

# Webinar

## State of Green: A Year of Progress on Sustainability

Date: September 15, 2021

00:00:02 --> 00:00:03: Alright,  
 00:00:03 --> 00:00:05: well hello everyone. My name is Marta chance.  
 00:00:05 --> 00:00:07: I'm the senior vice president for the Urban Land Institute,  
 00:00:07 --> 00:00:11: Greenprint Center for building performance and I'm also your moderator  
 00:00:11 --> 00:00:12: for today's webinar.  
 00:00:12 --> 00:00:15: State of Green, a year of progress on sustainability.  
 00:00:15 --> 00:00:18: This webinar is being recorded and both the slides in  
 00:00:18 --> 00:00:21: recording will be available on knowledge Finder within a week  
 00:00:21 --> 00:00:22: or so after the webinar.  
 00:00:22 --> 00:00:26: Next slide, please. Let me quickly introduce our speakers and  
 00:00:26 --> 00:00:29: then give you a bit of background on the UI  
 00:00:29 --> 00:00:32: Greenprint Center and the state of green before we get  
 00:00:32 --> 00:00:35: into their information. So first we'll have grenade level and  
 00:00:35 --> 00:00:35: state.  
 00:00:35 --> 00:00:39: She's the director of BSG with the Green Cities Company.  
 00:00:39 --> 00:00:42: After Renee will have Philip K goes the senior associate  
 00:00:42 --> 00:00:45: in capital markets with the Howard Hughes Corporation.  
 00:00:45 --> 00:00:48: Next will have Archer van Koi that Vice president of  
 00:00:48 --> 00:00:51: Project management in Northern Europe for Prologis and last but  
 00:00:51 --> 00:00:52: certainly not least,  
 00:00:52 --> 00:00:55: will have Lizzie Adams, who's the Vice President of Real  
 00:00:55 --> 00:00:55: estate.  
 00:00:55 --> 00:00:59: In asset management I Goldman Sachs next slide please.  
 00:01:01 --> 00:01:05: Now Greenprint is part of utilized research centers and initial  
 00:01:05 --> 00:01:06: initiatives.  
 00:01:06 --> 00:01:07: It's focused on climate mitigation,

00:01:07 --> 00:01:11: making the business case for green buildings by reducing carbon.

00:01:11 --> 00:01:13: Entitlement to increases in asset value.

00:01:13 --> 00:01:16: So we cover topics ranging from city and real estate

00:01:16 --> 00:01:18: climate policy to sustainable tenant fit outs to.

00:01:18 --> 00:01:21: Net zero and everything in between.

00:01:21 --> 00:01:22: An addition to our research work.

00:01:22 --> 00:01:26: You will like Greenprint includes a worldwide alliance of leading

00:01:26 --> 00:01:30: real estate owners and developers committed to improving the environmental

00:01:30 --> 00:01:32: performance of the global real estate industry.

00:01:32 --> 00:01:35: It all started back in 2009 when a handful of

00:01:35 --> 00:01:38: leading real estate owners came together in Greenland and realized

00:01:38 --> 00:01:41: they needed to take action so they pulled together,

00:01:41 --> 00:01:43: shared goals, and a shared commitment to cost,

00:01:43 --> 00:01:47: effectively reduce their energy and water waste and greenhouse gas

00:01:47 --> 00:01:48: emissions.

00:01:48 --> 00:01:51: 50% by 2030, and that group became great.

00:01:51 --> 00:01:53: Print A blueprint for green buildings.

00:01:53 --> 00:01:55: Next line, please. To this day,

00:01:55 --> 00:01:59: we hold true to that original intent of Greenprint founders

00:01:59 --> 00:02:02: committed to tracking progress against goals annually and publicly as

00:02:02 --> 00:02:06: a proxy for the broader industries work to decarbonize and

00:02:06 --> 00:02:07: in the real estate industry,

00:02:07 --> 00:02:11: improved environmental performance can reduce operating expenses,

00:02:11 --> 00:02:14: increased tenant demand lead to more efficient energy management of

00:02:14 --> 00:02:15: natural resources,

00:02:15 --> 00:02:19: increased property value, the the benefits are abundant,

00:02:19 --> 00:02:22: and so every year the UI Greenprint Center puts out

00:02:22 --> 00:02:24: a performance report.

00:02:24 --> 00:02:29: Showing the improved formats of our GREENPRINT members year over

00:02:29 --> 00:02:30: year.

00:02:30 --> 00:02:33: These benchmarks can be utilized by a range of stakeholders,

00:02:33 --> 00:02:38: whether it's academic researchers or sustainability practitioners or policymakers.

00:02:38 --> 00:02:41: As a reference point for analysis on multiple facets of

00:02:41 --> 00:02:43: real estate sustainability.  
00:02:43 --> 00:02:47: Now 2020, I think we've all heard this many times  
00:02:47 --> 00:02:52: with truly unprecedented year that the COVID-19 pandemic disrupted everything  
00:02:52 --> 00:02:56: and at the same time real estate doubled down on  
00:02:56 --> 00:02:58: the importance of addressing climate change.  
00:02:58 --> 00:03:00: I mean, never has the totality.  
00:03:00 --> 00:03:03: Yes, G and valued more and never has the you  
00:03:03 --> 00:03:07: like green current real estate membership then stronger and so  
00:03:07 --> 00:03:07: from 19.  
00:03:07 --> 00:03:10: Or excuse me from 2019 to 2020.  
00:03:10 --> 00:03:12: You can see the results here on this slide.  
00:03:12 --> 00:03:15: GREENPRINT members achieved a record of 12.4%  
00:03:15 --> 00:03:19: carbon emissions reductions and some of this is certainly due  
00:03:19 --> 00:03:22: to the vacancy and commercial buildings and in urban cores,  
00:03:22 --> 00:03:23: but not all of it.  
00:03:23 --> 00:03:29: Green Party members implemented over 14,000 ESG projects in 2020  
00:03:29 --> 00:03:29: alone.  
00:03:29 --> 00:03:34: In 2020 alone they. Earned 1600 New Green building certifications  
00:03:34 --> 00:03:37: in 17 of our GREENPRINT members have aligned to the  
00:03:37 --> 00:03:39: ULI Greenprint net zero goal.  
00:03:39 --> 00:03:40: Now Speaking of net zero,  
00:03:40 --> 00:03:42: let's go to the next slide.  
00:03:42 --> 00:03:44: This is the first year that you will like greenprint.  
00:03:44 --> 00:03:48: Members have started reporting specifically in line with this net  
00:03:48 --> 00:03:51: zero carbon goal and collectively in 2020.  
00:03:51 --> 00:03:54: Art members who are aligned with the goal.  
00:03:54 --> 00:03:58: And reported on it achieved a net carbon intensity of  
00:03:58 --> 00:04:01: 35 kilograms of CO2 per square meter,  
00:04:01 --> 00:04:03: which is on the path to reaching.  
00:04:03 --> 00:04:06: Net zero emissions, and they used a combination of energy  
00:04:06 --> 00:04:09: efficiency improvements and then on site renewables.  
00:04:09 --> 00:04:12: Offsite green power, renewable energy certificates,  
00:04:12 --> 00:04:14: carbon offsets. And you know every tool in the tool  
00:04:14 --> 00:04:16: belt to work toward that.  
00:04:16 --> 00:04:18: And you can see the stacked bar chart here on  
00:04:18 --> 00:04:19: the slide,  
00:04:19 --> 00:04:21: with the breakout of carbon emissions,

00:04:21 --> 00:04:25: but admitted and avoided. And so our analysis process overtime.

00:04:25 --> 00:04:29: Will be further refined and standardized in coming years as

00:04:29 --> 00:04:31: discussions around data collection for.

00:04:31 --> 00:04:35: Net zero evolve. So we think about 2020 Kovic and

00:04:35 --> 00:04:39: net zero tend to be fairly thematic for the year,

00:04:39 --> 00:04:42: and we have four excellent real estate leaders here on

00:04:42 --> 00:04:46: our webinar today to talk about how they're incorporating health

00:04:46 --> 00:04:48: into their ESG strategies,

00:04:48 --> 00:04:50: what they're doing to decarbonize toward.

00:04:50 --> 00:04:54: Net 0 ultimately, and the business case behind it.

00:04:54 --> 00:04:57: All the efforts to reduce carbon and increase asset value.

00:04:57 --> 00:05:00: So with that I will pass it to Renee to

00:05:00 --> 00:05:01: talk through her her case study.

00:05:05 --> 00:05:09: Thank you Marta. I'm really excited to be here with

00:05:09 --> 00:05:10: all of you today.

00:05:10 --> 00:05:14: Next slide. So just a quick overview of our firm

00:05:14 --> 00:05:15: Green Cities,

00:05:15 --> 00:05:19: the Green Cities Company is a vertically integrated investment management

00:05:19 --> 00:05:20: firm.

00:05:20 --> 00:05:22: We currently have four discretionary funds,

00:05:22 --> 00:05:28: largely a multifamily portfolio with some Commercial Office 4.5 million

00:05:28 --> 00:05:32: square feet and nearly 2700 residential units under management.

00:05:32 --> 00:05:36: We've been focused on sustainable real estate since the.

00:05:36 --> 00:05:40: Early 2000s and have developed or redeveloped 70 /

00:05:40 --> 00:05:44: 70, LEED certified properties. Responsible investment is key to our

00:05:45 --> 00:05:45: strategy.

00:05:45 --> 00:05:48: Our approach focuses on creating a creative value to each

00:05:48 --> 00:05:50: of our investments.

00:05:50 --> 00:05:54: ROI is obviously very important but risk mitigation,

00:05:54 --> 00:05:57: tenant retention and brand enhancement.

00:05:57 --> 00:06:00: All of these are ways in which ESG adds value

00:06:00 --> 00:06:02: in our responsible investment approach.

00:06:02 --> 00:06:05: Here's a snapshot of our ESG framework.

00:06:05 --> 00:06:06: What we call our green.

00:06:06 --> 00:06:09: To these index, today's discussion is focused on the health

00:06:09 --> 00:06:11: and Wellness pillar with our property.

00:06:11 --> 00:06:15: Bauer as an example of heavily integrating health and

## Wellness

00:06:15 --> 00:06:18: strategies in design and operations.

00:06:18 --> 00:06:21: Next slide. First I thought we should acknowledge how the

00:06:22 --> 00:06:25: pandemic has dramatically changed how we look at the business

00:06:26 --> 00:06:27: case for healthy buildings.

00:06:27 --> 00:06:32: Historically, we've justified investments in health and Wellness by highlighting

00:06:32 --> 00:06:36: improved productivity and higher retention rates associated with spaces that

00:06:36 --> 00:06:37: promote natural light,

00:06:37 --> 00:06:40: fresh air, and better thermal comfort.

00:06:40 --> 00:06:43: As we all experienced spaces in new ways during kovid,

00:06:43 --> 00:06:44: such as working from home,

00:06:44 --> 00:06:47: the average person has become more aware of how indoor

00:06:47 --> 00:06:49: environments make them feel,

00:06:49 --> 00:06:50: and so with COVID these.

00:06:50 --> 00:06:53: Attributes are no longer a nice to have.

