

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

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 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 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 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 RMI 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 and Sandeep Singh from the International Finance Corporation.

00:05:49 --> 00:05:52: Lauren and Sandeep are both experienced practitioners.

00:05:52 --> 00:05:55: They were both interviewed and quoted in the primary that

00:05:55 --> 00:05:58: Kara just mentioned and explained how to choose green financing

00:05:58 --> 00:06:00: mechanisms for your projects.

00:06:01 --> 00:06:03: And they both have a wealth of knowledge about how

00:06:03 --> 00:06:05: best to finance real world green projects.

00:06:06 --> 00:06:09: Lauren and Sandeep, can I ask you for brief introductions?

00:06:10 --> 00:06:12: We can maybe start with Lauren.

00:06:13 --> 00:06:17: Thank you for having me and including Pornado in the

00:06:17 --> 00:06:18: Green Primer.

00:06:19 --> 00:06:22: I'm the Senior Vice President and Chief Sustainability Officer at

00:06:22 --> 00:06:23: Pornado Realty Trust.

00:06:23 --> 00:06:27: We're a public REIT mostly located in and around New

00:06:27 --> 00:06:27: York City.

00:06:28 --> 00:06:32: Commercial office and retail being most of us work that

00:06:32 --> 00:06:32: we do.

00:06:34 --> 00:06:36: So if you go to the next slide, I'll just

00:06:36 --> 00:06:38: give you a quick overview of Vornado.

00:06:38 --> 00:06:42: We have a commitment to carbon neutrality in 20-30.

00:06:42 --> 00:06:46: There are components of that journey to carbon neutrality, the

00:06:47 --> 00:06:50: first being at 50% reduction in consumption against a 2009

00:06:51 --> 00:06:52: baseline for our portfolio.

00:06:53 --> 00:06:56: The second being recovery, waste tea recovery, etcetera.

00:06:56 --> 00:06:59: Really thinking through how we run our buildings even more

00:06:59 --> 00:07:02: efficiently so that we don't have to take more power

00:07:02 --> 00:07:03: off of the grid.

00:07:03 --> 00:07:06: And the third is renewables, Recs and offsets.

00:07:06 --> 00:07:10: And that's really been the driver for the work that

00:07:10 --> 00:07:13: we've been doing over at least the past 15 years
00:07:13 --> 00:07:14: at 4 Natos.
00:07:14 --> 00:07:16: 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

00:15:55 --> 00:15:59: standards or

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

00:15:59 --> 00:16:03: 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

00:16:25 --> 00:16:28: 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

00:16:32 --> 00:16:35: 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
 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
 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
 markets,
 00:18:41 --> 00:18:44: 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
 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
 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

00:19:46 --> 00:19:49: probably aware,

00:19:49 --> 00:19:53: you know, I'll give you 2 sets of data.

00:19:53 --> 00:19:57: One is by the year 2060, the entire floor space

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

00:19:57 --> 00:20:00: X.

00:20:00 --> 00:20:03: So we will build the world one more time and

00:20:03 --> 00:20:06: 80% of that will come in emerging markets.

00:20:06 --> 00:20:10: So unless we help them get that right in the

00:20:10 --> 00:20:11: 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.

00:20:33 --> 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

00:20:40 --> 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.

00:21:19 --> 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,

00:24:32 --> 00:24:36: it's 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

00:25:01 --> 00:25:05: innovation 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

00:25:12 --> 00:25:13: happened 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

00:30:41 --> 00:30:45: also the energy efficiency programs here in New England for

00:30:45 --> 00:30:46: multiple states.

00:30:46 --> 00:30:51: I personally support the massive programs for commercial industrial buildings

00:30:51 --> 00:30:54: and also try to have building owners as part of

00:30:54 --> 00:30:58: the program to implement energy efficiency electrification measures.

00:30:58 --> 00:31:01: I'm also part of the technical team for the Mass

00:31:01 --> 00:31:06: EC Beta project, which is driving education and recognition strategies

00:31:06 --> 00:31:07: across Massachusetts.

00:31:08 --> 00:31:12: Additionally, I've been conducting research on net zero energy optimization

00:31:12 --> 00:31:16: for commercial building retrofits across different climates as part of

00:31:16 --> 00:31:19: my PhD studies at UMass Amherst, and I'm excited to

00:31:19 --> 00:31:21: be part of this panel and look forward to today's

00:31:21 --> 00:31:22: discussion.

00:31:23 --> 00:31:23: Thanks, Dan.

00:31:24 --> 00:31:25: All right.

00:31:25 --> 00:31:25: Thanks, Rosa.

00:31:26 --> 00:31:26: Let's see.

00:31:26 --> 00:31:28: Can we move on to the next slide here please?

00:31:31 --> 00:31:32: All right.

00:31:32 --> 00:31:37: So as was mentioned, we are primarily going to be

00:31:37 --> 00:31:39: speaking about the beta program.

00:31:39 --> 00:31:44: This is a pilot program funded through the Massachusetts Clean

00:31:44 --> 00:31:46: Energy Center.

00:31:46 --> 00:31:53: Mass CC Beta stands for Building Electrification Transformation Accelerator and

00:31:53 --> 00:31:56: Slipstream is the project manager.

