

1 UNITED STATES COMMODITY FUTURES TRADING COMMISSION

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3 SECOND VOLUNTARY CARBON MARKETS CONVENING

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Wednesday,

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July 19, 2023

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1 P R O C E E D I N G S

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

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

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

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

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

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

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

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

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

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

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

1 requirements.

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

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

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

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

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

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

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

1 while protecting market participants from fraud and
2 other abuse.

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

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

22 Last month, the CFTC announced two initiatives

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

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

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

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

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

1 two efforts.

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

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

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

22 At our last convening, to demonstrate the

1 exponential growth of the voluntary carbon markets,
2 I cited a November 2021 article indicating that the
3 voluntary carbon market exceeded \$1 billion in
4 value for the first time. As cited in our recent
5 press release regarding the CFTC Whistleblower
6 Alert, the VCM market is currently estimated to be
7 \$2 billion.

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

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

1 structure that supports fair, transparent and
2 orderly trading.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

12 I grew up in North Texas, an area that remains
13 home to my family and the community that
14 contributed to every personal and professional
15 success that I have ever enjoyed. In February of
16 2021, Winter Storm Uri devastated North Texas and a
17 number of parts of the state. The storm contributed
18 to 210 deaths.

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

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

4 The significant financial loss can be
5 attributed to the loss of power, physical
6 infrastructure, damage and forgone economic
7 opportunities. According to the Texas section of
8 the American Society of Civil Engineers, some
9 engineers estimate that the cost of the storm could
10 reach \$300 billion. The financial loss is
11 substantially greater than both Hurricanes Harvey,
12 \$145 billion, and Hurricane Katrina, \$161 billion.

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

22 In fact, not just the use of voluntary carbon

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

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

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

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

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

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

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

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

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

22 Today, I look forward to discussing the

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

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

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

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

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

1 working with me to promote resilience to climate
2 risk.

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

13 Last year, farmers and ranchers experienced
14 \$21 billion in total crop and rangeland losses,
15 mostly from drought and wildfire. 2023 has seen two
16 thirds of the US corn production area in drought
17 and harvested winter wheat substantially down. This
18 naturally serves as a risk for derivatives markets.
19 Once we know the risk, we can plan for it. We can
20 manage around it. We can use every tool at our
21 disposal to manage risk and promote climate
22 resilience.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

8 MR. BEHNAM: Thank you. Commissioner
9 Mersinger.

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

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

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

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

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

1 understanding.

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

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

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

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

1 keep your phones away from the console.

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

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

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

22 As a disclaimer from our Office of General

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

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

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

20 I will now turn it back to the Chairman.

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

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

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

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

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

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

1 examine potential misconduct in the carbon markets.

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

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

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

1 spot markets.

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

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

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

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

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

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

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

22 As I noted at the time, whistleblowers are

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

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

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

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

22 And in case anyone was worried, they do not

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

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

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

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

1 market perspectives.

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

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

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

1 presentation.

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

5 MR. HARRISON: Hello. Can anyone hear me?

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

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

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

1 voluntary carbon offset market.

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

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

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

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

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

12 So what I've done is I'm sticking with these
13 1000 companies here in this illustrative example.
14 And we're now pretending from a 2015 base year that
15 they reduce their gross emissions or what they
16 physically emit on these science-based targets
17 initiatives general net-zero pathway. So that means
18 they're reducing their emissions by 50percent in
19 2030 and 90 percent in 2050. Even in a scenario
20 like this, if all these 1000 companies reduce their
21 gross emissions by 90 percent, you're still left
22 with 1.5 billion metric tons of what we call

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

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

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

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

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

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

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

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

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

1 demand dropped in 2022 to 154 million tons.

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

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

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

22 And even though demand dropped in 2022, we're

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

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

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

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

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

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

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

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

1 offset projects to local stakeholders.

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

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

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

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

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

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

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

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

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

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

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

22 Again, just to re-emphasize, all of the

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

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

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

1 they can buy any type of credit.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

5 MR. HARRISON: Perfect. Thanks everyone.

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

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

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

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

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

1 in our minds.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 including the aforementioned subcommittee on
2 climate-related market risk.

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

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

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

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

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

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

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

17 Agriculture had the distinction of being a
18 sector that's both uniquely vulnerable to climate
19 change and a domestic source of emissions, roughly
20 10 percent of our domestic emissions. But we have
21 the potential to be an even smaller source or even
22 a sink with additional research and investment.

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

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

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

22 The department's doing that work through our

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

6 As well as new initiatives that have been
7 undertaken during this administration, including
8 the department's Partnership for Climate Smart
9 Commodities, which were also mentioned during the
10 opening remarks. This is a \$3.1 billion investment
11 launched by Secretary Vilsack in 2022. We've made
12 141 awards under this program.

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

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

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

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

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

13 Just last week Secretary Vilsack partnered
14 with a National Climate Adviser Zaidi to announce a
15 \$300 million investment under the Inflation
16 Reduction Act to increase our ability to do greater
17 measurement, monitoring, reporting and
18 verification, known as MMRV, colloquially, in
19 greenhouse gas emissions and reductions from
20 agriculture.

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

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

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

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

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

1 of investments.

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

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

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

1 potentially pursue greater activity in that
2 authority.

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

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

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

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

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

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

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

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

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

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

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

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

22 Last week a big airline CEO, for example,

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

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

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

22 Other parts of the U.S. government are

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 global benchmark for carbon credit quality.

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

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

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

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

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

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

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

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

1 quality credit creation that the CFTC might
2 undertake.

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

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

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

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

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

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

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

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

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

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

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

22 Is there -- is there coordination? Because

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

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

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

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

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

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

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

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

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

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

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

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

22 MR. FORRISTER: Yeah. Just a quick question

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

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

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

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

22 But it's one that will have at least some

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

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

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

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

1 just the nature of the State Department.

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

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

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

22 That said, we have always advocated for the

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

13 MS. PETSONK: Thank you.

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

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

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

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

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

22 In the face of that drop in demand the council

1 of the International Civil Aviation Organization
2 allowed airlines for the first three years of
3 CORSIA 2021, '22, '23. That's the first three years
4 in which an offset requirement applied. To change
5 the baseline above which airlines would need to
6 offset emissions. Instead of offsetting emissions
7 above a baseline set as CORSIA originally set it in
8 2016 at the average of 2019, 2020 emissions levels,
9 which given the drop in 2020 aviation activity
10 would have been a substantial change to the
11 baseline.

12 The ICAO council said that airlines for the
13 first three years, the pilot phase of the program,
14 2021, '22, '23, would only need to offset emissions
15 of international aviation above 2019 levels.

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

22 There's not CORSIA driven demand. There's

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

6 Going forward, that is starting next year,
7 2024, '25, '26, the next three-year compliance
8 period of CORSIA, the baseline is set at 85 percent
9 of 2019 levels. So airlines if international
10 aviation demand continues to rise, and we are
11 seeing tremendous increase in demand for aviation
12 at Fourth of July was, I think, the busiest
13 aviation for U.S. domestic aviation on record.

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

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

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

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

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

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

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

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

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

15 [break]

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

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

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

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

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

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

1 professor of economics. Over to you, Nat.

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

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

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

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

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

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

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

22 And the 160 million tons is a tiny fraction of

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

22 We're really hoping that the more we start

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

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

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

22 We went out for full notice and comment with

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

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

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

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

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

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

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

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

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

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

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

13 MR. KEOHANE: Yes, we can.

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

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

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

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

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

1 well as social and environmental benefits.

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

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

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

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

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

1 developed and adopted by carbon credit programs.

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

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

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

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

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

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

22 So the TFCI guide focuses almost exclusively

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 not to forget the social integrity element.

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

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

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

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

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

5 So it's gone from 13.3 million last year to
6 15.5 million this year, and that's up from just
7 over 10 million two years ago. And so, there are a
8 few things we're interested in when we look at that
9 number. Firstly, what does it mean that we are
10 seeing an increase in retirements at this time
11 where the sense is that there is a drop in market
12 confidence, that's one question.

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

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

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

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

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

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

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

1 you.

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

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

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

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

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

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

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

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

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

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

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

1 We would encourage not a focus on slowdowns of
2 issuances and trying to ascribe meaning, is this
3 the results of popular press articles that are
4 maybe cherry-picking data, but rather to look at
5 the actual leading indicators and what's really
6 driving -- what's really driving the numbers here.

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

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

22 The third message that I would like to convey

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

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

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

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

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

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

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

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

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

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

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

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

22 So the different registries and the different

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

9 MR. CARR: Yeah. Thank you, Nat and thank you
10 to the Chairman and the Commission for the
11 invitation to speak. So BeZero Carbon is also a
12 global carbon ratings agency. And the BeZero Carbon
13 rating is the leading risk metric in VCM today with
14 325 projects rated accounting for close to half of
15 the available liquidity.

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

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

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

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

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

1 diverse, very heterogenous, and complex.

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

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

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

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

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

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

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

1 class.

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

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

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

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

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

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

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

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

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

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

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

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

22 The launch of the VCC definitions and forms of

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

19

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

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

4 MR. KEOHANE: Okay.

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

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

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

22 Obviously, CORSIA is part of an international

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

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

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

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

1 the credits themselves.

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

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

22 The standards are administered by a body,

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

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

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

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

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

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

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

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

1 akin to listing standards in a way. Right?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 engagement, even going back to taskforce on scaling
2 voluntary carbon markets. As I said, we had over
3 450 participants from across the entire spectrum.
4 And our core carbon principles and assessment
5 framework was built on a very transparent process
6 that mimicked regulatory process with full notice
7 and comment.

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

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

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

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

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

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

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

22 And we do that not just for program updates

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

5 Thank you.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

12 Thank you. You can flip to that first slide.
13 So Xpansiv is an infrastructure provider for global
14 commodities through a variety of mergers,
15 acquisitions, and organic growth. We are now over
16 90 percent of global carbon spot that's traded on
17 exchange comes through Xpansiv. We have over 1,500
18 participants across water, carbon, renewables, and
19 digital fuels.

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

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

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

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

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

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

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

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

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

22 Once we reach that level of transparency and

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

22 That CCFE business was acquired by ICE in

1 2010. That's now part of the Intercontinental
2 Exchange offering. If you can go to the next slide,
3 please. Our Incubex business today, as I mentioned,
4 was formed in 2016 as a partnership model. We have
5 a global partnership with EEX Group and Nodal
6 Exchange really to develop environmental
7 commodities.

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

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

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

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

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

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

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

1 practices that have been evolving over that period
2 of time.