00:06:53 --> 00:06:57: Healthy buildings are a life safety issue and tenant retention

00:06:57 --> 00:06:59: is a more powerful driver.

00:06:59 --> 00:07:01: We think about air quality differently now.

00:07:01 --> 00:07:05: It's not as simple as bringing air fresh air into

00:07:05 --> 00:07:05: the space.

00:07:05 --> 00:07:08: It's that plus the quality of filtration.

00:07:08 --> 00:07:11: Increasing the frequency of air changes,

00:07:11 --> 00:07:17: controlling humidity and other operational strategies that mitigate viral transmission.

00:07:17 --> 00:07:20: Two recent reports provide compelling data in 2020.

00:07:20 --> 00:07:24: And MIT back study showed commercial office properties with health

00:07:24 --> 00:07:26: ratings outperformed the market.

00:07:26 --> 00:07:28: The market by 4 to 7%

00:07:28 --> 00:07:32: even when controlling for factors like LEED certification and then

00:07:32 --> 00:07:36: Cushman and Wakefield's 2021 report showed that demand for office

00:07:36 --> 00:07:39: properties with ESG platforms increased at a faster pace during

00:07:39 --> 00:07:42: the pandemic and looking back over the past three years,

00:07:42 --> 00:07:46: LEED certified Office properties traded at Price is over 20%

00:07:46 --> 00:07:48: higher on average per square foot,

00:07:48 --> 00:07:51: which is showing evidence of sustainable.

00:07:51 --> 00:07:54: Value creation the good news is that over the past

00:07:55 --> 00:07:55: decade,

00:07:55 --> 00:08:00: in particular, sustainability broadly has been focusing on better understanding

00:08:00 --> 00:08:03: the Nexus between the built environment and human health.

00:08:03 --> 00:08:07: This convergence has led to the development of certification frameworks

00:08:07 --> 00:08:10: like well and FITWEL which provide guidance for best practices

00:08:11 --> 00:08:12: for healthy buildings.

00:08:12 --> 00:08:15: Next slide. So let's look at Bowers,

00:08:15 --> 00:08:19: specifically. Bauer is a multifamily apartment project,

00:08:19 --> 00:08:23: approximately 400,000 square feet with ground floor retail consisting of

00:08:23 --> 00:08:25: two buildings and 312 units.

00:08:25 --> 00:08:29: It's located right next to Fenway Park in downtown Boston.

00:08:29 --> 00:08:32: The buildings are LEED Gold and Fit well certified and

00:08:32 --> 00:08:35: feature a number of energy efficiency strategies,

00:08:35 --> 00:08:40: such as a 75 kW cogeneration unit that produces electricity

00:08:40 --> 00:08:42: on site and view dynamic glass.

00:08:42 --> 00:08:46: The building, opened in September 2020.

00:08:46 --> 00:08:50: A challenging time and is currently 90%

00:08:50 --> 00:08:54: leased. Next slide. One of the main features of Bower

00:08:54 --> 00:08:56: is biophilic design,

00:08:56 --> 00:08:58: and this. This really gets me excited.

00:08:58 --> 00:09:02: Biophilic design refers to using nature to inspire design in

00:09:02 --> 00:09:03: the built environment.

00:09:03 --> 00:09:07: It centers on the growing body of evidence that shows

00:09:07 --> 00:09:11: positive health outcomes from being surrounded by nature and nature.

00:09:11 --> 00:09:15: Inspired elements. Studies show that it creates positive physical and

00:09:15 --> 00:09:17: psychological responses in people,

00:09:17 --> 00:09:23: including increased happiness, reduce stress and improve cognitive function.

00:09:23 --> 00:09:27: I also decided power includes things like introducing nature into

00:09:27 --> 00:09:28: the space.

00:09:28 --> 00:09:31: You know greenery itself and focusing on natural light and

00:09:31 --> 00:09:33: creating interesting patterns.

00:09:33 --> 00:09:36: Also, materials that reference nature through shape,

00:09:36 --> 00:09:40: color and forms. You know like using curves instead of

00:09:41 --> 00:09:42: hard edges,

00:09:42 --> 00:09:46: next slide. Power also features view dynamic glass.

00:09:46 --> 00:09:51: Sustainable building technology that provides both energy efficiency and health

00:09:51 --> 00:09:52: benefits,  
00:09:52 --> 00:09:54: and you can see that in action here it the  
00:09:54 --> 00:09:58: glass tints automatically in response to ambient light levels to  
00:09:58 --> 00:10:02: reduce the need for blinds while preserving the direct view  
00:10:02 --> 00:10:04: and connection to the outdoors.  
00:10:04 --> 00:10:07: The level of tint can also be controlled by residents  
00:10:08 --> 00:10:09: via a mobile app and you know,  
00:10:09 --> 00:10:12: we start. We install installed window blinds,  
00:10:12 --> 00:10:14: but the word is that they are rarely used.  
00:10:14 --> 00:10:18: Residents seem to appreciate. To have that continued  
connection to  
00:10:18 --> 00:10:20: the outdoors throughout the day and it,  
00:10:20 --> 00:10:24: it's interesting. We've even had residents who work  
graveyard shifts  
00:10:24 --> 00:10:27: at the nearby hospital share that they appreciate being able  
00:10:27 --> 00:10:30: to darken the glass during the day for better sleep.  
00:10:30 --> 00:10:34: This technology also provides thermal comfort benefits over  
a five  
00:10:34 --> 00:10:35: day period.  
00:10:35 --> 00:10:37: This past summer, view trended.  
00:10:37 --> 00:10:39: Two identical units in the building,  
00:10:39 --> 00:10:41: one with the 10 off and the other on auto,  
00:10:41 --> 00:10:45: and found a 37% reduction in power demand for HV  
00:10:45 --> 00:10:47: AC in the unit.  
00:10:47 --> 00:10:50: With the active tent. So that was really telling and  
00:10:50 --> 00:10:53: we look forward to more information like that to come  
00:10:53 --> 00:10:54: in the future.  
00:10:54 --> 00:10:56: Next slide. As I mentioned,  
00:10:56 --> 00:10:59: Bauer is fit well, certified fit well as a health  
00:10:59 --> 00:11:03: and Wellness standard administered by the Center for Active  
Design  
00:11:04 --> 00:11:08: which assesses health related opportunities and risks in the  
design  
00:11:08 --> 00:11:11: of an operation of buildings on the property.  
00:11:11 --> 00:11:15: Earned a two star FITWEL certification in Q1 of 2020  
00:11:15 --> 00:11:17: from a built characteristic standpoint,  
00:11:17 --> 00:11:21: there are a lot of indoor and outdoor spaces that  
00:11:21 --> 00:11:25: are just really inviting stairways or designed and located to  
00:11:25 --> 00:11:26: encourage use.  
00:11:26 --> 00:11:29: And we have the public park the fence located within  
00:11:29 --> 00:11:30: a half mile of the property,  
00:11:30 --> 00:11:34: which is a great amenity for the residents materials.  
00:11:34 --> 00:11:38: Interior finishes were selected based on environmental

characteristics and having low negative impacts to human health and from a lifestyle standpoint.

00:11:38 --> 00:11:41: low negative impacts to human health and from a lifestyle  
00:11:41 --> 00:11:42: standpoint.  
00:11:42 --> 00:11:46: Fitness center yoga classes. There's ample bicycle parking.  
00:11:46 --> 00:11:49: We have a dog wash station and it's a tobacco  
00:11:49 --> 00:11:51: free environment,  
00:11:51 --> 00:11:54: so all of the those were things that were recognized  
00:11:54 --> 00:11:56: within the FITWELL standard.  
00:11:56 --> 00:12:00: According to fit well as of July 2021,  
00:12:00 --> 00:12:05: / 100 million square feet of properties have achieved  
certification  
00:12:05 --> 00:12:09: and registrations in Q4 2020 are over 600%  
00:12:09 --> 00:12:12: higher than they were just a year prior in Q4  
00:12:12 --> 00:12:12: 2019.  
00:12:12 --> 00:12:16: So that's really showing the uptick in in awareness around  
00:12:16 --> 00:12:17: this connection.  
00:12:17 --> 00:12:20: Well is another healthy building rating system,  
00:12:20 --> 00:12:24: and according to them over 4000 properties have been well  
00:12:24 --> 00:12:26: certified in nearly 60 countries.  
00:12:26 --> 00:12:30: It will also created a viral response module to directly  
00:12:30 --> 00:12:31: address the pandemic.  
00:12:31 --> 00:12:36: Green Cities earned entity level viral response certification  
earlier this  
00:12:36 --> 00:12:36: year,  
00:12:36 --> 00:12:40: and we're in the process of certifying our individual  
properties.  
00:12:40 --> 00:12:44: The viral response module is especially designed to address  
operational  
00:12:45 --> 00:12:47: protocols with respect to air quality,  
00:12:47 --> 00:12:53: janitorial practices, PPE, and how you handle tenant  
communications.  
00:12:53 --> 00:12:57: Next slide. So the pandemic has caused us to,  
00:12:57 --> 00:13:01: you know, fundamentally, rethink how we design and use  
buildings.  
00:13:01 --> 00:13:04: What types of amenities are going to be desired in  
00:13:04 --> 00:13:04: this context,  
00:13:04 --> 00:13:06: and you know? And we're still in this,  
00:13:06 --> 00:13:09: so it's really evolving. But that said,  
00:13:09 --> 00:13:12: we're really proud of Bower as an example of how  
00:13:12 --> 00:13:16: a comprehensive focus on creating an environment that  
supports occupant  
00:13:16 --> 00:13:19: health and well being really prepared us for these challenges  
00:13:19 --> 00:13:23: and has led to value creation for our portfolio.  
00:13:23 --> 00:13:24: Thank you.



