 00:41:22: So they need a quick mechanism for financing a command,
00:41:23 --> 00:41:26: the cost difference of 700,000 to replace the heat pump
00:41:26 --> 00:41:27: and the windows as part of it.
00:41:28 --> 00:41:33: And then they also need a future financing mechanism to
00:41:33 --> 00:41:37: replace the heat pump RT us which they have many
00:41:37 --> 00:41:38: on the roof.
00:41:38 --> 00:41:41: So it's going to be a long process, long term
00:41:41 --> 00:41:44: process to replace all of the RTU.
00:41:44 --> 00:41:48: So they need like 470,000 in incremental cost difference by
00:41:48 --> 00:41:50: the year 2029.
00:41:51 --> 00:41:54: That will result in 60% energy savings.
00:41:54 --> 00:41:58: You know, if they do the implementation for both measures.
00:41:58 --> 00:42:00: Can we move to the next slide please?
00:42:01 --> 00:42:02: So that's the first case study.
00:42:02 --> 00:42:05: It's more commercial building.

00:42:05 --> 00:42:08: The next case study is a multi family residential building.

00:42:09 --> 00:42:13: Also you know typical to the new angle area with

00:42:13 --> 00:42:15: red brick structure 1969.

00:42:15 --> 00:42:20: So you know very little insulation since it's been the

00:42:20 --> 00:42:22: at the time the floor area is 3.

00:42:23 --> 00:42:28: That's a building complex with three identical building with total

00:42:28 --> 00:42:31: floor area of 7 to 2000 and each building is

00:42:31 --> 00:42:34: served by a gas fired steam boarder.

00:42:35 --> 00:42:37: It has central heat and it has through the AC.

00:42:38 --> 00:42:41: The owner is an affordable housing developer and it's managed

00:42:41 --> 00:42:43: by a professional real estate property manager.

00:42:45 --> 00:42:48: They don't have a lot of capital funds reserved actually

00:42:48 --> 00:42:51: for replacing the heating system, even though it's the end

00:42:51 --> 00:42:53: of this life and all upgrades are funded through rental

00:42:53 --> 00:42:54: cash flow.

00:42:54 --> 00:42:57: Again, this is also based in the Boston area.

00:42:57 --> 00:42:59: So it had the future goals was for them to

00:42:59 --> 00:43:01: meet the Virgo benchmarks.

00:43:01 --> 00:43:02: Next slide, please.

00:43:06 --> 00:43:07: Yeah, same business.

00:43:07 --> 00:43:10: We look at the business as usual which replacing the

00:43:10 --> 00:43:13: border with a gas marked boiler and then the proposed

00:43:13 --> 00:43:16: case is replacing the border with an air Tor heat

00:43:16 --> 00:43:17: pump system.

00:43:18 --> 00:43:19: In this case it's very expensive.

00:43:19 --> 00:43:21: It's such a distribution system.

00:43:22 --> 00:43:24: Distribution system needs to be upgraded as well.

00:43:24 --> 00:43:27: We have a very large incremental cost difference between the

00:43:27 --> 00:43:29: businesses, your case and proposed case.

00:43:31 --> 00:43:32: It needs a replacement over the next few years.

00:43:32 --> 00:43:33: So I still have time.

00:43:33 --> 00:43:36: It's not immediate, but they don't have any means of

00:43:36 --> 00:43:37: financing right now.

00:43:38 --> 00:43:41: And you know, they're also interested to see what's available

00:43:41 --> 00:43:44: in terms of, you know, traditional or green financing mechanism.

00:43:45 --> 00:43:47: So I'll hand it over back to Dan.

00:43:50 --> 00:43:50: Thanks.

00:43:51 --> 00:43:51: Yeah.

00:43:51 --> 00:43:52: Thanks, Wassam.