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

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

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

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

1 draw any further overtime. Thank you.

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

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

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

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

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

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

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

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

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

1 individually listed carbon credit projects as well.

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

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

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

22 And the purpose there is to sort of develop

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

22 And we found this to be really important

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

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

15 Our first exchange in Singapore currently has
16 178-member firms and it comes from 32 different
17 countries. So our original mandate was to build it
18 in Singapore and face outwards and we did that
19 successfully.

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

1 institutions, as well as carbon project developers.

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

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

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

1 as voluntary carbon.

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

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

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

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

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

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

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

16 We believe that the voluntary carbon market is
17 evolving very similarly to that of the traditional
18 commodities markets, such as NYMEX and the other
19 exchanges in the energy space in the '80s, the
20 advent of the WTI crude markets in '83, Brent in
21 '88, Henry Hub in '90, and the power markets in '93
22 and '94 in US and Europe.

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

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

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

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

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

5 The CFTC whose origins were originally part of
6 the USDA, going back to 19 -- prior to 74, was
7 created to address the ever-evolving futures
8 products that were emerging. We learned to take the
9 spot market knowledge and to apply it to the
10 futures and derivatives markets.

11 Currently, the voluntary carbon market and a
12 broader environmental instrument market is
13 parentless in agency terms. Yet this emerging asset
14 class of carbon instruments will have the same
15 embedded commoditized cost that we have
16 economically absorbed over the past 40 years in the
17 case of energy.

18 We successfully built a hedging and investment
19 tools to address these needs, and now it is the
20 VCM's time to be addressed adequately. In closing,
21 we would like to reiterate again that we believe
22 that regulators must be part of this process, and

1 we welcome the CFTC to take the lead role in the US
2 and help set global standards. Thank you very much.

3 MR. BERKOVITZ: Thank you, Thomas. Final
4 speaker on this panel is Corli Le Roux, senior
5 specialist, United Nations Sustainable Stock
6 Exchanges Initiative.

7 MS. LE ROUX: Thank you. Thank you, Mr.
8 Moderator, Mr. Chairman and to the Commission and
9 everybody in the room. It's lovely to join you and
10 thank you very much for the opportunity to share
11 some thoughts with you today. I have some slides. I
12 don't know if they will come up, but I will carry
13 on in the interest of time.

14 The UN SSE is a UN partnership program founded
15 in 2009. Our mission really is to provide a global
16 platform for exchanges, exploring how they can
17 influence and enhance performance on ESG issues. So
18 we currently have 133 partner exchanges. There's a
19 regulator working group, and we have topic specific
20 advisory groups for the work that we do.

21 We have a number of work streams and climate
22 action is a focused work stream that incorporates

1 work on net zero as well as on carbon markets and
2 you can see some of the other work streams that
3 that we have there. Moving to the next slide then,
4 how did we become involved in the work on carbon
5 markets?

6 It really was a conversation with our
7 exchanges throughout the course of last year, where
8 many of the exchanges came to us and said this is a
9 trend that they're seeing VCMs and compliance
10 carbon markets are growing and there are increasing
11 calls for them to become involved.

12 And so, we started to look into how we can
13 help share information and help our exchanges to
14 learn more and how they can intervene and become
15 involved.

16 So we released a market monitor, which is in
17 the shape of an FAQ kind of document at COP27 and
18 we established an advisory group on carbon markets,
19 which in the end comprised just around 90 members
20 from almost 40 countries around the world.

21 So this document, a guidance document, which
22 will be released in October at the World Investment

1 Forum in Abu Dhabi, is currently under development.
2 It does cover both compliance markets and voluntary
3 carbon markets, but it really intends to kind of
4 give an overview of what the markets entail and how
5 exchanges can interact with them.

6 Because what we've been seeing, and if we move
7 to the next slide on the state of play, as I
8 mentioned, we've seen a growing exchange
9 involvement. And the interesting thing is that the
10 exchanges that we see from our membership are
11 becoming involved at every different element of the
12 carbon market value chain.

13 The entry points include government mandates.
14 We see countries like Egypt and Malaysia where
15 their governments have given them a mandate to
16 develop a voluntary carbon market. We see them
17 wanting to grow their environmental market
18 offerings.

19 And then there's also involvement, whether
20 it's at the project development stage, primary or
21 secondary market, and even in providing technology
22 solutions such as trading platforms. Also,

1 exchanges are seen to have the potential to help
2 contribute to the scale and liquidity and the
3 integrity.

4 And this is why I think sessions like today is
5 very important, because obviously there are others
6 who recognize this as well. And the CFTC has a
7 significant role to play to help also exchanges
8 understand how they can engage best in these
9 markets.

10 So the guidance that we're developing aims to
11 support exchanges. As I mentioned, we cover all of
12 the compliance and voluntary carbon markets, we do
13 a light touch review of the typical and anticipated
14 challenges, many of which have already been touched
15 on today, and then we provide a framework for the
16 potential actions that exchanges could take.

17 The next slide gives you a little bit of a
18 sneak preview snapshot of what we anticipate the
19 final document will look at and it covers two areas
20 that exchanges can look at. Firstly, in promoting
21 the scaling and integrity of carbon markets in
22 terms of exercising cross-cutting market influence.

1 And here we would be looking at action areas,
2 for example, policy and stakeholder dialogue,
3 capacity building and market education,
4 partnerships and visibility. These are all things
5 that exchanges are well positioned and well versed
6 in doing, but also leveraging the knowledge that
7 they already have in the ESG space into carbon
8 markets.

9 From an exchange specific perspective, how
10 they can contribute to developing a credible carbon
11 market offering, and here is where they would
12 engage with the integrity issues, what types of
13 market would be most appropriate for the business
14 model of the exchange, the jurisdiction that
15 they're based in, as well as the marketplace that
16 they operate in and the rules and technicalities
17 around what they establish to be a stable and
18 transparent market.

19 Moving into the final slide, the guidance
20 document really is just a starting point for a
21 conversation that will continue. It aims to be the
22 start of a consensus building process, and we will

1 continue to engage with our exchanges and other
2 stakeholders.

3 Many of you in the room are part of our
4 advisory group, and we really appreciated the input
5 into our work, and we look forward to continuing to
6 work with everybody as well as with the CFTC.

7 We will continue to do knowledge sharing,
8 establishing an exchange related carbon market
9 database, which is currently under development,
10 just to kind of give people a snapshot of what
11 we've seen, how exchanges are engaging with the
12 carbon markets.

13 And then finally, we're in talks with various
14 partners on delivering training to exchanges and
15 regulators and the stakeholders on carbon markets
16 particularly. So we look forward to learning more
17 about how the CFTC takes this process forward and
18 we appreciate the opportunity to continue engaging
19 with you. Thank you very much.

20 MR. BERKOVITZ: Thank you, Corli. We're going
21 to be moving in the interest of ensuring that we
22 get all the presentations in today in the allotted

1 time. We're going to be moving straight into the
2 presentations of the derivatives exchanges and I
3 would ask the participants to be mindful of the
4 time.

5 And if you can do it in three minutes, that
6 would be greatly appreciated. So our first speaker
7 is a gentleman that I've had the honor and pleasure
8 of working with over many years, Vincent McGonagle,
9 who's the director of the CFTC Division of Market
10 Oversight. Vince.

11 MR. MCGONAGLE: Great, thanks. So my brief
12 remarks today are going to be focused on product
13 development with respect to carbon and
14 environmental markets. So product development
15 analysis, CFTC doesn't happen without the product
16 review branch. John Forkkio is in the audience here
17 today.

18 Looking at these products in the product
19 review branch, Steve Benton, George Pullen, Sanam
20 Gulabandi and Samantha Lee, who just joined the
21 branch. Quick snapshot on product certified over an
22 18-month period, obviously not going to go through

1 everyone, but from January '22 to June of '23, the
2 Division saw approximately 1,300 products, self-
3 certified.

4 About a quarter of those products, I would
5 say, fall within an environmental risk or
6 environmental product category. Renewable fuels,
7 whether electricity with a component of, say, solar
8 or offset for wind, for example. And we had
9 approximately 60 carbon contracts that were
10 certified during the time period.

11 As recently as June, then, of '23, we had five
12 contracts, three carbon contracts for Washington
13 and two RGGI contracts. So a number of contracts
14 across all asset classes get self-certified.
15 There's an interest in attracting liquidity and we
16 appreciate and understand that.

17 Of these environmental contracts, we currently
18 have approximately 24 that have attracted
19 liquidity. What I mean by that is, they show open
20 interest in excess of 10,000 contracts currently.
21 And three of the contracts are within the top 100
22 of futures contracts traded. They have a

1 significant amount of open interest.

2 The contracts that, particularly here on
3 carbon, they are physical delivery contracts and
4 they have all been self-certified, if it's a
5 designated contract market. Certain FBOTs have
6 sought to list products and the process is similar
7 but not identical to self-certification. In terms
8 of review, product review perspective.

9 So an entity self-certifies, that means that
10 they've made the representation that the product
11 meets core principle obligations of the Commodity
12 Exchange Act and our regulations, not only at the
13 time they filed that listing, but during the
14 lifespan of the product.

15 So they have that responsibility, they make
16 that representation, and the product review branch
17 will look behind and evaluate those products to
18 make sure that, frankly that we agree, you know,
19 within the division. And things that we're
20 interested in and we think about is look, these
21 products across all asset classes, the goal is to
22 inform the price discovery process.

1 We want to make sure that we have clear,
2 consistent, open, transparent terms that the market
3 has the ability to trade these products to inform
4 based on, you know, a variety of interests. And at
5 the same time, it's also important that there is an
6 understanding, of course, for competitive reasons.
7 Competitive being the DCM wants to make money,
8 right?

9 So that they want to list a product that
10 people actually want to use for hedging purposes.
11 And they're going to need and are representing a
12 familiarity with the cash market. So there's an
13 interaction that's expected.

14 You need to know how the cash market operates,
15 but you also need to make sure that activity that's
16 occurring on the futures market is not interfering
17 with the cash market operation and vice versa.

18 So some of the core principles that we think
19 about, contracts not readily susceptible to
20 manipulation, transparency requirements, opening
21 competitive platforms are position limits and
22 accountability, sort of how you calculate

1 deliverable supply.

2 What are the credits that are actually
3 available on a regular basis? How might they be
4 delivered within the market? And, you know, we've
5 seen this, I would say more recently in connection
6 with the digital assets space because there was
7 growth with respect to spot digital asset platforms
8 at the time that the Commission was seeing interest
9 in listing futures products.