00:13:26 --> 00:13:29: Well, that's fantastic Renee. I one thing you've talked a  
00:13:29 --> 00:13:32: good bit about the pandemic and how that affected green  
00:13:32 --> 00:13:32: cities.  
00:13:32 --> 00:13:36: Healthy building practices, but I especially appreciate how  
you mentioned  
00:13:36 --> 00:13:38: that there are still a lot of energy efficient elements  
00:13:38 --> 00:13:40: that that go hand in hand,  
00:13:40 --> 00:13:42: right? With the code Gen unit and lead,  
00:13:42 --> 00:13:45: but also would fit well in biophilia and how the  
00:13:45 --> 00:13:46: value is still there.  
00:13:46 --> 00:13:48: Can you talk a little bit more about balancing the  
00:13:48 --> 00:13:50: the energy and the health pieces?  
00:13:51 --> 00:13:53: No, I mean, you know they're they're.  
00:13:53 --> 00:13:56: They're they've been really connected in our thinking.  
00:13:56 --> 00:14:00: For, you know, for many years now you know lead  
00:14:00 --> 00:14:04: had started to address you bleed addresses,  
00:14:04 --> 00:14:07: indoor air quality, and and many of these lifestyles,  
00:14:07 --> 00:14:09: sort of things at A at a basic level.  
00:14:09 --> 00:14:12: And it feels as though the industry has just been  
00:14:12 --> 00:14:16: evolving into a place where we're really drink.  
00:14:16 --> 00:14:20: Digging deeper into what makes a place,  
00:14:20 --> 00:14:24: really. Support well being and and making that more of  
00:14:24 --> 00:14:29: a priority or putting it on equal footing with environmental  
00:14:29 --> 00:14:33: impacts so it's it's a really great thing to think  
00:14:33 --> 00:14:37: about the synergies between the two and to really try  
00:14:37 --> 00:14:39: to create those Co benefits.  
00:14:40 --> 00:14:42: Awesome, alright, well let's let's move on to our next  
00:14:42 --> 00:14:43: speaker.  
00:14:43 --> 00:14:46: Will take all of the audience Q&A questions that have  
00:14:46 --> 00:14:48: been put into the Q&A box at the end.  
00:14:48 --> 00:14:50: So thank you, Renee and Phillip.  
00:14:50 --> 00:14:53: We we look forward to hearing from you about Howard  
00:14:53 --> 00:14:54: Hughes example today.  
00:14:55 --> 00:14:57: Yeah, thank you very much Marta.  
00:14:57 --> 00:15:01: Good afternoon everyone. My name is Phillip Gallegos and I  
00:15:01 --> 00:15:04: am a senior associate in capital markets at the Howard  
00:15:04 --> 00:15:06: Hughes Corporation.  
00:15:06 --> 00:15:08: I'm excited to be here and to share our story  
00:15:09 --> 00:15:11: and tell you more about 110 N Wacker in Chicago.  
00:15:11 --> 00:15:16: Next slide please. So by way of background,  
00:15:16 --> 00:15:18: the Howard Hughes Corporation plans,  
00:15:18 --> 00:15:24: develops, owns, and maintains master planned communities

or essentially small cities across the United States.

00:15:24 --> 00:15:26: In addition to our 12 N Wacker asset,  
00:15:26 --> 00:15:28: which will get into momentarily,  
00:15:28 --> 00:15:30: we have communities in Houston,  
00:15:30 --> 00:15:32: TX and Hawaii, Columbia, MD and Las Vegas where  
00:15:32 --> 00:15:36: commercial  
00:15:36 --> 00:15:40: and residential development is is really our bread and butter.  
00:15:40 --> 00:15:44: We also own the seaport as you see off to  
00:15:44 --> 00:15:45: the right which is.  
00:15:45 --> 00:15:48: 450,000 square feet of dynamic restaurant,  
00:15:48 --> 00:15:53: retail and entertainment space. Located right on the East  
00:15:53 --> 00:15:54: River  
00:15:53 --> 00:15:54: in lower Manhattan.  
00:15:54 --> 00:15:58: Our business is long term in nature where success is  
00:15:58 --> 00:16:03: measured over decades instead of quarters or months,  
00:16:03 --> 00:16:08: and as such we adopt A long term sustainable approach  
00:16:08 --> 00:16:09: to development.  
00:16:09 --> 00:16:13: So that said, we're excited to showcase how we've applied  
00:16:13 --> 00:16:16: this approach with the team at 110 N Wacker.  
00:16:16 --> 00:16:21: Next slide, please. OK, the building you see in front  
00:16:21 --> 00:16:24: of there is 110 N Wacker,  
00:16:24 --> 00:16:27: a 55 story 1.5 million square foot state of the  
00:16:28 --> 00:16:32: art office building located in the heart of Chicago,  
00:16:32 --> 00:16:34: right on the Chicago River.  
00:16:34 --> 00:16:38: The building opened last year in October of 2020 and  
00:16:38 --> 00:16:42: it's actually the tallest office building to be delivered in  
00:16:42 --> 00:16:45: Chicago in the last 30 years.  
00:16:45 --> 00:16:49: Howard Hughes sought out incredible local partners for this  
00:16:49 --> 00:16:54: project.  
00:16:49 --> 00:16:54: Including guest partners for design and Riverside Investment  
00:16:54 --> 00:16:58: and Development  
00:16:54 --> 00:16:58: Company for local development expertise and without these  
00:16:58 --> 00:17:01: partners.  
00:16:58 --> 00:17:01: This project would just not be what it is as  
00:17:01 --> 00:17:02: a team.  
00:17:02 --> 00:17:05: We had a sustainable vision for this project.  
00:17:05 --> 00:17:10: Our team recognized we had a responsibility to be innovative  
00:17:10 --> 00:17:13: and to create something to mark the Chicago skyline in  
00:17:13 --> 00:17:15: a sustainable way.  
00:17:15 --> 00:17:19: Of anyone familiar with Chicago knows that Chicago has.  
00:17:19 --> 00:17:23: Numerous transportation alternatives, including train  
00:17:19 --> 00:17:23: commuting,

00:17:23 --> 00:17:26: which are site benefits from,  
00:17:26 --> 00:17:29: but we wanted to look beyond that as we mentioned  
00:17:29 --> 00:17:30: in the case study,  
00:17:30 --> 00:17:31: we've had a moment to read it.  
00:17:31 --> 00:17:36: One of the great things our construction team accomplished  
was  
00:17:36 --> 00:17:40: prioritizing both resource efficiency and waste mitigation.  
00:17:40 --> 00:17:45: They diverted 90% of construction waste from landfills to  
recycling  
00:17:45 --> 00:17:48: Centers for recycling and reuse.  
00:17:48 --> 00:17:50: Additionally, we were able to repurpose.  
00:17:50 --> 00:17:53: Stainless steel panels from the previous building on site,  
00:17:53 --> 00:17:57: which was the headquarters of Morton Salt.  
00:17:57 --> 00:18:02: Ultimately, we achieved LEED Gold certification for this  
asset,  
00:18:02 --> 00:18:03: and in addition to this,  
00:18:03 --> 00:18:05: our team is very proud that the asset has gained  
00:18:06 --> 00:18:08: significant recognition in the real estate community,  
00:18:08 --> 00:18:11: which is a testament to all involved.  
00:18:11 --> 00:18:15: Some recent accolades include the 2020 Office Development  
of the  
00:18:15 --> 00:18:19: Year by NAIOP Chicago and Illinois Real Estate Journal,  
00:18:19 --> 00:18:24: the 2021 International Architecture Award by the Chicago  
Athenaeum and  
00:18:24 --> 00:18:27: the 2021 Commercial development of the Year.  
00:18:27 --> 00:18:29: In the Chicago commercial Real Estate Awards,  
00:18:29 --> 00:18:33: among many others, we're very proud of it.  
00:18:33 --> 00:18:35: Come next slide, please.  
00:18:39 --> 00:18:39: So one of our  
00:18:39 --> 00:18:44: most notable initiatives was the enhanced open space on the  
00:18:44 --> 00:18:47: Riverwalk level for any site along the river.  
00:18:48 --> 00:18:50: The city requires a 30 foot wide,  
00:18:50 --> 00:18:54: publicly accessible Riverwalk and this design that we have  
actually  
00:18:55 --> 00:18:58: provides a 45 foot wide river walk that is covered  
00:18:58 --> 00:19:02: but effectively open to the sky 55 feet above.  
00:19:02 --> 00:19:06: The result is a beautifully landscaped covered walkway that  
connects  
00:19:06 --> 00:19:08: two important pedestrian.  
00:19:08 --> 00:19:12: Cats and maintains an effectively unobstructed river view that  
this  
00:19:12 --> 00:19:16: area facilitates excellent views of the Chicago Riverwalk and  
serves  
00:19:16 --> 00:19:19: the general public as amenity to the area.

00:19:19 --> 00:19:22: On a personal note, I was actually able to experience  
00:19:22 --> 00:19:24: this view of the building there from the river with  
00:19:24 --> 00:19:27: my family several weeks ago on a riverboat tour,  
00:19:27 --> 00:19:29: which is a really cool experience.  
00:19:29 --> 00:19:33: Highly recommend. So in combination with other space,  
00:19:33 --> 00:19:39: This site is 50% open in publicly accessible at grade.  
00:19:39 --> 00:19:44: Next slide, please. So one of hkse DNA pillars which  
00:19:44 --> 00:19:49: we developed by is what we call building for the  
00:19:49 --> 00:19:50: future,  
00:19:50 --> 00:19:53: and that means not only building with an eye towards  
00:19:53 --> 00:19:57: issues of resiliency and sustainability and innovation,  
00:19:57 --> 00:20:01: but also keeping tabs on Wellness issues and understanding the  
00:20:01 --> 00:20:02: needs of our occupants.  
00:20:02 --> 00:20:06: One trend we have seen which was absolutely applicable at  
00:20:06 --> 00:20:07: 110 N Wacker,  
00:20:07 --> 00:20:10: is that tenants are now more concerned about their health  
00:20:10 --> 00:20:12: and Wellness within the buildings.  
00:20:12 --> 00:20:15: They occupy and they want to know what you as  
00:20:15 --> 00:20:18: the landlord are doing to address these concerns.  
00:20:18 --> 00:20:21: To that end, we knew a well platinum designation would  
00:20:21 --> 00:20:24: be an excellent complement to achieving LEED Gold at the  
00:20:24 --> 00:20:27: property from a health and Wellness standpoint,  
00:20:27 --> 00:20:30: we focused on a few things which allowed us to  
00:20:30 --> 00:20:31: achieve that well.  
00:20:31 --> 00:20:36: Platinum designation. First we we looked at enhanced air  
00:20:36 --> 00:20:40: quality  
00:20:40 --> 00:20:44: and specifically we implemented hospital grade filtration,  
00:20:44 --> 00:20:48: increasing fresh air rates beyond code requirements.  
00:20:48 --> 00:20:51: And also we installed a bipolar ionization system which helps  
00:20:51 --> 00:20:55: neutralize airborne virus and bacteria particulates.  
00:20:55 --> 00:21:00: Secondly we looked at minimization of touchpoints in the  
00:21:00 --> 00:21:01: building,  
00:21:01 --> 00:21:05: so that includes Bluetooth enabled turnstiles at building entry  
00:21:05 --> 00:21:08: destination  
00:21:08 --> 00:21:12: dispatch elevators,  
00:21:12 --> 00:21:16: which are no touch, and touchless plumbing fixtures and  
00:21:16 --> 00:21:16: nano  
00:21:16 --> 00:21:16: septic applications in our common areas.  
00:21:16 --> 00:21:16: And lastly, we've taken a proactive building management  
00:21:16 --> 00:21:16: approach implementing  
00:21:16 --> 00:21:16: thermal scanning for occupants at the height of COVID-19 in  
00:21:16 --> 00:21:16: 2020,

