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- Chairman Rostin Behnam
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- Commissioner Christy Goldsmith Romero
- Commissioner Summer K. Mersinger

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- John P. Battaglia, Managing Director/Global Head, Carbon Markets, BGC Environmental Brokerage Services, L.P.

- The Honorable Dan M. Berkovitz, Former CFTC Commissioner
- Dr. Lorenzo Bernasconi, Head of Climate and Environmental Solutions, Lombard Odier Asset Management (USA) Corp
- Ronan Carr, Chief Research Officer, BeZero Carbon.
- Tom Colebatch, Managing Director, Commodity Markets and Finance, Macquarie Group
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- Corli Le Roux, Senior Specialist, United Nations Sustainable Stock Exchanges Initiative
- Kari S. Larsen, Partner, Willkie Farr & Gallagher LLP, on behalf of the Futures Industry Association
- Sasha Mackler, Executive Director, Energy Program, Bipartisan Policy Center
- Ian McGinley, Director, CFTC Division of Enforcement
- Vincent McGonagle, Director, CFTC Division of Market Oversight
- Thomas McMahon, Co-founder and Chief Executive Officer, AirCarbon Exchange
- The Honorable Annette L. Nazareth, Senior Counsel, Davis Polk & Wardwell LLP; Chair of the Integrity Counsel for the Voluntary Carbon Market

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- Carol A. (Annie) Petsonk, Assistant Secretary for Aviation and International Affairs, U.S. Department of Transportation
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- Robin Rix, Chief Legal, Policy, and Markets Officer, Verra
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- Hugh Salway, Senior Director, Market Development and Partnerships, The Gold Standard Foundation
- Daniel Scarbrough, President and Chief Operating Officer, Incubex, TVCM
- David Tenny, President and Chief Executive Officer, National Alliance of Forest Owners

P R O C E E D I N G S

MR. BEHNAM: Morning everyone. We're going to get started. Apologies for the late start, but name tents, they happen. So appreciate everyone being here. And some of you are aware, we had a meeting of the Ag (Agriculture) Advisory Committee this morning and I'll mention it in my statement, but just want to thank the members again from that committee for participating. Many are here today. As you all know who are part of this voluntary carbon market discussion, the ag constituency is a hugely important constituency and one that we've been working with and talking to for many, many months.

And as we were deciding about today's event, it's a long day, get comfortable. We are thrilled to have you here with us, but certainly having the two meetings on the same day I thought made a lot of sense, both in terms of knocking two things out with one stone.

But also having that intersection of disciplines coming together with market experts,

with end users, manufacturers, but also that ag community being here with us today.

So I'm going to jump right in for a few minutes with my opening comments and then we're going to go down the line and welcome the commissioners here and then I'm going to turn it over to my colleagues David and Abigail, who will kick off the event and we will go through the panels throughout the rest of the afternoon and hopefully have a great discussion.

So with that, good morning and welcome to the CFTC's second voluntary carbon markets convening. Again, I want to thank the commissioners for joining today's meeting. I also want to thank the members of the Climate Risk Unit, our distinguished keynote speakers, members of the CFTC's Ag Advisory Committee, moderators and panelists.

Among them here today, I want a special recognition for Dan Berkovitz, CFTC Commissioner and former General Counsel. Dan's going to be moderating two panels, and Dan, as always, thanks for your ongoing service to the American public.

Finally, I want to thank and extend gratitude to David Gillers, the CFTC's Chief of Staff and the Director of the Climate Risk Unit, and Abigail Knauff, the Special Counsel in my office and also the Deputy of the CRU.

As I said this morning, this could not have happened without these two individuals. I know many of you have spent hours on the phone in preparation for today. They are subject matter experts. They did a ton to get us to where we are today. I just want to acknowledge and thank them and I hope you spend some time today just sharing with them the same sentiment.

Last year, I hosted the CFTC's first voluntary carbon markets convening and followed it with a Commission Request for Information on Climate-Related Financial Risk.

Both comprised a very intentional first step to making greater progress through public-private partnerships towards ensuring that the developing carbon and carbon-related products and markets have integrity and adhere to basic market regulatory

requirements.

At that point, we were already on a common ground with the understanding that climate change presents both risks and opportunities in our derivatives and larger financial markets that require decisive and cohesive leadership to fully realize. The challenge of supporting high integrity offsets, resilient and transparent infrastructure, and global credibility lay before us.

Our core question then was what role the CFTC should have in the voluntary carbon markets. In the weeks and months since the first convening, the Commission received comments from over 80 stakeholders expressing views from the halls of Congress to farmers, ranchers, and others along the traditional agricultural value chain that serve as our historical core constituency as well as from traditional financial market participants.

Two main takeaways from the input we received were, one, the Commission should use our anti-fraud and anti-manipulation enforcement authority to the fullest extent possible; and two, the Commission

should support the development of standards to promote the growth of high integrity carbon offsets.

We recently launched two enforcement-oriented efforts, which I will describe in a moment. Today's convening serves as the public launch of a Commission workstream led by the CRU, the Climate Risk Unit, aimed at drafting -- for Commission consideration, of course -- agency guidance addressing standards in the voluntary carbon markets.

We anticipate that with the Commission's support, an issuance for public comment will be forthcoming. The voluntary carbon markets are at a critical point in their development. The CFTC also has an increasingly critical role in policing for fraud and manipulation in underlying and related markets.

Building on the work of the private sector, we are aiming to support standards for high integrity carbon credits and ensure the financial integrity of all transactions within our jurisdictional space

while protecting market participants from fraud and other abuse.

We are here today at this convening, which immediately, as I mentioned followed the Ag Advisory Community meeting, because we have gathered the information we need. We had a clear understanding that there is interest and there is an opportunity to ensure that we take intentional steps towards supporting standards for high integrity offsets.

Today, our agenda seeks to further explore a market overview of the current and forecasted state of the voluntary carbon markets, the CFTC's recent enforcement announcements, public sector initiatives related to carbon markets, recent private sector standardization initiatives; current trends and developments in the cash and derivatives markets for carbon credits, and finally, market participants' perspectives on how the CFTC can promote integrity for high quality carbon credit derivatives.

Last month, the CFTC announced two initiatives

aimed at building trust and rooting out misconduct in the voluntary carbon and larger environmental markets.

On June 20th, the CFTC's Whistleblower Office within the Division of Enforcement issued an alert notifying the public on how to identify and report potential Commodity Exchange Act violations connected to fraud or manipulation in the carbon markets.

On June 29th, the Division of Enforcement announced the establishment of two new task forces, one of which will focus on environmental fraud and misconduct in derivatives and relevant spot markets.

Among other things, the new environmental fraud task force will investigate potential fraud with respect to purported environmental benefits of purchased carbon credits and material misrepresentations and misconduct regarding environmental products and strategies.

Later today we will hear from the CFTC's DOE, the Division of Enforcement Director about these

two efforts.

Throughout the Commission, every one of our operating divisions takes its cues from what they observe across the country -- what stakeholders, what the general public or others are investing in, how they are allocating their financial resources, and how they are managing risk.

We are mission focused, and our role as the financial market regulator is where our responsibilities begin and end. As I've said before, the CFTC is not a climate regulator. Indeed, it is not within our authority to require that market participants comply with a specific climate policy or foreclose access to our regulated markets based on any such policy.

We are here to support the integrity of developing markets, and to encourage the growth of transparent, liquid and robust markets in which farmers, ranchers, manufacturers, commercial end-users, and investors are able to participate to efficiently manage their risk.

At our last convening, to demonstrate the

exponential growth of the voluntary carbon markets, I cited a November 2021 article indicating that the voluntary carbon market exceeded $1 billion in value for the first time. As cited in our recent press release regarding the CFTC Whistleblower Alert, the VCM market is currently estimated to be $2 billion.

In other words, at least according to one source, it roughly doubled in a little over one year. As we will cover today, multiple private sector-led voluntary carbon markets initiatives are underway to address quality, transparency, predictability, measurability, and capacity of credits.

Globally, in addition to ongoing cooperative work by the United Nations' Intergovernmental Panel on Climate Change, in November, IOSCO's Sustainable Task Force Carbon Markets Workstream, which I co-chair with Verena Ross of the European Securities and Markets Authority, issued a public consultation on 14 key considerations that relevant authorities may consider as they seek to shape a VCM market

structure that supports fair, transparent and orderly trading.

As a testament to the great interest in these markets, the discussion paper received over 50 comments, which are currently under review and will inform IOSCO's next deliverable in the year ahead. As a global marketplace, it's critical that we work hand-in-hand with our international counterparts through the work of IOSCO.

Getting back to today's convening, we have no time to waste. We have a big day, as I mentioned. Our goal today is to really take advantage of the space we have created and let's make that a meaningful move forward.

Again, very honored, pleased and grateful to all of you for participating and all of those who will participate through the rest of the day. We do have some individuals with us virtually, but I think it's a great day for the agency. It's a great day for all of us to be together and to start this conversation and build off of what we started over a year ago and hopefully come up with policy that's

going to support, I think collective and mutual goals towards transition and ensuring a safe environment for all of us.

With that, I am going to pass it over to Commissioner Johnson for her opening remarks.

MS. JOHNSON: Thanks so much, Chair Behnam. Good morning. It's a pleasure to be here at the CFTC's second voluntary carbon markets convening.

As Chair Behnam noted, last year, the CFTC hosted a similar convening and issued a request for information soliciting comments and feedback from many of you, who are gathered with us this year and were gathered with us last year.

As noted in a recent Bank of England report on climate-related financial risks, climate change affects our world, our economy, and our financial system.

In connection with last year's convening and RFI, I noted that, according to data gathered by the National Oceanic and Atmospheric Administration's National Center for Environmental Information, since 1980, the United States has

sustained more than 300 weather and climate disasters, including droughts, floods, severe storms, cyclones, wildfires, and winter storm events that, in the aggregate, led to costs or damage exceeding more than a billion dollars.

Notwithstanding our long history of navigating severe weather-related events, the increasing frequency, severity, and intensity as well as the rising costs of these events raise important questions and remarkable concerns.

I also called attention to the White House and fellow regulators' acknowledgement of these concerns, noting that in May of 2021, President Biden issued an Executive Order on Climate-Related Financial Risk, directing the Secretary of the Treasury and FSOC members to consider issuing a report on member agencies' efforts to consider climate-related financial risks.

In response to the executive order, the FSOC issued the Report on Climate-Related Financial Risk. And in that report, identified a number of recommendations, several of which I believe would

be useful to our conversation today: building capacity and expanding efforts to address climate-related financial risks, filling climate-related data and methodological gaps, enhancing public climate-related disclosures, and assessing and mitigating climate-related risks that could threaten the stability of our financial system.

In a number of speeches over the course of the last year, I've noted that we're all increasingly touched by the events that threaten environmental sustainability and the integrity of our markets.

I grew up in North Texas, an area that remains home to my family and the community that contributed to every personal and professional success that I have ever enjoyed. In February of 2021, Winter Storm Uri devastated North Texas and a number of parts of the state. The storm contributed to 210 deaths.

And the Federal Reserve Bank of Dallas estimated that the state's financial losses, because of the storm, would range between $80 billion and $130 billion. During the storm, more

than two out of three Texans, approximately 69 percent, lost electricity at some point during the storm, for an average of 42 hours.

The significant financial loss can be attributed to the loss of power, physical infrastructure, damage and forgone economic opportunities. According to the Texas section of the American Society of Civil Engineers, some engineers estimate that the cost of the storm could reach $300 billion. The financial loss is substantially greater than both Hurricanes Harvey, $145 billion, and Hurricane Katrina, $161 billion.

The development of sustainability initiatives requires our careful consideration and merits robust debate. While there may be a number of well-supported yet divergent perspectives articulated today, our common goal must be to adopt a transparent path that effectively prevents double counting, ensures additionality and prevents fraud. The number of VCMs, as the Chair noted, has doubled in the last two years.

In fact, not just the use of voluntary carbon

markets, but understanding, discussion, and dialogue around the development and guardrails for these markets has also increased.

The rapid growth of these markets requires the Commission's careful attention to ensure these markets retain their integrity and continue to successfully support the reduction of greenhouse gas emissions.

In my capacity as the Sponsor the Market Risk Advisory Committee, overall, I inherited from Chair Behnam, I reestablished the Climate-Related Market Risk Subcommittee. The subcommittee will work in support and alongside the Commission to advance the initiatives that we discuss here.

The topics and issues that the subcommittee may consider will directly relate to, as the Chair has described, regulation, supervision, and oversight of climate-related market risks and related financial products.

At the last MRAC meeting, Peter Malyshev reported that there are over 200 environmental based futures contracts that have been traded in

carbon markets in the United States. Experts are also seeing the development of an OTC market in swaps related to environmental products and other sustainability related products.

The Commission has the authority to act as an enforcement body in this market, specifically, by enforcing anti-fraud and anti-manipulation, as relates to offsets. As the Chair has noted, this is directly within our mandate.

I am confident that the Commission -- I'm hopeful that the MRAC subcommittee on climate risk related to financial markets and all of you will help us to contribute significantly to these discussions and the development of regulatory guidelines.

I am hopeful that today's discussion will lead to a clear description of tangible and actionable next steps within our existing authority that the Commission may immediately begin to implement to address the increasingly detrimental concerns described here.

Today, I look forward to discussing the

current state of VCMs and all of the issues outlined in the agenda for today and at the close of the Chair's opening remarks. I want to thank Chair Behnam and his counsel, Abigail and David for bringing us all together today. I am grateful for the opportunity to participate and learn from this diverse group of experts.

I'm excited to learn what we at the CFTC can do to support the development, evolution, and success of sustainability. I'm excited by the -- I'm excited to hear the colloquy and exchange of ideas that this forum will generate. I look forward to hearing from many of you today.

MR. BEHNAM: Thanks Commissioner Johnson. Commissioner Goldsmith Romero?

MS. GOLDSMITH ROMERO: Good morning and thank you. It's so nice to be here with so many of you that I have spent the last year talking to about voluntary carbon markets and the role of the CFTC.

Thank you, Abigail and David, in setting this up, and thank you Chairman Behnam, for not only your continued priority of climate issues, but for

working with me to promote resilience to climate risk.

Understanding and monitoring climate risk is a critical role for the CFTC. We see the physical impacts of climate change, how it poses to serious risks to commodities markets and then overall, climate change poses a systemic risk to the financial system. I have met with farmers and producers, reviewed U.S. Department of Agriculture reports and NOAA reports, and I've seen and heard examples of the impacts that severe climate events have on commodities markets.

Last year, farmers and ranchers experienced $21 billion in total crop and rangeland losses, mostly from drought and wildfire. 2023 has seen two thirds of the US corn production area in drought and harvested winter wheat substantially down. This naturally serves as a risk for derivatives markets. Once we know the risk, we can plan for it. We can manage around it. We can use every tool at our disposal to manage risk and promote climate resilience.

And in the end, managing risk is what derivatives markets are all about. I've heard a lot about farmers and producer's contributions to climate resilience through longstanding practices. In many ways, they're the originals in sustainability. The Department of Agriculture announced almost $3 billion to be invested in climate smart commodities projects.

Some market participants see potential in the voluntary carbon credit markets as an opportunity to manage climate related risk. And there are currently voluntary carbon credit markets trading on CFTC derivatives exchanges. And that puts the CFTC in a unique position.

There is much interest in spot voluntary carbon credit markets over which the CFTC has anti-fraud jurisdiction. Despite predictions of growth from a $2 billion market to a $50 billion market, Bloomberg found that corporations used 4 percent fewer credits in 2022. So the carbon credit markets continue to face challenges. And I look forward to hearing about those and possible solutions.

Well-designed markets help deliver liquidity and price transparency while managing risk, when participants are confident that they have credible information. One of the biggest challenges in carbon markets is fragmentation that prevents that market confidence.

There are different registries and standard setters, and much is over the counter. A lack of transparency through consistent, comparable data with an agreed upon taxonomy can present challenges to proper functioning of markets. The recent slowdown may reflect concerns over a lack of transparency and trust.

Those interested in participating in markets want to be assured that they are purchasing high quality carbon credits. And some companies have pivoted away from carbon markets entirely out of concerns that it leaves them open to accusations of greenwashing.

The market should signal through pricing those carbon credits that are high quality. However, there is insufficient price transparency. According

to the World Bank, the price of carbon credits has fallen to under $5 per ton for most categories, except credits for carbon removal which trade at approximately $15 per ton. It attributes this to the least common denominator effect, where high quality projects cannot be distinguished from low quality.

Efforts like the Integrity Council on Voluntary Carbon Market are an important and welcome attempt to create a common understanding of a high-quality carbon credit. Their core carbon principles and soon to be released assessment framework could help identify credits "that create real, additional and verifiable climate impact with high environmental and social integrity." I have had the fortune a few times of spending time discussing the work with Annette Nazareth of the ICVCM. I had the pleasure of working with Annette at the SEC when she was a commissioner.

Buyers of carbon credits are also becoming clearer about how they will use credits in order to avoid accusations of greenwashing. The Voluntary

Carbon Markets Initiative announced that COP26, developed Claims Code of Practice, which is a guide for how companies "can credibly make voluntary use of carbon credits," including encouraging companies to stop treating carbon credits as "offsets," but instead a contribution above and beyond decarbonization.

When it comes to the CFTC's role, first and foremost, our role is to regulate derivatives markets. The Commission should work with exchanges and market participants to ensure the integrity of markets and promote responsible innovation in products.

A few weeks ago, I met with CME and ICE to discuss their carbon credit products, the markets, demand, and the surrounding issues. This builds on my proposals in February and March that the CFTC work with exchanges on listing standards through guidance related to environmental products.

This would guide exchanges in fulfilling their core principles. This could involve looking at the standards developed by the ICVCM and the VCMI and

other due diligence. Additionally, in March at ISDA's ESG conference, I proposed that the Commission follow a similar approach to environmental products as those for digital assets.

This would include consumer education about the qualities of a high-quality carbon credits, asserting our anti-fraud legal authority, including in spot carbon credit markets, increasing market intelligence, robust enforcement, and government wide coordination, as well as international coordination. And to continue mirroring our approach to digital assets, I proposed a heightened review of self-certified environmental products, including those related to carbon credits.

Second is our antifraud authority over spot markets. In June, the Commission announced an Environmental Fraud Task Force, which I advocated for and I appreciate Chairman Behnam's leadership and working with me on that. I also appreciate the Director of Enforcement, who has worked closely with me and my office on launching this task force. We are working on sourcing cases, including through

whistleblowers, as recently announced, and I intend to keep our sleeves rolled up to combat fraud.

Thank you to all here today and I look forward to hearing all of your views on these important issues. I'm very glad to see so many faces of people I've been talking about these important issues with.

MR. BEHNAM: Thank you. Commissioner Mersinger.

MS. MERSINGER: Good morning, afternoon. I'm not sure which it is, but thank you to Chairman Behnam for holding this convening and thank you to everyone, both participants in the audience for being here today. We have a packed agenda, so I'm going to try to keep this brief, you know, and just let you know that I appreciate the opportunity to listen and learn today.

One of our constants for our work here at the CFTC is that our markets are really linked to the real economy, and so, as industry needs and consumer preferences change, our markets change with them.

As regulators, it is critical for us to be aware of these changes and new innovations, so that we can properly apply the Commodity Exchange Act and our rules to all markets and market participants fairly, while protecting customers and ensuring market integrity. This is the mandate that Congress has given us.

We do not favor one market or product over another, but as newer products and markets emerge and evolve, we have to take the time to learn and study the details of how they operate. I sponsor the Energy and Environmental Markets Advisory Committee and we've held several meetings in which we have discussed ongoing changes in the energy markets.

At these meetings, I have seen firsthand the importance for regulators to ensure that the markets, including the markets we regulate, continue to facilitate abundant and affordable energy. No doubt that we need to keep a close eye on all markets that have a link to energy production and events like this are key to that

understanding.

Whether it takes the form of a roundtable, a convening, requests for information, requests for comment, or advisory committee meetings, I think any opportunity for us to hear from stakeholders is an opportunity to learn.

I appreciate the efforts of the Chairman's staff in putting this together today, and I look forward to hearing from all the participants on today's panel. Thank you.

MR. BEHNAM: Thanks, Commissioner Mersinger. I'm now going to turn it over to Abigail Knauff, who is going to talk about some logistics before we get going. Abigail.

MS. KNAUFF: Thank you, Chairman. Just as few logistical and administrative reminders for participants here in the conference center. Please press the button to activate your microphone when you speak. This meeting is being simultaneously webcast and it's important that your microphone is on so the webcast audience can hear you. Also, please lean into the microphone when you speak and

keep your phones away from the console.

If you would like to be recognized during the discussion, please change the position of your tent card so that it's vertically on the table or can you can raise your hand and the moderator will recognize you.

Virtual participants, please use the raise hand feature in Zoom if you would like to interject. Please identify yourself and your organization. Please note that during the convening, the Zoom audio feed will be live to those participating in person, as well as those listening to the public webcast in real time. Please ensure that you're muted unless you are presenting or engaging in the Q&A, including during the breaks.

To all of our participants today, there will be a transcript of this roundtable, which will be posted on the CFTC website. If you use abbreviations or technical terms, please explain them the first time they are used.

As a disclaimer from our Office of General

Counsel, additionally, before we begin today, we would like to remind participants and attendees that this is a public convening for which the purpose of today's event is for the CFTC to receive information and opinions from individual panelists on issues related to voluntary carbon markets. The CFTC is not seeking consensus advice from the panelists, and this convening is not a meeting under the Sunshine Act.

Additionally, none of the statements made during this meeting should be construed to constitute or imply endorsement, recommendation, or favoring of any organization, products, or services by the United States Government, the CFTC, or any of the CFTC employees.

As noted in yesterday's press release, there will be a public comment file open until August 18th for the public to submit comments on today's discussion on the CFTC's website.

I will now turn it back to the Chairman.

MR. BEHNAM: Thanks, Abigail. So we're going to get started. I'm very pleased to welcome Ian

McGinley, who's the Director of the CFTC's Division of Enforcement. We've heard a lot about the actions that we've taken in the past few months.

So Ian's going to provide brief remarks on the Division's recent announcements, specifically as they pertain to the carbon market. So with that, Ian, hand it over to you.

MR. MCGINLEY: Thank you, Chairman, and good afternoon. It's my pleasure to be here as the Director of the CFTC's Division of Enforcement. I'd like to thank Chairman Behnam for the opportunity to speak and your leadership.

I'd like to thank the commissioners as well for their thoughtful guidance and insight, particularly when it came to establishing the task force, which I will discuss. And I'd also like to thank David Gillers and Abigail Knauff, the co-heads of the Climate Risk Unit.

I'd like to do two things in my brief remarks this afternoon. First, I'd like to discuss the CFTC's jurisdiction in this space. And then I'd like to discuss some efforts we are taking to

examine potential misconduct in the carbon markets.

So as we all know and we've heard this morning, carbon markets have been in the news recently. And we've heard a wide range of allegations affecting these markets.

These allegations, and they are just allegations at this point, include a variety of misconduct such as fake credits or credits that remain in carbon markets after carbon mitigation efforts have ended, the selling of carbon credits that overstate the extent of carbon mitigation, registries listing credits with insufficient diligence and oversight into the extent of such mitigation, and the manipulation of tokenized carbon credits.

So in the face of these reports, the first question we ask ourselves at the Division of Enforcement is whether we have jurisdiction to address the potential misconduct. So as we've heard this morning, the CFTC has regulatory authority over futures markets, and anti-fraud and anti-manipulation authority over underlying commodity

spot markets.

And the carbon markets include both derivatives and spot markets. Carbon credits issued are listed as the underlying commodity for several futures contracts that are listed on the derivative exchanges that we regulate as designated contract markets, like NYMEX and Nodal.

And while these particular futures contracts and products are comparatively newer than most agriculture, energy, and financial derivatives, regulating the evolving derivatives markets is a well-established part of what we have done for decades.

And ensuring their integrity by prosecuting fraud and manipulation is essential to the CFTC's mission to promote the integrity, resilience, and vibrancy of the US derivatives markets through sound regulation.

And likewise, while every matter will be evaluated based on its particular facts and circumstances, the CFTC has anti-fraud and anti-manipulation authority over the spot markets for

voluntary carbon credits, as these credits affect the integrity of the futures markets that we regulate, and allegations of fraud in these markets is significant. These markets reflect efforts to incentivize sharp reductions in carbon emissions.

And fraud in these markets could undermine those efforts. And as a longtime prosecutor, one of the most striking aspects to me of the public news reports to date is that while voluntary carbon markets are relatively new, the allegations that we are hearing are as old as time. One party allegedly lying about the quality of good and deceiving another for a profit.

So for all of these reasons, I've directed the Division of Enforcement to take the following steps to examine these markets. First, on June 20th, the Division of Enforcement's Whistleblower Office issued an alert notifying the public on how to report violations of the Commodity Exchange Act connected to fraud or manipulation in the carbon markets.

As I noted at the time, whistleblowers are

invaluable allies in our efforts to promote integrity in all of our markets. In fact, about 40 percent of our cases involve whistleblowers. And as we always do, we will investigate all credible tips and complaints from whistleblowers that relate to carbon markets.

Second, on June 29th, we announced the creation of the environmental fraud task force. Its mission is to address fraud and other misconduct, not only in the regulated derivatives markets, but also in the relevant spot markets, including the voluntary carbon markets.

And a note about our task forces, they consist of select line attorneys and supervisors from multiple CFTC offices. They collaborate with other law enforcement agencies and they serve as subject matter experts within the CFTC.

This task force is led by Allie Passman, a chief trial attorney in our Chicago office; and includes trial attorneys Katie Paulson, Meredith Borner, and Devin Kane, who are all here today.

And in case anyone was worried, they do not

have subpoenas with them, I jest, but they are very busy and so is the task force. And this task force works hand-in-hand with our Whistleblower's Office in examining potential misconduct.

So in short, carbon credit markets are relatively new, but rapidly growing in importance as our global economy transitions to a low-carbon economy. For the Division of Enforcement, protecting these markets is also new, but we have long possessed the tools to prosecute fraud and manipulation, and we plan to use those tools here when appropriate.

Once again, I appreciate the invitation to say a few words, and I'm happy to see everyone here today for the second convening discussing these important issues. Thank you.