10 We're going to be very interested in
11 understanding, not only are the platforms, but the
12 products, how they're regulated, how they're
13 audited, how they're verified, if it's public
14 information, how that's being reported, whether
15 it's profit or not profit. I see the purple sheet.
16 My time is up.

17 MR. BERKOVITZ: Thank you, Vince. We'll turn
18 next to Mike Kierstead, the Head of Environmental
19 Products at the Intercontinental Exchange.

20 MR. KIERSTEAD: Thank you.

21 MR. BERKOVITZ: Welcome.

22 MR. KIERSTEAD: Thank you. Great to be here.

1 Thank you, Chairman and commissioners. I think I'd
2 start with a real quick story that I overheard my
3 son, who's seven, and his friends talking about
4 what their -- what their parents do for work. So my
5 mom's a lawyer, my dad's a fireman.

6 My son stands up and said my dad's a deal man.
7 He helps people pay for their pollution. I thought
8 wow, that's pretty cool, you know, relevant for the
9 exchange panel. On Sunday night before heading to
10 DC, I was telling them all I'm -- we're going to
11 talk about the carbon credit market or the
12 voluntary carbon market and my kids were asking me
13 about it.

14 And I said well, there's the ICVCM and the
15 TSVCM with CCPs and the SBTI. And there's CORSIA
16 and our futures are a AFOLU with CCB, and I looked
17 up and they're just whatever dad.

18 And then I was on the plane thinking, you
19 know, imagine being a buyer of these credits in
20 this market and having all this information and all
21 this, you know, lack of transparency and integrity
22 and difficulty in navigating these markets. So it's

1 very difficult for buyers of these credits to
2 understand.

3 You make the net zero pledge, you want to
4 commit to this, and then you enter a world, which -
5 - which can be very difficult to navigate. So as an
6 exchange, we are -- we truly believe in the power
7 of government mandated markets, compliance markets.
8 There's precedent there. I know both Tom and Dan
9 alluded to that. There are stories there.

10 So if you think of the carbon tons-at-risk and
11 carbon pricing, most of the CO2 does not have a
12 price associated with it. You think of the EU UTS
13 or California, RGGI, or Washington. There's also
14 compliance markets in South Korea and in New
15 Zealand. But most of these CO2 emissions go
16 unpriced.

17 So it's very hard to get to net zero without
18 having a robust carbon price. And I believe that
19 having regulated markets will help differentiate
20 over the long-term for these -- these types of
21 markets.

22 So I recommend or comment to the CFTC to

1 follow the -- I -- excuse me, the IOSCO
2 recommendations, which are, we've been down this
3 road before. The EUETS had billions of allowances
4 of oversupply. The MSR reduced that. There were
5 security issues at the registry. That was fixed.
6 These markets can be fixed and can move forward.

7 There certainly is an opportunity here for
8 participants exchanges to move this forward with
9 regulation. Build the sandbox, play within it, and
10 there's definitely opportunity to get through some
11 of this murkiness. So I'll -- that's fine for me.
12 Thank you. Thank you very much.

13 MR. BERKOVITZ: Thank you, Mike. Peter. Peter
14 Keavey, Managing Director and Global Head, Energy
15 and Environmental Products, CME Group.

16 MR. KEAVEY: Thank you, Commissioner. Thanks
17 to the Chairman and all the Commissioners for
18 inviting me here today to speak on behalf of CME
19 Group. CME Group offers a suite of physically
20 delivered voluntary carbon Futures, which are
21 linked to the spot activity on CBLs over the
22 counter voluntary carbon platform.

1 CME launched the CBL Global Emissions Offset
2 futures and the CBL Nature Based Global Emissions
3 offset in 2021, with the CBL Core Global Emissions
4 Offset following in 2022. These products have
5 proved to be very useful to our customers and we
6 have seen strong interest in trading voluntary
7 carbon futures from firms around the world.

8 Between the GEO, the NCEO and the CGEO
9 products, over 377 million offsets have traded
10 since our first launch back in March of 2021. Over
11 that same period, around 16.3 million carbon offset
12 credits have gone to physical delivery.

13 Just to share a few more statistics with you,
14 average daily volume for the CME's voluntary carbon
15 futures is about 600 contracts on a daily basis,
16 while the current open interest is about 26,500
17 contracts, that open interest extends out to
18 December of 2025. Hopefully, that gives you some
19 idea of the scale of this market.

20 Essentially, voluntary carbon futures are a
21 new product, just over two years old, so they are
22 still very small compared to CMEs core commodity

1 benchmarks. But as you heard, we are already seeing
2 very active trading, open interest continues to
3 build and extend out into time. And so, we are
4 optimistic about the future trajectory of these
5 important markets.

6 One question we're frequently asked is, who is
7 trading CMEs voluntary carbon futures and why? Over
8 130 participants have traded our carbon offset
9 futures and activity is globally distributed with
10 customers split between the US, Europe and Asia.

11 The proportion of non-US business is much
12 higher in voluntary carbon than in many of CMEs
13 commodity contracts, confirming that these are
14 truly global markets. We see a diverse mix of
15 participants in our futures. Banks, trading,
16 houses, corporates are all active.

17 As we have discussed, voluntary carbon futures
18 are still relatively new, and they are also
19 strongly linked to the physical underlying market.
20 That means at this stage of market development, we
21 tend to see more hedging than speculative activity.

22 A typical market participant might be a bank,

1 who is acting on behalf of a project developer that
2 wants to lock in the price on a certain proportion
3 of its future offset certificates to cover
4 development costs.

5 Or you may see a corporate customer where the
6 firm's management has made a commitment to be net
7 zero by a certain date and where the corporate
8 treasury wants to lock in the price of some of the
9 offset certificates that the firm will need over
10 the next few years.

11 In short, CMEs suite of Carbon Offset futures
12 offer price, transparency, liquidity and risk
13 intermediation to market participants needing a
14 mechanism to manage risk factors, constraining
15 investment and achieving scale in the economy of
16 decarbonization.

17 I'd like to turn now to the launch process for
18 voluntary carbon futures, and speak briefly about
19 how CME thinks about voluntary carbon as an asset
20 class. CME follows CFTC guidance to treat voluntary
21 carbon as a commodity product. And so, we follow
22 our standard procedures for launching any new

1 commodity futures product.

2 This includes following CFTC core principles
3 and the guidance associated with listing a futures
4 contract. CME has engaged and continues to engage
5 with DMO staff to discuss product specifications
6 and market developments, both on the futures and
7 physical side.

8 The process for launching voluntary carbon
9 futures has been relatively straightforward to date
10 and has generally followed the path of typical
11 commodities products launch.

12 Perhaps the only additional complexity has
13 been the requirement for market participants that
14 want to make or take physical delivery to sign up
15 with the spot market CBL, which serves as a
16 facilitator of CME deliveries, and also with those
17 voluntary carbon registries that are approved
18 delivery venues.

19 That is, though, not too dissimilar from the
20 requirements in other commodity futures, where we
21 would expect that a participant wanting to make or
22 take delivery would have an arrangement in place

1 with at a metals warehouse or oil storage facility
2 or so on.

3 Another question we often receive relates to
4 CMEs role in establishing the quality of the
5 voluntary carbon offset contracts that may be
6 provided or received during the physical delivery
7 process. CME makes use of the product categories
8 that have been designed by the CBL spot platform.

9 These broadly break down into CORSIA-aligned,
10 nature-based solutions, and aligned with the Core
11 Carbon Principles. In this sense, CBL effectively
12 acts as an index provider and supplies the market
13 expertise in physical voluntary carbon.

14 This is very similar to the way that CME looks
15 to S&P to designate which 500 stocks should feature
16 in the S&P 500 or the way that the exchange looks
17 to price reporting agencies to designate which
18 physical deals are included in their commodity
19 indices.

20 All of the voluntary carbon certificates that
21 are deliverable into the various CBL indices, and
22 therefore, into CME futures that have been issued

1 by a voluntary carbon registry, such as Verra or
2 ACR. These registries provide the scientific
3 expertise that underpins the market.

4 Just as CME does not itself test for protein
5 content in wheat or vanadium content in crude oil,
6 the exchange makes use of third parties, in this
7 case the registries, to carry out appropriate
8 checks and testing.

9 If market participants were to express
10 concerns about a particular methodology or
11 registry, CME and CBL would clearly be motivated to
12 take those views into account.

13 To date, feedback has been broadly positive
14 about the market integrity of certificates
15 delivered via CME futures, and the growth in
16 trading and in open interest that I highlighted in
17 the beginning of my remarks are clearly very
18 positive signals. Thank you.

19 MR. BERKOVITZ: Thank you, Peter. Our final
20 speaker is Caroline Gentry, director, Environmental
21 Markets, Nodal Exchange. Caroline.

22 MS. GENTRY: Thank you. And I'd like to echo

1 the words of the other speakers in thanking the
2 CFTC, the Chairman for your leadership, the other
3 Commissioners, and David and Abigail. Thank you for
4 inviting us. So can I have the next slide, please?

5 So Nodal Exchange is wholly owned by EEX
6 Group, the leading energy exchange in Europe. Open
7 interest is continuing to grow in the environmental
8 products, and we estimate we have around 20 percent
9 of the environmental futures market now. Nodal has
10 the broadest set of environmental contracts
11 globally. Next slide, please.

12 So we began listing environmental products in
13 2018. And you can see the full list of products we
14 offer here. The voluntary carbon products are there
15 on the bottom left, which were launched last year
16 in 2022. The next slide, please.

17 There's quite a high barrier to entry in the
18 energy exchange space, and one of the reasons we
19 were able to break that down was by being
20 responsive to customer needs, finding that sweet
21 spot between the granularity the traders were
22 asking for, while still maintaining liquidity.

1 Another factor in the success of winning
2 market share was the collaboration with Incubex, as
3 Dan outlined earlier from 2017 with the EEX group.
4 Incubex was founded by the real pioneers of the
5 voluntary carbon markets, and they really
6 understand the needs of traders and brought new
7 products to the market quickly.

8 So it's a question of having the right
9 contracts at the right time, which explains Nodal's
10 success with other contracts. For example, the
11 Texas Renewable Energy Certificate Market, together
12 with flexibility and innovation such as portfolio
13 margining. So next slide, please.

14 As other speakers have shown, this is quite a
15 complex kind of acronym soup. You can't read this
16 slide. There's just a lot going on in the voluntary
17 carbon markets. There are varying degrees of
18 quality, but as other speakers have mentioned, you
19 know, that doesn't mean we should throw the baby
20 out with the bathwater.