00:21:16 --> 00:21:20: and we've enhanced our janitorial and cleaning protocols for all  
00:21:20 --> 00:21:22: building common areas.  
00:21:22 --> 00:21:24: So I think to put a bow on this.  
00:21:24 --> 00:21:27: Our hope was not only for the building to be  
00:21:27 --> 00:21:30: a successful commercial endeavour,  
00:21:30 --> 00:21:33: but also one that was developed with sustainability in mind  
00:21:33 --> 00:21:36: and one that has taken steps to address health and  
00:21:36 --> 00:21:38: Wellness initiatives.  
00:21:38 --> 00:21:40: To better serve our occupants,  
00:21:40 --> 00:21:42: and before we jump to questions,  
00:21:42 --> 00:21:46: I just want to make a quick note that.  
00:21:46 --> 00:21:49: There is a student or available for once in North  
00:21:49 --> 00:21:51: Wacker as part of the October ULI meeting,  
00:21:51 --> 00:21:55: and I anticipate that will be posted soon for students  
00:21:55 --> 00:21:56: to check out.  
00:21:56 --> 00:21:57: Thank you very much.  
00:21:59 --> 00:22:01: Thank you Phillip. This is great,  
00:22:01 --> 00:22:04: especially for such a. It looks like a landmark development  
00:22:04 --> 00:22:06: in the Chicago right on the water.  
00:22:06 --> 00:22:09: It's fantastic to see that leadership both on the the  
00:22:09 --> 00:22:11: the holistically right for sustainability,  
00:22:11 --> 00:22:14: both on the health and the more traditional energy or  
00:22:14 --> 00:22:16: sustainability side of things.  
00:22:16 --> 00:22:19: With the open space as well very good.  
00:22:19 --> 00:22:22: I have a question for you and it's it's a  
00:22:22 --> 00:22:24: little different than what we prepared,  
00:22:24 --> 00:22:26: so I hope you're up for it and that is  
00:22:26 --> 00:22:29: in regards to the business case for these additional  
00:22:29 --> 00:22:29: investments  
00:22:29 --> 00:22:29: and decisions.  
00:22:29 --> 00:22:32: You would mention that Howard Hughes has a long term  
00:22:32 --> 00:22:32: hold strategy.  
00:22:32 --> 00:22:36: Can you talk through how that influences the the extra  
00:22:36 --> 00:22:39: elements that you're able to incorporate into your into your  
00:22:39 --> 00:22:40: developments?  
00:22:40 --> 00:22:41: Absolutely  
00:22:41 --> 00:22:44: at the the spaces that we create,  
00:22:44 --> 00:22:47: we create with our tenants in mind and our tenants  
00:22:47 --> 00:22:49: are investing in their space as well.  
00:22:49 --> 00:22:51: For the long term. And we think you know,  
00:22:51 --> 00:22:55: a building can only truly be sustainable if it satisfies  
00:22:55 --> 00:22:58: the needs of those occupants in a way that's beneficial

00:22:58 --> 00:22:59: to its surroundings.

00:22:59 --> 00:23:00: So it's. Kind of twofold.

00:23:00 --> 00:23:03: You have to not only think about the tenant and

00:23:03 --> 00:23:06: and their health and being sustainable from that perspective,

00:23:06 --> 00:23:10: but also not negatively impacting those around you.

00:23:10 --> 00:23:12: When we master plan our communities,

00:23:12 --> 00:23:14: we have to think long term and think about a

00:23:15 --> 00:23:17: development on this particular corner.

00:23:17 --> 00:23:19: How does that help the residents?

00:23:19 --> 00:23:20: A quarter of a mile away?

00:23:20 --> 00:23:24: So we think very holistically when it comes to to

00:23:24 --> 00:23:27: development and going back to this project,

00:23:27 --> 00:23:29: you know it's it's great to build an office building

00:23:29 --> 00:23:30: with sustainability.

00:23:30 --> 00:23:33: As the focus I think and and to operate it

00:23:33 --> 00:23:34: efficiently.

00:23:34 --> 00:23:38: But if the focus doesn't really fully include your occupants

00:23:38 --> 00:23:39: and their well being,

00:23:39 --> 00:23:42: you're just. You're not going to be successful in the

00:23:42 --> 00:23:42: long run.

00:23:42 --> 00:23:46: So I think really, sustainability and Wellness in the health

00:23:46 --> 00:23:50: and Wellness of these buildings is one that there are

00:23:50 --> 00:23:54: two critical components that you need for a first successful

00:23:54 --> 00:23:56: project. And that's just something that we embody.

00:23:56 --> 00:23:57: That's how we work.

00:23:58 --> 00:23:59: Awesome, alright? Well, thank you,

00:23:59 --> 00:24:01: Phillip. There are more questions in the Q&A.

00:24:01 --> 00:24:03: But we'll get to this at the end,

00:24:03 --> 00:24:05: so let's move on to Archer to talk about his

00:24:05 --> 00:24:07: project with Prologis.

00:24:13 --> 00:24:17: Thank you Martha, and thank you for the opportunity to

00:24:17 --> 00:24:20: showcase one of the projects of colleges.

00:24:20 --> 00:24:25: British is and developer and long term owner of logistics

00:24:25 --> 00:24:26: real estate.

00:24:26 --> 00:24:30: And I joined the company about 15 years ago and

00:24:31 --> 00:24:31: uhm.

00:24:31 --> 00:24:38: But there definitely like about the company is that

00:24:38 --> 00:24:41: sustainability

00:24:38 --> 00:24:41: is really in our our DNA and.

00:24:41 --> 00:24:44: With this project, I think it all came together,

00:24:44 --> 00:24:48: so I'm really proud to tell you something more about

00:24:48 --> 00:24:48: it.

00:24:48 --> 00:24:55: It's a project or logistics facility of a 40,000 square  
00:24:55 --> 00:24:56: meter,  
00:24:56 --> 00:25:00: so that's approximately 430,000 square feet,  
00:25:00 --> 00:25:02: so it's not a small prototype,  
00:25:02 --> 00:25:07: but it's a. Yeah, big such projects containing a imagining  
00:25:07 --> 00:25:12: of 3500 square meters and 1000 square meters of office  
00:25:12 --> 00:25:13: space.  
00:25:13 --> 00:25:17: It's located in ain't over and it's at the point  
00:25:17 --> 00:25:21: where four heavies comes to get come together.  
00:25:21 --> 00:25:26: It's close to railway station and close to 90 over  
00:25:26 --> 00:25:27: airport.  
00:25:27 --> 00:25:31: Uhm? And what's special about this location?  
00:25:31 --> 00:25:35: It's that it's partly located on a former waste dump.  
00:25:35 --> 00:25:38: It used to be a waste dump in the 1780s,  
00:25:38 --> 00:25:44: so. Of course, from a sustainability point of view,  
00:25:44 --> 00:25:48: I think redeveloping Brownfield is.  
00:25:48 --> 00:25:51: Yeah, it's the Ultram, but that.  
00:25:51 --> 00:25:55: That's not easy. You know it comes with complex soil  
00:25:55 --> 00:25:59: conditions and also challenging employment conditions.  
00:25:59 --> 00:26:04: It's uhm. Yeah, in the end it all came together  
00:26:04 --> 00:26:05: too.  
00:26:05 --> 00:26:10: Turn this site into an attractive green business park,  
00:26:10 --> 00:26:12: so to move to the next slide,  
00:26:12 --> 00:26:22: please. Our ambition was to create a building.  
00:26:22 --> 00:26:28: Uh, without gas connections so no local emissions.  
00:26:28 --> 00:26:33: Combined with a with a rooftop solar system and also  
00:26:33 --> 00:26:37: the health and well being for the employees,  
00:26:37 --> 00:26:41: the workers inside the building we have set the goal  
00:26:41 --> 00:26:44: to create a very pleasant working environment.  
00:26:44 --> 00:26:48: And also at the outside of the building at the  
00:26:48 --> 00:26:50: terrain we took into account.  
00:26:50 --> 00:26:58: Yeah, ecological approach. Which which promotes  
biodiversity.  
00:26:58 --> 00:27:00: This ambition it does not,  
00:27:00 --> 00:27:04: did not came from a request from our customers because  
00:27:04 --> 00:27:05: it was.  
00:27:05 --> 00:27:08: It started as a speculative development.  
00:27:08 --> 00:27:11: It was also not a requirement for municipality,  
00:27:11 --> 00:27:14: but it was really the team that yeah.  
00:27:17 --> 00:27:21: That was looking forward to do something innovative and  
make  
00:27:21 --> 00:27:22: the next step in.  
00:27:22 --> 00:27:26: Yeah, cutting carbon. So I'm really proud of that and

00:27:26 --> 00:27:28: we can move to the next slide.

00:27:32 --> 00:27:37: Translating our ambition into a building and.

00:27:39 --> 00:27:43: Yeah, we feel that in the application of an innovative

00:27:43 --> 00:27:47: system or electric for cooling and heating,

00:27:47 --> 00:27:52: it's a 2.9 megawatts solar system on the roof.

00:27:52 --> 00:27:56: We've chosen for circular building design.

00:27:56 --> 00:27:58: Mainly for the office interior.

00:27:58 --> 00:28:02: And in the end we were able to reach a

00:28:02 --> 00:28:05: BREEAM rating of 91%.

00:28:05 --> 00:28:08: So we are really proud to reach the yeah yeah,

00:28:08 --> 00:28:14: outstanding rating of RIM. And for the terrain and the

00:28:14 --> 00:28:15: greenery,

00:28:15 --> 00:28:18: we received a local label.

00:28:18 --> 00:28:21: It's called and our green label.

00:28:21 --> 00:28:24: Uhm, so we can move to the next slide,

00:28:24 --> 00:28:29: please. If you look at the yeah,

00:28:29 --> 00:28:35: the electric system, UM? It's a look.

00:28:35 --> 00:28:40: Normally we equip the warehouse is only with eating,

00:28:40 --> 00:28:44: but by switching to a system without disconnection,

00:28:44 --> 00:28:46: electrical system with heat pumps.

00:28:46 --> 00:28:52: Firms that also opened up the possibility to.

00:28:52 --> 00:28:54: Apply cooling to this space.

00:28:54 --> 00:28:58: So for the comfort and well being of the employees,

00:28:58 --> 00:29:01: that's really a big plus.

00:29:01 --> 00:29:03: If you look at this solar system,

00:29:03 --> 00:29:09: it's 2.9 megawatts and. To give you an idea that's

00:29:09 --> 00:29:15: the equivalent of approximately 750 households.

00:29:15 --> 00:29:19: Ads. This solar system generates rich more power than the

00:29:19 --> 00:29:21: building is using.

00:29:21 --> 00:29:24: Uh, yeah, then the building installations are using to give

00:29:24 --> 00:29:27: you an idea that there will be approximately 25%

00:29:27 --> 00:29:31: of the power generated by the solar system will be

00:29:31 --> 00:29:33: used for the building,

00:29:33 --> 00:29:36: and yet the rest of it will.

00:29:36 --> 00:29:39: The remainder will go to the bridge.

00:29:39 --> 00:29:46: Uhm? Let's see. Yeah, a lot of people always interested

00:29:46 --> 00:29:47: in in numbers,

00:29:47 --> 00:29:54: and the additional cost to switch from a traditional heating

00:29:54 --> 00:30:01: system gas by tasting system into this or electric system

00:30:01 --> 00:30:03: was about \$530,000,

00:30:03 --> 00:30:05: so a big number but.