00:43:52 --> 00:43:56: And I think our next slide just kind of recap
00:43:56 --> 00:44:01: some of those financing challenges that Wassam outlined for
the
00:44:01 --> 00:44:02: 2 case studies.
00:44:03 --> 00:44:07: And I don't know if we can perhaps leave this
00:44:07 --> 00:44:11: up, but we have for case study one, there is
00:44:11 --> 00:44:16: an immediate need for, for financing as well as another
00:44:16 --> 00:44:20: financing need over the next five years or so.
00:44:21 --> 00:44:26: And then for case study two, there's a challenge looking
00:44:26 --> 00:44:29: at like we have a five year time horizon and
00:44:30 --> 00:44:35: different building type and but looking at you know significant
00:44:35 --> 00:44:41: incremental cost possibly without the energy cost savings to help
support that.
00:44:41 --> 00:44:42: So I think with that, we're going to transition back
00:44:43 --> 00:44:46: into some panel discussion.
00:44:46 --> 00:44:48: Yeah.
00:44:50 --> 00:44:50: Thank you so much, Dan and and Hassam for that
00:44:50 --> 00:44:53: overview and for summarizing the financing challenges so
00:44:53 --> 00:44:57: well, bringing
00:44:57 --> 00:44:59: all of our panellists back together.
00:44:59 --> 00:45:03: It would be great to hear how financing solutions can
00:45:03 --> 00:45:06: best match real world demand like this, what you just
00:45:06 --> 00:45:07: presented.
00:45:07 --> 00:45:11: And in other words, what financing solutions would be
applicable
00:45:11 --> 00:45:12: to these challenges specifically.
00:45:13 --> 00:45:15: So Sandeep and Lauren, maybe we'll start with you and
00:45:15 --> 00:45:16: see if you have any thoughts there.
00:45:19 --> 00:45:21: I mean, I think one is, I would say 1
00:45:21 --> 00:45:23: is amazing work that they're doing.
00:45:24 --> 00:45:27: And these owners are incredibly lucky to have this kind
00:45:27 --> 00:45:30: of work being done to show them pathways forward, which
00:45:31 --> 00:45:33: is the first huge hurdle, right?
00:45:33 --> 00:45:36: So, but I also think it shows how hard it
00:45:36 --> 00:45:39: is to do this right, that this is a complicated
00:45:39 --> 00:45:40: process.
00:45:40 --> 00:45:43: I think when you look at commercial buildings, there are
00:45:43 --> 00:45:47: some very sort of standard ways that that potentially could
00:45:47 --> 00:45:47: work.
00:45:47 --> 00:45:50: The owners could look at C pace if it's available
00:45:50 --> 00:45:53: in the OR in the municipality that they're working in.
00:45:53 --> 00:45:57: We've, you know, just in looking across the country, CPS

00:45:57 --> 00:46:00: has been a great opportunity to put to read to

00:46:00 --> 00:46:04: add financing for sustainability projects and the interest rates are

00:46:04 --> 00:46:08: comparable to what you can find in the market today.

00:46:08 --> 00:46:10: And then they sit on the property tax bill as

00:46:10 --> 00:46:13: opposed to adding to the capital stack.

00:46:13 --> 00:46:16: And there's been a lot of concern around mortgage by

00:46:16 --> 00:46:20: sort of the banks and getting educated as to where

00:46:20 --> 00:46:22: CPS sits in the financing stack.

00:46:22 --> 00:46:25: But I think that's actually been worked out and most

00:46:25 --> 00:46:28: of the banks are much more comfortable with AC pace

00:46:28 --> 00:46:28: like product.

00:46:29 --> 00:46:32: As I think you know, you start to look at

00:46:32 --> 00:46:36: incentives and what's available first to drive down the cost,

00:46:36 --> 00:46:36: right?

00:46:36 --> 00:46:42: Most municipalities especially where there are some building performance standards

00:46:42 --> 00:46:44: or regulations around performance.

00:46:44 --> 00:46:48: Do you tend to have some kind of either financing

00:46:48 --> 00:46:52: product from the state or the locality and or they've

00:46:52 --> 00:46:56: created pools of cash to our pool, pools of financing

00:46:56 --> 00:47:00: in order to move the products and projects forward to

00:47:00 --> 00:47:01: drive down the cost.

00:47:01 --> 00:47:06: It's really the delta right between going from a replacement

00:47:06 --> 00:47:10: in kind to a more efficient or better version that

00:47:10 --> 00:47:13: helps to meet the targets of the locality.

00:47:13 --> 00:47:17: And so we've seen that in in and around most,

00:47:17 --> 00:47:22: many, many urban areas and, and states that their tent.

00:47:22 --> 00:47:26: There are utility programs to drive down the cost of

00:47:26 --> 00:47:30: these replacements because it helps the utility companies to provide

00:47:30 --> 00:47:32: resilient service to their clients.