21 This ongoing standardization with the
22 excellent work that's being done by the ICVMI and

1 other -- and other initiatives is the registries,
2 the rating agencies, this is helping to bring this
3 picture into focus. And while it's true that a lot
4 of buyers still want a bespoke service, you know,
5 they ask for specific projects so they can tell
6 their own stories.

7 But we think over time confidence in more
8 standardized products will grow. So I think if you
9 believe in the power of the markets to solve the
10 climate challenge, you should see the voluntary
11 carbon market as a kind of petri dish or petri
12 dish, you would say, where, you know, anything and
13 everything is allowed to grow, at first.

14 And all the participants, whether buyers or
15 sellers, the registries or standard setting bodies,
16 are held accountable and make improvements
17 themselves. So we welcome the Commission's guidance
18 in ensuring a level playing field and keeping
19 vigilant.

20 We appreciate the work of the task force and
21 the new announcement on the whistleblowers, but
22 it's very important to allow innovation to develop.

1 So as an exchange, we're here to provide clearing,
2 risk management services. We can move to the next
3 slide, please. We're ready to adapt to however the
4 underlying market develops.

5 And we believe in standardization as much as
6 possible, differentiation as much as needed. And
7 you can see there how we've divided up the things.
8 You can go into the next slide, please.

9 That's our full product suite for the
10 voluntary carbon market. So I hope I've kept to
11 time. Thank you very much for the invitation to
12 take part. I'm happy to take any questions.

13 MR. BERKOVITZ: Thank you. I believe we do
14 have time for discussion. Yeah. Is there any? Dean.

15 MR. ERVIN: Thank you. And thanks for all the
16 presentations in both the spot and derivatives
17 Exchange. I grew up in the industry derivatives
18 world, which is sort of the opposite end of the
19 spectrum. Huge scale, tiny bid-asks, great
20 visibility.

21 And as I've started to look into over the last
22 few years, how contracts both OTC and futures have

1 been developing in carbon offsets, it's a tough
2 forest to navigate. So be curious for whether it's
3 spot or derivatives people.

4 If you were a new corporate or a new person
5 looking to get into this market, what are the best
6 tools to get visibility on price and quality? What
7 would you recommend as the best entry points that
8 would give you some visibility?

9 Obviously, there's some stuff on the futures
10 you can see publicly, but if you're trying to get a
11 sense of the OTC world, are there places that you
12 would go in either of your worlds or outside your
13 worlds that you think would be the most helpful for
14 corporates or individuals or oversight groups
15 trying to get a sense of how this market works?

16 MR. KEAVEY: I'll start with that one. So good
17 question. You know, I think we heard from Verra
18 earlier that there is an enormous amount of
19 information about specific projects out there,
20 almost too much information.

21 But if you're talking specifically about
22 pricing, then there are a variety of spot platforms

1 that offer project by project vintage by vintage
2 pricing that can inform price discovery. Now, let's
3 just, we also heard previously that this market is
4 quite fragmented. That's true. It is fragmented in
5 a project by project pricing basis.

6 However, there are like projects that may have
7 similar attributes and then differentiation
8 attributes. So like any other commodity market,
9 there are benchmarks and there are basis. And then
10 navigating that today is a little bit challenging
11 due to the fragmentation and lighter liquidity in a
12 variety of different projects.

13 However, initiatives like CORSIA, like the
14 Integrity Council, have allowed some
15 standardization to take place. That is the basis of
16 the futures contract. That is the basis of the
17 scaling of that market, where there are a broad
18 acceptance within a category of credits that meet
19 certain basic criteria.

20 And that's the building block. Now, additional
21 attributes and additional attractive features may
22 add to the value of those or detract from the

1 benchmark as a differential in price, but there is
2 an enormous amount of data that is available on the
3 spot platforms to look at both standardized
4 products and individual project trading.

5 So it's not a question of if it's out there,
6 the question is where do you access it? And I think
7 you have those folks in this room today.

8 MR. KARAS: Yeah, I mean, the spot changes
9 I've mentioned, you know, we all list project
10 specific credits as well. So on a daily basis, we
11 have two to three million tons of project specific
12 credits that have all those attributes.

13 But before you get to that point of onboarding
14 and opening your registry accounts and transacting
15 on any of the spot changes, Ecosystem Marketplace
16 is a great tool that we use and kind of one of the
17 first introduction points that we send to new
18 participants in the market.

19 Obviously, as -- whether you're a trader or an
20 exchange, what's unique about this market is we
21 have to spend a lot of time educating each customer
22 that comes through. In addition, you have some

1 unique price reporting agencies like the typical,
2 the Platts, the Hargis, the Opus that put out
3 assessments.

4 Also, publications like Carbon Pulse and
5 Quantum that put out daily assessments. So we've --
6 this world looks much different than it did two or
7 three years ago. We start pick up. There's a lot of
8 analysis around now, in addition to the freely
9 available registry data.

10 MR. SCARBROUGH: Yeah, I guess the only thing
11 I'd add to that, I think, you know, this market
12 also has the same challenges that you see in like,
13 you know, the gas-basis markets or, you know,
14 trying to understand the power Nodal Markets, as an
15 example, you know, pointing to exchanges, pointing
16 to PRAs.

17 I think, you know, you're starting to see more
18 in the way of market data providers as well.
19 Refinitiv, Bloomberg. I think we had the
20 presentation from Bloomberg earlier today, but the
21 major market data distributors who are picking up
22 market data from many exchanges, many marketplaces,

1 many brokerage companies aggregating that data in a
2 transparent way.

3 You know, just as Russell alluded to, I think
4 in the last few years that has come a long way.
5 Just to finish up Wilson. So as Peter mentioned the
6 registries are a great source for data.

7 ICE has a free service called ICE CRED, where
8 you can type in a project number and that'll give
9 you the amount of tons that have been retired,
10 available, what bucket it falls into, reduction
11 removal, tech or nature based. Indicative pricing
12 will appear eventually, but that's a free service
13 for anyone that would be interested.

14 And it aggregates all registries.

15 MR. BERKOVITZ: It strikes me as one thing
16 that we do not have in this market yet, or maybe we
17 do, that may play into this is a number like, I'll
18 just use the oil market. You have WTI and you have
19 Brent oil, for example, in the Futures, and those
20 are benchmarks, but very few people actually still
21 use those grades.

22 I mean, those are benchmark grades, but people

1 have very different needs -- you know -- in Mexico
2 and all sorts of other grades of oil trade
3 differentials to the benchmarks, but there's a
4 whole pricing history.

5 They know typically what the basis is from the
6 benchmarks and to the extent, I mean is this --
7 part of this market getting that pricing history on
8 these projects.

9 This is a pretty new endeavor with these new
10 standards and new methodologies and so, what will
11 it take to get -- you're not going to find like the
12 price of carbon that's good for everybody I
13 presume. I presume you're going to have basis
14 differentials to this as we were talking about.

15 Is it possibly getting a history -- a pricing
16 history so people can reliably price off -- price
17 off the benchmark, or what will it take to sort of
18 get that liquidity developed and get the buy in?

19 MR. KIERSTEAD: Yeah, it's interesting. It's a
20 great question, actually. So WTI and Brent Crude
21 are -- are physical locations, right? These are
22 electronic certificates in registries. It's very

1 difficult to make a benchmark. We talk about bench
2 lines, what's above and below as far as a credit,
3 as far as integrity goes.

4 We're not -- we're not there. We're close.
5 We're working towards it. That's, I mean, that's
6 the question, but absolutely, that's where these
7 products could trade at discounts or premiums as
8 spreads to that benchmark. But it's a work in
9 progress.

10 MR. KARAS: Yeah, I would just say when we
11 launched the GEO and the N-GEO benchmarks, what we
12 saw, if you looked at a scattered plot, it's a
13 graph we show a lot, where you had the benchmark
14 pricing and you saw individual prices that
15 qualified pricing above and below, which didn't
16 really make a lot of sense when you have a basket
17 and it's cheaper -- cheapest to deliver contract.

18 Over time it's evolved where now you have the
19 benchmark setting the floor, similar to a
20 traditional commodity market, now we're starting to
21 see all those dots of the different project
22 specific credits pricing at a premium, but to

1 Mike's point, you know, we're still -- there's
2 still too many different pockets.

3 We're still trying to understand, not
4 necessarily just what the benchmarks are, but how
5 do you draw circles around what those basis markets
6 should be? What are the right vintage years? What
7 are the right co-benefits? How many CCBs? What
8 regions?

9 So again, things like the ICVCM will help to
10 draw circles around some of those things and
11 develop those basis markets. But it's still --
12 we're still -- it's a work in progress for sure.

13 MR. KEAVY: But let's be clear that building,
14 the main benchmarks are a vital part of this
15 because without liquidity, without the ability to
16 transfer risk, there is no basis pricing and then
17 you're back to guessing where markets are relative
18 to one another. So the establishment of a liquid
19 benchmark is vital to the growth.

20 MR. SCARBROUGH: Yeah, I think one of the
21 unique challenges in this market really is that
22 you've had so many different intermediaries

1 involved in transactions from the project
2 developer, who's going to be investing and
3 conducting, you know, undertaking the project and
4 the investment necessary to do so.

5 And then ultimately, the corporate or the end
6 user who's going to be retiring that offset and the
7 number of transactions in between that in terms of
8 intermediaries, different types of parties, because
9 frankly, I think, you know, capital constraint is
10 an understatement for the Voluntary carbon market
11 over the years.

12 Where, you know, trying to get those
13 investment dollars ultimately back to the project
14 developers is centrally one of the key issues that
15 you have. So you had, you know, many different
16 intermediaries stepping in to try to provide that
17 financing and get the projects off the ground with
18 the developer.

19 But, you know, having a price associated with
20 the project is also a challenge when you have
21 multiple intermediaries involved in every
22 transaction. So you know, the more centralized, the

1 more that, you know, comes onto a central
2 marketplace or exchange that will improve that
3 price quality.

4 MR. BEHNAM: Dan, I don't think you can see
5 this, but Julien from Climate X, Climate Impact X
6 has his hand up. So maybe we can give him the last
7 comment.

8 MR. HALL: Thanks, everyone. Yeah, the
9 importance of spot price benchmarks is really a
10 subject close to my heart.

11 And I think, you know, when we look at the
12 VCM, we see it very much as a similar to a sort of
13 early stage commodity market that hasn't yet, like
14 you were saying, Mr. Berkovitz hasn't yet really
15 coalesced around a central benchmark.