00:30:05 --> 00:30:07: If we look at the calculation,



00:30:07 --> 00:30:11: the return on investments will be between seven and eight  
00:30:12 --> 00:30:12: years.  
00:30:12 --> 00:30:16: And that made this design is decide to give it  
00:30:16 --> 00:30:21: a try and explore this innovative technology.  
00:30:21 --> 00:30:24: Especially when you look at the scale of the project.  
00:30:24 --> 00:30:27: And all electric system is not something you have on  
00:30:27 --> 00:30:28: the shelf,  
00:30:28 --> 00:30:31: so we had to do a lot of engineering to  
00:30:31 --> 00:30:32: make it work.  
00:30:32 --> 00:30:40: Uhm? Furthermore, we have installed a ventilation system  
which brings  
00:30:40 --> 00:30:41: fresh,  
00:30:41 --> 00:30:46: filtered and preconditioned air into the expedition area where  
most  
00:30:46 --> 00:30:50: of the activities that most of the workers will work  
00:30:50 --> 00:30:51: will be working.  
00:30:51 --> 00:30:56: So also to meet the requirements for air quality according  
00:30:56 --> 00:30:58: to the well building standard.  
00:30:58 --> 00:31:03: Uhm? In order to create a design in line with  
00:31:03 --> 00:31:08: well in line with Ebrium and our ambition also to  
00:31:08 --> 00:31:12: make our buildings more circular,  
00:31:12 --> 00:31:16: we have developed a tool box and.  
00:31:16 --> 00:31:20: This is now the third third project where we do  
00:31:20 --> 00:31:25: apply this toolbox and every next project we.  
00:31:25 --> 00:31:31: Yeah we make we make the design more circular and  
00:31:31 --> 00:31:33: also the it's.  
00:31:33 --> 00:31:36: It's a tool that helps us to select the right  
00:31:36 --> 00:31:37: materials.  
00:31:37 --> 00:31:44: So recyclable, reusable or made from recycled content and  
with  
00:31:44 --> 00:31:48: low emitting to the indoor air so.  
00:31:48 --> 00:31:50: Yeah, bringing this all together,  
00:31:50 --> 00:31:55: it's. I think completely turns logistics space.  
00:31:55 --> 00:31:59: You know former storage box into a complete different type  
00:32:00 --> 00:32:00: of assets,  
00:32:00 --> 00:32:05: which is, which is a nice place place to work,  
00:32:05 --> 00:32:07: and I think that's really yeah,  
00:32:07 --> 00:32:10: a games changer for our industry.  
00:32:10 --> 00:32:12: And if we move to the next slide.  
00:32:14 --> 00:32:18: Uh, just to give you an impression of the of  
00:32:18 --> 00:32:22: the building interior of the storage base.  
00:32:22 --> 00:32:27: Quite some daylight by window strips in the facade and  
00:32:27 --> 00:32:28: skylights,

00:32:28 --> 00:32:35: increased lighting levels with LED lighting and yeah.

00:32:35 --> 00:32:39: Also you can see here the fabric that's the kind

00:32:39 --> 00:32:42: of tube by which the air the fresh air is

00:32:42 --> 00:32:47: distributed in a very fluent and smooth way throughout the

00:32:47 --> 00:32:53: warehouse. So this all created in a pleasant place to

00:32:53 --> 00:32:54: work and.

00:32:54 --> 00:32:58: Actually, it was one of the yeah all these sustainable

00:32:58 --> 00:33:02: features with one of the decision making factors of a

00:33:02 --> 00:33:03: tenant,

00:33:03 --> 00:33:07: we were able to lease the building just before completion

00:33:07 --> 00:33:12: and the sustainability features were definitely one of the

00:33:12 --> 00:33:16: decision

00:33:12 --> 00:33:16: makers in comparison to a competitive product.

00:33:16 --> 00:33:21: So I think that's a great example on how sustainability

00:33:21 --> 00:33:24: is also a good investment,

00:33:24 --> 00:33:27: and it pays out. And ultimately you want to create

00:33:27 --> 00:33:28: something,

00:33:28 --> 00:33:31: which, yeah, makes the world a little better.

00:33:31 --> 00:33:33: And this is the way how we.

00:33:33 --> 00:33:37: Believe in it, so thank you.

00:33:37 --> 00:33:38: Thank

00:33:38 --> 00:33:40: you so much, charter. I I think that's fantastic,

00:33:40 --> 00:33:41: especially how you closed out with that.

00:33:41 --> 00:33:45: That business case piece you mentioned that the incremental

00:33:45 --> 00:33:46: upfront

00:33:45 --> 00:33:46: cost wasn't insignificant,

00:33:46 --> 00:33:49: but had it a reasonable payback that that made this

00:33:49 --> 00:33:50: worth trying out.

00:33:50 --> 00:33:53: And then you know building this on spec is is

00:33:53 --> 00:33:54: bold.

00:33:54 --> 00:33:55: I I must say, you know,

00:33:55 --> 00:33:59: without government requirements or tenant expectations and

00:33:59 --> 00:34:03: then in the

00:33:59 --> 00:34:03: end having a tenant ultimately select the space partially

00:34:03 --> 00:34:05: because

00:34:03 --> 00:34:05: of the sustainability features.

00:34:05 --> 00:34:07: It really proves out your strategy.

00:34:07 --> 00:34:11: Can you talk through? Which aspects of this design Prologis

00:34:12 --> 00:34:16: may plan to implement more broadly across its portfolio for

00:34:16 --> 00:34:17: other new developments,

00:34:17 --> 00:34:20: like what? What if this can scale portfolio wide,

00:34:21 --> 00:34:26: yeah well? If we look at the electric system,

00:34:26 --> 00:34:29: there's well, there's not one single solution,

00:34:29 --> 00:34:32: so we are it. Of course,  
00:34:32 --> 00:34:36: that depends on local climate conditions and and as being  
00:34:36 --> 00:34:37: a global company,  
00:34:37 --> 00:34:40: you have to deal with a lot of different climates.  
00:34:40 --> 00:34:44: And it's it's. It's not on the shelf solution,  
00:34:44 --> 00:34:47: so it requires quite some engineering engineering.  
00:34:47 --> 00:34:52: But, uh, we already started in in in in what  
00:34:52 --> 00:34:53: city in France,  
00:34:53 --> 00:34:59: with a also an electric system with boreholes which?  
00:34:59 --> 00:35:03: Storage of yeah of heat and cold in the ground  
00:35:04 --> 00:35:05: with saucers.  
00:35:05 --> 00:35:10: So as we have started a in another development in  
00:35:10 --> 00:35:16: the Netherlands where we are combining a solar system with  
00:35:17 --> 00:35:19: a 1 MB MW battery system,  
00:35:19 --> 00:35:26: so I do see a lot of innovations and technologies  
00:35:27 --> 00:35:28: developing.  
00:35:28 --> 00:35:31: So yeah, it's it's it's.  
00:35:31 --> 00:35:34: It's definitely has our focus.  
00:35:34 --> 00:35:38: It's too rolled out on the big scale were really  
00:35:38 --> 00:35:40: go step by step and also.  
00:35:43 --> 00:35:48: The building in Eindhoven has just been delivered and we  
00:35:48 --> 00:35:51: have not even a year of of of data,  
00:35:51 --> 00:35:54: so we are at the moment gathering a lot of  
00:35:55 --> 00:35:59: data to back up our theoretical calculations and I think  
00:35:59 --> 00:36:03: when we can make more data driven decisions we can  
00:36:03 --> 00:36:07: make smarter decisions and that will also help us too.  
00:36:07 --> 00:36:11: Yeah, two step by step make it to standard  
00:36:12 --> 00:36:14: awesome, that's true. I suppose you don't want to claim  
00:36:14 --> 00:36:15: its net zero or.  
00:36:15 --> 00:36:18: Net positive until you've got that full year of data,  
00:36:18 --> 00:36:21: but it all points, all signs point to the right  
00:36:21 --> 00:36:21: direction,  
00:36:21 --> 00:36:24: so kudos on that. Absolutely all,  
00:36:24 --> 00:36:25: right? Well, thank you, Arthur.  
00:36:25 --> 00:36:28: Let's move on to our last speaker,  
00:36:28 --> 00:36:31: Lizzie, to talk through some efforts from Goldman Sachs.  
00:36:32 --> 00:36:35: Thanks Martha. So I'm movie Adams and I work at  
00:36:35 --> 00:36:39: Goldman Sachs Asset Management and the real estate  
investing team.  
00:36:39 --> 00:36:42: And just to clarify my title from the very beginning.  
00:36:42 --> 00:36:44: I'm a VP in the in the real estate team  
00:36:45 --> 00:36:47: rather than VP of the real estate team.

00:36:47 --> 00:36:51: So next slide. I'm going to talk through two specific  
00:36:52 --> 00:36:55: voting optimization projects we've worked on,  
00:36:55 --> 00:36:58: as well as how we've got then taken those lessons  
00:36:58 --> 00:37:02: learned and applied them to create kind of a portfolio  
00:37:02 --> 00:37:04: approach to building optimization.  
00:37:04 --> 00:37:10: So next slide. Starting with and next slide starting with  
00:37:10 --> 00:37:11: a 95 dove.  
00:37:11 --> 00:37:14: This is about 100,000 square foot building in Newport Beach,  
00:37:14 --> 00:37:16: CA. So just South of Al.  
00:37:16 --> 00:37:21: A fairly warm climate and this is a fairly relatively  
00:37:21 --> 00:37:26: new building is built into year 2000 and so next  
00:37:26 --> 00:37:26: slide.  
00:37:26 --> 00:37:29: This is a lot of slides for small amount of  
00:37:29 --> 00:37:29: content.  
00:37:29 --> 00:37:33: This is a really amazing energy efficiency kind of building  
00:37:33 --> 00:37:36: optimization project where we were able to find just over  
00:37:36 --> 00:37:38: \$50,000 in annual savings,  
00:37:38 --> 00:37:42: majority from electricity savings. This means that we are  
00:37:42 --> 00:37:46: avoiding  
00:37:46 --> 00:37:48: 120 tons of carbon emissions every year and not only  
00:37:48 --> 00:37:51: was this sizable in terms of the savings,  
00:37:51 --> 00:37:51: but we also got a good yard on cost of  
00:37:51 --> 00:37:51: 23%.  
00:37:51 --> 00:37:54: So this was this was a great project for us  
00:37:54 --> 00:37:57: and we did this through a very kind of wide  
00:37:57 --> 00:38:00: range of different energy efficiency.  
00:38:00 --> 00:38:04: Kind of measures, ranging problems and basic things like  
00:38:04 --> 00:38:07: repairing  
00:38:07 --> 00:38:10: our air side economizers to make sure we're using outside  
00:38:10 --> 00:38:13: air instead of OWL compresses to cool the building as  
00:38:13 --> 00:38:16: well as something a bit more kind of a novel  
00:38:16 --> 00:38:17: chemical treatment to reduce fouling and our compressor  
00:38:17 --> 00:38:21: and restore  
00:38:21 --> 00:38:25: some of the efficiency.  
00:38:25 --> 00:38:29: And then we applied a range of advanced HVAC controls,  
00:38:29 --> 00:38:32: one that's not. Written here optimal start or starting up  
00:38:32 --> 00:38:36: your heating and cooling systems based on weather rather  
00:38:36 --> 00:38:39: than  
00:38:39 --> 00:38:43: just based on a set time every year every day.  
00:38:43 --> 00:38:46: Sorry, as well as adjusting RV 80 box set points.  
00:38:46 --> 00:38:49: So essentially the HVAC systems in the building and this  
00:38:49 --> 00:38:52: is a building with three rooftop terminal units in the  
00:38:52 --> 00:38:55: top on the rooftop with a vid with reheat system