00:47:32 --> 00:47:36: So I would say that they not knowing the financing

00:47:36 --> 00:47:39: of these organizations, but I do think that C Pace

00:47:39 --> 00:47:44: state financing options and incentive programs from utilities are really

00:47:44 --> 00:47:46: the place that we start.

00:47:47 --> 00:47:50: I also would say I always add in the cost

00:47:50 --> 00:47:54: of non compliance right there's we know there's a cost

00:47:54 --> 00:47:57: of energy going up consistently across the.

00:47:57 --> 00:47:58: Country.

00:47:58 --> 00:48:02: But there is a cost to non compliance which are

00:48:02 --> 00:48:06: the fines and how that plays into not doing anything.

00:48:06 --> 00:48:10: It's a really important call out to help make decisions.

00:48:17 --> 00:48:18: Sandeep, anything to add to that?

00:48:21 --> 00:48:25: No, I think, I think Lauren covered it pretty, you

00:48:25 --> 00:48:27: know, comprehensively, yes.

00:48:30 --> 00:48:34: If I could add one thing there, I, I'd really

00:48:34 --> 00:48:37: like to to echo what Lauren was.

00:48:37 --> 00:48:40: Some of the things that Lauren was sharing there are,

00:48:40 --> 00:48:44: I anticipate that there are a number of folks on

00:48:44 --> 00:48:47: the call who own properties in multiple markets.

00:48:47 --> 00:48:51: But I think there is a lot of value in

00:48:51 --> 00:48:56: understanding the vocation specific opportunities.

00:48:56 --> 00:48:59: Lauren mentioned the utility incentives.

00:48:59 --> 00:49:01: Those are certainly going to vary by geography.

00:49:03 --> 00:49:06: Some of the C pays typically is they're enabled, they're

00:49:06 --> 00:49:10: not enabled at the state level and then further enabled,

00:49:10 --> 00:49:13: they're not enabled at a county or municipal level.

00:49:14 --> 00:49:19: And so understanding the specific ecosystem of financing

00:49:19 --> 00:49:23: that's that's

00:49:23 --> 00:49:28: out there, I think also, you know, different types of

00:49:29 --> 00:49:33: properties have different types of resources available to

00:49:33 --> 00:49:39: them.

00:49:39 --> 00:49:44: And you know, the second case study is an affordable

00:49:44 --> 00:49:49: housing property and there are a number of competitive grant

00:49:50 --> 00:49:54: programs out there that can pay a significant portion of

00:49:54 --> 00:49:57: the share of decarbonization or affordable multi family

00:49:57 --> 00:49:59: properties.

00:50:03 --> 00:50:04: Those aren't available necessarily everywhere, but there they

00:50:04 --> 00:50:05: are in

00:50:05 --> 00:50:08: some places, and it's definitely worth checking that out to

00:50:09 --> 00:50:10: see what those opportunities are.

00:50:12 --> 00:50:15: Absolutely.

00:50:16 --> 00:50:19: Thank you for adding that.

00:50:20 --> 00:50:22: Dan and Lauren completely agreed on the incentive part and

00:50:23 --> 00:50:26: understanding the ecosystem.

00:50:27 --> 00:50:29: On the flip side of that, Hassam and Dan, maybe

00:50:30 --> 00:50:31: a question for you.

00:50:32 --> 00:50:34: In your work with Beta and elsewhere, what do you

00:50:35 --> 00:50:36: usually hear from building owners about how they plan to

00:50:37 --> 00:50:38: fund the decarbonization projects that Beta outlines for

00:50:39 --> 00:50:40: them?

00:50:41 --> 00:50:42: Are there any common attributes of the types of financing

00:50:43 --> 00:50:44: options and which owners seem interested?

00:50:45 --> 00:50:46: I think for me that what I'm seeing so far

00:50:36 --> 00:50:39: with the beta project that we have completed is they

00:50:39 --> 00:50:41: are have there are they have a lot of challenges

00:50:41 --> 00:50:44: and their first question is, you know, we need more

00:50:44 --> 00:50:46: information on financing.

00:50:46 --> 00:50:49: The first thing that jumps in mind is they usually

00:50:49 --> 00:50:53: try to take advantage of the incentives available to them

00:50:53 --> 00:50:56: on grants on a local and state level and even

00:50:56 --> 00:50:57: on federal level.

00:50:57 --> 00:50:59: So they, you know, trying to bring down the cost

00:50:59 --> 00:50:59: of the project.