MR. BEHNAM: Thanks again. That was a great level set. I know there are a lot of people in this room and are watching who are experts in the Commodity Exchange Act. But there are also folks who are not and who come to us and are part of this conversation from the climate space or just non-

market perspectives.

And that was an important level set about why we're here today, what the authority is, what the statute is, what our responsibility is as an agency to police these markets to ensure fair, transparent, orderly markets, not only with respect to the direct markets we regulate, as Ian pointed out, the futures and the options, but the underlying commodity itself, which in this case is the offset.

So thank you, Ian, and a lot of work to be done, but enforcement obviously is going to play a critical role in the agency's effort. So with that, we're going to now turn to Kyle Harrison, who is joining us virtually, so hopefully that'll work out well.

Kyle's from BloombergNEF and he's going to provide market overview of the voluntary carbon markets that hopefully will set a little bit of a context for today's meeting and discussions that will take place over the next few hours. So Kyle, hopefully you're with us and you can begin your

presentation.

Kyle, we don't have audio, I don't know if folks in the back or maybe it's as simple as a mute button. No.

MR. HARRISON: Hello. Can anyone hear me?

MR. BEHNAM: Yeah, we got you loud and clear now. If you could speak up, that would be great, but we hear you.

MR. HARRISON: Perfect. Sounds good. Yeah. Hi everyone. Thank you so much for your time today. Apologies that I can't be there in person. And actually, ironically, 20 minutes ago the fire alarm went off in our London office here. And it was just a false alarm. So clearly someone might not like the voluntary carbon market, but I was able to stick in and it was just a false alarm. So happy to be with you all today.

I lead the sustainability research team for BloombergNEF. And our group writes about research on the transition to the low-carbon economy. One of the key focus areas that we talk about in this market or in this low-carbon transition is the

voluntary carbon offset market.

So companies going out and buying verified emission reduction credits in order to achieve net-zero targets or other emission reduction goals. And Chair Behnam mentioned earlier that this market contains a lot of risks, but it also presents a lot of opportunities.

So to kick off the presentation I want to start by showcasing some of the opportunities. And so, what this chart is showing is 1000 of the largest companies in the world that have set a net-zero target. So they've pledged to fully reduce their emissions to a level equivalent to what they met on an annual basis.

And what we found is that for these 1000 largest companies, if they are to go ahead and achieve their net-zero targets, they will need to collectively reduce their emissions by 14.5 billion metric tons of carbon dioxide, equivalent, on an annual basis in 2050. And that's compared to a 2015 base year. To give you a sense of scale, that's around a third of global carbon dioxide emissions

today from 1000 companies. So the opportunity here is absolutely huge for corporations and the private sector to lead this low-carbon transition. If you could go to the next slide, please.

However, right, while a net-zero targets come in many shapes and sizes, the one consistent trait between these goals is that they will never reach zero in their gross emissions. Right? Every company in the world is going to need some type of verified emission reduction certificate in order to achieve its net-zero target.

So what I've done is I'm sticking with these 1000 companies here in this illustrative example. And we're now pretending from a 2015 base year that they reduce their gross emissions or what they physically emit on these science-based targets initiatives general net-zero pathway. So that means they're reducing their emissions by 50percent in 2030 and 90 percent in 2050. Even in a scenario like this, if all these 1000 companies reduce their gross emissions by 90 percent, you're still left with 1.5 billion metric tons of what we call

residual emissions in 2050. That is the green segment of this chart here.

And that is the itch that a company can't scratch somewhere along its value chain. And that's where it's going to need some type of verified emission reduction credit. If you can go to the next slide, please.

If we look at a more realistic scenario, and we look at a two-degree Celsius pathway, right? Because we're talking about, for example, oil and gas companies, materials companies, metals and mining companies, companies that with much less options to de-carbonize over time. And if we assume that all these companies reduce on a two-degree Celsius pathway instead of the science-based targets initiatives general net-zero, you're now left with 7.9 gigatons or billion metric tons of those residual emissions in 2050.

So I think that really presents the opportunity that these markets present, right? What we're showing here is all these companies on the race to net-zero and it's binary. If they want to

go ahead and achieve their net-zero target, they're going to need carbon offsets.

It's not a matter of if they need them. It's a matter of how much. And because of all of these net-zero targets, we've seen activity in the actual voluntary offset market scale up significantly. If you can move to the next slide, please.

What this chart is showing is retirements of carbon offsets over the past couple of years from projects that are listed on the four largest carbon offset registries. So on these registries' projects get verification in order to go ahead and sell credits.

And the largest of these registries are Verra, Gold Standard, the American Carbon Registry, and Climate Action Reserve. And I'm sure we have representation from these registries in the room today.

And what we saw is that there was a record 161 million carbon credits retired or cancelled and removed from the market and then used to neutralize a company's residual emissions in 2021. But that

demand dropped in 2022 to 154 million tons.

And the biggest reason is often the criticism that this market has gotten around the integrity of projects, questions around transparency in the market, but also a lack of liquidity. And so, really if we want this demand to continue to scale up, these retirements to grow, we need to go ahead and re-emphasize and create those standards that emphasize what does a good carbon credit look like?

How should a company and when should a company buy those credits? And again, how should a carbon credit be transacted? Whether it's through exchanges or over the counter contracts or some other type of mechanism.

Another problem that we see with the market today, if you'll move to the next slide, please, is that even as retirements or demand of carbon offsets has tapered off, supply continues to grow. So this is the same chart but instead of showing carbon offset retirements, we are now showing issuance or supply.

And even though demand dropped in 2022, we're

actually seeing record supply in 2022. So 247 million credits were created from projects on those four major registries. And every day we're still seeing new projects get verification on Verra, Gold Standard, and the other registries. And in 2023 through June, we've seen 141 million of these credits created. So we're actually expecting record supply again in 2023.

And what that's doing is it's creating an imbalance in terms of fundamentals in the market. Because you have an oversupply, you have a surplus of cheaper credits and companies can go ahead and use those in many cases as a band-aid solution, as opposed to de-carbonizing and reducing their gross emissions. Next slide, please.

We're also seeing a huge range in terms of the geographic availability of these carbon credits. So what this diagram is showing on the left is the region where carbon offset projects are located and creating credits.

And on the right side of this diagram, you're seeing the location or region of the companies that

are buying those credits. The biggest takeaway here is that companies in North America and Europe, on the right, are overwhelmingly preferring to buy carbon credits from projects in Asia Pacific, Latin America, and Africa.

On one end what this does do is it generates a flow of capital to emerging economies and it can emphasize things like co-benefits as well. So beyond de-carbonization, protecting biodiversity, job creation, food security, and a number of other areas.

The challenge with a chart like this, though, is that it leads to what we call carbon nationalism. A lot of countries across Asia Pacific, Latin America, and Africa are now starting to view carbon abatement as a sovereign commodity or a sovereign natural resource within that country. And they've started to take control of their own carbon markets.

A couple of weeks ago we've seen markets like Zimbabwe, Zambia, and Malawi all make plans to take over their market and re-direct revenue from carbon

offset projects to local stakeholders.

And while that could have benefits for those companies in North America and Europe that are overly reliant on credits elsewhere in the world, this is going to create a huge issue in terms of their strategy for de-carbonization. Next slide, please.

And because of this huge range in geography, because of this huge range in the terms of sectors that are creating carbon credits, and because of the overall general oversupply that I mentioned before, there's a huge range in prices for carbon offsets and how they're exchanged. And in general, they're very cheap.

So what this chart is showing is offer and bid prices for carbon offsets that are being displayed and sent to us by brokers on the Bloomberg terminal. And what you can see, right, is that sectors like energy generation, so, clean energy projects creating carbon offsets. Or, for example, gas projects in China that are creating carbon credits on the premise that they're not coal are

able to sell these credits for much cheaper. And the main reason for that is because the gap in cost between clean energy and fossil fuels in most parts of the world is non-existent now. You don't need those carbon credits to bridge that gap and make clean energy cost competitive.

On the other end of the spectrum, nature-based solutions, like avoid deforestation and reforestation are priced much higher.

But in general, they're all still far too cheap. Your average broker transacted offset price, as of May 2023, based on the data that we have collected at BloombergNEF, is $9.5 a ton. For comparison, right, the price of carbon in the EU right now is flip flopping or alternating between somewhere between $80 and $100 a ton.

So there's a huge way to go in terms of price discovery, increasing prices in this market. And again, emphasizing that companies first and foremost decarbonize before buying these credits rather than relying on them as a blanket Band-Aid solution. Next slide, please.

And in general, in addition to the huge range in prices, the huge range in geography, what we've also observed at BloombergNEF is that the value chain for carbon offsets is increasingly getting more complex.

There is a lot going on in this diagram here. You don't need to understand everything and I'm not going to walk you through all of it. But I think the important thing to note, right, is the middle portion of this chart here.

If we were having this conversation three years ago, all of these rating agencies at the bottom, these third-party integrity initiatives, like Chair Behnam mentioned before, like ICVCM and VCMI, but also some of these groups that are using satellite imagery and LiDAR drones to better verify credits like Pachama, they were not -- they were either very early stages or non-existent.

And so, what we really need to do, right, is continue to emphasize boosting the integrity of the market. If you move to the next slide, please.

Again, just to re-emphasize, all of the

companies and organizations within the middle portion of this chart are playing a massive role here. And of course, you can see the CFTC at the bottom of this red band here. So this is going to be an incredibly important part of the market. And supply and demand will not succeed unless we go ahead and boost that integrity. And we've gone ahead, and we've done the modeling and the forecasting for this at BloombergNEF. So if you move to the next slide, please.

Every year BloombergNEF produces a long-term outlook for supply, demand, and prices for carbon offsets under a number of different scenarios. The one scenario I wanted to leave you all with before the convening continues for the day is what we call our voluntary market scenario.

I know the name is not very self-explanatory but what it is saying is let's keep everything in the voluntary carbon offset market the exact same that it is today all the way out to 2050. What that means is you have a wildly oversupplied market and companies can buy credits anywhere in the world and

they can buy any type of credit.

It doesn't matter what vintage it is, whether that project avoids or removes emissions, and where in the world it's located. All of it is fair game for a company to purchase on the road to net-zero.

And what we found in this scenario is that the dark red line here, demand, even as it grows, as net-zero targets become more imminent it will never grow fast enough to catch up with supply.

Your offset market is going to be oversupplied all the way out to 2050 and as a result your marginal price for a carbon offset is going to be set by something much cheaper in the overall supply curve; something that's also likely much lower in integrity. If you move to the next slide, please.

This is an example of our supply curve in 2050 in this voluntary market scenario. The x-axis is your total supply in the offset market. And your y-axis is your cost of carbon. And each individual block in the supply curve of this staircase here is a type of carbon offset supply broken out by geography but then sector as well, based on the

colors. But what you can see is that demand in 2050 is only large enough to eat into a portion of the supply curve.

And what that means is that all of your investment into the supply in this market is going to go to lower quality, lower integrity projects to the left of this demand line. And all of the supply that's higher quality that needs investment today in order to scale up in the future, such as direct air capture, but also high-quality nature-based solutions, like reforestation, are not going to get the investment that they need.

And so, in general, your price, your marginal price for carbon offset, if we don't change anything in the market, is going to remain at around $15 a ton for the next couple of years. And it's going to peek at $35 a ton in 2050.

Again, I made that comparison to the EU ETS before. We need dramatic change in terms of regulating supply in this market in order to boost integrity and ensure that prices rise to a level that could influence change in companies.

And there are some other geo-political factors that could impact this. If you want to go to the next slide, please.

I mentioned before around the carbon nationalism that we're seeing from companies. So this year alone I mentioned the sub-Saharan African countries like Zimbabwe, Zambia, Malawi, and Kenya that have made announcements or debating making announcements to control their own carbon markets.

And last year we saw Indonesia and India put out temporary bans on the export of carbon credits. One of the main drivers of this is they wanted to assess how much abatement they need in order to achieve their nationally determined contributions.

And assessing how much more excess supply they can export to companies and other countries around the world. But the other driver, of course, again, is to capitalize on this natural resource that they now have of growing importance.

And this will have huge impacts if this continues on the supply curve. So we estimate that REDD+ or avoided deforestation, carbon offset

supply in 2050 can max out at 515 million tons on an annual basis.

If you remove a 515 million block from this chart here, what you're going to do is you're going to shrink your supply curve. And you can do the same for markets like Zimbabwe, India, and Zambia as well. And what that's going to mean, right, is that your marginal price will now be set by a more expensive form of carbon credit. Next slide, please.

And if you take that into account, if you think about the bans that we see in markets like India and Indonesia, you can see what that does to our overall price scenario.

So you have price for a carbon offset in 2050 in no longer $35 a ton, it's closer to $55 a ton, right. And so, I think another important message that I want to leave you all with is, even if we don't change anything in terms of the actual infrastructure on the fundamentals of this market, what you could see is countries and different governments around the world make decisions that

could also have big ramifications on that carbon offset market. Of course, the situation in Ukraine is also another example of this. Next slide, please.

And then, finally, let's just end on a positive note, really quickly. What we're also doing in our long-term outlook is we're forecasting the potential market value for voluntary carbon offsets all the way out to 2050.

An apology, I see the x-axis is cut off a little here somehow. But the left is 2030 and right side is 2050. And as Chair Behnam mentioned before, the value of the market today is estimated at $2 billion. In that voluntary markets scenario, we estimate that it could reach $15 billion in 2030 and just under $200 billion in annual market value in 2050.

Conversely, if we look at a removal only carbon offset market, so your supply only comes from projects that remove, store, or sequester carbon, such as reforestation but also technology-based removal like direct air capture, you can see

that your market value grows to just under $50 billion in 2030 and just under half a trillion dollars in 2050.

So this is an incredibly important market. It's going to play in an essential role in the corporate decarbonization story and it's really important, right, as it grows in prominence, as it grows in popularity, that we make the proper necessary actions today to influence integrity and ensure that any new supply that's coming into the market is supply that could be trusted by buyers out there.

Thank you everyone so much for your time. And now I'll turn it over for any questions that you have.

MR. BEHNAM: Kyle, thank you. That was tremendous. Appreciate the time and the effort that you put into those charts. And like I said, a little bit of level setting for the afternoon's discussion.

So now going to open it up to the panel. As Abigail mentioned, if you do have a question, can

you just lift your name tent and I'll call on you. If not, we'll move on. But -- okay. Kyle, thank you. No questions. That means you did a fantastic job. Appreciate you --

MR. HARRISON: Perfect. Thanks everyone.

MR. BEHNAM: Navigating the fire drill, too, over in London. So now we're going to turn over to the first panel of the day. And I'm going to look to our friends here to my left -- to the U.S. federal government panel. Echoing President Biden's common refrain, this is a whole-of-government challenge and one that demands a whole-of-government approach. So we're very honored and pleased to have a few members of the federal government here to share some of the work that they've been doing at a department level and what they're doing to, sort of, conquer this task and the complexity of transitioning to a net-zero economy. And ultimately what is needed to have a cohesive approach to the voluntary carbon market.

So with that, very pleased to introduce Carol Petsonk, Assistant Secretary of Aviation and

International Affairs. And welcome Carol back from the U.S. Department of Transportation. Also, welcoming back Sean Babington, Senior Advisor for Climate Office to the Secretary of the U.S. Department of Agriculture. D. Wilson Ervin, Counselor, Domestic Finance, U.S. Department of Treasury. And with us virtually is Molly Peters-Stanley, a negotiator for the U.S. Department of State. So with that, Annie, if you're ready, I'm going to start with you.

MS. PETSONK: Thank you very much. Thank you, Chair Behnam and thanks to each of the commissioners. I particularly want to thank Commissioner Johnson. Your expression of the connection to what happened in your home area was very powerful.

And the irony that we are holding this convening today on a day when there are record temperatures in Phoenix. There has been terrible flooding in New England. And just this past weekend, loss of life in Pennsylvania due to flooding puts the urgency of the problem uppermost

in our minds.

We greatly appreciate the work, Chairman Behnam, that you and your team have outlined, that you have underway. We think that it is most welcome.

The Department of Transportation takes the climate challenge very seriously. We have issued a blueprint for reducing emissions from the transportation sector, which as many colleagues here know is the nation's largest greenhouse gas emitting sector. And we play a very active role across many different aspects of the transportation sector in reducing emissions directly from the different modes of transportation.

And I would call participants attention to the decision last week by the International Maritime Organization's Marine Environmental Protection Committee, to establish a greenhouse gas emission strategy with a goal of net-zero emissions by 2050 and interim steps. And also, its prioritization of a further investigation of measures to meet that goal including market-based measures.

I'd also highlight recent steps in the International Civil Aviation Organization, which is preparing for the third global civil aviation alternative fuels meeting that will be held in United Arab Emirates later this year.

There is considerable focus across the aviation sector on meeting the goals announced and agreed to in ICAO last October. Namely, a long-term aspirational goal of net-zero emissions by 2050 and a strengthening of ICAOs Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

And I believe that one of the other panelists, Molly Peters-Stanley will comment further on CORSIA. I just want to mention that the administration regards CORSIA as a very important element of the overall climate policy and has recently enunciated and underscored the importance of that view.

With regard to voluntary carbon markets, we agree that they have tremendous potential but also pose significant risk.

We're very pleased to hear that the Commission is convening and is exercising its authorities with regard to anti-fraud and anti-manipulation. And in the spot markets and particularly also its oversight in the futures market.

For us what's essential here in order to ensure that the promise and potential of voluntary carbon markets is achieved in assisting all sectors, including the transportation sector, in meeting ambitious targets is the integrity underlying the system.

And for that I wanted just to highlight one term that I heard earlier this morning and that is looking to other commodities that the Commission has experience with. And earlier was emphasized durable commodities.

The question of what is a carbon offset credit in relation to or in comparison to durable commodities is, I think part of the fundamental challenge that our work together here faces.

For that we are interested in the developments that you've outlined in IOSCO, in their public

consultation because markets all over the world are going to be facing these challenges. And certainly, with a mechanism like CORSIA, which applies globally, there is interest across many nations in the work you're undertaking.

Further, we wanted to emphasize our willingness to participate in whatever way we can to be helpful here across each of our modes of transportation, which span, of course, surface transportation as it moves rapidly to electrify and to achieve reductions in emissions through things like a topic that is of great interest in our building, low-carbon pavement. Low-carbon pavement is pavement that on a lifecycle basis has lower emissions than conventional pavement.

So this whole question of lifecycle emissions and the opportunities for reducing emissions along the course of the lifecycle is one that in the transportation sector is receiving a lot of attention.

If the reductions achieved on a lifecycle basis enter into voluntary carbon markets, there is

a risk that those reductions could be double claimed. We're not saying they cannot enter, but that care needs to be taken to ensure that claims about reductions in lifecycle emissions, if they enter into markets, are not actually double sold or triple sold or otherwise packaged in ways that would undermine the integrity of the underlying asset.

Let me conclude by saying that we're very pleased to be invited here. We look forward to the remarks of our fellow panelists and are happy to answer questions. Thank you.

MR. BEHNAM: Thanks, Annie, for those comments. Sean, we'll turn it to you and the USDA.

MR. BABINGTON: Thank you, Chairman and fellow commissioners. Pleased to be with you today and certainly all the stakeholders around the table and in the audience today. Good to see some -- some colleagues and friendly faces.

USDA really appreciates the CFTC’s interest in this important work. Certainly, applaud the Commission's work in the broader climate space,

including the aforementioned subcommittee on climate-related market risk.

At the Department of Agriculture, we agree with the national academies, the UN, other major scientific bodies that are primary efforts in the focus on mitigating climate change needs to be driving steep emissions cuts from key emitting sectors.

However, voluntary carbon markets dealing in high integrity credits may play a role in especially hard to abate sectors in meeting emission reduction targets when included as more of a comprehensive approach and mitigation plan.

USDA has important bodies of work contributing to meeting those reductions, importantly in the agriculture and forestry sectors. As well as the sectors responsible for the majority of emissions, including energy and transportation we just heard from Annie about.

This work includes, among other places at the department, USDA rural development mission area, which provides hundreds of millions of dollars

annually in grants and loans to install renewable energy systems, drive efficiency upgrades.

We also have a research farm production mission areas, which pursue development and deployment of cleaner transportation fuels derived from ag and forestry feedstocks, including jet fuel. And I would be remiss if I didn't mention that the Secretary -- Secretary Vilsack -- has a keen interest in sustainable aviation fuel and the potential offered there for mitigation in the future.

Outside of the dialogue over the electricity and transportation sectors, we also have equities in the traditional agriculture and forestry sectors. And they have key differences when discussed in the context of climate.

Agriculture had the distinction of being a sector that's both uniquely vulnerable to climate change and a domestic source of emissions, roughly 10 percent of our domestic emissions. But we have the potential to be an even smaller source or even a sink with additional research and investment.

Domestic forest spanning both public and private forest lands are already a carbon sink and could do even more in this arena with the right policy. And at USDA we're pursuing a department-wide approach to drive these nature-based solutions and harness the power of the land sector to reduce emissions and store carbon. And we certainly heard a little about that during the Bloomberg presentation that proceeded this panel.

So however, the sources and sinks of greenhouse gasses in the ag sector are diffuse, they're spanning millions of acres, thousands upon thousands of farms. And each of them are a relatively modest source or sink on their own.

For the most part our authority in this arena not as a regulator but instead as an entity that can provide incentives. A voluntary, flexible, incentive-based policymaker to drive increased adoptions of a lot of these sustainable climate smart practices that we know can drive nature-based solutions.

The department's doing that work through our

existing slate of conservation programs. Some folks may be familiar around the table. Other may not. But programs like USDA's environmental quality incentives program, conservation stewardship program and others.

As well as new initiatives that have been undertaken during this administration, including the department's Partnership for Climate Smart Commodities, which were also mentioned during the opening remarks. This is a $3.1 billion investment launched by Secretary Vilsack in 2022. We've made 141 awards under this program.

For pilot projects that create market opportunities for U.S. agriculture and forestry products and commodities produced using climate smart practices. Importantly, each grant, each application had to include innovative and cost-effective methods for quantification, monitoring, verification of greenhouse gas and carbon sequestration benefits.

And several other key priorities were also considered in project selection, including, and

very importantly, a focus on equity and historically underserved producers as we made those grant selections.

We're going to learn a great deal through this program, including details to be very relevant and constructive in the voluntary market integrity dialogue that we're having today.

Beyond the partnerships program, which I just outlined, USDA continues to invest in foundational science and data necessary for scaling up voluntary adoption of these nature-based solutions and climate smart ag and forestry practices.

Just last week Secretary Vilsack partnered with a National Climate Adviser Zaidi to announce a $300 million investment under the Inflation Reduction Act to increase our ability to do greater measurement, monitoring, reporting and verification, known as MMRV, colloquially, in greenhouse gas emissions and reductions from agriculture.

I won't go through all of the separate work streams that comprise that $300 million investment

but among other things, we'll establish a landmark soil carbon monitoring and research network, thousands of sites across the country, improve our data management infrastructure.

In the land sector you often times have data that are very valuable but can't talk to one another and can't be cross -- sliced and diced to really make sense of it. So we'll be investing in that with that $300 million as well.

Importantly, in the forestry side, we're taking steps to improve the forest service's globally recognized forest inventory and analysis program to better account in the carbon fluxes in the forested landscape.

And everything we're doing is really grounded in this focus on data, sound science, MMRV. Simply put, and we've heard this mentioned already, if the carbon removals and emissions reductions that we're pursuing and promoting aren't real, that is both bad for the climate but it's also bad for the integrity of our work at the department and any external markets that are pursuing those same types

of investments.

Given the sizeable unrealized potential in these nature-based solutions, coupled with how expensive we've found some of these adoptions to be, we need to embark upon a really thoughtful discussion.

And today's convening is important part of that. About how to finance these climate smart practices and whether the private sector efforts may be a piece of that puzzle. These markets have varying standards, varying degrees of rigor and monitoring, as we've heard about. So using science recognized tools to verify this work is going to be critical.

It bears mentioning, as I close, that USDA does have some statutory authority in this arena. Section 2709 of the 2008 Farm Bill relates to environmental markets and directs USDA to help facilitate farmer, rancher, forest landowner participation in these markets. And we'd certainly welcome continuing dialogue with CFTC, other stakeholders about how to fully embrace and

potentially pursue greater activity in that authority.

And then in December, which is a new piece of information since our convening last summer at CFTC, Congress passed two pieces of legislation that are also relevant here. One being the Growing Climate Solutions Act, which was a bipartisan effort in the house and the senate. And another effort called the Sustains Act, which allows for the acceptance and use of private funds to address climate change and other resource priorities via public and private partnerships.

This fall, USDA will release their first assessment under the Growing Climate Solutions Act, one of those, sort of, the first steps in implementing that bill. And will serve as a building block for future resources and learnings that can reduce barriers to entry for farmers, ranchers, forest landowners, into these types of markets.

As the conversation continues to unfold USDA is going to continue to make critical investments

to support MMRV and it's in -- we feel it's in all of our best interests to ensure the integrity of greenhouse gas mitigation as we position these sectors that we deal with at USDA, to be part of the solution, whether through government incentives programs or private sector efforts.

Again, appreciate the opportunity to be here, speak on behalf of USDA and look forward to the discussion.

MR. BEHNAM: Thanks, Sean, and appreciate contributions from the department. Dean, I'll hand it over to you and comments from the Treasury Department.

MR. ERVIN: First of all, thanks to you Chairman Behnam. Thank you. Thanks to my colleague for turning on my mic. Second of all, thanks to you Chairman Behnam, to the commissioners and CFTC staff for your leadership in this issue and for hosting this event today.

The voluntary markets, or VCMs, have an enormous potential. They're currently quite small in the financial context, estimated at only $2

billion last year. But many predict that it could reach $50 billion or even $100 billion in the next decade or so.

At that scale, the VCMs have the potential for real impact. As a simple example, a market with $50 billion of annual credible retirements at $10 a ton could reduce human emissions by five gigatons or 10 percent of current emissions.

DOE researchers recently estimated that we'll need roughly twice that amount, about 10 gigatons per annum to keep 1.5 degrees alive in future decades. A large, well-functioning market will also provide market participants including farmers, ranchers, technologists, and corporations with a powerful tool to achieve their individual objectives.

But the news flow of the last year is mostly focused on the problems in this market. Some recent reviews have suggested that certain offsets may be only delivering half or a quarter or even a tenth of the reductions that were promised.