00:38:46 --> 00:38:49: so very very typical system for California.  
00:38:49 --> 00:38:53: And this size building, and this is essentially saying that  
00:38:53 --> 00:38:57: we're not going to over deliver ventilation and heating and  
00:38:57 --> 00:39:00: cooling to the spaces when it's not needed.  
00:39:00 --> 00:39:03: And so this just dialed back from some older design  
00:39:03 --> 00:39:07: standards that are usually over delivering air to the space  
00:39:07 --> 00:39:10: and just delivers the right amount.  
00:39:10 --> 00:39:14: We also fixed some control of the fan through a  
00:39:14 --> 00:39:15: sensor,  
00:39:15 --> 00:39:18: dust that pressure sensor, and then we also adjust the  
00:39:18 --> 00:39:20: hot water system so that it locks.  
00:39:20 --> 00:39:23: When it's warm outside, so the common theme running  
00:39:23 --> 00:39:26: through  
00:39:26 --> 00:39:29: a lot of these items is that they are implementing  
00:39:29 --> 00:39:33: more kind of dynamic controls rather than kind of fixed  
00:39:33 --> 00:39:38: set .6 times and olup ended up saving quite a  
00:39:38 --> 00:39:41: lot of energy through this mix of kind of repairs.  
00:39:41 --> 00:39:46: Physical repairs, plus a lot of kind of controls optimization.  
00:39:46 --> 00:39:47: Next slide. And next slide the and then the other  
00:39:47 --> 00:39:49: building.  
00:39:49 --> 00:39:52: We're going to look at is 2001 Broadway.  
00:39:52 --> 00:39:53: This is a fairly similar building.  
00:39:53 --> 00:39:57: It's about half the size.  
00:39:57 --> 00:40:00: 60,000 square feet is also in California up in Oakland,  
00:40:00 --> 00:40:01: so a little bit more temperate climate,  
00:40:01 --> 00:40:04: but it's it's a lot older,  
00:40:04 --> 00:40:06: so it's 1939 construction and you can see it's got  
00:40:06 --> 00:40:09: this beautiful kind of Art Deco facade.  
00:40:09 --> 00:40:11: It's fairly downtown Oakland, so it's got a lot of  
00:40:11 --> 00:40:14: pedestrian traffic.  
00:40:14 --> 00:40:16: It's a little different from similar HVAC systems.  
00:40:16 --> 00:40:18: Still, your roof top package unit,  
00:40:18 --> 00:40:20: so your VAT distribution system.  
00:40:20 --> 00:40:23: But it's it's mixed use,  
00:40:23 --> 00:40:26: so you've got your retail on the ground floor office  
00:40:26 --> 00:40:29: on the top floor and this does create some interesting  
00:40:29 --> 00:40:34: opportunities for energy savings which we can talk about it  
00:40:34 --> 00:40:40: on the next line. So this you know smaller voting  
00:40:40 --> 00:40:41: so we're saving less energy in \$19,000 and annual savings  
00:40:41 --> 00:40:43: per year,  
00:40:43 --> 00:40:46: mostly again from electricity. You know,  
00:40:46 --> 00:40:46: saving cost savings usually seem to come from electricity,

00:40:46 --> 00:40:49: but this is allowing us to avoid 42 tons of  
00:40:49 --> 00:40:50: carbon per year,  
00:40:50 --> 00:40:53: and this this this project financially came out a little  
00:40:53 --> 00:40:56: less impressive than the last one with a 10%  
00:40:56 --> 00:40:59: yield on cost. And I'll say this so this,  
00:40:59 --> 00:41:02: but this building also had some very much more typical  
00:41:02 --> 00:41:05: measures that we implemented rather than the kind of really  
00:41:05 --> 00:41:06: kind of interesting,  
00:41:06 --> 00:41:09: complex or unique ones that we found at 895 jobs.  
00:41:09 --> 00:41:12: So that includes you kind of bread and butter.  
00:41:12 --> 00:41:15: Eli D. Retrofit. Which is really the foundation of any  
00:41:15 --> 00:41:17: good energy efficiency.  
00:41:17 --> 00:41:19: And then we had optimal start,  
00:41:19 --> 00:41:21: which you'll notice is the same at 895 job,  
00:41:21 --> 00:41:22: and it's not a coincidence.  
00:41:22 --> 00:41:26: It says very common measure to find another thing that  
00:41:26 --> 00:41:28: we did that was unique to the building is that  
00:41:28 --> 00:41:31: we allowed one of the rooftop 10 million package units  
00:41:31 --> 00:41:34: on the roof to shut down over the weekend.  
00:41:34 --> 00:41:37: So the cafe runs all weekend and it needs air  
00:41:37 --> 00:41:40: conditioning throughout the entire time.  
00:41:40 --> 00:41:41: But the office spaces are empty,  
00:41:41 --> 00:41:44: so up until you know when we did this project.  
00:41:44 --> 00:41:47: The whole building was running whenever the cafe was open  
00:41:47 --> 00:41:50: and this this measure allowed us to shut down the  
00:41:50 --> 00:41:54: spaces that doesn't need heating and cooling over the  
weekend.  
00:41:54 --> 00:41:56: So all of you know mostly here we're talking about  
00:41:56 --> 00:41:57: control,  
00:41:57 --> 00:41:59: some you know fairly simple controls.  
00:41:59 --> 00:42:01: And then our Eli D retrofit.  
00:42:01 --> 00:42:03: So then looking next line.  
00:42:06 --> 00:42:09: And what one more so looking at how we take  
00:42:09 --> 00:42:14: these individual optimization projects and apply them to our  
specific  
00:42:15 --> 00:42:15: programs.  
00:42:15 --> 00:42:20: We have taken this, uh these individual retro commissioning  
measures  
00:42:20 --> 00:42:23: and use them to inform our kind of our program  
00:42:23 --> 00:42:26: and so this kind of the wave applied.  
00:42:26 --> 00:42:28: It kind of comes in three pieces right?  
00:42:28 --> 00:42:31: The first part is to get all your most common,  
00:42:31 --> 00:42:35: most impactful energy efficiency measures and apply them

through some  
00:42:35 --> 00:42:36: kind of process.  
00:42:36 --> 00:42:40: Or ESG program. And this means we need regular communication.  
00:42:40 --> 00:42:42: You need to be providing information to your site,  
00:42:42 --> 00:42:44: teams on the kinds of things that they should be  
00:42:44 --> 00:42:47: looking at in every single building and collecting data back  
00:42:47 --> 00:42:50: from them on what kind of efficiency projects they're looking  
00:42:50 --> 00:42:51: at, where they're seeing savings,  
00:42:51 --> 00:42:54: what they're finding difficult, and having that kind of regular  
00:42:54 --> 00:42:55: communication.  
00:42:55 --> 00:42:57: And this is where you get your you know,  
00:42:57 --> 00:42:59: half your measures, your Eli D.  
00:42:59 --> 00:43:02: Retrofit your optimal start. These types of measures that you  
00:43:02 --> 00:43:05: just find again and again and buildings and of saving  
00:43:05 --> 00:43:07: a good amount of energy.  
00:43:07 --> 00:43:09: And then you have to couple that,  
00:43:09 --> 00:43:11: though with more of a customized solution,  
00:43:11 --> 00:43:14: because the other half year measures the other help your  
00:43:14 --> 00:43:15: opportunities are going to be very custom.  
00:43:15 --> 00:43:18: It's a broken sensor that's causing your economiser do not  
00:43:18 --> 00:43:19: work,  
00:43:19 --> 00:43:21: or your ducks that pressure did not work anymore.  
00:43:21 --> 00:43:23: Or is that you've got a mixed use?  
00:43:23 --> 00:43:25: You've got a law firm and a non profit in  
00:43:25 --> 00:43:27: the same building and one of them is working till  
00:43:27 --> 00:43:29: 10K and the other is leaving at five.  
00:43:29 --> 00:43:32: So you need to be able to find and we  
00:43:32 --> 00:43:36: do this really through finding a diverse set of  
00:43:36 --> 00:43:37: partners.  
00:43:37 --> 00:43:38: And it could be partners.  
00:43:38 --> 00:43:41: It could be software, or it could be partners that  
00:43:41 --> 00:43:43: combine both together.  
00:43:43 --> 00:43:45: And so this allows you to get to all your  
00:43:45 --> 00:43:48: more customized complex solutions.  
00:43:48 --> 00:43:50: And then the last piece to kind of tie this  
00:43:50 --> 00:43:53: kind of process and partners together as well.  
00:43:53 --> 00:43:57: I called Gamba well, not just me really comes from  
00:43:57 --> 00:43:58: Lean Toyota way.  
00:43:58 --> 00:44:00: It means kind of the actual place.  
00:44:00 --> 00:44:03: And you know, in a manufacturing setting where this concept  
00:44:03 --> 00:44:04: came from,

00:44:04 --> 00:44:08: the where the actual place is your manufacturing floor.  
00:44:08 --> 00:44:11: But for commercial real estate your actual places,  
00:44:11 --> 00:44:14: the is your properties and that is where your value  
00:44:14 --> 00:44:15: is actually created.  
00:44:15 --> 00:44:18: So it's I found it incredibly important.  
00:44:18 --> 00:44:21: For us to go and see the site,  
00:44:21 --> 00:44:24: meet the site teams and really understand where the  
disconnect  
00:44:24 --> 00:44:28: exists between that process that you've applied Cross RE  
portfolio  
00:44:28 --> 00:44:30: and what is actually happening,  
00:44:30 --> 00:44:34: what succeeding that. You can then apply back what  
additional  
00:44:34 --> 00:44:37: resources or partners they need and it means that you're  
00:44:37 --> 00:44:41: able to actually really improve and have continuous  
improvement and  
00:44:41 --> 00:44:45: that kind of process and continually find new and better  
00:44:45 --> 00:44:45: partners.  
00:44:45 --> 00:44:49: So with that. I'd take any questions.  
00:44:49 --> 00:44:50: Fantastic  
00:44:50 --> 00:44:51: thank you Lizzy. This is.  
00:44:51 --> 00:44:55: One of the things I love about ESG and sustainability  
00:44:55 --> 00:44:59: is that foundational aspect of energy efficiency that often gets  
00:44:59 --> 00:45:01: lost in the in the blur of all of the  
00:45:01 --> 00:45:03: new opportunities out on the space,  
00:45:03 --> 00:45:05: and so especially in existing buildings I,  
00:45:05 --> 00:45:08: I think it's critical to address energy efficiency and in  
00:45:08 --> 00:45:11: the way that you have with Goldman Sachs asset  
management.  
00:45:11 --> 00:45:14: And I'm curious, can you talk through how Goldman decided  
00:45:14 --> 00:45:17: to take on this retro commissioning project at these two  
00:45:17 --> 00:45:19: buildings and then beyond what?  
00:45:19 --> 00:45:21: What factors had to be in place to make sure  
00:45:21 --> 00:45:22: it was successful?  
00:45:24 --> 00:45:27: So I think from a really basic level for these  
00:45:27 --> 00:45:27: two projects,  
00:45:27 --> 00:45:29: they both penciled out financially,  
00:45:29 --> 00:45:33: and that's important, but I would say that energy efficiency  
00:45:33 --> 00:45:36: has a very kind of long history in this.  
00:45:36 --> 00:45:39: In the real estate team at Goldman Sachs,  
00:45:39 --> 00:45:42: they've been, you know, been working on energy efficiency  
project  
00:45:43 --> 00:45:44: long before I joined the team,