00:50:59 --> 00:51:02: I think that's, you know, their main interest in the

00:51:02 --> 00:51:04: beginning and then they're trying to look at like low

00:51:04 --> 00:51:05: cost financing.

00:51:06 --> 00:51:08: I think that's the most common theme.

00:51:09 --> 00:51:13: But you know, this is kind of, you know, innovative

00:51:13 --> 00:51:15: work that we're doing.

00:51:15 --> 00:51:19: A lot of clients that we're working with building owners

00:51:19 --> 00:51:22: has not, you know, even considered this before.

00:51:22 --> 00:51:25: So we're trying to also, you know, teach them and

00:51:25 --> 00:51:28: show them, you know, what mechanism they can take

00:51:28 --> 00:51:30: advantage

00:51:30 --> 00:51:32: of to implement this work.

00:51:32 --> 00:51:34: You know, since this is kind of, you know, for

00:51:34 --> 00:51:38: the most part, it's new to them.

00:51:38 --> 00:51:38: Great.

00:51:38 --> 00:51:39: Yeah.

00:51:39 --> 00:51:44: I think additionally to whatever way understand which

00:51:44 --> 00:51:49: upgrades can

00:51:49 --> 00:51:53: be aligned with other recapitalizations or larger upgrades in

00:51:53 --> 00:51:57: which

00:51:57 --> 00:51:58: might need to be completed and kind of over one

00:51:58 --> 00:52:02: off and there are different financing solutions for each of

00:52:02 --> 00:52:02: those options.

00:52:02 --> 00:52:05: Great.

00:52:05 --> 00:52:07: And do you have a sense, any and all of

00:52:07 --> 00:52:08: you, this is a question for everyone.

00:52:08 --> 00:52:12: Primers like this come into play as very useful as

00:52:12 --> 00:52:16: overviews of many different financial mechanisms.

00:52:16 --> 00:52:20: There's no lack of ideas out there for how to

00:52:20 --> 00:52:24: finance these projects, but do you have a sense whether

00:52:24 --> 00:52:26: folks are familiar with them?

00:52:26 --> 00:52:30: Do owners know about financing mechanisms available to

00:52:30 --> 00:52:30: them?

00:52:31 --> 00:52:33: Do you guys encounter a lot of need for education

00:52:33 --> 00:52:36: or is it that people mostly know what they are

00:52:36 --> 00:52:38: but are not sure how to get them?

00:52:40 --> 00:52:43: I would just, from our perspective, say that we know

00:52:43 --> 00:52:45: some of it and not all of it.

00:52:45 --> 00:52:47: And the beauty of a primer like this is it

00:52:47 --> 00:52:50: allows you to start a conversation that is inclusive of

00:52:50 --> 00:52:52: so many different options.

00:52:52 --> 00:52:55: And I do think it's incumbent upon, and I say

00:52:55 --> 00:53:00: this all the time, the engineers, the architects, the owners,

00:53:00 --> 00:53:04: the asset managers, the sustainability people to be asking the

00:53:04 --> 00:53:05: questions.

00:53:05 --> 00:53:07: This isn't something that gets resolved in a day or

00:53:07 --> 00:53:08: a week.

00:53:08 --> 00:53:11: This is something that requires planning, just like any sort

00:53:11 --> 00:53:15: of capital project requires planning, whether or new construction project,

00:53:15 --> 00:53:17: it has to be a part of the conversation.

00:53:17 --> 00:53:20: And I think the idea that you could say there

00:53:20 --> 00:53:23: were 29 options or whatever there are, but let me

00:53:23 --> 00:53:26: narrow it down to the six that might be relevant

00:53:26 --> 00:53:30: and actually have the option and the opportunity to evaluate

00:53:30 --> 00:53:33: what's best for our project from a risk perspective, from

00:53:33 --> 00:53:38: a compliance perspective, from an availability perspective is invaluable because

00:53:38 --> 00:53:41: I don't know that anybody's an expert, all of these

00:53:42 --> 00:53:42: things.

00:53:42 --> 00:53:44: And what we're trying to do is especially when we

00:53:44 --> 00:53:47: transition the market, although Sandy might be an expert in

00:53:47 --> 00:53:49: all of this is what in the work that he's

00:53:49 --> 00:53:50: doing.