Last week a big airline CEO, for example,

dismissed the vast majority of nature-based credits as "fraud" and several large buyers have recently backed away from the market. The price for greenhouse gas credits on the CME future's exchange, for example, has dropped by around 90 percent since the last convening last summer with some contracts even dipping below $1 per ton.

The pricing for a ton of CO2 can bring by as much as 100 times between credits that are perceived as high quality compared to others that are perceived as low quality. I spent over three decades in financial markets and can't recall any market with that kind of price disparity for a durable commodity.

Clearly, there's some important and urgent repair work that needs to be done. The good news is there are a number of participants who are engaged in just that right now. The CFTC has been looking to use its authority, as discussed earlier today, to promote market integrity. And it's been clear that it will pursue fraud aggressively.

Other parts of the U.S. government are

contributing with elements like better satellite monitoring, international negotiations, technology investments, or supporting improved agricultural practices.

Private sector groups such as the ICVCM have also been active on the question of credit quality. They're looking to make sure that a ton promised is a ton delivered and the permanence and additionality are not just words.

But this is still work in progress and there are many important decisions still to come. At Treasury, we're following this work closely and hope to learn more about the progress later today.

While there will always be some elements that naturally differ between elements like forest preservation and technological removals, there is an underlying need for a strong baseline around minimum quality. That is essential for any market to work properly and for buyers and sellers to have some assurance about basic execution.

At Treasury we're also following initiatives that look to improve market function, such as the

work at IOSCO under Chairman Behnam's leadership has also been doing. For example, we've heard buyers complain that sourcing review costs are too high, in some cases larger than the credits themselves. We've recently started to see a few initiatives that are trying to improve this transparency and improve access. And reforms in this area will be important for the market to develop properly.

All of this will be hard work. The U.S. Treasury will work to support positive and necessary reforms to help address the challenges and opportunities in VCMs. We want to see this market function properly so that the VCMs can live up to their potential, both for the planet and for the participants who are run a reliable and affective market.

I look forward to learning more in the rest of the day. Thank you for your attention.

MR. BEHNAM: Thanks, Dean. Appreciate it. And finally, we're going to go to the State Department and hear from Molly, who as I mentioned earlier is

with us virtually. So Molly, hopefully you're with us and you can begin your comments.

MS. PETERS-STANLEY: Hi. I hope you all can hear me. And I wanted to start by saying that it's great to be with you today even if remotely. And thank you to the CFTC for inviting the State Department to be a part of this conversation.

I come at this conversation from my role leading our work on international carbon markets and carbon pricing, including for the State Department climate office and for Secretary Kerry.

I've been in this role since 2014 and before that spent several years directing the Ecosystem Marketplace work on the state of the voluntary carbon markets reports. A surprising amount of external work that involves carbon credit markets, whether that's domestic or international or whether the markets are designed for voluntary or compliance purposes.

That work intersects with the State Department's work regularly. This is because any success or struggles with robustness in the carbon

markets have a direct impact on the ambitious implementation of countries contributions under the Paris Agreement.

So we've always actively advocated for strong fundamentals for designing and also using carbon crediting certification standards, also emissions trading systems. Whether these are used by countries toward Paris Agreement goals or by airlines toward UN ICAO's global compliance space system that relies in part on carbon offsetting as Annie mentioned earlier.

But that work is why we dedicate a growing amount of time and attention to VCMs and for two reasons in particular. First, because we recognize their potential to channel new private sector investment toward robust mitigation actions that generate verified climate results.

We see all of that as a good thing. And this is where and why you see the State Department engaging directly in public-private initiatives like the LEAF Coalition or the Energy Transition Accelerator that was announced late last year.

Initiatives like these can provide models for governments that want to set out key criteria and enabling conditions for sound VCM engagement and to champion businesses that step up to provide ambitious levels of private climate finance on the basis of those criteria and expectations.

And these experiences are why we track and support initiatives like the Voluntary Carbon Market Integrity Initiative that aim to inform the private sector's credible use of carbon credits toward net-zero targets.

This growing attention to how credits are used is indispensable to a sound VCM. But the second reason that we engage is because most of the work on VCM integrity unavoidably intersects with our long-standing technical work on the environmental integrity of standards that certify carbon credits, in particular under ICAO.

But also, in developing the new Article 6 for crediting mechanism under the Paris Agreement. We approached and we continue to see ICAOs criteria for crediting standard eligibility as a strong

global benchmark for carbon credit quality.

The standards that underpin those CORSIA eligible credits are the same crediting standards that underpin the vast majority of credits that are transacted by voluntary buyers in the United States and elsewhere.

So we also actively follow supply-side quality initiatives such as ICVCM and encourage these to reinforce and not undermine those existing standards and principles that governments themselves have already set out.

With all of that in mind, three quick points to highlight that are often raised in our recent work. First, while it's important to actively address, sort of, knowing historical deficiencies, we should also be talking about what's needed in the future and how that relates to current market activities.

For example, the types of new methodologies that are being approved currently without sunset dates for their use and how that lines up against what we know needs to be a rapid transition to a

prioritization of removals credits. That may be more of a policy consideration than a CFTC quality consideration but it's still an important one because there's a lot of dissidence right now.

Second, while historical challenges to credit integrity are generally recognized by now related to additionality, permanence, ICAO and Paris experts have issues like leakage and social and environmental impact assessment and credible baseline setting at the top of their list for review and much needed revision. So it's strongly advised staying abreast of that work as it advances.

And finally, just to note the emerging distinctions in how credits are used. For example, as evidence of climate results in exchange for private sector climate finance. As opposed to transactions for credits that are going to be used to offset emissions.

These distinctions are likely to be enabled in crediting and registry systems. So it will be important to track any further work in that area on

quality credit creation that the CFTC might undertake.

I'm happy to be a part of that discussion in the future. Thank you.

MR. BEHNAM: Thanks Molly. Appreciate that. Now we're going to open it up for any questions for the government panel or comments more generally, either in person or virtual. Sasha -- Sasha Mackler from Bipartisan Policy [Center]. Please.

MR. MACKLER: Thank you Chairman and I really appreciate the recognition and want to thank the CFTC for the important work you're doing on these issues and for the panelists for explaining your role in this topic right now and how you're thinking about this whole set of issues around the voluntary carbon markets.

My name is Sasha Mackler. I lead the energy program at the Bipartisan Policy Center. And like you we are becoming increasingly focused on the role of voluntary carbon markets and helping to drive the energy transition and deal with the risks of climate change.

We also appreciate that this is very early days for this marketplace and that there are a lot of questions that need to be answered as this market scales and to ensure that it scales in a climate beneficial way.

You know, one of the key things that we are focused on currently is what is the federal role in ensuring quality, right. And we're starting to talk a little bit about that here. And in this respect the Bipartisan Policy Center and Carbon Direct recently released a report, jointly, on the role the federal government in driving carbon credit quality.

In that report we outline five different scenarios that span a spectrum of no government intervention, where the private sector really just does it all itself to -- in the other extreme scenario with significant regulatory intervention by the federal government.

And I think there are two basic concerns that spur these questions. First of all, as we've heard about, consumers, shareholders and the climate are

all at risk if corporate investments in carbon credits do not deliver real and measurable emissions reductions or removals.

Secondly, corporations that currently buy low-carbon credits may be unintentionally miss allocating their resources instead of investing them in activities with real climate benefits. So the goal of government intervention approaches outlined in the work that we have done is to protect credit buyers from low quality or fraudulent credits and to enhance credit supplier's ability to develop high quality credits in line with robust protocols.

And so, then the question that I would just like to pose to the panelists if I may, is how are your departments and agencies thinking about either individually or, I think, maybe even more importantly, collectively across the federal government about your role in improving credit quality along the value chain from upstream credit development to the downstream buying?

Is there -- is there coordination? Because

this market will ultimately be something that needs to work regardless of the interest of particular agencies. I would just love it if you could, sort of, expand on that a little bit. Thank you. Thank you for the time.

MR. ERVIN: I'll give you a preliminary answer on that. And I'd say it's work that we are currently engaged in. I think it's something that as President Biden set out some of the climate goals for this administration there was a lot of department-by-department work.

And I'm very new to this work. I've been in Treasury now for three months so, I'm still learning the landscape. But that has recently moved into much more interagency work. That I think there are important initiatives in DOT, at State, USDA, but also many other agencies, for example, Department of Energy.

So trying to understand what work is going on in each of those places and trying to figure out where are the places where we can learn from each other, coordinate better and maybe leverage some of

those efforts. I think that may be able to help both in compliance areas and standards areas but also to help lift some of the standards in the voluntary market.

MS. PETSONK: Thanks. Let me just add to that by saying that part of what the interagency process is doing is looking at what are the authorities that the different agencies have. And those vary agency to agency.

And for example, the Federal Trade Commission has recently been updating its green guides in what constitutes false, misleading, and deceptive advertising in products. And looking in terms of environmental marketing claims. And that's just one example.

I'm not speaking for the FTC by any means, but agencies' set of authorities -- those authorities -- number of those authorities are statutory. Some of the authorities are regulatory. So first collecting what are the different authorities that agencies have and standing those next to where are the issues arising.

And in doing that, I want to emphasize that the federal agencies have roles, but our roles are connected. Looking more locally, state governments and localities also have authorities. And in particular at the state level there's been a number of very interesting developments and activities there. There are state-level markets that are relevant.

But also looking more broadly, internationally, and that's where some of the work that Molly Peters-Stanley was emphasizing where there's an overarching framework internationally at the Paris Agreement and its Article 6 and related guidance.

And then, of course, as I mentioned, ICAO and potentially developments under the IMO. So those multi-level efforts need to be examined in our interagency discussion. And that is, in fact, what we're doing. Thanks.

MR. BEHNAM: Thanks Annie and Dean as well. Dirk from IETA, comment or question, please.

MR. FORRISTER: Yeah. Just a quick question

and I guess I couldn't let this opportunity pass with both Annie and Molly here. And this follows nicely, I think, on Sasha's point.

I'm curious about, I think, for many of the players in the voluntary carbon markets right now, part of what they're trying to do is emulate what would happen in a compliance market if we had one.

And frankly, for my organization, that's still the priority in the United States. We'd rather see a compliance market. But we don't have that uniformly in the U.S. The closest thing we have, frankly, is imprimatur of federal government engagement through CORSIA where there a set of voluntary standards that have been approved for use in of kind of a compliance mode.

The ART Trees model, which Molly talked to that the U.S. government has been involved in. And now the ETA, which is a new -- this is the Energy Transition Accelerator. It's in development. We don't really know what that standard will look like.

But it's one that will have at least some

involvement from the U.S. federal government. So I'm sort of curious on your earlier points, Chairman, about the underlying. How much can we expect from the U.S. federal government in sort of providing those very benchmarks. Because I know the ICVCM is benefiting from what has already happened in CORSIA and will likely acknowledge some of that in sort of accelerating the ability to work. But is there more we can expect and is that the way we should view these activities in those particular asset areas as sort of the next closest thing to a signal of what is veracity in terms of a level that you would deem suitable for compliance.

MS. PETERS-STANLEY: If my mic is on, I can take a quick stab at that.

MR. BEHNAM: Yeah. We got you, Molly.

MS. PETERS-STANLEY: And I think the previous question as well. Sometimes it feels like being an outlier in a panel like this where most panelists are regulators. Whereas the State Department, as Dirk has noted, typically pursues softer approaches to influencing carbon market quality. And that's

just the nature of the State Department.

But I wouldn't discount the effectiveness of that soft influence when it comes to engagement in international standard setting in multi-lateral forums but also where we work with other countries bilaterally and regionally to seek alignment across the principals that we are agreeing.

And how they're actually implemented. The G7 principles for high integrity carbon markets were released a few months ago. Those are a strong indication of where we see certain growing alignment around some of these efforts towards soft influence of carbon markets.

And when I say alignment, there are some areas within the G7 principles that speak to demand side expectations at a principle level. But some of those principles do draw from the early work that was done under the LEAF Coalition. And what is emerging now in the Energy Transition Accelerator criteria because other governments also welcomed those concepts.

That said, we have always advocated for the

use of strong existing standards that may be outside of direct administration of a government agency itself. You see that model in CORSIA and we have been taking a similar approach to the emerging demand side standards, at least when it comes to our work on ETA and the LEAF Coalition and these types of bilateral engagements.

Obviously, can't speak for the regulatory agencies that are actually developing rule sets that would, you know, sort of directly relate to some of those concepts that are being worked out under VCMI.

But the -- it is ideal if those external standard setting bodies are setting sufficiently high bars that they can be relied upon in a variety of context, including things like ETA. But also, as regulators consider what types of steps they may need to take to ensure that they're applied uniformly.

MR. ERVIN: Maybe just to expand on one element of this. Molly mentioned the ART Tree Standard, which is an attempt that the U.S.

government participated in with a number of other countries and with a big swath of the private sector.

That is something that was trying to address some of the issues we faced on the voluntary carbon markets. For example, issues around leakage. That if you build a project here does deforestation simply move a couple yards to the left?

And by adopting a jurisdictional standard, and there are a number of people in this room who are part of trying to build that system, you can start to address some of those issues like baselining, like leakage, in potentially a more fundamental way.

Now, that is a new, I guess your questions about the future, but it's not that old. It's only a year or two old. I think that one is very much in the we need to build it up type of process. We need to get more of those agreements put in place.

But we've already seen, I think, some encouraging developments there. Some good growth. And I think gives a good example of how creating a

new standard with some innovation but one that's based on sound science and good economics can help move the world forward a little bit.

MS. PETSONK: I'll just add quickly that, if I might, that the decision of the Marine Environmental Protection Committee of the IMO earlier this month, specifically refers to work done by ICAO.

So I think that what we're seeing is where governments have put a set of standards in place, and CORSIA is a set of standards and recommended practices, or SARPs, to give you an aviation acronym. Acronym from the aviation arena.

That these can serve as a basis, not necessarily for absolute replication, but let's not -- we don't have to reinvent that particular wheel. We can build on it and draw lessons learned from it.

MR. BEHNAM: Thanks Annie. Got a question from Todd Phillips, the Roosevelt Institute.

MR. PHILLIPS: Thank you. I've heard a lot of the panelists talk about the high-quality nature of

CORSIA offsets. One of the derivatives that allows CORSIA offsets to be delivered, the CBL Global Emissions Offsets futures contract is currently trading at about $1.37, which tells me that the market does not necessarily see the CORSIA offsets that are being produced as high-quality.

So my question is where is the mismatch? Is it the standards? Is it that the offsets being produced are not complying with the standards? Just what can be done to, I'd say, increase the price there so that the market sees it as a legitimate offset?

MS. PETSONK: Thank you.

MS. PETERS-STANLEY: It's a good question and one we get a lot. I can -- I don't know if Annie was planning to speak first, but I can -- I can take a stab at this one. I would suggest that, you know, where are your seeing lower prices for CORSIA credits on a platform, such as the one you mentioned, it was more likely to be indicative of the nature of demand in the pilot phase of the CORSIA, which if you follow that market, you're

probably familiar with the challenges that Covid presented and how that system sought to address them.

For -- I guess at this stage a key question would be what is the going price for credits that are eligible for the first phase? Where we have identified growing demands and have begun to articulate more biting requirements for carbon credit stringency.

Because that is likely to be more indicative of the type of supply that would be carried through the duration of the CORSIA's implementation. And I have no doubt that it will be higher than the prices you mentioned today.

MS. PETSONK: Just to add to what Molly said. I first would like to comment on the assumption that credit price is a surrogate for credit quality. That is not necessarily the case. Second, demand for aviation dropped dramatically during Covid. It was the largest drop in demand for civil aviation in civil aviation's history.

In the face of that drop in demand the council

of the International Civil Aviation Organization allowed airlines for the first three years of CORSIA 2021, '22, '23. That's the first three years in which an offset requirement applied. To change the baseline above which airlines would need to offset emissions. Instead of offsetting emissions above a baseline set as CORSIA originally set it in 2016 at the average of 2019, 2020 emissions levels, which given the drop in 2020 aviation activity would have been a substantial change to the baseline.

The ICAO council said that airlines for the first three years, the pilot phase of the program, 2021, '22, '23, would only need to offset emissions of international aviation above 2019 levels.

International aviation emissions globally are just now beginning to reach 2019 levels. So for the first three years of the program, 2021, '22, '23, there simply is not demand for emission reductions by airlines because they are not required to do so under CORSIA.

There's not CORSIA driven demand. There's

other demand from airlines, voluntary commitments and from their customers, but not through CORSIA. I mentioned that in October of last year, the assembly, the 190-plus governments of ICAO adopted changes to CORSIA to strengthen the baseline.

Going forward, that is starting next year, 2024, '25, '26, the next three-year compliance period of CORSIA, the baseline is set at 85 percent of 2019 levels. So airlines if international aviation demand continues to rise, and we are seeing tremendous increase in demand for aviation at Fourth of July was, I think, the busiest aviation for U.S. domestic aviation on record.

So demand is rebounding. Demand for emission reductions will grow. At the same time, in the industry, there's a great interest in pursuing sustainable aviation fuel as Sean Babington, from the Department of Agriculture mentioned, and as I mentioned in terms of the upcoming ICAO meeting on that topic.

And so, we're seeing interest in addressing these emissions across. And for that reason, I

think that the assumption that price is an indicator of quality of credit is not a correct assumption. Let's put that to one side and instead let's look at credit quality and how credit quality is communicated to perspective buyers.

MR. ERVIN: One other element in terms of the demand side is the non-aviation demand. And as everybody in this room knows and from some of the prior conversations, there's been a lot of criticisms of climate credits from various news sources over the last year.

And I think until we're able to collectively find a way to raise some minimum standards, you're going to run into something that in economics they call Gresham's Law. That bad coinage drives out good coinage.

If there are people using poor quality credits and taking credit for that, that can diminish the value to people who are trying to buy high quality credits and do it right. So I think some of the efforts that people in this room been undertaking to try and establish a higher quality minimum

baseline for what a credit is, to make sure that a ton is pretty darn close to a ton. Ideally, at least 100 percent of a ton. I think it will be very important in establishing and reestablishing a demand on a better footing.

MR. BEHNAM: Yeah. So, Annie, Wilson, thank you. Molly, thank you. Sean has left us but we're going to move now. We're going to take a little break. We're going to try to make up some time. I know we had our tent card issue at the beginning.

So we are scheduled technically to start the next panel at 1:30. It's 1:26. Let's plan on 1:45. So just a bit over 15 minutes and we'll kick off and keep this show going. Thanks everyone.

[break]

MR. BEHNAM: And I just want to make everyone aware, especially the next panel, we're not cutting the panels short; we're cutting the breaks short. We are going to do our best to meet that 5:00 deadline knowing that it's a long day and we have things to do this evening.

So I'm going to pass it over to David Gillers,

who is going to lead the introduction to the next panel.

MR. GILLERS: Good afternoon. Just a brief introduction of the next panel. Nat Keohane will be moderating the private sector standards initiatives and credit ratings panel. Nat is President of the Center for Climate and Energy Solutions, C2ES, a non-partisan, non-profit organization that works with policy makers and businesses to accelerate the transition through a thriving just and resilient net-zero emissions economy.

Dr. Keohane is a globally recognized expert in climate policy, carbon pricing, and the economics of climate change, and has helped to shape market-based climate policies in California, the US, and internationally.

Before joining C2ES in 2021, he headed the climate program at the Environmental Defense Fund. From 2011 to 2012, Nat served the White House as special assistant to President Obama for energy and environment. Previously, he taught at the Yale School of Management where he was associate

professor of economics. Over to you, Nat.

MR. KEOHANE: Well, thanks very much, David. I -- and at least I managed to turn on my microphone after all that.

Thanks for the kind introduction. Thank you, Chairman Behnam, commissioners for convening this day and I think a really important set of issues on this panel. Thanks as well to Abigail for all the work to set this up, which have been really terrific.

So, thanks, David, for that introduction. And I wanted to provide a couple of short -- or some brief framing remarks here before I then just turn to the panelist and they'll each present some opening remarks, and then we'll have time for Q&A.

But I thought I would start by maybe setting up the discussion by talking a little bit about some of what we heard before but as well as, you know, what does it mean to scale up a high integrity voluntary carbon market, which I think certainly from C2ES's perspective is how we think about this.

And I -- and we're doing that because I firmly believe, and I think a lot of us in this room believe that the market, the voluntary carbon market can help dramatically to scale up private investment into real climate solutions and sustainable green growth in developing countries and be a really important part of the climate solution.

We heard earlier from Kyle that in 2021, the VCM hit a high-water mark of about 160 million tons of carbon credits retired. So that's sort of what it achieved in terms of emission reductions. And that was a volume of about $2 billion in volume.

And $2 billion may sound like a lot, and I know Wilson said some of this, but it's -- $2 billion is a tiny fraction of the hundreds of billions of dollars annually, the trillions of dollars in total that we need to mobilize according to the International Energy Agency and others in terms of financing the low-carbon net-zero transition.

And the 160 million tons is a tiny fraction of

1 percent of the roughly 50 billion tons of greenhouse gasses that we emit every year. So if the voluntary carbon market is going to make a meaningful impact, and I think it can, we need to scale it up dramatically. And we saw some of the estimates from Kyle's presentation that could be an order of magnitude in the next decade and another order of magnitude by 2050.

So how are we going to do that? Well, a phrase I often use is "build integrity and scale will follow." And I think about that for two reasons.

First, before the market can scale up, I think we need to build the confidence of buyers and sellers, and civil society stakeholders, and all the market participants in the integrity of the market. If people don't believe in the quality of what they're buying, what they're selling, what's being traded, it will never scale up.

The second reason, it never should scale up if it doesn't have integrity. We don't want a multi-billion dollar a year carbon market that's not really reducing emissions in a real way. So we need

integrity first, and if we built integrity, scale will follow.

So what do I mean by integrity? And this might help frame the discussion a little bit today and put it in context. I think about integrity in three ways, three pillars for the voluntary carbon market.

The first, which we'll be talking a lot about in this panel and I think throughout the day, is integrity of supply. That means that carbon credits should meet high standards for environmental integrity.

They -- meaning they represent real additional verified reductions in carbon emissions, I know -- and that can speak for some of this, as well as meeting high standards for social integrity, meaning that they respect key -- they respect the rights of key stakeholders affected by carbon credits including indigenous peoples in local communities. So this integrity of supplies, I -- as I said, will be a focus in a lot of today's discussion.

There's a second aspect of integrity, which is integrity of demand, meaning that the use of credits by companies that using them to meet their voluntary climate commitments should not detract from or substitute for the actions that those companies also need to be taking to reduce their emissions and their operations and supply chains.

And there's lots of effort underway to think about that. And then the third I would argue is integrity and exchange in the market itself, that means preventing fraud, ensuring transparency and liquidity and so on.

So against that backdrop, what is the CFTC's role. Let me offer a couple of framing thoughts and then put it over to the panel.

So clearly, I would say regulators such as the CFTC and other financial and prudential market regulators have a role in promoting the integrity of the supply of carbon credits, for example, through some sort of guidelines or requirements or something on the types or qualifications of credits underlying carbon credit derivative contracts. And

I know that's one of the things that CFTC has said would like some guidance on and interest on.

I think there might also be a role for regulatory agencies although probably not CFTC necessarily, in promoting integrity of demand for example on restrictions or how companies report on claims. And we've seen some of that from some other government agencies.

And I think there's a very natural role for CFTC and other agencies, to promote the integrity of exchange what I am calling about marketing integrity, which is a standard -- obviously a standard bread and butter focus of the agency and the Commission, and we heard before earlier from the enforcement division at preventing fraud and showing transparency core functions, I think that we'd all agree the CFTC can provide.

I think at the same time I just want to mention before, you know, as my last point, this is a voluntary market. It's when companies are participating voluntarily, there's no regulatory requirement or compliance obligation.

So there is some need and value and I know this is on the commissioners' minds of targeting any regulatory engagement or involvement or intervention, so as -- and designing in a way that doesn't unintentionally somehow dampen what companies are doing voluntarily. Right? So we want to strike that right balance.

It's also true as we'll hear on the panel, that there are a wide number of organizations and initiatives underway in the voluntary market that are already setting standards, assessing quality, providing guidance. And so there's a lot out there for CFTC to build on, to reinforce, to draw on and learn from.

And the amount of expertise I can say from having been involved in just a couple of them -- the amount of expertise and resources and time that goes into this means that I think it's really going to be important to draw on those and build on what's been done.

So I would say the next panel is exactly the right set of individuals and organizations to be

discussing these issues. And I think they represent a wide range and the right range of organizations that are working to promote what I called integrity of supply.

And so I thought I would just go through -- I'll introduce each one just in person. But as I say, they represent a wide range of views.

The first panelist is Annette Nazareth, a Senior Counsel with Davis Polk & Wardwell LLP, and for all purposes here, the Chair of the Integrity Council for the Voluntary Carbon Market as well as former SEC commissioner. So Annette, let me start with you.

MS. NAZARETH: Well, thank you so much and thank you so much for inviting me to speak here today. I've been privileged to speak to many of the CFTC commissioners and the Chair on these important issues and very much value the input that you have provided to us both in your role with the CFTC and your involvement in IOSCO as well.

There are a number of people here today who are involved in our efforts at the ICVCM including

Nat and Dirk Forrister and I think some of our other panelists as well. I think Pedro Barata is going to be on as well. And so I will give you my perspective at a high level of what our progress has been and what we're doing.

I mean, you may know that our efforts actually started about three years ago when we had the Taskforce on Scaling Voluntary Carbon Markets. And I started there because what we did there was a very wide-ranging effort. We had over 250 organizations and 400 people involved in a really fundamental question, which was, what would it take to scale up high integrity carbon markets?

And after a year's worth of work, we came up with a blueprint, and the outgrowth of that is largely the work of the ICVCM and our sister organization, the VCMI.

What we decided was first and foremost, we needed to create high integrity standards for what, you know, really credible carbon credit would look like, and we also needed to focus on the markets on which they trade because a lot of this does also go

to having a market structure that fosters transparency and confidence and liquidity.

And again, if you look at the gaps that we have today in our attempts to address the climate crisis, they're vast. I mean, there's a reason why Secretary General of the UN Guterres said, you know, we need to do everything, everywhere, all at once. I mean, this is really quite serious.