00:45:44 --> 00:45:47: and these are a little unique in that they were  
00:45:47 --> 00:45:51: more rigorously verified and we did work with a partner  
00:45:51 --> 00:45:54: at Carbon Lighthouse to establish this.  
00:45:54 --> 00:45:59: Leaving. But you know that I'd say it's just kind  
00:45:59 --> 00:46:00: of dumb.  
00:46:00 --> 00:46:02: Inherent in what? How we do business.  
00:46:02 --> 00:46:06: Is these energy efficiency looking for these energy efficiency  
projects?  
00:46:06 --> 00:46:07: I love it. I mean,  
00:46:07 --> 00:46:09: you said it yourself with with genva the idea of  
00:46:09 --> 00:46:12: the value is created at the building and that's what  
00:46:12 --> 00:46:12: you're.  
00:46:12 --> 00:46:14: That's what you're focusing on,  
00:46:14 --> 00:46:17: so that's fantastic, yeah? Let's let's bring it all together  
00:46:17 --> 00:46:20: now everyone can can put our videos back on for  
00:46:21 --> 00:46:22: some some audience Q&A.  
00:46:22 --> 00:46:24: We've got a number of questions,  
00:46:24 --> 00:46:28: and so I will. Let's see,  
00:46:28 --> 00:46:31: I will start with one that was directed to meet  
00:46:31 --> 00:46:33: just to make it easy speakers.  
00:46:33 --> 00:46:34: If you want to look into the Q&A and see  
00:46:34 --> 00:46:37: if there's a question in specific that that interests you  
00:46:37 --> 00:46:37: to answer,  
00:46:37 --> 00:46:41: please go ahead in the in the beginning of this  
00:46:41 --> 00:46:41: webinar,  
00:46:41 --> 00:46:44: which, by the way is recorded and will be shared  
00:46:44 --> 00:46:46: on knowledge Finder within a week or two after this  
00:46:46 --> 00:46:48: webinar as well as it slides,  
00:46:48 --> 00:46:50: so feel free to to follow up afterwards.  
00:46:50 --> 00:46:52: There I mentioned the progress that are green print real  
00:46:52 --> 00:46:55: estate numbers have made over the past decade,  
00:46:55 --> 00:46:57: plus on carbon emissions reductions.  
00:46:57 --> 00:47:00: Waste reduction. Water etc and the question is,  
00:47:00 --> 00:47:03: you know what methodology do we use to track that  
00:47:03 --> 00:47:07: and what we do is every year our GREENPRINT members  
00:47:07 --> 00:47:11: provide asset level building performance data with monthly  
stats so  
00:47:11 --> 00:47:13: that we can do QA and QC analysis on it  
00:47:14 --> 00:47:17: and we look at like for like buildings from between  
00:47:17 --> 00:47:20: the two years to track that percent change and that's  
00:47:20 --> 00:47:23: that's the way we make sure that the numbers are  
00:47:23 --> 00:47:25: are realistic that we make sure we do have that

00:47:26 --> 00:47:29: like for like because real estate portfolios change so frequently.

00:47:29 --> 00:47:32: But we're able to to regularly track that progress year

00:47:32 --> 00:47:33: over year,

00:47:33 --> 00:47:34: and that's how we go about that.

00:47:37 --> 00:47:41: OK, there have been. There's one question about choosing which

00:47:41 --> 00:47:43: green building certification.

00:47:43 --> 00:47:45: Is best to use and I think I'm going to

00:47:45 --> 00:47:46: expand this just a little bit.

00:47:46 --> 00:47:49: There was a question of why was lead chosen versus

00:47:49 --> 00:47:53: build it Greens Green Point certification versus others.

00:47:53 --> 00:47:55: I, I think have archery.

00:47:55 --> 00:47:58: You mentioned BREEAM. So how many of you can answer

00:47:58 --> 00:47:59: this one?

00:47:59 --> 00:48:02: How do you choose which green building certification you go

00:48:02 --> 00:48:02: after?

00:48:09 --> 00:48:13: I might I would like to answer this one right.

00:48:13 --> 00:48:15: It froze, it's it's it's.

00:48:15 --> 00:48:17: It's a bit of a regional thing.

00:48:17 --> 00:48:22: In EU. S We see more elite and and Europe

00:48:22 --> 00:48:24: ebrium is more.

00:48:24 --> 00:48:32: Yeah, it's more familiar. And what we have experienced ourselves

00:48:32 --> 00:48:36: because we did one of the the first.

00:48:36 --> 00:48:40: Buildings with which you should fight according to the well

00:48:40 --> 00:48:41: building standard that.

00:48:41 --> 00:48:45: We not only had to translate.

00:48:45 --> 00:48:53: There. Requirements from US to European.

00:48:53 --> 00:48:58: Regulations legislations, certificates, codes. But also we had to make

00:48:59 --> 00:49:04: a translation between what's required or possible in an office

00:49:04 --> 00:49:08: space where the standards for and how you can apply

00:49:08 --> 00:49:10: that to. To logistics space.

00:49:10 --> 00:49:13: So that was first really a challenge.

00:49:13 --> 00:49:16: However we have seen. Quite some overlap,

00:49:16 --> 00:49:22: for example between well and BREEAM I think about.

00:49:22 --> 00:49:26: 30 or 40% of the of the credits do have

00:49:26 --> 00:49:27: an overlap.

00:49:27 --> 00:49:31: That's dumb. Yeah, for example,

00:49:31 --> 00:49:34: what we also liked about well is that it's all

00:49:34 --> 00:49:35: evidence based,

00:49:35 --> 00:49:40: so it's not just. Checking a drawing or doing a

00:49:40 --> 00:49:46: measurement know it's really taking air samples and and testing

00:49:47 --> 00:49:51: in a laboratory to to prove that's it really.

00:49:51 --> 00:49:57: Yeah, the the the indoor climate isn't good as as

00:49:57 --> 00:49:57: as we.

00:49:57 --> 00:50:00: It required, so that's right.

00:50:00 --> 00:50:01: What we liked about that system?

00:50:04 --> 00:50:07: Thanks Arthur and does anyone else want to chime in

00:50:07 --> 00:50:10: on your decision making for green building certifications?

00:50:10 --> 00:50:13: Or is it that regional?

00:50:13 --> 00:50:13: Lead

00:50:14 --> 00:50:18: I would just add you know that when one element

00:50:18 --> 00:50:21: to consider is sort of just consistency from a process

00:50:22 --> 00:50:22: perspective,

00:50:22 --> 00:50:25: I mean for us, lead has the recognition in the

00:50:25 --> 00:50:26: market.

00:50:26 --> 00:50:30: It's so deeply tied to other reporting frameworks like GRI

00:50:30 --> 00:50:33: which we report to GRI every year and have for

00:50:34 --> 00:50:35: many years now.

00:50:35 --> 00:50:37: And so there's that. But there's also just kind of

00:50:37 --> 00:50:38: from a process standpoint.

00:50:38 --> 00:50:41: Our teams are more familiar with it and as we

00:50:41 --> 00:50:43: build on that perfecting that.

00:50:43 --> 00:50:45: Process it, you know our product.

00:50:45 --> 00:50:48: Our results are better and so that also is a

00:50:48 --> 00:50:49: consideration.

00:50:51 --> 00:50:53: Awesome alright. We have a we have a lot of

00:50:53 --> 00:50:56: questions so I'm going to hop to another one and

00:50:56 --> 00:50:57: this is on.

00:50:57 --> 00:51:02: The the motivation for these sustainable measures coming

00:51:02 --> 00:51:04: from funding

00:51:02 --> 00:51:04: sources potentially,

00:51:04 --> 00:51:07: and so we're curious, are you seeing funding sources,

00:51:07 --> 00:51:11: whether it be investors or shareholders or debt and equity

00:51:11 --> 00:51:12: providers in general,

00:51:12 --> 00:51:17: starting to require or expect certain sustainable measures?

00:51:17 --> 00:51:20: What type of? Of motivation are you seeing from that

00:51:20 --> 00:51:21: side of things?

00:51:25 --> 00:51:27: Hi Marta, this Phillip guy goes here.

00:51:27 --> 00:51:30: I think we're absolutely seeing that.

00:51:30 --> 00:51:33: I think it manifests in different ways depending on the

00:51:33 --> 00:51:36: project in the region and and what can be supported

00:51:36 --> 00:51:37: economically by the project.  
00:51:37 --> 00:51:39: But we're absolutely seeing that,  
00:51:39 --> 00:51:43: and that's coming from all stakeholders from a Howard Hughes  
00:51:43 --> 00:51:44: standpoint,  
00:51:44 --> 00:51:47: I would encourage everybody here to read our annual ESG  
00:51:47 --> 00:51:48: report,  
00:51:48 --> 00:51:50: which talks about how we're trying to make an impact  
00:51:50 --> 00:51:52: and why it's important to us.  
00:51:52 --> 00:51:53: But in addition to that,  
00:51:53 --> 00:51:56: you know lenders are focused on it.  
00:51:56 --> 00:51:59: Tenants which occupier buildings are absolutely focused on  
00:51:59 --> 00:52:01: it,  
00:51:59 --> 00:52:01: and it's one of those things that I think it's  
00:52:01 --> 00:52:02: a partially.  
00:52:02 --> 00:52:04: It's a cost of business,  
00:52:04 --> 00:52:07: but it's a positive as well because it obviously is  
00:52:07 --> 00:52:09: better for not just the environment,  
00:52:09 --> 00:52:11: but it's better long term,  
00:52:11 --> 00:52:13: which, as I mentioned earlier,  
00:52:13 --> 00:52:15: is kind of the way that we think about things.  
00:52:15 --> 00:52:17: We have to think about things with the with the  
00:52:17 --> 00:52:19: full view of the project lifecycle in mind.  
00:52:23 --> 00:52:26: Alright, I I think that makes a lot of sense.  
00:52:26 --> 00:52:29: We we have another fun question here and this is.  
00:52:29 --> 00:52:31: A bit of a backwards question,  
00:52:31 --> 00:52:35: a lot of cities are establishing public private partnerships and  
00:52:35 --> 00:52:39: incentives and programs to encourage more sustainable  
00:52:39 --> 00:52:41: buildings,  
00:52:39 --> 00:52:41: and so the question for you all,  
00:52:41 --> 00:52:44: as the owners and developers are what?  
00:52:44 --> 00:52:50: What further things can governments do to incentivize  
00:52:50 --> 00:52:52: sustainable buildings?  
00:52:50 --> 00:52:52: What what incentives do you want to see from your  
00:52:52 --> 00:52:53: local city governments?  
00:53:00 --> 00:53:00: Well,  
00:53:00 --> 00:53:01: Marta, that's a big question.  
00:53:04 --> 00:53:06: So hence the hesitation, I think.  
00:53:06 --> 00:53:11: But one thing that I would say is that it  
00:53:11 --> 00:53:18: helps when innovation can be recognized and sort of bought  
00:53:18 --> 00:53:20: into more quickly.  
00:53:20 --> 00:53:24: I think from a building code perspective we've seen recently  
00:53:24 --> 00:53:27: how they're spending a lot of progress in.