16 And I think what some of the reasons is that
17 the -- what consists of robust benchmark hasn't yet
18 really emerged in the VCM. So what is a robust
19 benchmark? It has to be, I think, first of all,
20 representative of the underlying and there's been
21 some issues with some of the early attempts on that
22 front.

1 The second key point is it needs to be
2 underpinned by robust physical spot bids, offers,
3 and transactions. And I think a lot of the earlier
4 terms of commoditization, standardization focused
5 on futures and developing the futures, but not so
6 much around developing a robust physical spot price
7 benchmark.

8 And that's exactly what we're looking to do at
9 CIX, actually. I think it's going to be critical
10 because it'll help market then. It's not going to
11 be a panacea for the market and help address all of
12 the issues around integrity on the supply side and
13 demand side that we've talked about.

14 But what it should do is help provide a fair
15 market price, facilitate long-term contracts,
16 reduce information asymmetry, make it easier to
17 have fairer benefit sharing agreements, including
18 with stakeholders, make it a lot easier for project
19 developers to raise financing, help adequate market
20 to market both internally and transfer agreements.

21 And eventually after the settlement mechanism,
22 potentially even for cash settled Futures, which is

1 a model that hasn't been tried yet in the VCM, but
2 which we think, given the inherent heterogeneous
3 nature of this market, could be a bit of an unlock
4 in helping scale the market.

5 MR. BERKOVITZ: I want to thank our spot
6 Market and Exchange panelists for an excellent --
7 excellent discussions and appreciate your
8 attendance here today and participation. Thank you.
9 It's been helpful.

10 MR. BEHNAM: Dan, thank you for being here
11 with us and leading the discussion as you pointed
12 out something you've been discussing for a couple
13 of years, so a natural issue area for you to lead
14 and appreciate your continued support. So with
15 that, we're going to head to our final panel.

16 We made it -- we have a little bit of time.
17 We're going to get you out soon, I promise. But
18 this is a really important panel and we appreciate
19 this group staying with us here today and
20 contributing these last few remarks and we're lucky
21 to have Sasha Mackler, who spoke earlier, but is
22 the Executive Director of the Energy Program at the

1 Bipartisan Policy Center. So Sasha, I will turn it
2 over to you.

3 MR. MACKLER: Thanks very much. It's a
4 pleasure and a privilege to be here today for this
5 important conversation on a really, I think, as we
6 all appreciate after all the discussion we've had
7 today, you know, a critical part of the solution
8 that we need to bring forward as it relates to the
9 energy transition.

10 And, you know, really there's a lot of
11 information that we need to digest here today and
12 I'll sort of point out two big challenges that we
13 face. One, is making sense of all this activity and
14 creating a coherent market that's well regulated
15 and that functions with integrity.

16 And two, in a more of a discrete level for our
17 panel, we only have 45 minutes to get through what
18 I think is a really important topic. And so, I hope
19 we can all sort of be concise in our comments. The
20 Chairman has said he wants to finish at 5:00 and
21 let's really aspire to hit that mark.

22 And so, in the spirit of that, I'll just offer

1 some really short sort of framing comments and then
2 we'll turn to our panelists to bring their
3 expertise to bear and, you know, by way of framing,
4 the only thing that I'd like to sort of say to tee
5 this up is that it's clear that we need a voluntary
6 carbon market that's large, transparent,
7 coordinated, coherent and environmentally robust.

8 And today's market, while there's been a lot
9 of activity and maturation, you know, it's really
10 far from that. It's complex and it's fragmented and
11 there's a lot more work to do.

12 We have limited pricing data, which makes it
13 challenging for buyers to know whether they're
14 paying a fair price, and for suppliers to manage
15 the risks they take by financing and working on
16 carbon reduction projects without knowing how much
17 buyers will ultimately pay for those credits.

18 You know, low liquidity, scarce financing,
19 inadequate risk management services and limited
20 data availability really are the challenges we need
21 to kind of work out as we grow this market so that
22 it can meet the needs and the opportunities that we

1 face, as we heard earlier, to hit our goals in
2 2050.

3 So today's market actor panelists will help us
4 shed light on how to increase participation from a
5 wide range of market actors and move towards scale
6 and importantly standardization in the voluntary
7 carbon markets so we can reduce barriers to entry
8 and increase the range of participants that can
9 actually take part in these activities.

10 So with that framing, I would just like to
11 turn it over to our -- to our panelists, who I will
12 introduce as they jump into the conversation. And
13 we'll start first with Dr. Lorenzo Bernasconi,
14 who's the Head of Climate and Environmental
15 Solutions at Lombard Odier Asset Management. Over
16 to you.

17 DR. BERNASCONI: Thank you, Sasha. And special
18 thanks to Chairman Behnam, federal Commissioners
19 and the CFCT team. I much appreciate the
20 opportunity to be here today. As mentioned, I'm
21 Lorenzo Bernasconi. I'm head of Climate and
22 Environmental Solutions at Lombard Odier Investment

1 Managers.

2 Lombard Odier is a Swiss banking group,
3 founded in 1796 with a core investment conviction
4 on the net zero transition. In my role, I help run
5 a global carbon market strategy, investing both in
6 the compliance and the voluntary market. I should,
7 though, just clarify up front that the views that I
8 will express today are my own, not necessarily
9 those of my firm.

10 My perspective is, nonetheless, can you guys
11 hear me okay? Yeah. Informed by my role as an
12 investor seeking to mobilize institutional capital
13 at scale into the climate and nature positive
14 transition. And it's also informed by my kind of
15 longer-standing role within the voluntary carbon
16 market, looking to scale this market and bring
17 greater integrity.

18 Having launched initiatives such as the LEAF
19 Coalition and the R3 standards that were mentioned
20 earlier this morning. From where I sit at the
21 intersection of the fight against climate change
22 and financial markets, I think there are two clear

1 facts. The first, and it's worth reiterating, is
2 that carbon credits are crucial.

3 Indeed, they're vital in our fight against
4 climate change without a robust carbon credit
5 market achieving net zero within a timeframe that
6 avoids catastrophic climate change is going to be
7 impossible. Second, to tackle the climate crisis
8 effectively, an efficient derivatives market linked
9 to carbon credits is fundamental.

10 Derivatives provide a way for hedgers to
11 manage risks and allow investors to efficiently
12 gain exposure to the underlying commodity. And a
13 derivatives market, of course, lends important
14 legitimacy and credibility to this nascent market.

15 We've seen today and in past forums rigorous,
16 you know, debates around the integrity of the
17 underlying carbon assets, and rightly so. Trust in
18 the underlying commodities is a first order
19 threshold issue. However, in addition to this, lies
20 another shared challenge that I think is core to
21 the CFTCs oversight and enforcement
22 responsibilities.

1 And this is linked to ensuring that derivative
2 contracts themselves are fit for purpose and are
3 properly and transparently managed by derivative
4 exchanges. In my view, this translates to
5 guaranteeing three key aspects related to carbon
6 credit derivative contracts and related exchanges.

7 First, derivative contracts must not just
8 exist, but they must serve as catalysts for market
9 quality improvements. We need contracts linked to
10 the best top-tier standards that are in line with
11 Paris Agreement best practices. This alignment is
12 vital to provide the right price signals and to de
13 risk investments into high quality projects. This
14 is currently missing.

15 Today, for example, the low single digit
16 trading prices of current carbon credit futures,
17 they don't reflect the current or future price of
18 highest quality carbon credits. In my view, this is
19 largely due to the contract specs not reflecting
20 the highest standards. Second and relatedly,
21 derivative contracts, must evolve in line with
22 evolutions in quality standards.

1 This is critical for the integrity of the
2 market, but also to allow investors to take
3 convictions on future market developments and to
4 avoid market participants being stuck holding
5 stranded assets in the form of delivered carbon
6 credits that correspond to outdated standards.

7 For example, as we heard today, earlier this
8 year, CORSIA announced plans to tighten its
9 standards starting in 2024 to align with the Paris
10 Agreement goals and for its next phase. However,
11 the CME decided not to reflect this change for its
12 global emissions offset or GEO contract for CORSIA
13 eligible credits.

14 Instead, the GEO futures contract was limited
15 to the more lenient pilot phase requirements even
16 beyond 2024. So practically what this means is, if
17 say, someone buys a 2025 GEO futures contract, the
18 carbon credit that would be delivered in 2025 won't
19 meet CORSIA eligibility at the time of delivery.

20 Needless to say, this is a source of potential
21 confusion among market participants, and I believe
22 a sorely missed opportunity for the market to

1 ensure quality and impact. And lastly, transparency
2 and enforcement of contract specifications has to
3 be non-negotiable.

4 Contract specifications must be clear with
5 investors having full confidence that actual
6 deliverables match what's written on the label and
7 enforcement must prevent any arbitrary changes to
8 contract deliverables.

9 These foundations will empower market
10 participants to make use of derivative markets for
11 risk management and for price discovery as they
12 were intended to do, and we believe will unlock
13 significant investment in our fight against climate
14 change.

15 With that, I urge the CFTC to be proactive in
16 their oversight and enforcement of derivative
17 contracts and derivative exchanges to deliver on
18 this promise. Many thanks.

19 MR. MACKLER: Thank you. And we'll next move
20 on to Tom Colebatch, the Managing Director of
21 Commodity Markets and Finance at Macquarie.

22 MR. COLEBATCH: Thank you to the chairman and

1 commissioners for convening today and I appreciate
2 the opportunity to contribute to this important
3 conversation. Macquarie is a global financial
4 services group, which operates in 34 markets
5 worldwide and we're a leading market participant in
6 the energy transition across our investing,
7 financing and trading activities.

8 Macquarie participates in the voluntary carbon
9 market, both as a buyer of carbon credits for our
10 own sustainability goals and also throughout
11 commodities and global markets group, which has
12 been active in carbon markets since 2005 and
13 established a VCM focus global carbon team in 2021.

14 On the supply side, we work to structure and
15 bring capital to the carbon market across a range
16 of project types such as nature-based solutions,
17 household devices and carbon capture utilization
18 and sequestration.

19 And on the demand side, we work with our
20 clients to provide sourcing, risk management, and
21 financing solutions for carbon credits as part of
22 their wider sustainability programs. And we often

1 do this in combination with our pre-existing
2 business, which supports them in managing their
3 requirements in relation to compliance programs
4 like the EU ETS.