And so, governments and philanthropy alone are not going to get us where we need to be. And even if governments regulated more of the market -- and I think Dirk suggested, and I agree with him, that it would be great if governments were more involved in this, but even if they were, I think we still would very much need the private sector's involvement, because this is going to involve, you know, trillions of dollars of investment, and that can't just come from governments and philanthropy. So where will that come from?

I think there is a tremendous opportunity for the capital markets to be properly channeled to have investments in, you know, climate-related

projects, where we'll take, you know, financing from largely the Global North and provide it to projects, many of which are in the Global South, that will make, you know, meaningful investments in projects that will reduce or remove greenhouse gas emissions.

And I think, you know, as Nat said, there are a lots of -- we've come up with core carbon principles, which are our 10 principles on which a high integrity carbon credit should be based. I won't go into them in great detail other than to say they fit into three categories. One is governance, the other is emissions impact, and finally, sustainable development, goals, and benefits.

And these core carbon principles apply at two levels. They apply to the carbon crediting programs, who are the intermediaries, and we'll hear from some of them, who issue the credits. And they will also apply to the categories of carbon; generally methodologies and in some cases a little deeper than that.

And so, the core carbon principles are very high-level standards, but obviously, you know as regulators, you have to dig a little deeper than that, so we have an assessment framework, that basically is what animates each of those principles. There are more detailed requirements that would have to be satisfied again, some at the program level, others at the carbon crediting level.

And these, I have to say, are very sophisticated requirements. It's not something that I think the average person or frankly, even the average regulator or former regulator like myself could have done alone.

It's taken a lot of work between the people who really understand the climate issues and the 12 expert panel members who we have assisting us, to really -- a- -- and with a lot of cooperation with the programs and others to really come up with what we think are the appropriate standards.

To give you sort of a progress report, at the end of March, we issued our release one, which was

the core carbon principles themselves and the assessment framework as it relates to the carbon crediting programs and the procedures around that.

We are imminently going to, as imminently as I could possibly make it, release our -- release two, which will be the assessment framework for the carbon categories, and then we're really off to the races.

What we're hoping is that the carbon crediting programs will start to apply so that they will be issued the CCP label. And in addition, we're going to start assessing various carbon categories and roll out the CCP labels for those. We're going to have a number of working groups and work streams to get that done.

But our hope is that by the time we get to COP, COP28 later this year, that we'll start to actually see some carbon credits issued with the CCP label. And, you know, as we used to say at -- in Trading and Markets at the SEC, liquidity begets liquidity.

We're really hoping that the more we start

seeing high quality carbon credits issue, the more credits, the more market activity, and therefore, the more these markets can scale up to meaningfully contribute, not to be our primary goal, as other said earlier. We got our emissions down to the full extent possible, but to use the voluntary carbon markets as a complimentary tool to accelerate our transition to net-zero.

So what does that mean for regulators. I, you know -- some have asked me in the past, you know, why are we doing this and are we crowding out regulators. Well, obviously, there's no such things as crowding out regulators. If regulators have authority, they will use it.

In this case as you know, there's -- the governments haven't stepped up yet, and so, the private sector has done that. We -- as you know that we really tried to create a process that was as much like a regulated process as possible for a number of reasons because we think that process is tried and true, it has integrity.

We went out for full notice and comment with

all of our proposals. We've been very transparent in publishing the comments and we've been transparent in our reasons for why we adopted or took certain approaches, and we will continue to do that.

But in addition, you know, our thought is that if at any point in time regulators do decide that they need to do more, they have authority, we want it to be somewhat modular, that it -- it's -- our process has so mimicked what would be done in a regulated process that you could basically take that over if need be and hopefully with, you know, minimal market disruption.

What I find very promising about this process is that, you know, as you know the carbon credits are, you know, spot market transactions. And as you all mentioned before, the CFTC has anti-fraud and anti-manipulation authority over the spot market and so that -- we find that very helpful. But even more promising, I think, is your pervasive authority over the futures.

And I do think that and we'll hear from the

markets later, I think there's going to be a tremendous appetite for futures on these products, which is great. They are regulated. You'll be looking at all the trade data for them. And so you -- I always think of the CFTC as sort of looking over the wall at the cash market but also the spot market, but very involved in the futures.

And so we welcome that oversight. But I also think the futures are going to create a very important price signal. And so we will see -- or we had got questions about pricing. And I agree with what the comments that were made. The pricing is very imperfect today for a whole bunch of reasons, including that the market structure is flawed.

So what we are hoping is that over time, this becomes a much more liquid market, a more standardized market where the CCP label with standardized products makes it a much easier journey for buyers. They wouldn't have to be hiring climate scientists to do due diligence any longer.

There will have been a lot of work done at the frontend. So I'll end there but I hope you get a

sense of my excitement and enthusiasm for the progress that we're making and the possibilities for this market.

MR. KEOHANE: Thanks so much, Annette. Our next speaker is Pedro Barata, the Associate Vice President for Carbon Markets and Private Sector Decarbonization at the Environmental Defense Fund. And I think Pedro will be talking about a couple of civil society efforts to provide guidance on quality of standards. Pedro, please take it away.

MR. BARATA: Thank you, Nat. And I hope you all can hear me.

MR. KEOHANE: Yes, we can.

MR. BARATA: There is a little bit of feedback on my end, but I'll try.

So first of all, thank you to the CFTC, and I'd like to start by saying that the Environmental Defense Fund, we appreciate and encourage the commissioners' continued engagement on this topic. And I'm very pleased to join such a stellar array of panelists today to discuss the voluntary carbon market.

I'm going to be focusing in my intervention on two carbon credit integrity initiatives on which EDF is particularly involved, and that's the Carbon Credits Quality Initiative and the Tropical Forest Integrity Guide.

At the same time, I'll just note for full disclosure that I'm also involved in my personal capacity as a co-chair of the expert panel of the Integrity Council of the Voluntary Carbon Market on which Annette has just have spoken on, and that EDF is also present at the board of the ICVCM.

So I'll start with the Carbon Credits Quality Initiative. This was an initiative that was founded by EDF, World Wildlife Fund US(WWF-US), and Oeka-Institut, a German think-tank; and it aims to provide transparent information on the quality of carbon credits so that we can help both carbon credit programs, the registries such as the ones that are here present in this meeting, but also buyers to understand what exactly carbon credit quality means and which project types are more likely to deliver actual emission reductions as

well as social and environmental benefits.

Our work is providing a free and easy to use, at least we hope so, online scoring tool that can be used by carbon credit buyers and traders as part of their due diligence efforts.

Our methodology is science driven and draw strongly unavailable research and carbon credit quality. For each of six criteria and, as an aside, these criteria very much mimic the core carbon principles that ICVCM has adopted.

Our assessment of methodology identifies which of the factors are most significant for carbon credit quality and then evaluates each criterion and sub-criterion.

So this approach allows our assessments to cover a large share of carbon credits available on the market, and we aim as a project, to get to roughly 80 percent of the currently issued credits on the market.

But it does not necessarily account for the unique conditions of each individual project. So we assess carbon credit methodology as these are

developed and adopted by carbon credit programs.

We do not assess, and we are not have the -- we do not have the bandwidth to assess individual projects. And essentially, if you want -- a carbon credit methodology is a recipe but each individual project is a particular -- let's say a particular [conceptualization] of that particular recipe of methodology and can vary significantly.

So just bear in mind, to-date, more than 10,000 mitigation projects have been registered under carbon credit programs. We could not have the bandwidth to assess them all.

So what we do is we assess the methodologies and we provide an easy to access tool, Excel tool, that is available for individual project assessment for users with a high-degree expertise. And we are aiming to collaborate with some of the nascent rating agencies in working with them to incorporate, to the extent possible, our principles in their assessment.

So that's CCTY, and I'm pleased to know that CCTY as to an extent, influenced, I believe, part

of the assessment framework that we hopefully will see come to fruition later this month; the assessment framework of the Integrity Council for the Voluntary Carbon Market.

A separate process that we've also been leading at EDF, is the Tropical Forest Credit Integrity Guide. And to provide more clarity for companies around the world about what high-quality tropical forest carbon credits like, we partnered with eight norm setting organizations including Conservation International, the Amazon Environmental Research Institute (IPAM), The Nature Conservancy, and others, including also coordinating agencies for indigenous peoples and local communities in the Global South such as COICA, the Coordinator of the Indigenous Organizations of the Amazon Basin, to develop a Tropical Forest Credit Integrity guide, that is designed for companies that are interested in purchasing carbon credits by impact quality and scale.

So the TFCI guide focuses almost exclusively

on supply-side integrity. And the intended audience is decision makers responsible for developing and implementing corporate climate mitigation or net-zero strategies and consultants who advise on these topics.

The authoring organizations that I've mentioned have recently released and updated version 2 of the TFCI in February 2023. And this version contains three important components in layers of increasing detailed guidance.

First, we introduced six consensus recommendations that outlined the outcomes we're seeking to achieve and the direction of travel for companies to advance those outcomes.

And second, the guide contains implementation guidance that outlines an actionable four-step process to be undertaken by companies choosing to purchase tropical forest carbon credits as part of their climate mitigation strategy.

And third, we have detailed annexes to each recommendation that explained with more nuance, how to have decision makers weigh purchase decisions.

And so, these annexes speak to the qualities and attributes that are integral to high integrity tropical forest carbon credits.

So the Annex to Step 1 describes high forest, low deforestation credits and six reasons why HFLD (as they are called) credits should be included in a conscious buyer portfolio; and basic eligibility criteria for HFLD credits, which apply in addition to all other TFCI quality criteria.

Annex to Step 2 provides detailed guidance for selecting credits for purchase, articulating definition and relevant criteria and purchasing guidance for three tiers of credit.

With all of this guidance that EDF has sought to implement -- and going back to Nat's earlier intervention when we started the panel -- these two interventions, whether it be the CCQI or TFCI, are very much focusing on the integrity of supply that I mentioned.

As noted by Nat, there are other integrity dimensions. Nat has mentioned the demand integrity, which is very much the space of the Voluntary

Carbon Market Integrity Initiative, which I won't be speaking to.

But I would just want to recognize the third dimension that Nat has spoken to, while all of these standards and initiatives and guides address critical and timely issues in terms of credit integrity, the CFTC in our view should be cognizant that credit integrity is not the only feature essential for trusted, transparent, and vital voluntary carbon market.

In addition to carbon credit integrity, we have to have market integrity. And these are -- these can be built on recommended actions that were already developed by the precursor to the ICVCM, the Taskforce on Scaling Voluntary Carbon Markets. Let me just provide an example of --

MR. KEOHANE: Pedro, I actually have to -- I'm way overdue in telling you this, but if you can actually wrap up, that would be great. We're way -- we're a little bit over time.

MR. BARATA: Sorry for that, Nat. Then let me just cut to the chase.

In our view, the main purpose of, or the -- where we would very much welcome the role of other regulators beyond all of these initiatives, would be in assisting for instance, market integrity in relation for, for example, on price transparency.

And recent surveys of carbon market participants have shown that, for example, claims around benefit sharing or revenue sharing, which are essential to the credibility of the claims in the voluntary carbon market, with indigenous people in local communities, cannot be actually scrutinized by any independent participant.

There is at this stage very much a lack of information to substantiate a lot of the claims that -- where the project developers or buyers can claim on issues such as revenue sharing and benefit sharing.

So that would be our plea to focus that attention on that and to work with the initiatives that I mentioned in developing credit integrity guidelines. Thank you, and sorry for being overtime.

MR. KEOHANE: Thanks, Pedro. Thanks very much. And I've been remised as a moderator, but unfortunately for the remaining panelists, I'm going to try to be a little bit -- I've let a couple slip through but I'm going to try to be a little bit more strict. And let's try to keep the comments to four minutes or five at the most per panelist, so that we have time for questions.

Our next panelist is Hugh Salway who is Senior Director for Market Development and Partnerships at the Gold Standard Foundation, one of the standard setting organizations you've been hearing about. So, Hugh, over to you.

MR. SALWAY: Great. Thank you very much, and thank you for having me. And Pedro spoiled it for the rest of us by taking time, so we have to be limited. But I just wanted to say a few things on behalf of Gold Standard. So Gold Standard is a Swiss-based certification body in the carbon markets. We're a non-profit organization.

And just starting on the question of integrity of supply, which is really where we fit in as an

issuer of carbon credits. We are non-profit. We have no profit motive related to an interest in kind of inflating the amount of credits, which we issue as a standard. And really, the value that we have as an organization is in our reputation.

And I think that's very important when we think about this question of quality of supply. We as an organization are focused on environmental integrity, social integrity, because these are really what provides value, what instills trust in the work which we do.

And the value is partly tied to what we do as an organization, but kind of as we've seen over recent months as well, there's also a link to the wider market. And this is why we have a real interest and have been supportive of the work which the Integrity Counsel on the Voluntary Carbon Market is doing.

Because this is an unregulated market, we're seeing a growth in standards across the world, some of which I'm sure are doing a very robust job, some of which may not be doing so.

And having a benchmark across the market, a flow of what quality looks like, is increasingly important, so that there is confidence amongst buyers and what they're purchasing and so you can have that differentiation and you can see a scaling of the market in a way that Nat was talking about earlier, where we build integrity and scale follows.

And so, we support the work that the ICVCM is doing. And following on from what Annette was doing, I think -- saying earlier, I think there's an interesting question about the potential role of the CFTC linked to that. Is it a case of endorsing and strengthening the work of ICVCM, is there something set which is done?

But we feel like the work which is being done at the moment focus on and to try to build confidence and integrity of supply through the ICVCM, is incredibly important right now.

And another reflection of what Nat was saying earlier as well, I think it is really important when we think about integrity on the supply side,

not to forget the social integrity element.

There is a lot of focus on environmental integrity amongst buyers and other users of the market, but when we're seeing kind of increased regulation and some pauses to projects in countries across the world, which we have been seeing over the past year, a lot of that is linked to social concerns.

It's linked to concerns that projects aren't benefiting local communities linked to concerns about price transparency in the way that it was being talked about earlier.

So if we're thinking about how to build confidence and then to scale the market, we really can't forget that social integrity element as well because that's clearly an important part of how the market will scale and how it will build up that confidence.

And just two more points as well, quickly. I wasn't here earlier where we saw the guides, the maps of issuances in 2021 and what may have happened after that. It's interesting reflecting on

this as Gold Standard. So in the first half of this year where the overall narrative was about the lack of confidence in the market, we've seen an increase in retirements of our credits.

So it's gone from 13.3 million last year to 15.5 million this year, and that's up from just over 10 million two years ago. And so, there are a few things we're interested in when we look at that number. Firstly, what does it mean that we are seeing an increase in retirements at this time where the sense is that there is a drop in market confidence, that's one question.

Secondly, is this the scaling up that we really need if we're increasing by 2 million year on year, when actually we need to get to the kind of hundreds of billions that Nat was talking about earlier.

And then a third reflection on the numbers which we have here, a very small volume of Gold Standard issued credits are traded on exchanges and are kind of traded through contracts. A lot of this is over the counter, and that's an interesting

question when you're looking at regulating the market, the credits that we have very -- to a very little extent to traded through contracts.

And then the final point, just quickly, maybe it's me, I've never fully understood the concept that because it's voluntary for companies to use the market it means the regulators should stay away.

My sense is that a more regulated market, which instills trust, is one that more companies would want to come in and use voluntary. And I really do feel like both on the supply side but also on the market integrity element, that there are some gaps which are leading companies to stay away in a way that they may not, if there was more confidence which was built around this.

MR. KEOHANE: Thanks, Hugh, that's very much. And you are a model for the remaining panelists. Thanks. Thanks for those concise comments.

Next joining us in the room, Robin Rix, the Chief Legal, Policy, and Markets Officer at Verra, one of the other standards organizations. Robin, to

you.

MR. RIX: Well, thank you very much, Mr. Moderator, Chair, Commissioners, fellow guests. Verra is a non-profit organization, 501(c)(3), that manages the verified carbon standard program. We've registered over 2,000 projects, issued over 1.1 billion credits, representing around 65 to 70 percent of market volume.

We also operate a registry for tracking the issuances, trading and retirements of carbon credits. We strongly welcome the CFTC's interest in this topic. We participated in your first convening last year, and we submitted comments on the RFI on climate-related financial risks earlier this year.

Today I have sort of three general messages that I'd like to convey. The first is that respectable participants in the VCM, including Verra, want regulators to take a more muscular approach to fraud and market manipulation. The underlying commodity here is an abstract representation of achievements against the hypothetical counterfactual.

That's hard. And these characteristics make it vulnerable to abuse by malicious actors who not only exploit this abstract nature, but prey upon the good will of good people who really truly want to support environmental action.

We routinely get inquiries from people who are targeted. They're coming to us for help. They're targeted by boiler room scams, deceptive marketing, and promises of massive returns.

We can send our cease and desist letters, we can hire lawyers, and we can refer people to law enforcement agencies, but the reality is they're overstretched and don't have the bandwidth to really tackle this type of white-collar violation.

We encourage the CFTC to exercise its authority under the CEA to step in and help police fraud and market manipulation in this area.

The second message that I would like to convey today is actually one of addressing and perhaps warding off certain misconceptions from taking root. One is that this market is non-transparent or suffers from a lack of transparency.

I would respectfully submit that this market has a lot of transparency. This is a sector with high levels of information. Anyone in the world can go to our website today for free and access all the information they could ever possibly want about a project or about a credit.

If anything, there is too much information out there. It is indigestible, it is unactionable. We know this. We have digitization projects underway, we have other projects underway. But fundamentally, this is America with if anything, more information and so much information particularly -- perhaps relevant to other commodity markets.

The second per Hugh's point earlier about a slowdown, we saw some stats about issuances and then retirements. We would point out that these are really lagging indicators. The leading indicators are those of registrations and new projects and especially new projects that are entering our pipeline. Those are vastly increased over last year. We are seeing ongoing intense interest and activity.

We would encourage nota focus on slowdowns of issuances and trying to ascribe meaning, is this the results of popular press articles that are maybe cherry-picking data, but rather to look at the actual leading indicators and what's really driving -- what's really driving the numbers here.

The third one is that's just towards this office, as any anticipation that supplies side programs included they are might be wary of or skeptical of these sort of sectoral initiatives.

We've heard from Annette about the ICVCM; we've heard from others about the VCMI. We strongly, strongly endorse these and we are looking to sort of seek approval under that, and we are very happy to sort of be cooperating, engaging constructively in those responsible market participants, engage with those activities as ways to set a global threshold for carbon credits to ensure their high quality and responsible use and to really underpin the VCM's growing importance in preventing climate disaster.

The third message that I would like to convey

today, excuse me, is that the VCM is a young market. For years this was a boutique sector. By necessity was experimental. This youthful period required early movers and learning by doing.

Fundamental to carbon crediting is the concept of quantifying the delta between the baseline or what would have happened absent to project and what really happened with a project.

Everyone knows instinctively that a delta can exist, actions can have consequences and you can change -- you can change things by acting. But quantifying the exact nature of that delta, is a hard, hard topic to do. It requires hypothesizing, testing, and refining new methods, science keeps evolving, and technological tools keep improving and becoming available.

On Verra's part, we're continually embracing new changes that support integrity, remote sensing, jurisdictionally aligned approaches to reducing deforestation, enhanced free prior informed consent requirements, and of course, an ongoing development of our registry. And we will simply note that these

developments are underway and we are committed to increase the integrity on our end.

That is five minutes, Mr. Moderator, which closes me. Thank you very much for the invitation to speak today. We look forward to today's discussion, as well as the years ahead of engagement, improvement, integrity, and impact. Thank you.

MR. KEOHANE: Terrific. Thanks very much, Robin. Appreciate that and the clarity and the conciseness.

Our next speaker -- our next panelist will be joining us virtually. Flavia Rosembuj is the Program Manager for Partnership for Market Implementation in the Climate Change Group at the World Bank, Flavia.

MS. ROSEMBUJ: Thank you. Thank you, everybody. Thank you, Mr. Chairman, thank you commissioners, thank you moderator for including us in this very important session. The -- as many of you know, the World Bank has been involved in carbon markets for over 20 years.

The World Bank was the creator behind the prototype carbon fund before the Kyoto Protocol entered into force. So we've all been looking at carbon markets for a very, very long time, working with our client countries on helping them put projects together.

The initiative I am here to talk about is the Climate Action Data Trust, which is an initiative where many of the panelists that are here today have been actively involved with, and it's a platform that connects registry systems of voluntary and compliance carbon markets while fostering transparency and accountability.

So we started the CAD Trust three years ago, was a prototype under a program called the Climate Warehouse. We included over 30 participating organizations. We included 11 national governments. We had almost 60 testing sessions. And what we will continue to do is to develop global public goods to build an end-to-end digital infrastructure for carbon markets.

So the different registries and the different

standards can talk to each other. So what the CAD Trust does is to connect end-to-end the digital information that is already out there with Gold Standard, with Verra, and with any other registry that is active out there that will become a member of CAD Trust.

And the other very important pillar of the CAD Trust for the World Bank is capacity building. So as you know, our mandate is to help our client countries.

So what we will be doing going forward is to provide capacity building to help countries that so wish integrate into the CAD Trust with their national registries so we can continue to develop digital infrastructure for carbon markets.

This is what I wanted to present here today, and I will leave some time for questions if there's any, at the end of the session. Thank you so much.

MR. KEOHANE: Thanks so much, Flavia. I appreciate that, and helping us get back on track. Our speaker on the panelist is Samuel Gill. Sam is the Co-founder and President of Sylvera, one of the

companies that is providing ratings of the projects as you've heard. Sam, over to you.

MR. GILL: Awesome. And I'm going to try and do my best to help us get it back on track as well. I'd like to thanks to the chairman and commissioners for organizing this discussion and for the privilege of contributing to it.

So just to introduce Sylvera, Sylvera makes it possible for companies and governments to confidently invest in real climate action. And the way we do that is by providing science-based ratings, assessments and subsidiary data products for sustainable finance activity including carbon credits.

And so within the context of the voluntary carbon markets, Sylvera develops and tests rigorous projects specific methodologies to assessment the climate impacted projects, utilizing the latest technology and climate science.

So it's slightly differently to the ICVCM. What we're doing is assessing at the project level but we're using methodologies that we develop for

each project type. So for example, for forestry protection or forestry restoration or direct air capture.

And the way we do that is by utilizing the latest technology and climate science, and we have a world-leading technology stack and collaborate closely with a number of leading academic institutions, governments, and multinational in our work in the research space.

And we produce ratings at the individual project level. And so to do that, we have to extract and independently validate all of the projects relevant parameters that's been used to design and originate the project.

We then apply our project type specific methodology and then test the project's performance and design with a plethora of proprietary and public data, so using again, all machine type stack to do that.

And we produce a top-level rating that looks very much like a kind of fixed income style rating of AAA through to D. And that AAA or, you know, B,

C, D, sits on top of three key sub-scores, which are basically speaking to the climate impact or the climate integrity of the project.

And those three sub-scores then essentially sit on an incredibly deep tech stack of subsidiary composite data products. So the three key sub-scores that we're producing, number one, is the carbon score. So we're essentially producing and expo assessment of the project's performance. So we'll recreate the accounting exercise that was used to generate the project and then test that with our own machine learning data.

So for example, if you were looking at a forestry protection project, we would actually assess the performance of that project using a world-leading tech stack to ensure that the projects data that is providing to the market is accurate and correct.

We also then assess the additionality and we've heard from fellow panelists, the difficulty of actually assessing additionality in an accurate way. That's very difficult at an methodology level

and at a project level, it's fiendishly difficult.

So again we're using a panel of over, you know, 300 testing some methodologies to create a viability -- basically, a viability range of what would be reasonable in terms of that project's baseline and then actually assessing where the project sets with that. So again, we're trying to drive out the risk of known additional projects or projects overestimating their issuance.

And a third thing we do is we assess the permanence of the project. So again, looking at the likelihood that the carbon that's either been the emissions that has been reduced or the carbon that's been pulled out of the atmosphere, the likelihood that it's going to stay out of the atmosphere for a geologically significant period of time.

And again, we're using risk models that are particularly calibrated to that project type. And then the final thing we do is we look at the social core benefits of the project, but that doesn't sit within the core rating, because the core rating is

essentially trying to give a view of the likelihood that that project is going to have the climate impact in claims.

So just to give really quickly, some high-level views on what we're seeing in the market, I think we've already heard about how, you know, in the early days of the market, the assertion was that all credits were identical; every ton was a ton.

You know, we entered the market because we fundamentally didn't view that to be the case. We saw a high level of heterogeneity in the market, and that's been borne out by press and the experience of, I think, pretty much everyone around this table.

As we've increasingly been proliferating our data and working with our large kind of corporate clients that are bringing significant investments in this market, what we're seeing is the quality bifurcation in the market.

So we've heard about the sort of collapse of prices in some of the wider spec future contracts

and spot market contracts. What we're seeing there is the cheapest-to-deliver does not represent a credit that a corporate is happy to retire against the name, and so that price is collapsing.

But what we're seeing from the experience of our own clients, is that it's very difficult to get ahold of high-quality credits. And those credits are actually very robust in terms of the pricing. So we're seeing $50 plus for the high-quality credits and a real challenge in obtaining those credits.

And so what we're now increasingly actually seeing is our clients moving upstream and investing in projects in the design phase. And so I think it's really, really important that as we look at how we govern the spot markets and the future markets, that we're providing strong price signals for high-quality projects in the design stage because that's the part of the market that really we can have an impact.

You know, the market as was posited is at the moment pretty small, but if we're able to provide

that strong signal to the market, the high quality is going to be valued, it's going to be enforced, and it's going to be rewarded then we hope to see the supply side of the market scale with integrity. I'll stop there.

MR. KEOHANE: Perfect. Thanks very much, Sam. Next, we have joining us virtually, Ronan Carr, who is Chief Research Officer for BeZero Carbon. Ronan.

MR. CARR: Yeah. Thank you, Nat and thank you to the Chairman and the Commission for the invitation to speak. So BeZero Carbon is also a global carbon ratings agency. And the BeZero Carbon rating is the leading risk metric in VCM today with 325 projects rated accounting for close to half of the available liquidity.

What is it the BeZero Carbon? Well, it's an opinion on carbon efficacy. So it's our view on the likelihood that a credit will truly deliver a ton of greenhouse gasses either avoided, reduced, or removed.