00:53:27 --> 00:53:29: You know, some of the strategies like water reuse and  
00:53:30 --> 00:53:32: things like that that have that really had a lot  
00:53:32 --> 00:53:34: of hurdles associated with.  
00:53:34 --> 00:53:36: And from a permitting standpoint,  
00:53:36 --> 00:53:39: start to breakdown, and that's really helpful.  
00:53:39 --> 00:53:43: And then also you know utility incentives are pretty critical  
00:53:43 --> 00:53:46: to making a lot of this stuff work too,  
00:53:46 --> 00:53:48: to proving out that ROI.  
00:53:48 --> 00:53:52: And I think that the utilities could probably do a  
00:53:52 --> 00:53:56: better job of finding ways to support and analysis that  
00:53:56 --> 00:54:00: recognizes the energy efficiency benefits of some of the  
more  
00:54:00 --> 00:54:05: innovative technologies. And then you know gets more  
proactive about  
00:54:05 --> 00:54:06: providing.  
00:54:06 --> 00:54:07: Support for those.  
00:54:11 --> 00:54:14: Now did you wanna Fedramp into please?  
00:54:14 --> 00:54:17: I'd say the thing that you know one of the  
00:54:17 --> 00:54:20: bigger barriers right now is going to be in commercial  
00:54:20 --> 00:54:21: building.  
00:54:21 --> 00:54:25: Electrification for existing voting we see so much happening  
in  
00:54:25 --> 00:54:27: the residential space,  
00:54:27 --> 00:54:29: but I'd say there's kind of two pieces there.  
00:54:29 --> 00:54:32: One is the kind of steps need to take on  
00:54:32 --> 00:54:34: the road to electrification,  
00:54:34 --> 00:54:37: of maybe going from steam to hot water,  
00:54:37 --> 00:54:40: or go into a low temperature hot water system,  
00:54:40 --> 00:54:41: or some kind of retro commissioning.  
00:54:41 --> 00:54:43: That's going to get you steps further.  
00:54:43 --> 00:54:44: And then it's the technology,  
00:54:44 --> 00:54:47: availability and. Just affected it's going to be such a  
00:54:47 --> 00:54:48: high capital cost outlay,  
00:54:48 --> 00:54:51: but I think you know that's where.  
00:54:51 --> 00:54:53: I would be focusing on if I was,  
00:54:53 --> 00:54:57: you know, setting some public policy or incentives along the  
00:54:57 --> 00:54:57: way.  
00:55:00 --> 00:55:02: That's great, I think that makes a lot of sense  
00:55:02 --> 00:55:06: as we all work towards ultimate decarbonization  
electrification is certainly  
00:55:06 --> 00:55:07: a piece of that.  
00:55:10 --> 00:55:12: Speaking of, I'm gonna put it again.  
00:55:12 --> 00:55:15: We've still got a couple of minutes.

00:55:15 --> 00:55:18: Art for prologis. There was a question about the all  
00:55:18 --> 00:55:21: electric aspect of your of your development,  
00:55:21 --> 00:55:23: specifically around hot water though,  
00:55:23 --> 00:55:25: is that all electric as well?  
00:55:26 --> 00:55:31: Yes, also, hotel service produced by the by the Heat  
00:55:31 --> 00:55:32: pump system.  
00:55:32 --> 00:55:35: Uhm, I must say for the logistics facility,  
00:55:35 --> 00:55:39: mainly the heating system of the warehouse is it's.  
00:55:39 --> 00:55:41: Yeah that's the highest energy consumption.  
00:55:41 --> 00:55:44: So there we can really make a difference.  
00:55:44 --> 00:55:47: And in the end we have chosen for really high,  
00:55:47 --> 00:55:52: highly efficient heat pumps and a low temperature water  
system  
00:55:52 --> 00:55:56: in the warehouse to to to yeah to regulate the  
00:55:56 --> 00:56:01: temperature and that that were working really well.  
00:56:01 --> 00:56:01: So yeah  
00:56:02 --> 00:56:06: great, thanks Arthur. Phillip, there's a question about the  
North  
00:56:07 --> 00:56:08: Wacker project as well.  
00:56:08 --> 00:56:12: If if you are aware of any studies that were  
00:56:12 --> 00:56:13: done to determine.  
00:56:13 --> 00:56:18: Extra energy use reduction. Whether it's thinking about solar  
incorporated  
00:56:18 --> 00:56:21: into the glass or some sort of microgrid system?  
00:56:21 --> 00:56:24: Where were there any studies exploring innovative energy  
efficiency for  
00:56:24 --> 00:56:25: the development?  
00:56:26 --> 00:56:30: Yes, absolutely. We we engaged a number of different third  
00:56:30 --> 00:56:33: party vendors to give us ideas as to what we  
00:56:33 --> 00:56:37: could implement in the building to help with electricity and  
00:56:37 --> 00:56:39: utility consumption and save ultime.  
00:56:39 --> 00:56:43: Ultimately, that that money that we save passes along to  
00:56:43 --> 00:56:44: the tenants.  
00:56:44 --> 00:56:47: And it's a positive thing reducing their gross rents.  
00:56:47 --> 00:56:48: So it's a good thing for them.  
00:56:48 --> 00:56:52: At at Wacker we had an 18%  
00:56:52 --> 00:56:57: cost savings from efficient appliances and energy saving  
HVAC.  
00:56:57 --> 00:57:01: Equipment and and that was really a recommendation that  
came  
00:57:01 --> 00:57:04: back as one of the most impactful ways that we  
00:57:04 --> 00:57:08: could save from a utility standpoint in that way.  
00:57:08 --> 00:57:10: And so you know, through those strategy,

00:57:10 --> 00:57:14: I think were anticipated to lower emissions by up to.  
00:57:14 --> 00:57:17: I believe it's 53% compared to a median building.  
00:57:18 --> 00:57:22: Alright, I love it well everyone one loves a good  
00:57:22 --> 00:57:25: sustainability sheret.  
00:57:25 --> 00:57:29: OK so. One thing that we are thinking of doing  
00:57:29 --> 00:57:34: is having a lightning round question to to close things  
00:57:34 --> 00:57:34: out.  
00:57:34 --> 00:57:37: And so that question is we're just going to bring  
00:57:37 --> 00:57:39: it back to COVID because we are still here,  
00:57:39 --> 00:57:41: even though we thought it was going to be a  
00:57:41 --> 00:57:42: 2020 thing.  
00:57:42 --> 00:57:45: So really quickly around the horn to close it out.  
00:57:45 --> 00:57:48: What was the most significant or surprising impact of the  
00:57:49 --> 00:57:52: pandemic on sustainability in your portfolio last year or your  
00:57:52 --> 00:57:53: building?  
00:57:54 --> 00:57:57: I can take that one first because this is so  
00:57:57 --> 00:57:58: obvious to me.  
00:57:58 --> 00:58:02: I was amazed at the quickness and response of our  
00:58:02 --> 00:58:07: property management teams to something as extraordinary  
as as COVID  
00:58:07 --> 00:58:07: was.  
00:58:07 --> 00:58:10: It is a very quickly,  
00:58:10 --> 00:58:14: you know, indoor environmental air quality was a big focus  
00:58:14 --> 00:58:17: and enhanced operational safety was a big focus.  
00:58:17 --> 00:58:20: Cleaning protocols were a big focus and it was a  
00:58:20 --> 00:58:25: must with tenants because companies are weighing should  
be returned.  
00:58:25 --> 00:58:27: Office, should we work from home?  
00:58:27 --> 00:58:30: Well, working from home is working and people are being  
00:58:30 --> 00:58:33: productive working from home and so it was a big  
00:58:33 --> 00:58:36: focus and it took a a massive haul from our  
00:58:36 --> 00:58:40: property management teams to in.  
00:58:40 --> 00:58:43: Female 20 N Wacker this is speaking about Howard Hughes  
00:58:43 --> 00:58:46: generally I was just in all of their our property  
00:58:46 --> 00:58:51: management team's ability to coordinate implement safety  
measures to work  
00:58:51 --> 00:58:54: toward protecting the health of our tenants as fast as  
00:58:54 --> 00:58:54: they did.  
00:58:57 --> 00:58:59: All right, who next? Lightning answers here.  
00:58:59 --> 00:59:02: I I was surprised by the fact that it had  
00:59:02 --> 00:59:04: so much ripple on effect,  
00:59:04 --> 00:59:07: not just the indoor air quality and health and safety,  
00:59:07 --> 00:59:08: but it seemed like ESG,

00:59:08 --> 00:59:12: just. Got so much more attention starting around mid year  
00:59:12 --> 00:59:13: last year.  
00:59:13 --> 00:59:17: Really surprisingly we thought everyone go in like cash  
conservation.  
00:59:17 --> 00:59:19: Batten down the hatches and instead ESG.  
00:59:19 --> 00:59:21: I think really started to come into the spotlight.  
00:59:24 --> 00:59:29: And for me, I would say that marketing was was  
00:59:29 --> 00:59:30: really impacted.  
00:59:30 --> 00:59:34: You know we were leasing out properties in the middle  
00:59:34 --> 00:59:37: of the pandemic and you know we had to pivot  
00:59:37 --> 00:59:41: and use virtual touring and really implement some unique  
ways  
00:59:41 --> 00:59:46: to communicate everything that we otherwise would do in  
person  
00:59:46 --> 00:59:50: about the property to our potential tenants.  
00:59:51 --> 00:59:55: Some may Archer. Pandemic on sustainability.  
00:59:56 --> 00:59:58: Yes, especially logistics, real estate.  
00:59:58 --> 01:00:03: Of course the pandemic leader to an acceleration because of  
01:00:03 --> 01:00:04: all the e-commerce.  
01:00:04 --> 01:00:07: That's yeah, that was really a boost.  
01:00:07 --> 01:00:09: But on the other hand,  
01:00:09 --> 01:00:12: I think it does also shown how sensitive this is.  
01:00:13 --> 01:00:14: Blighting can be for disruption,  
01:00:14 --> 01:00:21: you know, and I think this more and more emphasized  
01:00:22 --> 01:00:24: that's to create a.  
01:00:24 --> 01:00:28: A healthy and and and good working environment in,  
01:00:28 --> 01:00:31: in, in, in, the in the distribution center.  
01:00:31 --> 01:00:35: Yeah, it's it's it's it's very important and so yeah,  
01:00:35 --> 01:00:37: I think now it gets much more.  
01:00:37 --> 01:00:41: It gets much more attention which is a good thing.  
01:00:41 --> 01:00:41: Right,  
01:00:41 --> 01:00:44: well thank you to all of our speakers today.  
01:00:44 --> 01:00:47: Thank you to our attendees for coming in and listening.  
01:00:47 --> 01:00:49: I hope everyone learned a little bit about the state  
01:00:50 --> 01:00:52: of green and and where are you like GREENPRINT  
members  
01:00:52 --> 01:00:55: are are moving forward on the business case for  
sustainability.  
01:00:55 --> 01:00:56: Thanks everyone, bye.  
01:00:57 --> 01:00:58: Thank you bye bye.



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