5 Macquarie's view on the role of carbon credits
6 is twofold. Firstly, that they're an important part
7 of the journey to net zero by 2050. Secondly, that
8 they are not the only solution in and of
9 themselves, but they are a practical low-cost
10 enabler and they do come with important
11 developmental opportunities for the global south.

12 Some key points for today, in our view the VCM
13 is at an inflection point. We believe clients are
14 looking to engage in the market, but they're
15 hesitant because of a lack of clarity on endorsed
16 minimum standards for quality of carbon offsets, as
17 well as claims made in relation to the use of
18 carbon credits.

19 An engagement from the CFTC, as well as other
20 agencies is important for the market to reach its
21 potential. The overall market dynamic, we believe,
22 has slowed in the last year. We've seen price

1 volatility and a general downward trend in prices.

2 We've seen negative press headlines around the
3 quality of some types of carbon credits, as well as
4 corporate claims made in relation to those carbon
5 credits. We've seen key industry sectors pivoting
6 away from the voluntary carbon use of carbon
7 offsets, in particular the aviation sector. And
8 broadly, we've seen that retirements of carbon
9 credits are tracking flat. They're not growing.

10 So in more recent times, we've also seen
11 increased sovereign engagement from the market,
12 particularly countries that see carbon credits as
13 an export opportunity.

14 And we've seen growing expectations on the use
15 of Article 6, and integration between what is
16 currently private side activity in the VCM, with
17 potential future public side activity under the
18 Paris Agreement, although importantly this is yet
19 to play out. But the overall ecosystem appears to
20 be less vibrant than it was a year ago.

21 A few observations on why we believe the
22 market is where it is, particularly in relation to

1 the demand side, which I think is really important
2 here.

3 From our discussions with clients, corporates
4 have gone through a process over the last several
5 years where they've measured their emissions, they
6 reported on those emissions and they've established
7 medium and long-term targets in respect of those
8 emissions. They're now at the implementation phase
9 and they're struggling to execute.

10 A lack of endorsed guidelines and standards is
11 a significant factor for why corporates are not
12 participating fully in the market at present. We do
13 recognize that there are a number of industry-led
14 initiatives working to address core questions.

15 For instance, the ICVCMs proposed Core Carbon
16 Principles framework to address what is a high-
17 quality carbon credit and the VCMI's claims code of
18 practice to address what claims can be made in
19 relation to carbon credits. But in isolation, these
20 are ultimately industry led guidelines.

21 Specifically looking at the US, agreeing on
22 federally endorsed minimum standards or guidelines

1 on the reporting of emissions, specifications of
2 qualifying carbon credits that can be used to
3 reduce net emissions and language on how the use of
4 those carbon credits is framed would be helpful in
5 supporting the market to reach its potential.

6 For instance, in Australia, the Australian
7 government's climate active program established a
8 minimum standards framework for the use of carbon
9 credits by corporates.

10 And while the specific minimum requirements of
11 the framework will and should be continually
12 reviewed as the market evolves, as a feature of
13 market design in and of itself, it appears to have
14 supported engagement in the market from corporates
15 that may not have otherwise occurred.

16 So in summary, at this inflection point for
17 the market, it appears there is a window for
18 engagement from agencies such as the CFTC to
19 support the growth of the market and activity from
20 a wider range of participants than we see
21 currently. Appreciate the time.

22 MR. MACKLER: Thanks, Tom. And I want to thank

1 the first two speakers for their conciseness and
2 now we're going to turn to John Battaglia, who is
3 the Managing Director and Global Head of Carbon
4 Markets at BGC Environmental Brokerage Services,
5 who will be with us virtually.

6 MR. BATTAGLIA: Thank you very much. Can you
7 hear me okay in the room?

8 MR. MACKLER: Yes, we can.

9 MR. BATTAGLIA: Okay, great. And there were
10 some slides. Are we going to be able to access
11 those?

12 Thank you very much. First off, thank you very
13 much. My name is John. I run the carbon trading
14 business at BGC Partners. Now, as of July 1st, BGC
15 Group, we just renamed ourselves. A special thanks
16 for the invitation to come today. Apologies for not
17 being able to make it in person.

18 My legal and compliance did ask that any
19 opinions expressed today are my own and may not
20 reflect those of BGC. So getting that out of the
21 way, I want to talk a little bit today about who we
22 are, our role in the market and then a few

1 observations on the VCM. I understand that, you
2 know, we have very limited time here.

3 So I'm going to keep my comments brief,
4 because I know that there are a number of other,
5 you know, participants that are coming after me.
6 Next slide, please. So BGC Group, we're a leading
7 financial technology company in global brokerage.
8 We service the wholesale financial and commodity
9 markets.

10 We provide voice-assisted trade execution and
11 also electronic trade execution to a variety of
12 different markets. BGC was spun off in 2004 from
13 Cantor Fitzgerald merged with BGC to create BGC
14 Partners. We're a global company. We're
15 headquartered where I am right now at 55 Water
16 Street down near Wall Street.

17 And we also have a significant presence in
18 Canary Wharf in London as well, but operate in all
19 global markets across all asset classes, fixed
20 income, equities, commodities and a variety of
21 derivative markets as well. Next slide.

22 As I mentioned, we're global. We can go to the

1 next slide, please.

2 The environmental business, Environmental
3 Brokerage Services is a subsidiary of BGC Group. It
4 was effectively established in 2011, when BGC
5 Partners at the time had acquired Cantor's CO2
6 business -- Cantor Fitzgerald's CO2.

7 That was in 2011. That group has been quite
8 active in the environmental markets going back to
9 the 1990s, really under the acid rain program,
10 trading in NOx, HC, and PM10, and a variety of
11 criteria pollutants. Also, quite active in the CDM,
12 the clean development markets, you know, in London.

13 The group as it exists today, I run the carbon
14 side. My colleague, Nicole runs the renewable
15 energy side. And we're active across a variety of
16 carbon markets. I've personally been involved in
17 carbon markets in North America since 2008. So
18 we're active in the EU UTS, trading EUA
19 certificates, the United Kingdom, trading UK
20 certificates.

21 I was involved in a lot of the first listed in
22 OTC physical trades in California carbon allowances

1 and California carbon offsets. RGGI, Alberta has a
2 provincial market.

3 We brokered the first listed WCA through Nodal
4 recently in the last couple of months, active in
5 the CCFS, which is the Canadian clean fuel
6 regulation, variety of credit markets in the
7 wholesale fuel markets in the regulatory space as
8 well; and then where other markets are active
9 include, of course, global voluntary carbon markets
10 and global credit markets.

11 Next slide, please. BGC was, as I mentioned,
12 spun off from Cantor Fitzgerald, so we do have a
13 charity day. Cantor had lost 658 employees on 9/11,
14 so every 9/11, we like to raise money for charity.
15 All proceeds globally go to charity. So I'd like to
16 highlight that. Next slide.

17 Our role in the market is really a facilitator
18 of transactions and liquidity. We're an OTC broker.
19 We are regulated, you know, in that we are
20 interacting with regulated products that are
21 currently listed on exchanges. So we would be an
22 executing broker in that respect.

1 As I mentioned, we sit in the middle of a
2 variety of different market participants. So you
3 know, in markets where there are not listed trades
4 on the screen, we are facilitating OTC and then
5 reporting prices and activity and liquidity and
6 market conditions to our customer on a daily basis,
7 on an ongoing basis. You know, we deal directly
8 with end users. We deal with banks.

9 We deal with product development companies,
10 trading firms, funds, in some cases, direct
11 institutional capital, looking for exposure to
12 environmental commodity markets, and we do this in
13 a variety of ways. It could be once we have trades,
14 we can give them up to the exchange as an executing
15 broker.

16 We could be voice-matching counterparts and
17 bringing them together and introducing them as an
18 introducing broker and in other ways we can be
19 bringing them together effectively clearing in the
20 VCM market, in particular.

21 We don't operate that business model in the
22 compliance markets, but in the voluntary carbon

1 markets we can bring parties together and
2 facilitate matching and clearing funds and credits
3 in some cases, particularly in Verra, Gold
4 Standard, ACR and CAR, as far as registries are
5 concerned. Next slide, please.

6 Observations, I think we're at an inflection
7 point as Tom had mentioned for the voluntary carbon
8 markets. It seems, you know, to me that our
9 observations have been that there's a lot of
10 capital on the sidelines, both from our corporates
11 and investment houses that are looking, you know,
12 to funnel financing and capital into the voluntary
13 carbon markets.

14 But there's a tremendous amount of confusion
15 around quality, as everybody had mentioned today,
16 and what type of credits to buy, what type of
17 projects to support, and what type of exchanges are
18 listed products to interact with.

19 And so, you know, we see a significant risk of
20 getting it wrong, obviously, for the market right
21 now, and see a huge role that the CFTC and other
22 regulatory bodies can play in helping to coalesce

1 the market around a centralized standard. What we
2 see, you know, is a lot of fragmentation across the
3 markets.

4 And, you know, we see certain folks defining
5 quality through credit rating agencies, to
6 registries themselves. We have customers that have,
7 you know, benches of 12 people deep that are
8 technical experts on additionality, leakage, and
9 various other quality criteria, and that are not
10 looking necessarily at credit rating agencies or
11 other quality standards and developing their own.

12 So there's a lot of bespoke fragmented
13 approaches to quality, and I think that there's an
14 opportunity for regulatory bodies to set standards,
15 you know, that the market coalesce and get
16 confidence around to not miss the opportunity to
17 scale, you know, and to bring us to the next stage
18 of the market.

19 MR. MACKLER: Hey, John, this is Sasha here.
20 Just want to ask you if you could please wrap up so
21 we can -- we can --

22 MR. BATTAGLIA: Yes, absolutely. Sorry.

1 MR. MACKLER: Thank you.

2 MR. BATTAGLIA: If I missed a cue. I'll just
3 wrap it up right there and we can kind of get
4 through everybody and go to questions after that.
5 Thank you.

6 MR. MACKLER: I appreciate it. Thanks, John.

7 MR. BATTAGLIA: Sure. Sure.

8 MR. MACKLER: Next, we're going to turn to
9 Dirk Forrister, who's the President and Chief
10 Executive Officer of the International Emissions
11 Trading Association.

12 MR. FORRISTER: Thanks, Sasha. And, thanks
13 Commissioners for still being here. You've been
14 through a lot today, and I'm trying to put myself
15 in your shoes and think about what you must make of
16 this.

17 And I hope that as you've heard all of this
18 discussion, there's a little bit more to it than
19 might first meet the eye, at least in terms of the
20 criticisms you might read about in the press.