And we express that opinion on an eight-letter scale, from AAA, highest likelihood, to single D,

lowest likelihood. The way we undertake the risk assessment is a very holistic approach, looking at all of the drivers risk of carbon efficacy across a range of different risk factors so we look get additionality,we look at the rigor of the carbon accounting that underpins issuance, and we look at the risk of non-permanence. And this analysis is taking into account both top-down evidence from academic literature and thousands of third-party datasets.

But also looking at deep geodesic project data, geospatial and Earth observation data if it's a nature-based project. And the holistic approach means we're not looking not just at natural risk drivers but also policy risk drivers, socioeconomic risk drivers, financial risk drivers to carbon efficacy.

I think the role of ratings in the market is important to touch on. I think what they provide is fungible tool to differentiate between the different credits in the market. We've heard a lot about how this is a quite fragmented market, very

diverse, very heterogenous, and complex.

And therefore, carbon efficacy and quality are sometimes difficult to decipher. Certainly, quality is not binary. That's kind of a key theme from our perceptive, and having a rating is really a tool to express the range of outcomes when we're talking about carbon credits.

Ultimately, it's not possible to 100 percent standardize the outcome of a carbon credit. I think Robin touched on the kind of statistic, although certainly that's inherent when you're modeling based on or counter-factual scenario. And so quality is necessarily probabilistic, and ratings provide the language to express that variation.

I think it's also important to know that bottom-up differentiation really matters. So even within, you know, narrow sector types or projects of a similar nature, we do find a lot of differentiation in the nature-based solution space that we have ratings all the way from D to AA and even on a narrower stagnant like afforestation, we go most of that range similarly.

I think we also believe that ratings help to address some of the traditional challenges the market has faced. I think it does help to encourage more transparency are certainly more consistency and -- of reporting and disclosure.

I think it helps to facilitate risk-driven pricing, provided tool to manage risk, which is important in a fragmented market. Historically, it was a very poor correlation between price and carbon efficacy or quality in the market, but that is starting to change on our data, as ratings and other risk tools have become socialized in the market.

And this in turn can help to change incentives for our project developers, you know, increasingly should have the incentive to create high quality credits rather than to maximize volume in a more efficient, you know, risk-driven pricing scenario.

Finally, in terms of the market outlook, we really see ratings as being key elements of the kind of data infrastructure and the information architecture that is needed in any healthy asset

class.

And as an industry we need to help -- we need to build the overall market structure and market initiatives like the core carbon principles but also regulation do definitely have a role to play particularly in continuing to push for higher standards of disclosure or reporting and also to help raise the minimum standards in the market absolutely.

And they really complement what ratings offer, which is the projects level analysis, which allows all stakeholders to help to understand quality, to understand value, and ultimately improve the efficiency of the market and the pricing in the market. Thank you.

MR. KEOHANE: Thanks, Ronan. Our last panelist is Bella Rozenberg, Senior Counsel and Head of Regulatory and Legal Practice Group at the International Swaps and Derivatives Association. Bella, to you.

MS. ROZENBERG: Good afternoon. Thank you very much to the Chairman and Commissioners for

organizing this event, and special thank you to Abigail and David. I know it's a huge undertaking from my personal experience, so thank you very much.

In the interest of time, I'm just going to jump into -- and briefly describe three workstreams that ISDA has been working on in the carbon market space. So I'll save time for questions.

The first workstream ISDA is working on is developing standard documentation for secondary trading in voluntary carbon credits. We call them verified carbon credits now.

Last December, ISDA published the 2022 ISDA Verified Carbon Credit Transaction Definitions together with forms of confirmations for use with certain VCC derivative transactions. ISDA will continue to update the definitions to ensure that the standards represent the market and regulatory best practices.

The VCC definitions and VCC confirmations are the first standardized OTC derivatives documentation for secondary market trading in

verified carbon credits. Notably the ISDA documentations refers to the term verified carbon credits rather than voluntary carbon credits, to reflect is the strong commitment that carbon credits are verified by reputable carbon standard setters, to avoid and to minimize instances of greenwashing and fraud.

This ISDA documentation can be used for physically settled spot, forward, and option transactions. Importantly, the ISDA VCC definitions have been designed to operate as a global document, meaning that they're not specific to any particular jurisdiction, region, or a carbon standard.

So given the global nature of the market, cross-border consistency and standardization is vital to the success of this market. And we hope that the Commission will continue to align its work with the IOSCO's initiative, as we know that Chair Behnam's is a Vice-Chairman of the IOSCO board and a co-chair of IOSCO's sustainable finance task force carbon markets work stream.

The launch of the VCC definitions and forms of

VCC confirmation is a significant milestone in the development of standard OTC derivative documentation for secondary market trading in verified carbon credits.

Now, turning on to the second workstream, it's assisting national authorities in developing a strong legal foundation for the treatment of verified carbon credits across jurisdictions.

A robust voluntary carbon market must be grounded in strong legal foundation. And a strong legal framework should determine how -- I'm going to call them VCCs from now on, verified carbon credits -- can be created, bought, sold, and retired.

Such a determination affects what type of security may be taken and enforced in relation to VCCs and how that can be achieved as well as how VCC would be treated following an insolvency, including with regard to netting.

We're happy to report that the US has a strong legal foundation for VCCs under its bankruptcy laws. Other jurisdictions are less clear, thus

creating an impediment for global trading and ultimately liquidity in this market.

And I actually would like to underscore this point and echo what Commissioner Goldsmith Romero mentioned before that this market, you know, suffer from fragmentation, and lack of this legal consistent treatment of VCCs globally, really contributes to this fragmentation.

So just briefly one jurisdiction holds this credit, a bunch of contractual rights and the other jurisdiction use them as an intangible property, if in case of dispute resolution, how would you treat this credit; is it property or is it contractual, and therefore, tort rights apply, or if it's a contractual, a bunch of contractual rights, then you're going to be treated, as you know, as a breach of contract there.

So this is very important, and we encourage jurisdiction on national authority across, you know, globally to kind of provide clarification on this issue. And the third work stream -- I know I'm going really fast just to save you guys time -- is

providing regulatory clarity on the treatment of financial instrument tied to VCCs.

So we are pleased with the Commission's confirmations that VCC are commodities and the commission has the authority to go after participants who engage in fraud and greenwashing in the spot market.

This is very important, because sometimes this market is perceived to be outside of any regulatory preview. And while we understand that enforcement of abusive behavior is necessary to ensure fair markets, we also believe that these developing markets will benefit from a clear principle-based regulatory framework that will set out the standards of conduct for all market participants.

We believe the commission should tap into the existing regulatory authority to provide more guidance on trading verified carbon credits.

So for example, since VCC futures are considered commodity futures, we believe the CFTC and self-regulatory organizations could use the same oversight tools that they use in commodity

futures markets to ensure the integrity of VCC markets including conducting additional due diligence on carbon registries, given that they're used as delivery points for VCC futures contracts.

So to conclude, it's critical that market participants have confidence in voluntary carbon markets and that the carbon credits they trade are associated with genuine, verifiable, upselling projects.

To achieve this goal, we need a solid legal framework for VCC's robust standardized documentation and a flexible principles-based regulatory approach that can establish regulatory certainty while also stopping bad actors. Thank you very much.

MR. KEOHANE: Thanks very much, Bella. I am going to look to the chairman, to David, because I think we are just about at time.

MR. BEHNAM: Take 10 minutes. We'll -- we'll make up time on the break. And I guess for everyone, just feel free if you need to take a

break, to step away from the table because we're going to have different pockets, but let's just aim to finish by 5:00, but give you 10 minutes --

MR. KEOHANE: Okay.

MR. BEHNAM: -- and then we'll roll into the next panel with -- with them.

MR. KEOHANE: Great. Thanks very much. So we'll see if there are questions. I thought it might be useful to start off -- we -- there's one major area of standards that are -- or carbon crediting program that is actually not a voluntary program but interacts with the voluntary program, which is the carbon offsetting reduction scheme for international aviation or CORSIA.

And I understand that we were hoping to have somebody who -- from the Civil Society to describe it. But I wonder if I might call on Assistant Secretary Petsonk, to briefly describe. And I think for context here, we've heard so much about the voluntary standards and what's being done in the voluntary market.

Obviously, CORSIA is part of an international

program and not the same as a voluntary market, but is still relying on many of the same standard setting organization. So it might be useful for a high-level overview. Please, thanks.

MS. PETSONK: Thank you. Very briefly, I mentioned earlier how CORSIA establishes a baseline of emissions allowable for international aviation with international aviation being flights between participating countries.

There are over a hundred countries that have volunteered to participate in CORSIA and participation becomes mandatory in 2027 for all countries' airlines with levels of aviation activity above a *de minimis* level.

When CORSIA was established and the governments decided to allow airlines to reduce their emissions to meet their required levels or offset their emissions using offsets, the governments negotiated two sets of standards. The first standard sets the requirements for carbon offset programs for the integrity of the program itself, and the second set of standards applies to

the credits themselves.

For example, I'll just give one example of this type of credit standard. Commissioner Nazareth -- Commissioner Nazareth mentioned the principles of the Integrity Council for the Voluntary Carbon Market. One of those principles is no double counting, no double claiming, no double issuance, and no double selling.

Those are principles taken direct -- those are the principles on that issue that are included in the standards established by the governments in CORSIA, and they are implemented in part through a requirement that when offset programs apply for eligibility in CORSIA -- and I'll get to that in a minute, in 30 seconds -- offset programs must provide a written attestation from the host country where the projects are located, that the host country will not count those reductions toward the host country's own targets. So they cannot be double claimed by the host country and by airlines in that regard.

The standards are administered by a body,

which was established by the governments, called the Technical Advisory Body or TAB. And that TAB is comprised of representatives, subject matter experts from the governments from, I think there's 14. Molly Peter Stanley would know the answer to this question because she had chaired the TAB.

I think there's 14 governments that have representatives on the TAB. TAB members are bound by ethical standards. They must not participate financially in projects or markets themselves. Is that enough of an overview?

MR. KEOHANE: Thanks very much, Annie. So let me see if there's any question from the audience that is -- or from other panelists.

Let me then ask very quickly in our remaining five minutes, whether -- I think one of the -- one of the questions that I think the Commission has expressed interest in generally, is the way in which these -- some of the initiatives we've heard about here could inform staff in -- or that staff could draw on in informing exchanges how to structure project terms and conditions for carbon

credit products, are there ways in which these initiatives we've heard of could inform staff in considering carbon credit derivative products.

I know we've touched a little bit on this but I want to give maybe if there are any of the panelists would like to speak a little more to that, to the way that perhaps the initiatives we've heard of could inform CFTC staff. Annette.

MS. NAZARETH: I'll take a quick stab. I think what's been very helpful in our efforts is the interaction with the regulators. And I think that in some fashion, sort of recognizing these integrity standards as being important for what trades on, you know, in the marketplace in an organized markets would be very important.

I think we are currently, and I hope, remain pretty much the, you know -- the international standard -- it's not the kind of thing where you benefit from having five of them but to the extent that in your regulatory process, you sort of recognize in some way, the importance of these standards, which I have said to some, are sort of a

akin to listing standards in a way. Right?

I mean, they sort of establish what is now the, you know, the standard for high integrity and to the extent that those kinds of standards are recognized when, for instance, exchanges come in or, you know, try to get approval for certain futures products. I think that would helpful. And again, also, just being able to continue to have interaction with the CFTC to the extent that there is more learning either way that we can cooperate and work together.

You know, to some extent, we are like a self-regulatory organization. Like I say, we're quasi- because we're not actually regulated by government authorities but that doesn't mean that we don't welcome, you know, the assistance and the interaction and the collaboration.

MR. KEOHANE: Thanks, Annette. Anyone else on the panel that would like to step in on that? Sam.

MR. GILL: Yeah. Then I'll just add, I think a great complimentary approach is using ratings data essentially as an additional layer. Because

the great thing about these methodology type approaches is they set a great standard in terms of the new floor that I think we should be pushing for.

So when the CCPs are released, there's no excuse to be engaging in credits that are not CCP label, that they're a great floor.

But there will be some false negatives that filter through, and there will be some false positives that filter through because there's such an heterogeneity in the market.

So the usage of project level data can be very helpful, I think in supplementing and then also fueling a self-reinforcing strengthening of standards because it allows us to work out okay, when there are projects that are poorly rated that are, you know, filtering through these standards, why is that happening. I think it will help to strengthen the rating more generally. Yeah.

MR. KEOHANE: Thanks very much. There's someone -- oh, anyone else on the panel? I don't see it -- and -- so Dave, I'll give -- so Dave

Tenny from NAFO, very quickly, and we'll take it in two minutes.

MR. TENNY: Thank you. My question has to with stakeholder involvement. So when you're creating an international standard or a rating system, it's a lot.

Speak to how you engage stakeholders, certainly when the government takes action, there is any one of a number of procedural requirements for engaging stakeholders sometimes with a non-government endeavor there are other types of standards that are used to ensure robust stakeholder engagement.

So could you speak to that and just let us know what -- how that works and whether there's a role in government to ensure that stakeholder engagement is as robust as it should be?

MR. KEOHANE: Thanks. Annette, I'm sure you'll want to address that and then -- very quickly and we'll see if anyone else would like to as well.

MS. NAZARETH: Yes. I mean, briefly, we have throughout this process welcomed stakeholder

engagement, even going back to taskforce on scaling voluntary carbon markets. As I said, we had over 450 participants from across the entire spectrum. And our core carbon principles and assessment framework was built on a very transparent process that mimicked regulatory process with full notice and comment.

Going forward, I have to say -- and sort of following up on something Sam said, this is going to continue to be an iterative process. This is only the beginning. Our assessment framework is -- and CCPs are going to have to be continuously curated based on best science and, and best practice. And that process itself is going to require, and we will welcome input from stakeholders as well as basically all members of the ecosystem to improve our processes and requirements over time.

I mean, one of the benefits of the full transparency that will happen again, one of the benefits of being adjacent to a regulated market, is that we are going to see things happen, we're

going to see transactions that we'll say, "How did that happen?" Right?

But -- and that happens in all capital markets. But in other capital markets when you see some bad trades, nobody says, "We should shut this whole thing down." They say, "How do we fix it?"

And we're going to have to keep in mind that that's going to be the process that we're going to have to have here as well. What are we learning, what are we seeing, sharing with the regulators what they're seeing, how do we fix it, how do we continue to improve these requirements. And so that's what we're committed to do.

MR. KEOHANE: Thanks Annette. Very quickly Robin, and you'll get the last word.

MR. RIX: Yeah. Absolutely. Stakeholder consultation is fundamental to what Verra does. We're currently updating our program right now, version 4.5 and then version 5, and we are, you know, welcoming comments from members of the public, stakeholders of all forms.

And we do that not just for program updates

but also for methodologies. We do that for projects as well. So it's an ongoing process. And as it's been said, it's an iterative process where we are truly relying on what stakeholders are saying. Thank you.

MR. KEOHANE: Thanks very much. David, Mr. Chairman, I'll turn it back to you.

MR. BEHNAM: Nat, thank you. Really appreciate it. Your continued participation and support of the CFTC and all the work you do at C2ES. The entire panel, thank you. It's really great information and something to work from for us at the Commission.

So we're now going to shift, and as I mentioned in my opening remarks, we are extremely lucky and privileged to have Dan Berkovitz with us. Dan, former commissioner here from 2018 to 2021, former general counsel here earlier.

And I was just thinking to myself the last time this room was as full as it is today is probably 10 years ago when you were shepherding rules through after the financial crisis, most recently, general counsel at the SEC, the US SEC

and a number of other positions in both the private and public sector.

So couldn't imagine or think of a better person to help us discuss exchanges and their role in the voluntary carbon markets to both share his expertise and his sort of intellectual curiosity. So with that,

Dan, thanks again for being here, and the floor is yours.

MR. BERKOVITZ: Thank you, Chair Behnam. It's a real privilege and honor to be back at this agency, which I spent many years working with you and many people in this room today. And I've worked with a number of the folks that I hadn't worked with when I was here.

And it's a great honor to be back and contribute to the success to the success of this agency and its mission. So I thank you for the invitation today.

It was about two years ago when I was on that side of the table and I had the privilege of sponsoring the Energy and Environmental Markets

Advisory Committee, which Commissioner Mersinger currently sponsors. And in June of 2021, the EEMAC met to consider the topic of carbon markets.

And I'm struck today, listening to the presentations today by the private sector participants, by the organizations that are rating carbon projects and by the governmental -- your colleagues across the government, how much progress has been made in the two years since.

And as you mentioned, I was off at another financial agency somewhere else in town, I won't mention, for part of that time. But coming back and visiting this issue, I really am struck by the amount of progress that has been made in developing standards, in commitment toward addressing the issue of voluntary carbon markets and the integrity of the offsets.

I'm also struck by frankly how much work still remains. A lot of work has been done, but there's still tremendous challenges going forward.

And this agency all, I commend you and your colleagues, Commissioner Goldsmith Romero,

Commissioner Mersinger, Commissioner Johnson, and Commissioner Pham for your continued commitment and engagement towards constructively addressing those issues from the CFTC's perspective.

The CFTC as a number of a people have mentioned has the authority over the spot markets, the cash markets, is anti-fraud and anti-manipulation. The Commission regulates any derivatives markets in these products. And we're going to be hearing the next two panels, both from the spot markets and from the derivative markets.

But the authority for fraud and manipulation in the spot markets, those are very, very broad authorities. They must be very broad because as courts have recognized, the methods of manipulation are limited only by the ingenuity of man. So it's a very broad authority. And that leaves a lot of uncertainty perhaps in some market participants where they fall on the line. There are some clear cases but -- so what's going on, and I think the efforts that the commission's undertaking and the dialog that we see here today, is incredibly

important that the Commission and the regulators understanding of standards in the market, is in sync with the markets understanding of those standards.

And there's feedback and dialogue back and forth. So there may not be surprise at the end of the day if, you know, in an enforcement action that the standards aren't as clear as possible upfront, recognizing that the Commission's standards are very broad and needs that broad flexibility in order to address novel methods of fraud or manipulation.

So I think this effort that is going on today is incredibly important in that respect, and therefore, the next two panels are very important in terms of fostering that dialogue.

The importance to the Commission of spot market is not just with respect to its authority over fraud and manipulation in that market and potential enforcement action.

But to the extent that there are derivative markets, the spot markets are really part of the

price formation process, part of the settlement process, part of the foundation for the derivative markets.

The derivative markets are derivative, of those spot markets. So ensuring the integrity of the spot market promotes robustness of derivative markets.

And I think as Commissioner Nazareth pointed out, the derivative markets here can play an incredibly important role. If we're talking about a problem that's going out, and we are talking about an issue going out to 2050 and goals to 2050, how do people manage those long-term risks.

And futures markets and other derivative markets can really help manage those risks and reduce those risks over the long term as well as shift those -- many of those risks to the entities that can -- that spare those risks.

So the spot market are of incredible importance to the CFTC, not just because of potential oversight of this market for fraud and manipulation but as the foundation for the

derivative markets, which are risk management and price discovery in the carbon offset market.

So with that, I'm pleased to turn to our panel on the spot exchanges, and I'll also introduce our speakers as they -- as I call on them. And so our first speaker is Russell Karas, Head of Commodities at Xpansiv. So Russell, please go ahead.

MR. KARAS: Thank you. And thank you to the Chairman and the Commissioners for organizing this panel and inviting Xpansiv to speak. If we could pull up the presentation that would be great.

Thank you. You can flip to that first slide. So Xpansiv is an infrastructure provider for global commodities through a variety of mergers, acquisitions, and organic growth. We are now over 90 percent of global carbon spot that's traded on exchange comes through Xpansiv. We have over 1,500 participants across water, carbon, renewables, and digital fuels.

We've had over 280 million tons of carbon trade since 2020. We've had more than 2.1 billion environmental assets transferred through our

infrastructure since 2021. And we have over 70 percent share of global carbon offsets as well as North American renewable energy credits that use our software today. Please flip to the next slide. One back.

So to give an idea of the progress that's been made and as Robin said the amount of information that is available, you know, this is -- the thesis of Xpansiv is to make a more efficient marketplace from end to end.

So we really have three layers of our infrastructure last year with the acquisition of APX. Xpansiv is now the largest developer and operator of registry technology and infrastructure in the world. We provide the infrastructure for Verra, Climate Action Reserve, American Carbon Registry, as well as many of the renewable energy credit registries throughout North America.

And those registries then plug in via API to our portfolio management system, as well as other non-expansive registries. So we have 12 registries that are already connected to our EMA portfolio

management system today, and we'll be announcing another three to five through the balance of the year.

So we already have this kind of meta registry structure in place. Last year alone, we had over a billion environmental credits that transferred through our portfolio management system. The advantage there is that your market participant, you have access to a variety of compliance and voluntary markets all in one location.

And again, using APIs existing technology, we are able to then plug it into our marketplace, and there you can really feed all the way back to the registry in terms of data, price signals created through trading.

But also, when we look at things like how our different projects and regions and co-benefits in vintage years, once they're tagged by the registry, we can pull that through the marketplace using this infrastructure, and then the price discovery takes place in an open and transparent platform.

Once we reach that level of transparency and

efficiency, we're able to partner with groups like CME and we structured standardized instruments using data and transactions to help put those together using CORSIA as our initial framework for our prototype, the GEO contract.

Then we can work with CME to list futures contracts, where now market participants have a liquid forward curve for the first time, which is also regulated by the CFTC. And we also work with some of the largest price reporting agencies in the world like S&P Global Platts, who take in our data and create daily price assessments. If you could please go to the next slide.

This is the common story we've heard today. This is just our exchange data. 2020, we had 30 million tons that went through our platform, which exploded by four folds to 120 million tons over the past two years. And the value of that went from $23 to 24 million, up to $800 million last year. Please, next slide.

And now this year, obviously we have a variety of headwinds but I can say that we have sales teams

on the ground between our various entities in every region in the world that are working with market participants on a daily basis.

And this is natural end users, corporates natural suppliers, project developers, funds, banks, managing risks on behalf of their clients, the largest integrated energy companies in the world. We have the same kind of theme as we talk to these customers that this is a short-term kind of cooling period, but there's still a long-term positive outlook.

There's still a lot of capital being mobilized towards this effort. A lot of this slowdown has to do with the new buyers that came in and their hesitation, and that has to do with the negative media coverage, macroeconomic headwinds, and high interest rates. But yet we continue to see the futures remain active, over 100 million tons executed by May of this year.

Right now, we have outstanding open interest in the futures complex of over 25 million tons. And we're actually seeing more firms come on board and

participate. We had a record Q1 in terms of number of participants. It's not, firms can't flip a switch and start to trade voluntary carbon, they have to set up the registries.

They've become comfortable internally on what type of offsets they're going to execute. That could take six, twelve, eighteen months for some of these participants. At the halfway mark, we're already up to 182 participants, which is closing in our record last year overall of 199. Also, we do not see the majority of firms exiting their decarbonization strategies.

Rather, they're taking their time and being thoughtful. We've heard a lot of stats from retirements today. Q1, we had 48 million tons retired, which is the third highest of all times. We see existing users continue to retire their credits. Could you please flip to the next slide?

I'd also say, you know, we've -- we've also found almost a price floor over the last six months. Again, plenty of headwinds that have entered this market, but now, if you look all the

way to the right, we're actually seeing these prices increasing just over the last few weeks.

And part of the reason for that, if you flip to the next slide, are a lot of the things, and it's been very reassuring to hear these themes over and over again today where we have green shoots.

Again, this is an oversupplied buyers' market, where buyers are looking for some sort of integrity or standard that they can purchase, and that's defensible and high integrity. We have -- we have this frame -- these frameworks in the mix.

We have CORSIA, which March of this year, as we've said, ICAO lists the first details around the initial compliance phase that runs from 24 through 26. They approved ACR and the arteries, and we expect more to be approved this November.

The VCMI, also through their claims Code of Practice, also came out and supported CORCIA pilot and compliance phase usage by corporates as a bridge to get to the ICVCM core carbon principles.

And what makes this exciting is not that these three initiatives are moving forward on their own,

but that we're starting to see synergies and support between the three, which is what's going to help instill confidence in the market. And of course, if you add in more firm guidance around corresponding adjustments in Article 6, that's going to continue on that theme.

When this market comes back, we're also going to be in a much stronger position in addition to the infrastructure that we've been developing at Xpansiv and with other entities. We're going to have a much more educated marketplace than when we saw that initial increase in 2021.

Firms now understand that offsets have to be part of a broader decarbonization strategy. And that alone cannot be their own goal. There's no silver bullet in the environmental markets. We need every tool that we can. We're also seeing firms in the meantime focus on scope two emissions.

So just because they're not using carbon offsets, it does not mean they're not addressing their decarbonization strategy. Our renewable energy credit volume has doubled this year and we

started to offer international renewable energy credits through the evident registry, which is where you could create voluntary carbon markets in any country throughout the world.

And again, the rating agencies, which we've heard from today, continue to play a role in firms that are looking for more of that deep dive into the projects. So we believe that this market will come back. We think a lot of people in this room are going to help and assess with that and hopefully accelerate that.

And when it does, we're going to have better liquidity, more transparency and we'll scale in a more responsible manner. Thank you.

MR. BERKOVITZ: Thank you, Russell. We'll now turn to Daniel Scarbrough, who is the President and Chief Operating Officer of Incubex.

MR. SCARBROUGH: Thanks a lot, Dan. Was very proud to participate in that EEMAC meeting that you chaired in 2021.

Thanks to Chairman Behnam, David and Abigail in particular, the rest of the Commission on

putting this event together. You know, really applaud the efforts to, you know, try to understand these markets better, get the right stakeholders involved.

Also, very encouraged to see other members from the US government here in attendance as well, along with many leaders in this industry. Just very quickly a little bit about Incubex for background, we are a specialist environmental product developer formed in 2016.

Our team really comes from -- largely from climate exchange where exchange based environmental trading was really pioneered back in the late 1990s and early 2000s under Dr. Richard Sander, Dr. Michael Walsh. You know, I think these discussions are very important, first and foremost based on, many lessons learned over the years in environmental markets.

And, you know, as many panelists have discussed today, these markets actually are not very new in nature. Voluntary carbon markets have been around for 30 years plus, as have

environmental markets. CFTC has been the regulator of exchange based environmental trading going on 20 years now.