00:31:56 --> 00:32:00: Rise is an engineering firm as this was some described

00:32:00 --> 00:32:04: when and he among as well as other colleagues and

00:32:04 --> 00:32:08: some other providers are the ones who are actually out

00:32:08 --> 00:32:13: working with the building owners walking through the buildings and

00:32:13 --> 00:32:16: to create some of these strategies to move forward.

00:32:17 --> 00:32:18: Next slide please.

00:32:24 --> 00:32:27: So the project has three primary goals and those are

00:32:27 --> 00:32:33: all within an overarching objective of creating strategic and scalable

00:32:33 --> 00:32:39: 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 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 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 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 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

00:44:41 --> 00:44:42: support that.

00:44:43 --> 00:44:46: So I think with that, we're going to transition back

00:44:46 --> 00:44:48: into some panel discussion.

00:44:50 --> 00:44:50: Yeah.

00:44:50 --> 00:44:53: Thank you so much, Dan and and Hassam for that

00:44:53 --> 00:44:57: overview and for summarizing the financing challenges so 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

00:49:19 --> 00:49:23: out there, I think also, you know, different types of

00:49:23 --> 00:49:28: properties have different types of resources available to

00:49:23 --> 00:49:28: them.

00:49:29 --> 00:49:33: And you know, the second case study is an affordable

00:49:33 --> 00:49:39: housing property and there are a number of competitive grant

00:49:39 --> 00:49:44: programs out there that can pay a significant portion of

00:49:44 --> 00:49:49: the share of decarbonization or affordable multi family

00:49:44 --> 00:49:49: properties.

00:49:50 --> 00:49:54: Those aren't available necessarily everywhere, but there they

00:49:50 --> 00:49:54: are in

00:49:54 --> 00:49:57: some places, and it's definitely worth checking that out to

00:49:57 --> 00:49:59: see what those opportunities are.

00:50:03 --> 00:50:04: Absolutely.

00:50:04 --> 00:50:05: Thank you for adding that.

00:50:05 --> 00:50:08: Dan and Lauren completely agreed on the incentive part and

00:50:09 --> 00:50:10: understanding the ecosystem.

00:50:12 --> 00:50:15: On the flip side of that, Hassam and Dan, maybe

00:50:15 --> 00:50:16: a question for you.

00:50:16 --> 00:50:19: In your work with Beta and elsewhere, what do you

00:50:19 --> 00:50:22: usually hear from building owners about how they plan to

00:50:23 --> 00:50:26: fund the decarbonization projects that Beta outlines for

00:50:23 --> 00:50:26: them?

00:50:26 --> 00:50:29: Are there any common attributes of the types of financing options and which owners seem interested?

00:50:29 --> 00:50:31: I think for me that what I'm seeing so far

00:50:34 --> 00:50:36: with the beta project that we have completed is they

00:50:36 --> 00:50:39: are have there are they have a lot of challenges

00:50:39 --> 00:50:41: and their first question is, you know, we need more

00:50:41 --> 00:50:44: information on financing.

00:50:44 --> 00:50:46: The first thing that jumps in mind is they usually

00:50:46 --> 00:50:49: try to take advantage of the incentives available to them

00:50:49 --> 00:50:53: on grants on a local and state level and even

00:50:53 --> 00:50:56: on federal level.

00:50:56 --> 00:50:57: So they, you know, trying to bring down the cost

00:50:57 --> 00:50:59: of the project.

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

00:50:59 --> 00:51:02: beginning and then they're trying to look at like low

00:51:02 --> 00:51:04: cost financing.

00:51:04 --> 00:51:05: I think that's the most common theme.

00:51:06 --> 00:51:08: But you know, this is kind of, you know, innovative

00:51:09 --> 00:51:13: work that we're doing.

00:51:13 --> 00:51:15: A lot of clients that we're working with building owners

00:51:15 --> 00:51:19: has not, you know, even considered this before.

00:51:19 --> 00:51:22: So we're trying to also, you know, teach them and

00:51:22 --> 00:51:25: show them, you know, what mechanism they can take

00:51:25 --> 00:51:28: advantage

00:51:28 --> 00:51:30: of to implement this work.

00:51:30 --> 00:51:32: You know, since this is kind of, you know, for

00:51:32 --> 00:51:34: 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 --> 00:52:05: those options.

00:52:05 --> 00:52:07: Great.

00:52:07 --> 00:52:12: And do you have a sense, any and all of

00:52:12 --> 00:52:16: you, this is a question for everyone.

00:52:16 --> 00:52:20: Primers like this come into play as very useful as

00:52:20 --> 00:52:24: overviews of many different financial mechanisms.

00:52:24 --> 00:52:28: There's no lack of ideas out there for how to

00:52:28 --> 00:52:32: 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 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 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.
00:57:59 --> 00:58:04: So I think I'm thinking about that in terms of
00:58:04 --> 00:58:06: what measures, what components of a decarbonization
00:58:06 --> 00:58:09: project it could
00:58:09 --> 00:58:12: could finance, it can be really helpful.
00:58:12 --> 00:58:16: Great.
00:58:16 --> 00:58:20: And then I think our final question that we have
00:58:20 --> 00:58:25: time for this is actually a question from Lucas at
00:58:25 --> 00:58:25: RMI Tamara.
00:58:25 --> 00:58:25: So we've got some teammates on the call and Lucas
00:58:25 --> 00:58:25: asks related to the different aspects of sustainability, can
00:58:25 --> 00:58:25: 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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