21 There's actually a lot more structure around
22 these markets than one might believe, and really

1 the discussion has taken me back to work in this
2 town around the Waxman-Markey legislation back in
3 another time, right?

4 And during that time period, we were in
5 discussions IETA and CFTC, about the regulation of
6 the market that we thought would emerge under that
7 legislation and were quite supportive of CFTC
8 asserting jurisdiction over environmental markets
9 broadly, recognizing that somebody needed to do
10 that, right?

11 And then I remember making the prediction at
12 the time that we were such good lobbyists that we
13 were going to end up having market oversight
14 without the underlying market. And we sort of did
15 that too, right? Because now we don't have a
16 federally regulated market in terms of a compliance
17 market.

18 But instead, we're trying to mimic it as best
19 we can with use of private standards and building
20 on kind of the experiences of other commodities in
21 the past in building up as much as we can in the
22 private sector to hopefully make the pathway to a

1 legislated solution easier when the time comes.

2 I guess I wanted to step back and take a bit
3 of a global perspective and take you back to Kyle's
4 presentation at the very beginning because I don't
5 think I need to repeat all the great things that
6 exchanges are doing or standards are doing and I
7 should confess many of my member companies are
8 around this table.

9 Maybe who isn't here as much are the end use
10 buyers, the companies that are actually making
11 investments. We've got a little bit of that. But I
12 guess what I wanted to reflect on was, you remember
13 his stair step, that stair step chart? All the
14 mitigation potential at various cost points and
15 volumes.

16 And what was on that chart was something on
17 the order of nine or 10 gigatons, which in our
18 world is a lot of mitigation that's out there,
19 that's potential, but it doesn't have money.

20 And that's really what's at stake right now,
21 because the voluntary markets, from the United
22 States perspective, is probably the best tool that

1 we have for connecting finance from large US
2 corporates with the need in developing countries
3 for more mitigation funding, right?

4 Because that massive legislation that
5 President Biden got through on climate change had
6 zero international funding in it. So that's why
7 Secretary Kerry -- former Secretary Kerry is so
8 interested in this energy transition accelerator.
9 It's because it's a new standard that could drive
10 more investment into the energy transition in
11 developing countries.

12 Because it's the one tool that we have for
13 directing finance, again, from the private sector
14 in the US. And as I think about that and ways that
15 you could be particularly useful in that, I'm also
16 thinking about your counterparts in the developing
17 world that are trying to figure out how do they
18 want to steer the investment, right?

19 You heard samples today about, well, we put a
20 restriction on this or -- and frankly, some of
21 those countries should be doing that. They should
22 make sure that they're going to comply with their

1 Paris targets before they take their national
2 treasure to market, right?

3 But I think what most of them are finding is
4 that they have more than enough mitigation
5 potential to meet their target. Frankly, what they
6 lack is the financing to bring more to the table,
7 and that's what these voluntary carbon markets have
8 the potential to do.

9 On their side of the table, I think one of the
10 other things, and Chairman Behnam, I was part of
11 the IOSCO session that you ran last year. And since
12 then, as I travel the world, one of the things that
13 I'm hearing more from developing countries is what
14 kind of market oversight structure do we need?

15 I mean, there's some basic environmental stuff
16 that needs to be done about assuring the targets,
17 and there's a trade thing that needs to be done on
18 authorizing credits for international transfer.

19 But the market oversight piece will also be an
20 item for them, and I would love to have a model
21 from the United States that's nimble, that's not
22 snuffing out the market, but is actually

1 encouraging it, but maybe gives us also a
2 replicable model. And I think that came out of
3 several of your comments in the opening about how
4 markets like these familiar models.

5 We like standardized contracts, we like
6 standardized crediting programs, we like a
7 threshold standard from the Integrity Council and
8 the Voluntary Carbon Market. These are all
9 extremely useful tools.

10 The one that Flavia spoke about from the World
11 Bank about helping standards digitize in a common
12 way so that the Climate Action Data Trust, that
13 we're involved in helping to implement, can reflect
14 all of the existing standards in one place.

15 That would be an innovation for us right now
16 if a market participant wants to go and find out
17 who did diligence on a project and find out if it's
18 being considered in more than one registry or more
19 than one standard. You have to look like six or
20 eight different places. But this digital
21 infrastructure will bring it all together in one
22 place, again, as a public good.

1 I think all of these are building blocks for
2 something that could be truly transformational, but
3 your piece of it which we'd love to be in further
4 dialogue about how do you actually encourage, you
5 know, the proper use of these powerful tools
6 without sort of overkill of adding too much of a
7 regulatory burden.

8 And I think we're open to finding what that
9 balance is, but I guess I just wanted to bring that
10 perspective about the International Finance
11 Component, because, frankly, it is --

12 MR. MACKLER: Thanks. You just got to --

13 MR. FORRISTER: What it represents.

14 MR. MACKLER: I just wanted -- I don't want to
15 cut you off, I just wanted to let you know we need
16 to move on.

17 MR. FORRISTER: Yeah. It's what represents the
18 success or failure of the Paris Agreement. So
19 thanks.

20 MR. MACKLER: Thank you. And I'm sorry to be a
21 little heavy handed here on the panel, but just
22 trying to keep things moving along. And our next

1 speaker is David Tenny, who is the President and
2 Chief Executive Officer of the National Alliance of
3 Forest Owners. Over to you, David.

4 MR. TENNY: Sasha, I'm going to keep your hand
5 light, because like everyone else, my blood sugar
6 level is about zero right now. So let me just tell
7 you a little bit about us. I'll do some contextual
8 table setting, talk about integrity, and then the
9 role of government. Our membership represents about
10 86 million acres of private forest land in the
11 United States.

12 That's a lot of trees. And the most important
13 thing I want you to know about these forests is
14 that they're working forests. These are the forests
15 that provide wood and fiber to our nation. I'm
16 going to give you three statistics that I hope
17 you'll remember for the rest of your lives, at
18 least while they're -- as long as they're valid.

19 First is that our private working forests in
20 the US are about 47 percent of the landscape of all
21 forests in the United States. That 47 percent is
22 providing about 47 percent of all of our carbon

1 storage in the United States and all of our
2 forests. So 47 is the first number. The second
3 number is 90.

4 These forests are providing 90 percent of our
5 timber harvest for everything that we produce from
6 our forests. So that creates a question. What is
7 the impact of that? The impact of that is they're
8 providing 80 percent of our net sequestration every
9 year. So 80 percent of our net sequestration is
10 coming from the forests that are producing 90
11 percent of our timber harvest.

12 What does that mean? That means that these
13 forests, as Sean pointed out earlier, are already
14 carbon negative. And that is in large measure an
15 outcome of traditional markets, quite apart from
16 any of the markets we're talking about here. Since
17 the 1950s, we've seen a significant increase of
18 both population and consumption in our country.

19 But what's happened with our forests, the
20 volume of forests in the United States has grown by
21 60 percent since the 1950s. That's what markets can
22 do. We can provide what the marketplace wants, but

1 the marketplace needs to give us very, very clear
2 signals, which brings us to integrity. The most
3 important thing on the minds of my CEOs in this
4 space is integrity. Why?

5 Certainly, there's a market opportunity here,
6 but beyond that there's a lot of reporting that's
7 going on in the world right now. Whether it's for
8 net carbon zero commitments, or whether it's for
9 scope emissions, or whether it's for sustainable
10 financing, whatever.

11 Integrity is the most important thing for our
12 members and it's not as much about the marketplace
13 as it is about social license. For us, our
14 contributions to climate change are like our
15 contributions to water quality and wildlife
16 habitat. They are a matter of social license.

17 And this marketplace could just enhance
18 everything that we do because we can provide what
19 the marketplace wants. So what can government do
20 about that?

21 Well, first and foremost, data is king. Data
22 analysis, the MMRV stuff that USDA is talking about

1 is king. We're working with USDA to provide a
2 single source of truth on the data.

3 Think of how much help that would provide to
4 the marketplace. What is the single source of
5 truth? It's the data that USDA is providing on
6 domestic forests in the United States through
7 forest inventory and analysis and making it
8 accessible through radical transparency. That's
9 number one. Number two, we need alignment across
10 government.

11 Think of how difficult it would be for the
12 CFTC to regulate No. 2 yellow corn if it didn't
13 even know what it was. We need USDA to tell CFTC
14 what No. 2 yellow corn is so that it can be
15 regulated in the proper way. Same thing for carbon.
16 We've got to have consistency across the
17 government. Confusion is death.

18 Finally -- or third, we can validate what's
19 already going on in the marketplace. We've got
20 Verra sitting right across from me. They're doing a
21 good job. Let's validate that; a stream like a good
22 parent would. Let's validate good things that

1 they're doing rather than kicking them in the shins
2 every time they are innovating and something
3 doesn't seem to go right.

4 They are doing a great job and we recognize
5 that everybody should. Fourth, we should spur
6 investment in climate solutions, either direct or
7 through market-based incentives. And USDA is doing
8 a great job at that. I think the IRA was about
9 that, and we need to keep that going.

10 And finally, the engagement of stakeholders.
11 If we want this to work, the world needs to be a
12 part of it, and certainly we'll do our part.

13 And with that, I will yield the balance of my
14 time, as they say in this town.

15 MR. MACKLER: Thanks very much, David,
16 appreciate that. We're going to turn now to Todd
17 Phillips, who's a Fellow in Corporate Power at the
18 Roosevelt Institute.

19 MR. PHILLIPS: Thank you. Thank you, Chairman
20 Behnam, Commissioners, David, and Abigail. If I
21 have one takeaway from this, it's this,
22 enforcement, enforcement, enforcement. The VCO

1 market is rife with failures.

2 As market participants have limited incentives
3 to ensure that VCOs actually deliver the climate
4 benefits they claim. The market for VCOs is subject
5 to widespread perverse incentives. Buyers are
6 mostly motivated by low prices and rely, at least
7 rhetorically, on the quality standards put forward
8 by voluntary carbon market standards.

9 Meanwhile, VCO auditors are paid by developers
10 who are not asked to opine on the quality of the
11 underlying market standards, so they face every
12 incentive to give positive opinions and developers
13 are primarily incentivized to achieve low prices
14 and cut corners, whatever standards allow.

15 Because standard setters also run registries
16 and are paid on a per VCO basis, they are
17 incentivized to set standards officially low, that
18 many projects can meet them and opt to sell VCOs on
19 their registries, but perhaps not so low as to be
20 laughable.

21 Meanwhile, everyone competes against one
22 another, such that if one market participant

1 successfully cuts corners on quality, others have
2 an incentive to follow. Everyone is stuck in a race
3 to the bottom.