So going back to the SO2 futures launched back at Chicago Climate Exchange back in 2004, these markets have been around for quite some time. But that institutional memory in these markets can be lost over time as well. So many of the lessons learned throughout time, I guess, that 20-year period of time are really applicable today.

So there are a lot of, I think, challenges with the VCM that are not necessarily new challenges, but certainly new innovation, new capital that are coming into these markets that are very promising. Just going in just quickly to the next slide. Just a little bit of background.

I was asked to talk a little bit about CCX just for some of that background and the institutional memory. CCX was really formed as a voluntary, but legally binding exchange where almost 500 companies participated at the peak of that program.

Many leading utility companies in the US, AEP, Dynegy, NRG, as example, International Paper, DuPont, IBM, Iowa Farm Bureau. North Dakota Farmers Union is a very big participation from a broad sector of industries, but really companies trying to understand how carbon markets worked, things like measurement.

How do you measure your carbon footprint, which obviously over the last 20 years have advanced significantly through new technology. However, many of these concepts were actually proven quite some time ago.

In terms of best practice, you know, a lot is being discussed around integrity of the voluntary carbon markets and really, you know, many of the panelists have mentioned it, you know, this is really a layered approach.

And if you look at market infrastructure in the CCX program you had, for example, emissions audits being conducted by FINRA at the time.

That was really to try to promote best practices around emission management. And about 85

percent of the carbon traded under the CCX program were actually direct emission reductions under the commitments taken legally binding by these companies. Really, again, in the absence of federal legislation.

And again, you know, much of the focus is around voluntary versus compliance, but one point of example there, about 700 million tons were capped at the peak in the CCX program, which is actually more than the entirety of compliance carbon capped in the US today. If you look at California and the RGGI programs, and more recently Washington State.

So it was a quite sizable program, about half the size of the EU UTS. In that seven year or so period of time, you had about 150 million tons trade that had weighed average price of 326 and then most importantly, maybe to this discussion.

You know, many offset protocols that were, you know, advanced at that time obviously, you know, if you look at, you know, some of the advancements, you know in Verra, Gold Standard, many of these

protocols that they're speaking of have -- are on, you know, version 4.5, 5.0 through public engagement, 30-day comment periods over the last 15 plus years.

Just quickly on the second -- the next slide, the overlay here really at the time as well CCFE was the first environmental derivatives exchange that was granted a DCM license in 2004.

Really, as I mentioned, the launch of SO2 futures in December of 2004 that year. Many of the first environmental futures contracts were actually launched and traded on that exchange, including the first compliance carbon contract in the regional greenhouse gas initiative in 2008.

The CFI future, so really the first voluntary carbon futures contract was launched in 2007, quite some time ago. I think in 2010, CFTC ruled that contract was not a significant price discovery contract. So very topical even back in 2010. So this has been really an ongoing conversation for quite some time.

That CCFE business was acquired by ICE in

2010. That's now part of the Intercontinental Exchange offering. If you can go to the next slide, please. Our Incubex business today, as I mentioned, was formed in 2016 as a partnership model. We have a global partnership with EEX Group and Nodal Exchange really to develop environmental commodities.

Over that period of time, we've developed the broadest set of environmental contracts on any exchange platform, something that we're very proud of with our partners at EEX and Nodal.

Also in 2021, which is really the topic of this conversation, we developed a partnership in technology with Trayport, a leading global energy trading platform to develop the voluntary carbon climate marketplace, which is really a spot marketplace for voluntary carbon offsets. Next slide, please.

A little bit about TVCM. So the basis of this really is to bring best in class market infrastructure from a traded central spot marketplace perspective for voluntary carbon. Some

of the core tenets here, neutrality, open access, price discovery, transparency.

Just trying to increase these things to a level of best practice in the market building upon really what's already a universe of energy traders on the Trayport, trading platform of over 6,000 traders globally on that platform.

So one of the leading trading platforms globally for energy, bringing that visibility to voluntary carbon if you are, you know, trading on the Trayport platform, you can execute and view market data on things like the regional greenhouse gas initiative futures contracts on Nodal Exchange or the European Union, EU ETS compliance market for carbon, executing trades on leading exchanges like EEX, Intercontinental Exchange over in Europe.

So Trayport is really an aggregator of marketplaces. Next slide please. Some of these comments, you know, really just general comments about the VCM market has been around for quite some time. These offsets are generally issued by independent registries in accordance with best

practices that have been evolving over that period of time.

Protocols are going to differ a lot. The heterogeneous nature of this market that has been alluded to over time, but there are many commonalities as well across registries and protocols.

So you know, really trying to build upon that. I think I'm at my time limit here, so I'm just going to quickly maybe move forward to one more slide from that.

A few comments just quickly about a well-functioning market, you know, really building upon the successes of other environmental markets and other commodities generally from a market infrastructure perspective, utilizing those same tenets and the voluntary carbon market we feel like is important, and then best practices for infrastructure providers as well.

You know, things like KYC, AML, IT security, and really building those best practices into the operations, but I'll cut it off there so I don't

draw any further overtime. Thank you.

MR. BERKOVITZ: Thank you, Daniel. Appreciate your respect on the time component there. The next few panelists will be joining us virtually. And the first one is Julien Hall, pricing director at Climate Impact X. Julien.

MR. HALL: Thank you very much. I'm very thankful to the Commission for the invitation to speak today.

Unfortunately, I'm unable to see the room and whether my slides are showing, but I'll carry on the assumption that they are. And in any event, I only have two slides, so that should make it reasonably easy.

MR. BERKOVITZ: We do see them. Thank you.

MR. HALL: You do. Fantastic. So Climate Impact X is a global marketplace, auctions house, and exchange for trusted carbon credits based in Singapore. We're jointly owned by DBS Bank, Singapore Exchange, Standard Chartered and Temasek's decarbonization investment platform called Gen Zero.

Essentially, our three platforms, I'll briefly talk through all three of them with a focus on exchange. Marketplace allows our global corporate clients to browse, compare, buy and retire a selection of high-quality carbon credits of different types.

Our auction service, which is something we really sort of pioneered in the last couple of years, allows our clients to access unique, new and desirable credits and perform price discovery exercise that really is helpful to both buyers and sellers.

And finally, with the exchange, and this is where I'd like to deep dive in a little bit further. If you could change to the next slide, please.

The aim with the CIX Exchange, which was launched on June 7th, just over a month ago, was to address industry calls for greater transparency and certainty by setting up a brand-new two-way spot trading platform that caters to really professional traders for both standardized contracts and

individually listed carbon credit projects as well.

Alongside this, we're publishing price benchmarks, which are underpinned by the data, the high-quality data from the exchange. So I'll briefly talk through a few of the innovations that we've brought to the market. From the point of view of the trading infrastructure, the pricing session that we've introduced is something quite new.

So we've effectively concentrated liquidity into a daily 30-minute pricing session, bringing an experience from other commodity markets where this is quite common. We've also, from the point of view of trading infrastructure, created a platform that is based on pre-funding.

So both the credits and the cash sit with us before any bid or offer is submitted on the screen. And what that means is instant delivery and pre-trade and re-trade potential, right? So increasing liquidity. Both the standard contracts and the single projects are available on the same screen and trading on the same screen.

And the purpose there is to sort of develop

very intuitive discovery of price differentials between a project-to-project and benchmark-to-project. On the design of the standard contracts, this is something where we've also introduced some innovations. Our very first standard contract is called Nature X.

It's actually a standard contract focusing on nature-based carbon credits. And the key thing we've done is we've very much tightened the definition of what is deliverable into that contract. We focused in on well-known typical projects, which is something that you see, you know, in oil markets with the data brand benchmark or in the iron ore market with the IDX benchmark.

These are successful commodity price benchmarks, which have honed in on what are typical large sort of projects in terms of the standard contract definition. And what this means for Nature X is that only 11 large REDD+, you know, avoided deforestation projects and deliverable into our contract. So over time, the emphasis will be on stability.

We don't intend to change this basket more often than we need to, but of course the list will eventually need to evolve with the market. We've put in place governance for both the standard contracts and the benchmarks that is in alignment with best practices, including the IO standard principles.

So how has it gone so far? We've launched just a month ago, like I said, we're seeing good depth of participation on the benchmark contract every day with several participants on the bid side and off the side. We're seeing a bit of a spread narrowing to within five cents on a typical day in the liquidity window, and we are seeing transactions most days.

So those transactions, together with the firm bids and offers on the screen, are providing us with a consistent stream of high-quality pricing data that is enabling us to publish robust benchmarks, but is also benefiting the wider market with a new level of price transparency. So far, we've seen 20 different projects.

Vintage pairs are being bid on off and on screen, including blue carbon, deforestation, reforestation and REDD+. We've had 30 companies. We launched the exchange with 30 companies being on boarded and we've got another 15 to 20 going through the onboarding process.

We'd really like to encourage more companies to come and join us and further deepen our work to increase price transparency in the market. I'll just conclude by saying that in the design of what we're doing and in the contribution that we're making to the market, we've really drawn on some of the lessons from oil, coal and iron ore markets.

For example, where we've seen the emergence of private sector, physical spot trading platforms, very often they've been supported by collective groups of market participants to see price transparency and liquidity, and essentially help establish more robust spot price benchmarks and eventually, risk management tools.

So we're very excited to continue to do that and very happy to answer any questions.

MR. BERKOVITZ: Thank you. Julien. Will now turn to Thomas McMahon, co-founder and Chief Executive Officer, Air Carbon Exchange. Thomas.

MR. MCMAHON: Thank you very much. And thank you. Chairman Behnam and all the commissioners for having us -- having invited us here today. I just want to start by saying that it is ACX's belief that the CFTC has a critical role to play in the regulation of all environmental offsets, and especially in the voluntary carbon markets.

As the lead regulator, for the net effect can only be seen as one of building confidence in these markets. However, absent this process so far, is any federal regulation or legislation on a national level to address the compliance market or the voluntary carbon market.

A little bit on the history of ACX. We were formed in Singapore in 2018, really to create what we saw as the future environmental credits markets by merging what we saw as the best practices of traditional commodity markets architecture and introducing digital innovations.

Examples of this with the traditional concepts, such as custody for both carbon credits and the members capital and separate omnibus trust accounts, but also technological innovation of having the transactions and voluntary carbon credits and standardized contracts recorded on blockchain and use of a distributed ledger architecture to support that.

ACX now operates on a fully regulated standalone carbon market. For our inception, we saw it to be a fully regulated marketplace.

We achieved this in 2022 in Abu Dhabi following the implementation of new capital markets framework for spot commodities by the Financial Services Regulatory Authority, FSRA, and by ADGM, the Abu Dhabi Global Markets.

FSRA is currently the only regulator globally that has classified both carbon credits as a financial instrument, as well as a spot commodity. Where the trading of which is subject to financial regulatory framework modeled on FISMA of the UK.

And we found this to be really important

because initially when we established ourselves in Singapore, MAS chose not to regulate, because they didn't regulate the underlying asset. And we found it difficult to find any financial institutions that really commended to be able to bring it on balance sheet.

So we really sought the regulator. And FSRA, like the CFTC is an IOSCO member and works under IOSCO standards and principles, and this was key for us also to with the 91-plus signatory countries and cross border recognition. We wanted to take advantage of this. And that was part of what actually brought our invitation here today, and thank you again for that.

Our first exchange in Singapore currently has 178-member firms and it comes from 32 different countries. So our original mandate was to build it in Singapore and face outwards and we did that successfully.

And these include -- the market participants include, but are not limited to banks, trading firms, energy players, corporates, financial

institutions, as well as carbon project developers.

ACX employs a hub and spoke technology model, which has led it to being able to set up in multiple instances and joint ventures in several countries, as well as on a number of continents, so that both domestic and international credits can trade on a global order book, and that it can be assessed internationally.

And the member of firms and participants can execute on a spot exchange, an auction exchange, a carbon markets board, which is an OTC offers direct to member firms that are on-boarded. And lastly, a carbon finder and RFQ methodology that allows for firms on the exchange to look for specific attributes across different projects and the attributes, such as STGs.

And we also offer standardized contracts of OTC matching block trade facility and AFP and clearing facility. We also have in regulatory approvals, we've got approvals for our full CCP and full clearinghouse in Abu Dhabi, which will be focused on broad environmental instruments as well

as voluntary carbon.

We currently also list the suite of standards contracts, as I've noted, which is very similar to what my 2 prior predecessors have spoken about. The ACX is committed to eliminating the friction and opacity inherent in the VCM transaction.

And we felt that the technology via Air Carbon Technologies was built to eliminate these questions around double counting, double spend, double retirements of credit contracts.

We accomplish this by changing the nature of the exchange and registry relationship, taking a page at a traditional account architecture and introducing the individual registries at Omnibus trust account structures for the comingled LSOC principal client Carbon Holdings, which kept bankruptcy remote from the exchange, but fully KYC'd.

And it employs the smart contracts to create a digital record of every individual carbon credit deposited and transacted. A robust inventory management system built into the exchange knows the

beneficial owners in real time. We have a T-0 settlement cycle currently on our systems. And we'll look to maintain either T or T-1 as we move into derivatives.

It can also connect and transmit instructions and report via APIs with the likes of both Verra and Gold Standard and other registries, and any change of beneficial owner, as well as any direct retirement of credits, again, be seen in real time.

And this instruction is then processed by the registry with the transaction records printed on a blockchain with full auditability, transparency and immutability and interoperability, which we felt was very intrinsically important because we're dealing with a digital commodity by nature.

We believe that the voluntary carbon market is evolving very similarly to that of the traditional commodities markets, such as NYMEX and the other exchanges in the energy space in the '80s, the advent of the WTI crude markets in '83, Brent in '88, Henry Hub in '90, and the power markets in '93 and '94 in US and Europe.

Good delivery standards established a viable and liquid futures market that did not previously exist. A narrow enough good delivery window that allowed for a benchmark price to develop, these delivery standards were not so narrow as to be exclusive to only a few, but not so wide as to allow for questionings of quality and integrity.

This is where we anticipate the markets to naturally evolve. We see that this is going to move into a convergence of the compliance and voluntary carbon deliverables, where projects, companies, banks, financial institutions will be able to trade forward and have a mark-to-market pricing.

The scheme will also create a warehouse for environmental credits, which will be a first. The ability to deposit, borrow and lend against the deposited collaterals on exchange in a licensed facility. I'm calling it a carbon warehouse. That'll price credit inventories with a clear mark-to-market.

And the risk management on the underlying unlock credit in these markets will help fund more

projects and innovation and become very circular. Looking historically at commodities, there has always been a parent agency in the background USDA for agriculture, FERC for energy.

The CFTC whose origins were originally part of the USDA, going back to 19 -- prior to 74, was created to address the ever-evolving futures products that were emerging. We learned to take the spot market knowledge and to apply it to the futures and derivatives markets.

Currently, the voluntary carbon market and a broader environmental instrument market is parentless in agency terms. Yet this emerging asset class of carbon instruments will have the same embedded commoditized cost that we have economically absorbed over the past 40 years in the case of energy.

We successfully built a hedging and investment tools to address these needs, and now it is the VCM's time to be addressed adequately. In closing, we would like to reiterate again that we believe that regulators must be part of this process, and

we welcome the CFTC to take the lead role in the US and help set global standards. Thank you very much.

MR. BERKOVITZ: Thank you, Thomas. Final speaker on this panel is Corli Le Roux, senior specialist, United Nations Sustainable Stock Exchanges Initiative.

MS. LE ROUX: Thank you. Thank you, Mr. Moderator, Mr. Chairman and to the Commission and everybody in the room. It's lovely to join you and thank you very much for the opportunity to share some thoughts with you today. I have some slides. I don't know if they will come up, but I will carry on in the interest of time.

The UN SSE is a UN partnership program founded in 2009. Our mission really is to provide a global platform for exchanges, exploring how they can influence and enhance performance on ESG issues. So we currently have 133 partner exchanges. There's a regulator working group, and we have topic specific advisory groups for the work that we do.

We have a number of work streams and climate action is a focused work stream that incorporates

work on net zero as well as on carbon markets and you can see some of the other work streams that that we have there. Moving to the next slide then, how did we become involved in the work on carbon markets?

It really was a conversation with our exchanges throughout the course of last year, where many of the exchanges came to us and said this is a trend that they're seeing VCMs and compliance carbon markets are growing and there are increasing calls for them to become involved.

And so, we started to look into how we can help share information and help our exchanges to learn more and how they can intervene and become involved.

So we released a market monitor, which is in the shape of an FAQ kind of document at COP27 and we established an advisory group on carbon markets, which in the end comprised just around 90 members from almost 40 countries around the world.

So this document, a guidance document, which will be released in October at the World Investment

Forum in Abu Dhabi, is currently under development. It does cover both compliance markets and voluntary carbon markets, but it really intends to kind of give an overview of what the markets entail and how exchanges can interact with them.

Because what we've been seeing, and if we move to the next slide on the state of play, as I mentioned, we've seen a growing exchange involvement. And the interesting thing is that the exchanges that we see from our membership are becoming involved at every different element of the carbon market value chain.

The entry points include government mandates. We see countries like Egypt and Malaysia where their governments have given them a mandate to develop a voluntary carbon market. We see them wanting to grow their environmental market offerings.

And then there's also involvement, whether it's at the project development stage, primary or secondary market, and even in providing technology solutions such as trading platforms. Also,

exchanges are seen to have the potential to help contribute to the scale and liquidity and the integrity.

And this is why I think sessions like today is very important, because obviously there are others who recognize this as well. And the CFTC has a significant role to play to help also exchanges understand how they can engage best in these markets.

So the guidance that we're developing aims to support exchanges. As I mentioned, we cover all of the compliance and voluntary carbon markets, we do a light touch review of the typical and anticipated challenges, many of which have already been touched on today, and then we provide a framework for the potential actions that exchanges could take.

The next slide gives you a little bit of a sneak preview snapshot of what we anticipate the final document will look at and it covers two areas that exchanges can look at. Firstly, in promoting the scaling and integrity of carbon markets in terms of exercising cross-cutting market influence.

And here we would be looking at action areas, for example, policy and stakeholder dialogue, capacity building and market education, partnerships and visibility. These are all things that exchanges are well positioned and well versed in doing, but also leveraging the knowledge that they already have in the ESG space into carbon markets.

From an exchange specific perspective, how they can contribute to developing a credible carbon market offering, and here is where they would engage with the integrity issues, what types of market would be most appropriate for the business model of the exchange, the jurisdiction that they're based in, as well as the marketplace that they operate in and the rules and technicalities around what they establish to be a stable and transparent market.

Moving into the final slide, the guidance document really is just a starting point for a conversation that will continue. It aims to be the start of a consensus building process, and we will

continue to engage with our exchanges and other stakeholders.

Many of you in the room are part of our advisory group, and we really appreciated the input into our work, and we look forward to continuing to work with everybody as well as with the CFTC.

We will continue to do knowledge sharing, establishing an exchange related carbon market database, which is currently under development, just to kind of give people a snapshot of what we've seen, how exchanges are engaging with the carbon markets.

And then finally, we're in talks with various partners on delivering training to exchanges and regulators and the stakeholders on carbon markets particularly. So we look forward to learning more about how the CFTC takes this process forward and we appreciate the opportunity to continue engaging with you. Thank you very much.

MR. BERKOVITZ: Thank you, Corli. We're going to be moving in the interest of ensuring that we get all the presentations in today in the allotted

time. We're going to be moving straight into the presentations of the derivatives exchanges and I would ask the participants to be mindful of the time.

And if you can do it in three minutes, that would be greatly appreciated. So our first speaker is a gentleman that I've had the honor and pleasure of working with over many years, Vincent McGonagle, who's the director of the CFTC Division of Market Oversight. Vince.

MR. MCGONAGLE: Great, thanks. So my brief remarks today are going to be focused on product development with respect to carbon and environmental markets. So product development analysis, CFTC doesn't happen without the product review branch. John Forkkio is in the audience here today.

Looking at these products in the product review branch, Steve Benton, George Pullen, Sanam Gulabandi and Samantha Lee, who just joined the branch. Quick snapshot on product certified over an 18-month period, obviously not going to go through

everyone, but from January ‘22 to June of ‘23, the Division saw approximately 1,300 products, self-certified.

About a quarter of those products, I would say, fall within an environmental risk or environmental product category. Renewable fuels, whether electricity with a component of, say, solar or offset for wind, for example. And we had approximately 60 carbon contracts that were certified during the time period.

As recently as June, then, of ‘23, we had five contracts, three carbon contracts for Washington and two RGGI contracts. So a number of contracts across all asset classes get self-certified. There's an interest in attracting liquidity and we appreciate and understand that.

Of these environmental contracts, we currently have approximately 24 that have attracted liquidity. What I mean by that is, they show open interest in excess of 10,000 contracts currently. And three of the contracts are within the top 100 of futures contracts traded. They have a

significant amount of open interest.

The contracts that, particularly here on carbon, they are physical delivery contracts and they have all been self-certified, if it's a designated contract market. Certain FBOTs have sought to list products and the process is similar but not identical to self-certification. In terms of review, product review perspective.

So an entity self-certifies, that means that they've made the representation that the product meets core principle obligations of the Commodity Exchange Act and our regulations, not only at the time they filed that listing, but during the lifespan of the product.

So they have that responsibility, they make that representation, and the product review branch will look behind and evaluate those products to make sure that, frankly that we agree, you know, within the division. And things that we're interested in and we think about is look, these products across all asset classes, the goal is to inform the price discovery process.

We want to make sure that we have clear, consistent, open, transparent terms that the market has the ability to trade these products to inform based on, you know, a variety of interests. And at the same time, it's also important that there is an understanding, of course, for competitive reasons. Competitive being the DCM wants to make money, right?

So that they want to list a product that people actually want to use for hedging purposes. And they're going to need and are representing a familiarity with the cash market. So there's an interaction that's expected.

You need to know how the cash market operates, but you also need to make sure that activity that's occurring on the futures market is not interfering with the cash market operation and vice versa.

So some of the core principles that we think about, contracts not readily susceptible to manipulation, transparency requirements, opening competitive platforms are position limits and accountability, sort of how you calculate

deliverable supply.

What are the credits that are actually available on a regular basis? How might they be delivered within the market? And, you know, we've seen this, I would say more recently in connection with the digital assets space because there was growth with respect to spot digital asset platforms at the time that the Commission was seeing interest in listing futures products.

We're going to be very interested in understanding, not only are the platforms, but the products, how they're regulated, how they're audited, how they're verified, if it's public information, how that's being reported, whether it's profit or not profit. I see the purple sheet. My time is up.

MR. BERKOVITZ: Thank you, Vince. We'll turn next to Mike Kierstead, the Head of Environmental Products at the Intercontinental Exchange.

MR. KIERSTEAD: Thank you.

MR. BERKOVITZ: Welcome.

MR. KIERSTEAD: Thank you. Great to be here.

Thank you, Chairman and commissioners. I think I'd start with a real quick story that I overheard my son, who's seven, and his friends talking about what their -- what their parents do for work. So my mom's a lawyer, my dad's a fireman.

My son stands up and said my dad's a deal man. He helps people pay for their pollution. I thought wow, that's pretty cool, you know, relevant for the exchange panel. On Sunday night before heading to DC, I was telling them all I'm -- we're going to talk about the carbon credit market or the voluntary carbon market and my kids were asking me about it.

And I said well, there's the ICVCM and the TSVCM with CCPs and the SBTI. And there's CORSIA and our futures are a AFOLU with CCB, and I looked up and they're just whatever dad.

And then I was on the plane thinking, you know, imagine being a buyer of these credits in this market and having all this information and all this, you know, lack of transparency and integrity and difficulty in navigating these markets. So it's

very difficult for buyers of these credits to understand.

You make the net zero pledge, you want to commit to this, and then you enter a world, which -- which can be very difficult to navigate. So as an exchange, we are -- we truly believe in the power of government mandated markets, compliance markets. There's precedent there. I know both Tom and Dan alluded to that. There are stories there.

So if you think of the carbon tons-at-risk and carbon pricing, most of the CO2 does not have a price associated with it. You think of the EU UTS or California, RGGI, or Washington. There's also compliance markets in South Korea and in New Zealand. But most of these CO2 emissions go unpriced.

So it's very hard to get to net zero without having a robust carbon price. And I believe that having regulated markets will help differentiate over the long-term for these -- these types of markets.

So I recommend or comment to the CFTC to

follow the -- I -- excuse me, the IOSCO recommendations, which are, we've been down this road before. The EUETS had billions of allowances of oversupply. The MSR reduced that. There were security issues at the registry. That was fixed. These markets can be fixed and can move forward.

There certainly is an opportunity here for participants exchanges to move this forward with regulation. Build the sandbox, play within it, and there's definitely opportunity to get through some of this murkiness. So I'll -- that's fine for me. Thank you. Thank you very much.

MR. BERKOVITZ: Thank you, Mike. Peter. Peter Keavey, Managing Director and Global Head, Energy and Environmental Products, CME Group.

MR. KEAVEY: Thank you, Commissioner. Thanks to the Chairman and all the Commissioners for inviting me here today to speak on behalf of CME Group. CME Group offers a suite of physically delivered voluntary carbon Futures, which are linked to the spot activity on CBLs over the counter voluntary carbon platform.

CME launched the CBL Global Emissions Offset futures and the CBL Nature Based Global Emissions offset in 2021, with the CBL Core Global Emissions Offset following in 2022. These products have proved to be very useful to our customers and we have seen strong interest in trading voluntary carbon futures from firms around the world.

Between the GEO, the NGEO and the CGEO products, over 377 million offsets have traded since our first launch back in March of 2021. Over that same period, around 16.3 million carbon offset credits have gone to physical delivery.

Just to share a few more statistics with you, average daily volume for the CME's voluntary carbon futures is about 600 contracts on a daily basis, while the current open interest is about 26,500 contracts, that open interest extends out to December of 2025. Hopefully, that gives you some idea of the scale of this market.

Essentially, voluntary carbon futures are a new product, just over two years old, so they are still very small compared to CMEs core commodity

benchmarks. But as you heard, we are already seeing very active trading, open interest continues to build and extend out into time. And so, we are optimistic about the future trajectory of these important markets.

One question we're frequently asked is, who is trading CMEs voluntary carbon futures and why? Over 130 participants have traded our carbon offset futures and activity is globally distributed with customers split between the US, Europe and Asia.