00:53:50 --> 00:53:53: But you know, as we transition the market, it's the

00:53:53 --> 00:53:57: responsibility of everybody involved in these projects to try and

00:53:57 --> 00:53:59: grow knowledge and awareness.

00:53:59 --> 00:54:01: So we keep moving forward, right?

00:54:01 --> 00:54:04: Like that is the best thing we can all do.

00:54:07 --> 00:54:08: Just saying hello I'm.

00:54:09 --> 00:54:11: Popping on here really quick because we have about 5

00:54:11 --> 00:54:13: minutes left and we have a lot of questions in

00:54:14 --> 00:54:14: the Q&A.

00:54:14 --> 00:54:16: So if it's OK, we can shift to some of

00:54:16 --> 00:54:18: the Q and AI think we'll answer some of those

00:54:18 --> 00:54:21: questions, but wanted to give the audience a chance to

00:54:21 --> 00:54:23: get their questions answered.

00:54:23 --> 00:54:25: There's a whole bunch and we will answer them if

00:54:25 --> 00:54:27: we don't get them after the webinar.

00:54:27 --> 00:54:29: But there was a few that I thought were really

00:54:29 --> 00:54:30: interesting.

00:54:30 --> 00:54:34: There's one from Anonymous, but is asking that they're a

00:54:34 --> 00:54:39: member of sustainability team and working with the investment in

00:54:39 --> 00:54:42: asset management teams, but wants to hear some insight on

00:54:43 --> 00:54:47: what evidence is usually required to obtain green financing, particularly

00:54:47 --> 00:54:50: around showcasing decarbonization efforts.

00:54:51 --> 00:54:55: So other than obtaining LEED certifications, what are these programs

00:54:55 --> 00:54:59: looking for to prove the financing will render the asset

00:54:59 --> 00:55:00: sustainable?

00:55:01 --> 00:55:03: So what what do you need to do to prove

00:55:03 --> 00:55:05: that Yes, I am decarbonizing the building.

00:55:05 --> 00:55:06: I think that's a great question.

00:55:06 --> 00:55:07: So.

00:55:07 --> 00:55:09: Typically you have targets along the way.

00:55:09 --> 00:55:11: It's not just I mean it may be just get

00:55:11 --> 00:55:13: to decarbonization.

00:55:13 --> 00:55:16: However, you the first thing I would say is define

00:55:16 --> 00:55:21: decarbonization in your financial documents and how you determine because

00:55:21 --> 00:55:25: decarbonization can mean lots of different things.

00:55:25 --> 00:55:27: There is market based.

00:55:29 --> 00:55:32: So I would just say to determine your definition of

00:55:33 --> 00:55:36: decarbonization, what we have seen is that when we have

00:55:36 --> 00:55:40: whether it's lead gold or an emissions reduction or EUI

00:55:40 --> 00:55:43: reduction with lead it's very simple.

00:55:43 --> 00:55:45: You show them the documentation, right.

00:55:45 --> 00:55:49: For our other tools where we maybe are looking at

00:55:49 --> 00:55:53: emissions or EUI, we have to use a resource that

00:55:53 --> 00:55:58: is determined in the documentation to be agreeable to both

00:55:58 --> 00:56:02: the bank and to the owner and a mechanism in

00:56:02 --> 00:56:04: which to assure that.

00:56:04 --> 00:56:07: So it might be your SBTI target, it might be

00:56:07 --> 00:56:11: your annual sustainability report where you use GRI and and

00:56:11 --> 00:56:13: you have it assured.