The proportion of non-US business is much higher in voluntary carbon than in many of CMEs commodity contracts, confirming that these are truly global markets. We see a diverse mix of participants in our futures. Banks, trading, houses, corporates are all active.

As we have discussed, voluntary carbon futures are still relatively new, and they are also strongly linked to the physical underlying market. That means at this stage of market development, we tend to see more hedging than speculative activity.

A typical market participant might be a bank,

who is acting on behalf of a project developer that wants to lock in the price on a certain proportion of its future offset certificates to cover development costs.

Or you may see a corporate customer where the firm's management has made a commitment to be net zero by a certain date and where the corporate treasury wants to lock in the price of some of the offset certificates that the firm will need over the next few years.

In short, CMEs suite of Carbon Offset futures offer price, transparency, liquidity and risk intermediation to market participants needing a mechanism to manage risk factors, constraining investment and achieving scale in the economy of decarbonization.

I'd like to turn now to the launch process for voluntary carbon futures, and speak briefly about how CME thinks about voluntary carbon as an asset class. CME follows CFTC guidance to treat voluntary carbon as a commodity product. And so, we follow our standard procedures for launching any new

commodity futures product.

This includes following CFTC core principles and the guidance associated with listing a futures contract. CME has engaged and continues to engage with DMO staff to discuss product specifications and market developments, both on the futures and physical side.

The process for launching voluntary carbon futures has been relatively straightforward to date and has generally followed the path of typical commodities products launch.

Perhaps the only additional complexity has been the requirement for market participants that want to make or take physical delivery to sign up with the spot market CBL, which serves as a facilitator of CME deliveries, and also with those voluntary carbon registries that are approved delivery venues.

That is, though, not too dissimilar from the requirements in other commodity futures, where we would expect that a participant wanting to make or take delivery would have an arrangement in place

with at a metals warehouse or oil storage facility or so on.

Another question we often receive relates to CMEs role in establishing the quality of the voluntary carbon offset contracts that may be provided or received during the physical delivery process. CME makes use of the product categories that have been designed by the CBL spot platform.

These broadly break down into CORSIA-aligned, nature-based solutions, and aligned with the Core Carbon Principles. In this sense, CBL effectively acts as an index provider and supplies the market expertise in physical voluntary carbon.

This is very similar to the way that CME looks to S&P to designate which 500 stocks should feature in the S&P 500 or the way that the exchange looks to price reporting agencies to designate which physical deals are included in their commodity indices.

All of the voluntary carbon certificates that are deliverable into the various CBL indices, and therefore, into CME futures that have been issued

by a voluntary carbon registry, such as Verra or ACR. These registries provide the scientific expertise that underpins the market.

Just as CME does not itself test for protein content in wheat or vanadium content in crude oil, the exchange makes use of third parties, in this case the registries, to carry out appropriate checks and testing.

If market participants were to express concerns about a particular methodology or registry, CME and CBL would clearly be motivated to take those views into account.

To date, feedback has been broadly positive about the market integrity of certificates delivered via CME futures, and the growth in trading and in open interest that I highlighted in the beginning of my remarks are clearly very positive signals. Thank you.

MR. BERKOVITZ: Thank you, Peter. Our final speaker is Caroline Gentry, director, Environmental Markets, Nodal Exchange. Caroline.

MS. GENTRY: Thank you. And I'd like to echo

the words of the other speakers in thanking the CFTC, the Chairman for your leadership, the other Commissioners, and David and Abigail. Thank you for inviting us. So can I have the next slide, please?

So Nodal Exchange is wholly owned by EEX Group, the leading energy exchange in Europe. Open interest is continuing to grow in the environmental products, and we estimate we have around 20 percent of the environmental futures market now. Nodal has the broadest set of environmental contracts globally. Next slide, please.

So we began listing environmental products in 2018. And you can see the full list of products we offer here. The voluntary carbon products are there on the bottom left, which were launched last year in 2022. The next slide, please.

There's quite a high barrier to entry in the energy exchange space, and one of the reasons we were able to break that down was by being responsive to customer needs, finding that sweet spot between the granularity the traders were asking for, while still maintaining liquidity.

Another factor in the success of winning market share was the collaboration with Incubex, as Dan outlined earlier from 2017 with the EEX group. Incubex was founded by the real pioneers of the voluntary carbon markets, and they really understand the needs of traders and brought new products to the market quickly.

So it's a question of having the right contracts at the right time, which explains Nodal's success with other contracts. For example, the Texas Renewable Energy Certificate Market, together with flexibility and innovation such as portfolio margining. So next slide, please.

As other speakers have shown, this is quite a complex kind of acronym soup. You can't read this slide. There's just a lot going on in the voluntary carbon markets. There are varying degrees of quality, but as other speakers have mentioned, you know, that doesn't mean we should throw the baby out with the bathwater.

This ongoing standardization with the excellent work that's being done by the ICVMI and

other -- and other initiatives is the registries, the rating agencies, this is helping to bring this picture into focus. And while it's true that a lot of buyers still want a bespoke service, you know, they ask for specific projects so they can tell their own stories.

But we think over time confidence in more standardized products will grow. So I think if you believe in the power of the markets to solve the climate challenge, you should see the voluntary carbon market as a kind of petri dish or petri dish, you would say, where, you know, anything and everything is allowed to grow, at first.

And all the participants, whether buyers or sellers, the registries or standard setting bodies, are held accountable and make improvements themselves. So we welcome the Commission’s guidance in ensuring a level playing field and keeping vigilant.

We appreciate the work of the task force and the new announcement on the whistleblowers, but it's very important to allow innovation to develop.

So as an exchange, we're here to provide clearing, risk management services. We can move to the next slide, please. We're ready to adapt to however the underlying market develops.

And we believe in standardization as much as possible, differentiation as much as needed. And you can see there how we've divided up the things. You can go into the next slide, please.

That's our full product suite for the voluntary carbon market. So I hope I've kept to time. Thank you very much for the invitation to take part. I'm happy to take any questions.

MR. BERKOVITZ: Thank you. I believe we do have time for discussion. Yeah. Is there any? Dean.

MR. ERVIN: Thank you. And thanks for all the presentations in both the spot and derivatives Exchange. I grew up in the industry derivatives world, which is sort of the opposite end of the spectrum. Huge scale, tiny bid-asks, great visibility.

And as I've started to look into over the last few years, how contracts both OTC and futures have

been developing in carbon offsets, it's a tough forest to navigate. So be curious for whether it's spot or derivatives people.

If you were a new corporate or a new person looking to get into this market, what are the best tools to get visibility on price and quality? What would you recommend as the best entry points that would give you some visibility?

Obviously, there's some stuff on the futures you can see publicly, but if you're trying to get a sense of the OTC world, are there places that you would go in either of your worlds or outside your worlds that you think would be the most helpful for corporates or individuals or oversight groups trying to get a sense of how this market works?

MR. KEAVEY: I'll start with that one. So good question. You know, I think we heard from Verra earlier that there is an enormous amount of information about specific projects out there, almost too much information.

But if you're talking specifically about pricing, then there are a variety of spot platforms

that offer project by project vintage by vintage pricing that can inform price discovery. Now, let's just, we also heard previously that this market is quite fragmented. That's true. It is fragmented in a project by project pricing basis.

However, there are like projects that may have similar attributes and then differentiation attributes. So like any other commodity market, there are benchmarks and there are basis. And then navigating that today is a little bit challenging due to the fragmentation and lighter liquidity in a variety of different projects.

However, initiatives like CORSIA, like the Integrity Council, have allowed some standardization to take place. That is the basis of the futures contract. That is the basis of the scaling of that market, where there are a broad acceptance within a category of credits that meet certain basic criteria.

And that's the building block. Now, additional attributes and additional attractive features may add to the value of those or detract from the

benchmark as a differential in price, but there is an enormous amount of data that is available on the spot platforms to look at both standardized products and individual project trading.

So it's not a question of if it's out there, the question is where do you access it? And I think you have those folks in this room today.

MR. KARAS: Yeah, I mean, the spot changes I've mentioned, you know, we all list project specific credits as well. So on a daily basis, we have two to three million tons of project specific credits that have all those attributes.

But before you get to that point of onboarding and opening your registry accounts and transacting on any of the spot changes, Ecosystem Marketplace is a great tool that we use and kind of one of the first introduction points that we send to new participants in the market.

Obviously, as -- whether you're a trader or an exchange, what's unique about this market is we have to spend a lot of time educating each customer that comes through. In addition, you have some

unique price reporting agencies like the typical, the Platts, the Hargis, the Opus that put out assessments.

Also, publications like Carbon Pulse and Quantum that put out daily assessments. So we've -- this world looks much different than it did two or three years ago. We start pick up. There's a lot of analysis around now, in addition to the freely available registry data.

MR. SCARBROUGH: Yeah, I guess the only thing I'd add to that, I think, you know, this market also has the same challenges that you see in like, you know, the gas-basis markets or, you know, trying to understand the power Nodal Markets, as an example, you know, pointing to exchanges, pointing to PRAs.

I think, you know, you're starting to see more in the way of market data providers as well. Refinitiv, Bloomberg. I think we had the presentation from Bloomberg earlier today, but the major market data distributors who are picking up market data from many exchanges, many marketplaces,

many brokerage companies aggregating that data in a transparent way.

You know, just as Russell alluded to, I think in the last few years that has come a long way. Just to finish up Wilson. So as Peter mentioned the registries are a great source for data.

ICE has a free service called ICE CRED, where you can type in a project number and that'll give you the amount of tons that have been retired, available, what bucket it falls into, reduction removal, tech or nature based. Indicative pricing will appear eventually, but that's a free service for anyone that would be interested.

And it aggregates all registries.

MR. BERKOVITZ: It strikes me as one thing that we do not have in this market yet, or maybe we do, that may play into this is a number like, I'll just use the oil market. You have WTI and you have Brent oil, for example, in the Futures, and those are benchmarks, but very few people actually still use those grades.

I mean, those are benchmark grades, but people

have very different needs -- you know -- in Mexico and all sorts of other grades of oil trade differentials to the benchmarks, but there's a whole pricing history.

They know typically what the basis is from the benchmarks and to the extent, I mean is this -- part of this market getting that pricing history on these projects.

This is a pretty new endeavor with these new standards and new methodologies and so, what will it take to get -- you're not going to find like the price of carbon that's good for everybody I presume. I presume you're going to have basis differentials to this as we were talking about.

Is it possibly getting a history -- a pricing history so people can reliably price off -- price off the benchmark, or what will it take to sort of get that liquidity developed and get the buy in?

MR. KIERSTEAD: Yeah, it's interesting. It's a great question, actually. So WTI and Brent Crude are -- are physical locations, right? These are electronic certificates in registries. It's very

difficult to make a benchmark. We talk about bench lines, what's above and below as far as a credit, as far as integrity goes.

We're not -- we're not there. We're close. We're working towards it. That's, I mean, that's the question, but absolutely, that's where these products could trade at discounts or premiums as spreads to that benchmark. But it's a work in progress.

MR. KARAS: Yeah, I would just say when we launched the GEO and the N-GEO benchmarks, what we saw, if you looked at a scattered plot, it's a graph we show a lot, where you had the benchmark pricing and you saw individual prices that qualified pricing above and below, which didn't really make a lot of sense when you have a basket and it's cheaper -- cheapest to deliver contract.

Over time it's evolved where now you have the benchmark setting the floor, similar to a traditional commodity market, now we're starting to see all those dots of the different project specific credits pricing at a premium, but to

Mike's point, you know, we're still -- there's still too many different pockets.

We're still trying to understand, not necessarily just what the benchmarks are, but how do you draw circles around what those basis markets should be? What are the right vintage years? What are the right co-benefits? How many CCBs? What regions?

So again, things like the ICVCM will help to draw circles around some of those things and develop those basis markets. But it's still -- we're still -- it's a work in progress for sure.

MR. KEAVY: But let's be clear that building, the main benchmarks are a vital part of this because without liquidity, without the ability to transfer risk, there is no basis pricing and then you're back to guessing where markets are relative to one another. So the establishment of a liquid benchmark is vital to the growth.

MR. SCARBROUGH: Yeah, I think one of the unique challenges in this market really is that you've had so many different intermediaries

involved in transactions from the project developer, who's going to be investing and conducting, you know, undertaking the project and the investment necessary to do so.

And then ultimately, the corporate or the end user who's going to be retiring that offset and the number of transactions in between that in terms of intermediaries, different types of parties, because frankly, I think, you know, capital constraint is an understatement for the Voluntary carbon market over the years.

Where, you know, trying to get those investment dollars ultimately back to the project developers is centrally one of the key issues that you have. So you had, you know, many different intermediaries stepping in to try to provide that financing and get the projects off the ground with the developer.

But, you know, having a price associated with the project is also a challenge when you have multiple intermediaries involved in every transaction. So you know, the more centralized, the

more that, you know, comes onto a central marketplace or exchange that will improve that price quality.

MR. BEHNAM: Dan, I don't think you can see this, but Julien from Climate X, Climate Impact X has his hand up. So maybe we can give him the last comment.

MR. HALL: Thanks, everyone. Yeah, the importance of spot price benchmarks is really a subject close to my heart.

And I think, you know, when we look at the VCM, we see it very much as a similar to a sort of early stage commodity market that hasn't yet, like you were saying, Mr. Berkovitz hasn't yet really coalesced around a central benchmark.

And I think what some of the reasons is that the -- what consists of robust benchmark hasn't yet really emerged in the VCM. So what is a robust benchmark? It has to be, I think, first of all, representative of the underlying and there's been some issues with some of the early attempts on that front.

The second key point is it needs to be underpinned by robust physical spot bids, offers, and transactions. And I think a lot of the earlier terms of commoditization, standardization focused on futures and developing the futures, but not so much around developing a robust physical spot price benchmark.

And that's exactly what we're looking to do at CIX, actually. I think it's going to be critical because it'll help market then. It's not going to be a panacea for the market and help address all of the issues around integrity on the supply side and demand side that we've talked about.

But what it should do is help provide a fair market price, facilitate long-term contracts, reduce information asymmetry, make it easier to have fairer benefit sharing agreements, including with stakeholders, make it a lot easier for project developers to raise financing, help adequate market to market both internally and transfer agreements.

And eventually after the settlement mechanism, potentially even for cash settled Futures, which is

a model that hasn't been tried yet in the VCM, but which we think, given the inherent heterogeneous nature of this market, could be a bit of an unlock in helping scale the market.

MR. BERKOVITZ: I want to thank our spot Market and Exchange panelists for an excellent -- excellent discussions and appreciate your attendance here today and participation. Thank you. It's been helpful.

MR. BEHNAM: Dan, thank you for being here with us and leading the discussion as you pointed out something you've been discussing for a couple of years, so a natural issue area for you to lead and appreciate your continued support. So with that, we're going to head to our final panel.

We made it -- we have a little bit of time. We're going to get you out soon, I promise. But this is a really important panel and we appreciate this group staying with us here today and contributing these last few remarks and we're lucky to have Sasha Mackler, who spoke earlier, but is the Executive Director of the Energy Program at the

Bipartisan Policy Center. So Sasha, I will turn it over to you.

MR. MACKLER: Thanks very much. It's a pleasure and a privilege to be here today for this important conversation on a really, I think, as we all appreciate after all the discussion we've had today, you know, a critical part of the solution that we need to bring forward as it relates to the energy transition.

And, you know, really there's a lot of information that we need to digest here today and I'll sort of point out two big challenges that we face. One, is making sense of all this activity and creating a coherent market that's well regulated and that functions with integrity.

And two, in a more of a discrete level for our panel, we only have 45 minutes to get through what I think is a really important topic. And so, I hope we can all sort of be concise in our comments. The Chairman has said he wants to finish at 5:00 and let's really aspire to hit that mark.

And so, in the spirit of that, I'll just offer

some really short sort of framing comments and then we'll turn to our panelists to bring their expertise to bear and, you know, by way of framing, the only thing that I'd like to sort of say to tee this up is that it's clear that we need a voluntary carbon market that's large, transparent, coordinated, coherent and environmentally robust.

And today's market, while there's been a lot of activity and maturation, you know, it's really far from that. It's complex and it's fragmented and there's a lot more work to do.

We have limited pricing data, which makes it challenging for buyers to know whether they're paying a fair price, and for suppliers to manage the risks they take by financing and working on carbon reduction projects without knowing how much buyers will ultimately pay for those credits.

You know, low liquidity, scarce financing, inadequate risk management services and limited data availability really are the challenges we need to kind of work out as we grow this market so that it can meet the needs and the opportunities that we

face, as we heard earlier, to hit our goals in 2050.

So today's market actor panelists will help us shed light on how to increase participation from a wide range of market actors and move towards scale and importantly standardization in the voluntary carbon markets so we can reduce barriers to entry and increase the range of participants that can actually take part in these activities.

So with that framing, I would just like to turn it over to our -- to our panelists, who I will introduce as they jump into the conversation. And we'll start first with Dr. Lorenzo Bernasconi, who's the Head of Climate and Environmental Solutions at Lombard Odier Asset Management. Over to you.

DR. BERNASCONI: Thank you, Sasha. And special thanks to Chairman Behnam, federal Commissioners and the CFCT team. I much appreciate the opportunity to be here today. As mentioned, I'm Lorenzo Bernasconi. I'm head of Climate and Environmental Solutions at Lombard Odier Investment

Managers.

Lombard Odier is a Swiss banking group, founded in 1796 with a core investment conviction on the net zero transition. In my role, I help run a global carbon market strategy, investing both in the compliance and the voluntary market. I should, though, just clarify up front that the views that I will express today are my own, not necessarily those of my firm.

My perspective is, nonetheless, can you guys hear me okay? Yeah. Informed by my role as an investor seeking to mobilize institutional capital at scale into the climate and nature positive transition. And it's also informed by my kind of longer-standing role within the voluntary carbon market, looking to scale this market and bring greater integrity.

Having launched initiatives such as the LEAF Coalition and the R3 standards that were mentioned earlier this morning. From where I sit at the intersection of the fight against climate change and financial markets, I think there are two clear

facts. The first, and it's worth reiterating, is that carbon credits are crucial.

Indeed, they're vital in our fight against climate change without a robust carbon credit market achieving net zero within a timeframe that avoids catastrophic climate change is going to be impossible. Second, to tackle the climate crisis effectively, an efficient derivatives market linked to carbon credits is fundamental.

Derivatives provide a way for hedgers to manage risks and allow investors to efficiently gain exposure to the underlying commodity. And a derivatives market, of course, lends important legitimacy and credibility to this nascent market.

We've seen today and in past forums rigorous, you know, debates around the integrity of the underlying carbon assets, and rightly so. Trust in the underlying commodities is a first order threshold issue. However, in addition to this, lies another shared challenge that I think is core to the CFTCs oversight and enforcement responsibilities.

And this is linked to ensuring that derivative contracts themselves are fit for purpose and are properly and transparently managed by derivative exchanges. In my view, this translates to guaranteeing three key aspects related to carbon credit derivative contracts and related exchanges.

First, derivative contracts must not just exist, but they must serve as catalysts for market quality improvements. We need contracts linked to the best top-tier standards that are in line with Paris Agreement best practices. This alignment is vital to provide the right price signals and to de risk investments into high quality projects. This is currently missing.

Today, for example, the low single digit trading prices of current carbon credit futures, they don't reflect the current or future price of highest quality carbon credits. In my view, this is largely due to the contract specs not reflecting the highest standards. Second and relatedly, derivative contracts, must evolve in line with evolutions in quality standards.

This is critical for the integrity of the market, but also to allow investors to take convictions on future market developments and to avoid market participants being stuck holding stranded assets in the form of delivered carbon credits that correspond to outdated standards.

For example, as we heard today, earlier this year, CORSIA announced plans to tighten its standards starting in 2024 to align with the Paris Agreement goals and for its next phase. However, the CME decided not to reflect this change for its global emissions offset or GEO contract for CORSIA eligible credits.

Instead, the GEO futures contract was limited to the more lenient pilot phase requirements even beyond 2024. So practically what this means is, if say, someone buys a 2025 GEO futures contract, the carbon credit that would be delivered in 2025 won't meet CORSIA eligibility at the time of delivery.

Needless to say, this is a source of potential confusion among market participants, and I believe a sorely missed opportunity for the market to

ensure quality and impact. And lastly, transparency and enforcement of contract specifications has to be non-negotiable.

Contract specifications must be clear with investors having full confidence that actual deliverables match what's written on the label and enforcement must prevent any arbitrary changes to contract deliverables.

These foundations will empower market participants to make use of derivative markets for risk management and for price discovery as they were intended to do, and we believe will unlock significant investment in our fight against climate change.

With that, I urge the CFTC to be proactive in their oversight and enforcement of derivative contracts and derivative exchanges to deliver on this promise. Many thanks.

MR. MACKLER: Thank you. And we'll next move on to Tom Colebatch, the Managing Director of Commodity Markets and Finance at Macquarie.

MR. COLEBATCH: Thank you to the chairman and

commissioners for convening today and I appreciate the opportunity to contribute to this important conversation. Macquarie is a global financial services group, which operates in 34 markets worldwide and we're a leading market participant in the energy transition across our investing, financing and trading activities.

Macquarie participates in the voluntary carbon market, both as a buyer of carbon credits for our own sustainability goals and also throughout commodities and global markets group, which has been active in carbon markets since 2005 and established a VCM focus global carbon team in 2021.

On the supply side, we work to structure and bring capital to the carbon market across a range of project types such as nature-based solutions, household devices and carbon capture utilization and sequestration.

And on the demand side, we work with our clients to provide sourcing, risk management, and financing solutions for carbon credits as part of their wider sustainability programs. And we often

do this in combination with our pre-existing business, which supports them in managing their requirements in relation to compliance programs like the EU ETS.

Macquarie's view on the role of carbon credits is twofold. Firstly, that they're an important part of the journey to net zero by 2050. Secondly, that they are not the only solution in and of themselves, but they are a practical low-cost enabler and they do come with important developmental opportunities for the global south.

Some key points for today, in our view the VCM is at an inflection point. We believe clients are looking to engage in the market, but they're hesitant because of a lack of clarity on endorsed minimum standards for quality of carbon offsets, as well as claims made in relation to the use of carbon credits.

An engagement from the CFTC, as well as other agencies is important for the market to reach its potential. The overall market dynamic, we believe, has slowed in the last year. We've seen price

volatility and a general downward trend in prices.

We've seen negative press headlines around the quality of some types of carbon credits, as well as corporate claims made in relation to those carbon credits. We've seen key industry sectors pivoting away from the voluntary carbon use of carbon offsets, in particular the aviation sector. And broadly, we've seen that retirements of carbon credits are tracking flat. They're not growing.

So in more recent times, we've also seen increased sovereign engagement from the market, particularly countries that see carbon credits as an export opportunity.

And we've seen growing expectations on the use of Article 6, and integration between what is currently private side activity in the VCM, with potential future public side activity under the Paris Agreement, although importantly this is yet to play out. But the overall ecosystem appears to be less vibrant than it was a year ago.

A few observations on why we believe the market is where it is, particularly in relation to

the demand side, which I think is really important here.

From our discussions with clients, corporates have gone through a process over the last several years where they've measured their emissions, they reported on those emissions and they've established medium and long-term targets in respect of those emissions. They're now at the implementation phase and they're struggling to execute.

A lack of endorsed guidelines and standards is a significant factor for why corporates are not participating fully in the market at present. We do recognize that there are a number of industry-led initiatives working to address core questions.

For instance, the ICVCMs proposed Core Carbon Principles framework to address what is a high-quality carbon credit and the VCMIs claims code of practice to address what claims can be made in relation to carbon credits. But in isolation, these are ultimately industry led guidelines.

Specifically looking at the US, agreeing on federally endorsed minimum standards or guidelines

on the reporting of emissions, specifications of qualifying carbon credits that can be used to reduce net emissions and language on how the use of those carbon credits is framed would be helpful in supporting the market to reach its potential.

For instance, in Australia, the Australian government's climate active program established a minimum standards framework for the use of carbon credits by corporates.

And while the specific minimum requirements of the framework will and should be continually reviewed as the market evolves, as a feature of market design in and of itself, it appears to have supported engagement in the market from corporates that may not have otherwise occurred.

So in summary, at this inflection point for the market, it appears there is a window for engagement from agencies such as the CFTC to support the growth of the market and activity from a wider range of participants than we see currently. Appreciate the time.

MR. MACKLER: Thanks, Tom. And I want to thank

the first two speakers for their conciseness and now we're going to turn to John Battaglia, who is the Managing Director and Global Head of Carbon Markets at BGC Environmental Brokerage Services, who will be with us virtually.

MR. BATTAGLIA: Thank you very much. Can you hear me okay in the room?

MR. MACKLER: Yes, we can.

MR. BATTAGLIA: Okay, great. And there were some slides. Are we going to be able to access those?

Thank you very much. First off, thank you very much. My name is John. I run the carbon trading business at BGC Partners. Now, as of July 1st, BGC Group, we just renamed ourselves. A special thanks for the invitation to come today. Apologies for not being able to make it in person.

My legal and compliance did ask that any opinions expressed today are my own and may not reflect those of BGC. So getting that out of the way, I want to talk a little bit today about who we are, our role in the market and then a few

observations on the VCM. I understand that, you know, we have very limited time here.

So I'm going to keep my comments brief, because I know that there are a number of other, you know, participants that are coming after me. Next slide, please. So BGC Group, we're a leading financial technology company in global brokerage. We service the wholesale financial and commodity markets.

We provide voice-assisted trade execution and also electronic trade execution to a variety of different markets. BGC was spun off in 2004 from Cantor Fitzgerald merged with BGC to create BGC Partners. We're a global company. We're headquartered where I am right now at 55 Water Street down near Wall Street.

And we also have a significant presence in Canary Wharf in London as well, but operate in all global markets across all asset classes, fixed income, equities, commodities and a variety of derivative markets as well. Next slide.

As I mentioned, we're global. We can go to the

next slide, please.

The environmental business, Environmental Brokerage Services is a subsidiary of BGC Group. It was effectively established in 2011, when BGC Partners at the time had acquired Cantor's CO2 business -- Cantor Fitzgerald's CO2.

That was in 2011. That group has been quite active in the environmental markets going back to the 1990s, really under the acid rain program, trading in NOx, HC, and PM10, and a variety of criteria pollutants. Also, quite active in the CDM, the clean development markets, you know, in London.

The group as it exists today, I run the carbon side. My colleague, Nicole runs the renewable energy side. And we're active across a variety of carbon markets. I've personally been involved in carbon markets in North America since 2008. So we're active in the EU UTS, trading EUA certificates, the United Kingdom, trading UK certificates.

I was involved in a lot of the first listed in OTC physical trades in California carbon allowances

and California carbon offsets. RGGI, Alberta has a provincial market.

We brokered the first listed WCA through Nodal recently in the last couple of months, active in the CCFS, which is the Canadian clean fuel regulation, variety of credit markets in the wholesale fuel markets in the regulatory space as well; and then where other markets are active include, of course, global voluntary carbon markets and global credit markets.

Next slide, please. BGC was, as I mentioned, spun off from Cantor Fitzgerald, so we do have a charity day. Cantor had lost 658 employees on 9/11, so every 9/11, we like to raise money for charity. All proceeds globally go to charity. So I'd like to highlight that. Next slide.

Our role in the market is really a facilitator of transactions and liquidity. We're an OTC broker. We are regulated, you know, in that we are interacting with regulated products that are currently listed on exchanges. So we would be an executing broker in that respect.

As I mentioned, we sit in the middle of a variety of different market participants. So you know, in markets where there are not listed trades on the screen, we are facilitating OTC and then reporting prices and activity and liquidity and market conditions to our customer on a daily basis, on an ongoing basis. You know, we deal directly with end users. We deal with banks.

We deal with product development companies, trading firms, funds, in some cases, direct institutional capital, looking for exposure to environmental commodity markets, and we do this in a variety of ways. It could be once we have trades, we can give them up to the exchange as an executing broker.

We could be voice-matching counterparts and bringing them together and introducing them as an introducing broker and in other ways we can be bringing them together effectively clearing in the VCM market, in particular.

We don't operate that business model in the compliance markets, but in the voluntary carbon

markets we can bring parties together and facilitate matching and clearing funds and credits in some cases, particularly in Verra, Gold Standard, ACR and CAR, as far as registries are concerned. Next slide, please.

Observations, I think we're at an inflection point as Tom had mentioned for the voluntary carbon markets. It seems, you know, to me that our observations have been that there's a lot of capital on the sidelines, both from our corporates and investment houses that are looking, you know, to funnel financing and capital into the voluntary carbon markets.

But there's a tremendous amount of confusion around quality, as everybody had mentioned today, and what type of credits to buy, what type of projects to support, and what type of exchanges are listed products to interact with.

And so, you know, we see a significant risk of getting it wrong, obviously, for the market right now, and see a huge role that the CFTC and other regulatory bodies can play in helping to coalesce

the market around a centralized standard. What we see, you know, is a lot of fragmentation across the markets.

And, you know, we see certain folks defining quality through credit rating agencies, to registries themselves. We have customers that have, you know, benches of 12 people deep that are technical experts on additionality, leakage, and various other quality criteria, and that are not looking necessarily at credit rating agencies or other quality standards and developing their own.

So there's a lot of bespoke fragmented approaches to quality, and I think that there's an opportunity for regulatory bodies to set standards, you know, that the market coalesce and get confidence around to not miss the opportunity to scale, you know, and to bring us to the next stage of the market.

MR. MACKLER: Hey, John, this is Sasha here. Just want to ask you if you could please wrap up so we can -- we can --

MR. BATTAGLIA: Yes, absolutely. Sorry.

MR. MACKLER: Thank you.

MR. BATTAGLIA: If I missed a cue. I'll just wrap it up right there and we can kind of get through everybody and go to questions after that. Thank you.

MR. MACKLER: I appreciate it. Thanks, John.

MR. BATTAGLIA: Sure. Sure.

MR. MACKLER: Next, we're going to turn to Dirk Forrister, who's the President and Chief Executive Officer of the International Emissions Trading Association.

MR. FORRISTER: Thanks, Sasha. And, thanks Commissioners for still being here. You've been through a lot today, and I'm trying to put myself in your shoes and think about what you must make of this.

And I hope that as you've heard all of this discussion, there's a little bit more to it than might first meet the eye, at least in terms of the criticisms you might read about in the press.

There's actually a lot more structure around these markets than one might believe, and really

the discussion has taken me back to work in this town around the Waxman-Markey legislation back in another time, right?

And during that time period, we were in discussions IETA and CFTC, about the regulation of the market that we thought would emerge under that legislation and were quite supportive of CFTC asserting jurisdiction over environmental markets broadly, recognizing that somebody needed to do that, right?

And then I remember making the prediction at the time that we were such good lobbyists that we were going to end up having market oversight without the underlying market. And we sort of did that too, right? Because now we don't have a federally regulated market in terms of a compliance market.

But instead, we're trying to mimic it as best we can with use of private standards and building on kind of the experiences of other commodities in the past in building up as much as we can in the private sector to hopefully make the pathway to a

legislated solution easier when the time comes.

I guess I wanted to step back and take a bit of a global perspective and take you back to Kyle's presentation at the very beginning because I don't think I need to repeat all the great things that exchanges are doing or standards are doing and I should confess many of my member companies are around this table.

Maybe who isn't here as much are the end use buyers, the companies that are actually making investments. We've got a little bit of that. But I guess what I wanted to reflect on was, you remember his stair step, that stair step chart? All the mitigation potential at various cost points and volumes.

And what was on that chart was something on the order of nine or 10 gigatons, which in our world is a lot of mitigation that's out there, that's potential, but it doesn't have money.

And that's really what's at stake right now, because the voluntary markets, from the United States perspective, is probably the best tool that

we have for connecting finance from large US corporates with the need in developing countries for more mitigation funding, right?

Because that massive legislation that President Biden got through on climate change had zero international funding in it. So that's why Secretary Kerry -- former Secretary Kerry is so interested in this energy transition accelerator. It's because it's a new standard that could drive more investment into the energy transition in developing countries.

Because it's the one tool that we have for directing finance, again, from the private sector in the US. And as I think about that and ways that you could be particularly useful in that, I'm also thinking about your counterparts in the developing world that are trying to figure out how do they want to steer the investment, right?

You heard samples today about, well, we put a restriction on this or -- and frankly, some of those countries should be doing that. They should make sure that they're going to comply with their

Paris targets before they take their national treasure to market, right?

But I think what most of them are finding is that they have more than enough mitigation potential to meet their target. Frankly, what they lack is the financing to bring more to the table, and that's what these voluntary carbon markets have the potential to do.

On their side of the table, I think one of the other things, and Chairman Behnam, I was part of the IOSCO session that you ran last year. And since then, as I travel the world, one of the things that I'm hearing more from developing countries is what kind of market oversight structure do we need?

I mean, there's some basic environmental stuff that needs to be done about assuring the targets, and there's a trade thing that needs to be done on authorizing credits for international transfer.

But the market oversight piece will also be an item for them, and I would love to have a model from the United States that's nimble, that's not snuffing out the market, but is actually

encouraging it, but maybe gives us also a replicable model. And I think that came out of several of your comments in the opening about how markets like these familiar models.

We like standardized contracts, we like standardized crediting programs, we like a threshold standard from the Integrity Council and the Voluntary Carbon Market. These are all extremely useful tools.

The one that Flavia spoke about from the World Bank about helping standards digitize in a common way so that the Climate Action Data Trust, that we're involved in helping to implement, can reflect all of the existing standards in one place.

That would be an innovation for us right now if a market participant wants to go and find out who did diligence on a project and find out if it's being considered in more than one registry or more than one standard. You have to look like six or eight different places. But this digital infrastructure will bring it all together in one place, again, as a public good.

I think all of these are building blocks for something that could be truly transformational, but your piece of it which we'd love to be in further dialogue about how do you actually encourage, you know, the proper use of these powerful tools without sort of overkill of adding too much of a regulatory burden.

And I think we're open to finding what that balance is, but I guess I just wanted to bring that perspective about the International Finance Component, because, frankly, it is --

MR. MACKLER: Thanks. You just got to --

MR. FORRISTER: What it represents.

MR. MACKLER: I just wanted -- I don't want to cut you off, I just wanted to let you know we need to move on.

MR. FORRISTER: Yeah. It's what represents the success or failure of the Paris Agreement. So thanks.

MR. MACKLER: Thank you. And I'm sorry to be a little heavy handed here on the panel, but just trying to keep things moving along. And our next

speaker is David Tenny, who is the President and Chief Executive Officer of the National Alliance of Forest Owners. Over to you, David.

MR. TENNY: Sasha, I'm going to keep your hand light, because like everyone else, my blood sugar level is about zero right now. So let me just tell you a little bit about us. I'll do some contextual table setting, talk about integrity, and then the role of government. Our membership represents about 86 million acres of private forest land in the United States.

That's a lot of trees. And the most important thing I want you to know about these forests is that they're working forests. These are the forests that provide wood and fiber to our nation. I'm going to give you three statistics that I hope you'll remember for the rest of your lives, at least while they're -- as long as they're valid.

First is that our private working forests in the US are about 47 percent of the landscape of all forests in the United States. That 47 percent is providing about 47 percent of all of our carbon

storage in the United States and all of our forests. So 47 is the first number. The second number is 90.

These forests are providing 90 percent of our timber harvest for everything that we produce from our forests. So that creates a question. What is the impact of that? The impact of that is they're providing 80 percent of our net sequestration every year. So 80 percent of our net sequestration is coming from the forests that are producing 90 percent of our timber harvest.

What does that mean? That means that these forests, as Sean pointed out earlier, are already carbon negative. And that is in large measure an outcome of traditional markets, quite apart from any of the markets we're talking about here. Since the 1950s, we've seen a significant increase of both population and consumption in our country.

But what's happened with our forests, the volume of forests in the United States has grown by 60 percent since the 1950s. That's what markets can do. We can provide what the marketplace wants, but

the marketplace needs to give us very, very clear signals, which brings us to integrity. The most important thing on the minds of my CEOs in this space is integrity. Why?

Certainly, there's a market opportunity here, but beyond that there's a lot of reporting that's going on in the world right now. Whether it's for net carbon zero commitments, or whether it's for scope emissions, or whether it's for sustainable financing, whatever.

Integrity is the most important thing for our members and it's not as much about the marketplace as it is about social license. For us, our contributions to climate change are like our contributions to water quality and wildlife habitat. They are a matter of social license.

And this marketplace could just enhance everything that we do because we can provide what the marketplace wants. So what can government do about that?

Well, first and foremost, data is king. Data analysis, the MMRV stuff that USDA is talking about

is king. We're working with USDA to provide a single source of truth on the data.

Think of how much help that would provide to the marketplace. What is the single source of truth? It's the data that USDA is providing on domestic forests in the United States through forest inventory and analysis and making it accessible through radical transparency. That's number one. Number two, we need alignment across government.

Think of how difficult it would be for the CFTC to regulate No. 2 yellow corn if it didn't even know what it was. We need USDA to tell CFTC what No. 2 yellow corn is so that it can be regulated in the proper way. Same thing for carbon. We've got to have consistency across the government. Confusion is death.

Finally -- or third, we can validate what's already going on in the marketplace. We've got Verra sitting right across from me. They're doing a good job. Let's validate that; a stream like a good parent would. Let's validate good things that

they're doing rather than kicking them in the shins every time they are innovating and something doesn't seem to go right.

They are doing a great job and we recognize that everybody should. Fourth, we should spur investment in climate solutions, either direct or through market-based incentives. And USDA is doing a great job at that. I think the IRA was about that, and we need to keep that going.

And finally, the engagement of stakeholders. If we want this to work, the world needs to be a part of it, and certainly we'll do our part.

And with that, I will yield the balance of my time, as they say in this town.

MR. MACKLER: Thanks very much, David, appreciate that. We're going to turn now to Todd Phillips, who's a Fellow in Corporate Power at the Roosevelt Institute.

MR. PHILLIPS: Thank you. Thank you, Chairman Behnam, Commissioners, David, and Abigail. If I have one takeaway from this, it's this, enforcement, enforcement, enforcement. The VCO

market is rife with failures.

As market participants have limited incentives to ensure that VCOs actually deliver the climate benefits they claim. The market for VCOs is subject to widespread perverse incentives. Buyers are mostly motivated by low prices and rely, at least rhetorically, on the quality standards put forward by voluntary carbon market standards.

Meanwhile, VCO auditors are paid by developers who are not asked to opine on the quality of the underlying market standards, so they face every incentive to give positive opinions and developers are primarily incentivized to achieve low prices and cut corners, whatever standards allow.

Because standard setters also run registries and are paid on a per VCO basis, they are incentivized to set standards officially low, that many projects can meet them and opt to sell VCOs on their registries, but perhaps not so low as to be laughable.

Meanwhile, everyone competes against one another, such that if one market participant

successfully cuts corners on quality, others have an incentive to follow. Everyone is stuck in a race to the bottom.

While I wish the CFTC could regulate a way all the problems with the markets, the CFTC's role is limited to policing fraud and market manipulation, specifically Section 6.1 of the CEA, Rule 180.1.

Accordingly, enforcement is the most significant tool the CFTC has. I was extremely pleased to see the CFTC's whistleblower office release its alert on carbon offsets and the creation of the Environmental Fraud Task Force. And I'm optimistic that this is a precursor to significant enforcement actions.

I know that the CFTC's enforcement resources are not unlimited, and I want to comment about where the Enforcement Division should focus its attention. CFTC Rule 180.1 prohibits fraudulent, untrue, or misleading statements of material fact, or omissions of necessary material facts made "directly or indirectly" "in connection with" the sale of any commodity.

This authority gives the CFTC wide latitude to pursue the biggest and most important participants in the VCO markets, even if they are not directly involved with any particular asset sale. Specifically, the CFTC should focus its attention on standard setters, whose standards are used to create millions of credits sold all over the United States and the world.

Countless studies and in-depth investigative reports demonstrate that many of these credits may lack additionality and permanence and have leakage. Accordingly, if standard setters intentionally or recklessly make untrue or misleading statements of material fact in connection with advertising the benefits of VCOs generally, they should be liable for violating the CEA.

Here's a hypothetical. Suppose a standard setter's senior officer has actual or constructive knowledge that a carbon credit methodology does not result in a reduction of one ton of carbon dioxide emissions relative to a reasonable baseline scenario, perhaps because the employee has seen

studies disproving the methodology or its application.

Yet the officer broadly states that all the offsets it sells are worth one ton of carbon dioxide emissions. If the officer knows or should have known that the standards that are continues to sell VCOs created under that problematic methodology on its registry, that could violate 180.1.

Before I conclude, I want to note that perhaps the worst thing the CFTC can do is implicitly bless any one VCO standard or methodology. As the CFTC decides to issue guidance, that guidance should be limited to advising the industry what not to do, rather than promoting particular methodologies.

After all the industry's self-regulatory efforts have intentionally avoided this question. which is why enforcement is so important. Thank you. I'm happy to answer questions.

MR. MACKLER: That's great. Thank you, Todd. Now we will be turning to Jonathan Goldberg, who's the CEO of Carbon Direct, and he is joining us

virtually.

MR. GOLDBERG: Thanks, Sasha, and thanks, Commissioner. I know we're running up on time, so will keep the comments concise. For a quick introduction, our firm was founded with a commitment to the science of carbon management, the bulk of our team, our scientists with different expertise and different fields of carbon management and carbon removal.

And our firm has worked with some of the largest purchasers of carbon credits and carbon renewable credits in particular. Firms like Microsoft and JPMorgan, who have made large-scale purchases key to our ethos is publishing so we do publish a lot of our thought process on what we think can and cannot make a strong carbon credit.

I don't want to belabor some of the other points that have been made by previous speakers, but we do have a challenge in the market today in that there's a proliferation of credits that do not meet the highest standards of carbon across the different types of carbon removal that we look at.

We've done more than 200 different reviews of different projects. It's difficult to consistently find high quality credits in the market as other speakers have noted. There are a number of sort of well-intentioned groups, industry organizations now that are trying to improve.

We do think this proliferation of standards is potentially helpful, but can also be confusing to the market. And therefore, we would agree that there's a strong role that the government can play with guidance to ensure high quality carbon credits. I actually echo a number of the comments the previous speaker made.

We think one of the biggest, biggest areas that the CFTC can lead on is the dissemination of information and data that would allow buyers of carbon credits to make or have informed decisions around what they're purchasing, in particular around areas of additionality on the idea that a carbon credit is actually leading to an additional ton of CO2 removed or reduced from the atmosphere.

We've been pleased to actually see a number of

bills and in the state of California speaking to the types of information that reasonable buyers would want to use to make an informed decision around carbon credits, around additionality, and we think the CFTC can provide similar guardrails in its enforcement and oversight.

Thank you for the opportunity. I know we're short on time, but be happy to answer any questions.

MR. MACKLER: That's great. Thanks, Jonathan. And I should just note that Jonathan and his team at Carbon Direct were partners of the BPC in the report that I mentioned earlier which is, you know, I think quite relevant to this conversation today. And last but not least, we will turn to our final panelist, Kari Larsen, who's a partner at Willkie Farr, and Gallagher and is speaking on behalf of the Futures Industry Association. Over to you, Kari.

MS. LARSEN: Thank you, Sasha. Thank you, Chairman, and the entire commission for holding this convening. I am Kari Larson. I'm a partner and

co-chair of Willkie Farr and Gallagher's Digital Works Practice, and I also am a member of the Futures Industry Association's Board of Directors, and I'm delighted to be here today representing FIA at this important event.

FIA believes in the power of well-regulated markets to drive price discovery and provide opportunities for risk management that are critically important for a transition to a lower carbon economy. Voluntary carbon markets are a prime example of the kind of innovation that financial markets can provide to the global economy to assist with this transition.

While the markets have not yet scaled to their full potential, it should be noted that carbon markets have grown exponentially over recent years. FIA is committed to working with the public and private sectors to facilitate continued growth of voluntary carbon markets that are reliable, transparent and resilient.

As with any emerging or evolving market, which you know that I love, meeting these objectives will

require infrastructure supporting these markets to continue to mature and a greater degree of standardization in order to increase participation. This ultimately will boost confidence of participants across the entire value chain and promote a successful market.

The listed derivatives markets has a strong track record of success in scaling high integrity markets for a variety of asset classes. We are confident that exchanges, in collaboration with market participants and self-regulatory organizations will develop the derivative products necessary to support a robust climate market.

FIA commends the CFTCs efforts to promote public dialogue toward better understanding of the developments, the challenges and the opportunities in the climate and sustainability linked markets, including voluntary carbon markets.

Today's meeting is a testament to the CFTCs commitment to tackling these important issues that will define these markets for years and indeed future generations to come. FIA would like to offer

several recommendations for the CFTC to consider, as it considers action in this space.

First, climate change and the ongoing energy transition is global in scale. Therefore, FIA encourages the CFTC to continue to coordinate with global regulators and standard setting bodies to align legal and regulatory treatment of voluntary carbon offsets as much as practical across jurisdictions. Second, voluntary carbon markets have shown remarkable growth in recent years, driven by private sector demand and ingenuity.

FIA would encourage the CFTC to prioritize actions that will allow this continued innovation and growth in these emerging products and markets.

Third, FIA believes that the Commodity Exchange Act, existing CFTC regulations, and the self-regulatory regime administered by the National Futures Association already provide a flexible and principles based regulatory framework that allows for effective and strong regulation of existing environmental products and those yet to come.

Fourth, the FIA applauds the CFTC for engaging

with stakeholders, including through public meetings such as the convenings and encourages the agency to continue to listen to farmers, ranchers, producers, commercial end users, and other industry participants.

If the CFTC issues new regulations in this space, it will be important to hear from stakeholders during both the process of development of the rules and through the formal comment process. We look forward to continuing this conversation and thank you again for holding this important meeting today.

MR. MACKLER: All right. Thanks. Well, we landed the plane just about right on time, 5:00. I really want to thank the panelists for the remarks and, you know, I wanted to see if we can do a little round of questions and discussion if there's time for that.

And so, maybe we can open it up for anyone around the table if they'd like to ask any questions and maybe if you're thinking about any questions to ask, I'll throw out the first one

which may be to see if we can bring the conversation back around to where we began today and think about the position that the CFTC is in right now.

As they're thinking about these markets and taking in all that we've heard today, what advice would you give to them and what could they be doing from an oversight perspective to promote innovation for high integrity carbon derivatives?

Do you have any basic takeaways or things that you would like to add to your comments for the CFTC as they take away from today? And I'll just open that up for the panel.

MR. FORRISTER: I'll just start off by saying I think it's in a way the ICVCM that's been referenced throughout this is a real gift to you because it's going to provide this threshold of quality and integrity that I think we all want to see.

But I think your focus should remain on the futures options derivative space, the financial treatment of it because that's a real bear of a

task to try to get involved in the actual underlying. I'm part of the ICVCM, I know the kind of staffing that takes, the kind of pain that it takes.

And frankly, it ends up extending to developing countries, right, where the actual projects take place and they need to be verified. But I think the types of activities that you can do to provide more clarity and assurance on secondary markets could be great.

MR. TENNY: Stay close to USDA. They are connected to this community unlike any other agency. Keep it simple.

The marketplace needs help, it doesn't need to be overly complicated; and the regulatory touch, light, light touch. If we want to foster something that's going to work for the sake of the planet, let's make it work.

MR. PHILLIPS: Yeah, I would just add, I think it would be very difficult for the CFTC to adopt some kind of standard. The science is always developing. There are new articles evaluating the

methodologies coming out all the time. And so, I think let the private sector develop the methodologies.

And to the extent that the CFTC can get involved, I think it is making sure that projects that do comply with the methodologies. I think that there are problems with some of the methodologies, but I don't know how the CFTC can or should get there. So I reiterate enforcement, enforcement, enforcement.

MR. MACKLER: That's great. There's -- there's so many ways in which we can unpack this conversation.

And, you know, there -- and be -- because we're limited in time, maybe one thing that I sort of hear, when I, and what I think about a lot when we -- when we're starting to really engage with these issues is the flag that comes up a lot in when we're thinking about the integrity of these markets is really around additionality.

Are these tons, are these reductions real? The other part of this that hasn't come up as much and

that I'd love some reactions from this panel on is the permanence question and are these reductions, are these credits being used in the marketplace for what they are, you know, in an appropriate way.

Can they be actually taking CO2 emissions off of the corporate ledgers permanently as they are being claimed to do in a lot of cases? Is that the appropriate use and is that something that the CFTC and the government bodies should be looking at as well?

MR. FORRISTER: On this one, I would say wait for the ICVCMs guidance on this because I think it will be a topic that they cover. And it's one where all of the standards have some slight variation in how they do permanence. It is something that I think is important to harmonize so that they're not all different.

MR. MACKLER: That's right, and I know Jonathan you wanted to jump in.

MR. GOLDBERG: All right. Yeah, I was going to say, I mean, it seems like there's sort of twofold part of the question. One is, you know, what people

say they're using the credit for. So if you're emitting a ton of carbon through flying or through other activities, that's a permanent emissions.

There are some types of carbon credits that are never going to be permanent removals by the nature of them. There are ways to think through different permanence and durability and different types of credits by measuring the duration of storage against something like an engineered solution.

That's quite difficult to do and somewhat subjective, even within the science. So I'm not sure that the CFTC will be able to determine that, but it should be able to determine whether people are abiding by the rules that they've laid out and the standards that they've set.

MR. TENNY: I would agree with that. Nothing's permanent, even permanence. And so, as much certainty as can be provided in timeframes, I think that we see that there are timeframes associated with these products. And there are plenty of safeguards that are in place already.

The registries that we -- our member companies would work with provide really good safeguards already. So we have to just deal with the fact that nature is changing all the time. And so, if we can roll with that, then I think we'll get to the right place.

MR. MACKLER: Yeah, I think the point is that there's a timescale associated with the emissions and there's a timescale associated with the action on a reduction and are they in sync, that's the question.

Any other thoughts from the panel on this or anything else? Yeah.

MR. PHILLIPS: So my understanding is that carbon stays in the atmosphere for about a hundred years. So I think that when we're thinking about carbon offsets and permanence, I think carbon would need to be removed from the atmosphere for at least about a hundred years, the same duration as carbon stays up there.

MR.GOLDBERG: Yeah, I mean sorry, but carbon stays in the atmosphere for much, much longer than

that.

MR. PHILLIPS: Right.

MR. KEAVY: So I mean, there is not a scenario where you just sort of let nature be nature. And match on a permanent basis, like that will not work.

There are other mechanisms that you can think through, like you can think through different stacking of credits, you can think through different types of credits that you can buy over time that can approximate the permanence of a CO2 emission that goes into the atmosphere. But it is -- it's not correct to think of it that way.

We really should not think of it that way. When companies or governments are emitting carbon, it is lasting in the atmosphere for a thousand year plus. We can't get an exact number, and you should think through what you are doing against those emissions for a roughly equivalent basis. Otherwise, it's a bad trade for the atmosphere.

MR. MACKLER: Thanks for that clarification, Jonathan. I think that's a really important point

to inject into this conversation. I think with that, we'll turn it back over to the Chairman.

MR. BEHNAM: Sasha, thank you. Thanks to the panel. I'm going to turn it over to Commissioner Goldsmith Romero if she has any closing remarks. You're good? Okay. In the interest of Dave's blood sugar level, we're going to wrap this up.

Thank you everyone for your time, your patience, your contributions from the government panel to everyone in the public sector, private sector. We have our work to do, but we will continue to engage, to listen and take your feedback. And I think above all else, this is a collective action problem.

So the, you know, the effort has to be from the ground up and it has to be all of us together. So we'll continue to participate, take a look at the record and then, you know, we have, as I said, some steps ahead in the next couple of months.

But I do want to thank my fellow Commissioners for being here, their participation, their advocacy. And I will end with thanking Abigail

Knauff and David Gillers, as was mentioned a few times today.

This doesn't happen without them. All of you know as I said, their organization, their expertise, getting everyone together, getting the right people together is invaluable.

So thank you. Dan, thank you for your participation. Welcome back. And everyone have a great evening. And please be in touch with all of your input and expertise. Thank you.

I, Chris Naaden, a transcriber, hereby declare under penalty of perjury that to the best of my ability the above 294 pages contain a full, true and correct transcription of the tape-recording that I received regarding the event listed on the caption on page 1.

I further declare that I have no interest in the event of the action.

July 26, 2023

Chris Naaden

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