00:56:13 --> 00:56:16: So I would the only advice I would give to
00:56:16 --> 00:56:20: everybody in that is that you can choose, you can
00:56:20 --> 00:56:25: work with the financing agent to determine what works for
00:56:25 --> 00:56:25: you.
00:56:25 --> 00:56:29: But just to be very clear in the definitions upfront
00:56:29 --> 00:56:33: of what that means and what you can and will
00:56:33 --> 00:56:37: provide also, you don't want to add to your annual
00:56:37 --> 00:56:42: reporting a cost to demonstrate compliance that maybe you
00:56:42 --> 00:56:43: don't
00:56:42 --> 00:56:43: already do.
00:56:43 --> 00:56:48: So it's a really important discussion to have and thoughtful
00:56:48 --> 00:56:52: with your asset manager also and what you're already doing
00:56:52 --> 00:56:55: at that asset to demonstrate compliance.
00:56:59 --> 00:57:04: Any other thoughts there before we move on there?
00:57:05 --> 00:57:08: There are some questions about utilizing C Pace as a
00:57:08 --> 00:57:09: financing tool.
00:57:09 --> 00:57:14: Sandeep or Lauren Dan Hassam, do you have any thoughts
00:57:14 --> 00:57:16: on C Pace we?
00:57:16 --> 00:57:18: Haven't seen a massive uptake in New York City.
00:57:18 --> 00:57:21: This is relatively new but we have seen it around
00:57:21 --> 00:57:25: the country and I bet Dan and Hassam can speak
00:57:25 --> 00:57:25: to it better.
00:57:26 --> 00:57:30: But it is a great tool if it works, yeah.
00:57:32 --> 00:57:35: One of the one of the great values of it
00:57:35 --> 00:57:40: is that it can be, you know financed typically a
00:57:40 --> 00:57:45: pretty good spread of measures, but and do so outside
00:57:45 --> 00:57:50: of you know while leaving the primary mortgage or other
00:57:50 --> 00:57:57: financing mechanism alone not needing to otherwise
00:57:57 --> 00:57:59: interfere with that.
00:57:57 --> 00:57:59: So I think I'm thinking about that in terms of
00:57:59 --> 00:58:04: what measures, what components of a decarbonization
00:58:04 --> 00:58:06: project it could
00:58:04 --> 00:58:06: could finance, it can be really helpful.
00:58:08 --> 00:58:09: Great.
00:58:09 --> 00:58:12: And then I think our final question that we have
00:58:12 --> 00:58:16: time for this is actually a question from Lucas at
00:58:16 --> 00:58:16: RMI Tamara.
00:58:16 --> 00:58:20: So we've got some teammates on the call and Lucas
00:58:20 --> 00:58:25: asks related to the different aspects of sustainability, can
00:58:25 --> 00:58:29: Lorne
00:58:25 --> 00:58:29: or Sandeep speak to more strategies you've seen to bring
00:58:29 --> 00:58:32: non energy benefits into the valuation processes?
00:58:40 --> 00:58:44: Maybe I can, I can get some perspective from IFC

00:58:44 --> 00:58:47: side and, and not necessarily it's a answer to the
00:58:47 --> 00:58:52: valuation question, but we definitely do look at various other
00:58:52 --> 00:58:53: Co benefits.
00:58:53 --> 00:58:57: You know that, you know, it may be, it doesn't
00:58:57 --> 00:59:02: have to be necessarily linked to only GHG emissions or
00:59:02 --> 00:59:07: or you know decarbonization, but you know, other benefits if
00:59:07 --> 00:59:12: and when IFC books set an investment, those other things
00:59:12 --> 00:59:16: can make the case better for potential investees such as,
00:59:17 --> 00:59:20: you know, is it helping gender in some way?
00:59:20 --> 00:59:25: Is it helping other developmental impacts.
00:59:25 --> 00:59:29: So we look at the whole picture and then make
00:59:29 --> 00:59:31: our investment decisions.
00:59:36 --> 00:59:36: Great.
00:59:36 --> 00:59:37: Thank you.
00:59:37 --> 00:59:39: And we are just upon the hour now, so I
00:59:39 --> 00:59:42: really appreciate everyone's time.
00:59:42 --> 00:59:47: Moderators, panelists, participants, We did get a lot of Q&A.
00:59:47 --> 00:59:49: I have copied them over and we will try to
00:59:49 --> 00:59:53: answer them individually or if you had a specific question
00:59:53 --> 00:59:56: to a panelist, their emails were just on the slide
00:59:56 --> 00:59:56: prior.
00:59:56 --> 00:59:59: And you will also be sent a survey in a
00:59:59 --> 01:00:03: few days time along with a link to the webinar
01:00:03 --> 01:00:05: recording and all associated resources.
01:00:06 --> 01:00:07: With the webinar.
01:00:07 --> 01:00:10: So again appreciate everyone for being here today.
01:00:10 --> 01:00:12: Have a good rest of your Friday and see you
01:00:12 --> 01:00:13: soon.
01:00:13 --> 01:00:14: Thanks all.
01:00:15 --> 01:00:15: Thank you.
01:00:15 --> 01:00:16: Bye.
01:00:16 --> 01:00:16: Bye.

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