4 While I wish the CFTC could regulate a way all
5 the problems with the markets, the CFTC's role is
6 limited to policing fraud and market manipulation,
7 specifically Section 6.1 of the CEA, Rule 180.1.

8 Accordingly, enforcement is the most
9 significant tool the CFTC has. I was extremely
10 pleased to see the CFTC's whistleblower office
11 release its alert on carbon offsets and the
12 creation of the Environmental Fraud Task Force. And
13 I'm optimistic that this is a precursor to
14 significant enforcement actions.

15 I know that the CFTC's enforcement resources
16 are not unlimited, and I want to comment about
17 where the Enforcement Division should focus its
18 attention. CFTC Rule 180.1 prohibits fraudulent,
19 untrue, or misleading statements of material fact,
20 or omissions of necessary material facts made
21 "directly or indirectly" "in connection with" the
22 sale of any commodity.

1 This authority gives the CFTC wide latitude to
2 pursue the biggest and most important participants
3 in the VCO markets, even if they are not directly
4 involved with any particular asset sale.

5 Specifically, the CFTC should focus its attention
6 on standard setters, whose standards are used to
7 create millions of credits sold all over the United
8 States and the world.

9 Countless studies and in-depth investigative
10 reports demonstrate that many of these credits may
11 lack additionality and permanence and have leakage.
12 Accordingly, if standard setters intentionally or
13 recklessly make untrue or misleading statements of
14 material fact in connection with advertising the
15 benefits of VCOs generally, they should be liable
16 for violating the CEA.

17 Here's a hypothetical. Suppose a standard
18 setter's senior officer has actual or constructive
19 knowledge that a carbon credit methodology does not
20 result in a reduction of one ton of carbon dioxide
21 emissions relative to a reasonable baseline
22 scenario, perhaps because the employee has seen

1 studies disproving the methodology or its
2 application.

3 Yet the officer broadly states that all the
4 offsets it sells are worth one ton of carbon
5 dioxide emissions. If the officer knows or should
6 have known that the standards that are continues to
7 sell VCOs created under that problematic
8 methodology on its registry, that could violate
9 180.1.

10 Before I conclude, I want to note that perhaps
11 the worst thing the CFTC can do is implicitly bless
12 any one VCO standard or methodology. As the CFTC
13 decides to issue guidance, that guidance should be
14 limited to advising the industry what not to do,
15 rather than promoting particular methodologies.

16 After all the industry's self-regulatory
17 efforts have intentionally avoided this question.
18 which is why enforcement is so important. Thank
19 you. I'm happy to answer questions.

20 MR. MACKLER: That's great. Thank you, Todd.
21 Now we will be turning to Jonathan Goldberg, who's
22 the CEO of Carbon Direct, and he is joining us

1 virtually.

2 MR. GOLDBERG: Thanks, Sasha, and thanks,
3 Commissioner. I know we're running up on time, so
4 will keep the comments concise. For a quick
5 introduction, our firm was founded with a
6 commitment to the science of carbon management, the
7 bulk of our team, our scientists with different
8 expertise and different fields of carbon management
9 and carbon removal.

10 And our firm has worked with some of the
11 largest purchasers of carbon credits and carbon
12 renewable credits in particular. Firms like
13 Microsoft and JPMorgan, who have made large-scale
14 purchases key to our ethos is publishing so we do
15 publish a lot of our thought process on what we
16 think can and cannot make a strong carbon credit.

17 I don't want to belabor some of the other
18 points that have been made by previous speakers,
19 but we do have a challenge in the market today in
20 that there's a proliferation of credits that do not
21 meet the highest standards of carbon across the
22 different types of carbon removal that we look at.

1 We've done more than 200 different reviews of
2 different projects. It's difficult to consistently
3 find high quality credits in the market as other
4 speakers have noted. There are a number of sort of
5 well-intentioned groups, industry organizations now
6 that are trying to improve.

7 We do think this proliferation of standards is
8 potentially helpful, but can also be confusing to
9 the market. And therefore, we would agree that
10 there's a strong role that the government can play
11 with guidance to ensure high quality carbon
12 credits. I actually echo a number of the comments
13 the previous speaker made.

14 We think one of the biggest, biggest areas
15 that the CFTC can lead on is the dissemination of
16 information and data that would allow buyers of
17 carbon credits to make or have informed decisions
18 around what they're purchasing, in particular
19 around areas of additionality on the idea that a
20 carbon credit is actually leading to an additional
21 ton of CO2 removed or reduced from the atmosphere.

22 We've been pleased to actually see a number of

1 bills and in the state of California speaking to
2 the types of information that reasonable buyers
3 would want to use to make an informed decision
4 around carbon credits, around additionality, and we
5 think the CFTC can provide similar guardrails in
6 its enforcement and oversight.

7 Thank you for the opportunity. I know we're
8 short on time, but be happy to answer any
9 questions.

10 MR. MACKLER: That's great. Thanks, Jonathan.
11 And I should just note that Jonathan and his team
12 at Carbon Direct were partners of the BPC in the
13 report that I mentioned earlier which is, you know,
14 I think quite relevant to this conversation today.
15 And last but not least, we will turn to our final
16 panelist, Kari Larsen, who's a partner at Willkie
17 Farr, and Gallagher and is speaking on behalf of
18 the Futures Industry Association. Over to you,
19 Kari.

20 MS. LARSEN: Thank you, Sasha. Thank you,
21 Chairman, and the entire commission for holding
22 this convening. I am Kari Larson. I'm a partner and

1 co-chair of Willkie Farr and Gallagher's Digital
2 Works Practice, and I also am a member of the
3 Futures Industry Association's Board of Directors,
4 and I'm delighted to be here today representing FIA
5 at this important event.

6 FIA believes in the power of well-regulated
7 markets to drive price discovery and provide
8 opportunities for risk management that are
9 critically important for a transition to a lower
10 carbon economy. Voluntary carbon markets are a
11 prime example of the kind of innovation that
12 financial markets can provide to the global economy
13 to assist with this transition.

14 While the markets have not yet scaled to their
15 full potential, it should be noted that carbon
16 markets have grown exponentially over recent years.
17 FIA is committed to working with the public and
18 private sectors to facilitate continued growth of
19 voluntary carbon markets that are reliable,
20 transparent and resilient.

21 As with any emerging or evolving market, which
22 you know that I love, meeting these objectives will

1 require infrastructure supporting these markets to
2 continue to mature and a greater degree of
3 standardization in order to increase participation.
4 This ultimately will boost confidence of
5 participants across the entire value chain and
6 promote a successful market.

7 The listed derivatives markets has a strong
8 track record of success in scaling high integrity
9 markets for a variety of asset classes. We are
10 confident that exchanges, in collaboration with
11 market participants and self-regulatory
12 organizations will develop the derivative products
13 necessary to support a robust climate market.

14 FIA commends the CFTCs efforts to promote
15 public dialogue toward better understanding of the
16 developments, the challenges and the opportunities
17 in the climate and sustainability linked markets,
18 including voluntary carbon markets.

19 Today's meeting is a testament to the CFTCs
20 commitment to tackling these important issues that
21 will define these markets for years and indeed
22 future generations to come. FIA would like to offer

1 several recommendations for the CFTC to consider,
2 as it considers action in this space.

3 First, climate change and the ongoing energy
4 transition is global in scale. Therefore, FIA
5 encourages the CFTC to continue to coordinate with
6 global regulators and standard setting bodies to
7 align legal and regulatory treatment of voluntary
8 carbon offsets as much as practical across
9 jurisdictions. Second, voluntary carbon markets
10 have shown remarkable growth in recent years,
11 driven by private sector demand and ingenuity.

12 FIA would encourage the CFTC to prioritize
13 actions that will allow this continued innovation
14 and growth in these emerging products and markets.

15 Third, FIA believes that the Commodity
16 Exchange Act, existing CFTC regulations, and the
17 self-regulatory regime administered by the National
18 Futures Association already provide a flexible and
19 principles based regulatory framework that allows
20 for effective and strong regulation of existing
21 environmental products and those yet to come.

22 Fourth, the FIA applauds the CFTC for engaging

1 with stakeholders, including through public
2 meetings such as the convenings and encourages the
3 agency to continue to listen to farmers, ranchers,
4 producers, commercial end users, and other industry
5 participants.

6 If the CFTC issues new regulations in this
7 space, it will be important to hear from
8 stakeholders during both the process of development
9 of the rules and through the formal comment
10 process. We look forward to continuing this
11 conversation and thank you again for holding this
12 important meeting today.

13 MR. MACKLER: All right. Thanks. Well, we
14 landed the plane just about right on time, 5:00. I
15 really want to thank the panelists for the remarks
16 and, you know, I wanted to see if we can do a
17 little round of questions and discussion if there's
18 time for that.

19 And so, maybe we can open it up for anyone
20 around the table if they'd like to ask any
21 questions and maybe if you're thinking about any
22 questions to ask, I'll throw out the first one

1 which may be to see if we can bring the
2 conversation back around to where we began today
3 and think about the position that the CFTC is in
4 right now.

5 As they're thinking about these markets and
6 taking in all that we've heard today, what advice
7 would you give to them and what could they be doing
8 from an oversight perspective to promote innovation
9 for high integrity carbon derivatives?

10 Do you have any basic takeaways or things that
11 you would like to add to your comments for the CFTC
12 as they take away from today? And I'll just open
13 that up for the panel.

14 MR. FORRISTER: I'll just start off by saying
15 I think it's in a way the ICVCM that's been
16 referenced throughout this is a real gift to you
17 because it's going to provide this threshold of
18 quality and integrity that I think we all want to
19 see.

20 But I think your focus should remain on the
21 futures options derivative space, the financial
22 treatment of it because that's a real bear of a

1 task to try to get involved in the actual
2 underlying. I'm part of the ICVCM, I know the kind
3 of staffing that takes, the kind of pain that it
4 takes.

5 And frankly, it ends up extending to
6 developing countries, right, where the actual
7 projects take place and they need to be verified.
8 But I think the types of activities that you can do
9 to provide more clarity and assurance on secondary
10 markets could be great.

11 MR. TENNY: Stay close to USDA. They are
12 connected to this community unlike any other
13 agency. Keep it simple.

14 The marketplace needs help, it doesn't need to
15 be overly complicated; and the regulatory touch,
16 light, light touch. If we want to foster something
17 that's going to work for the sake of the planet,
18 let's make it work.

19 MR. PHILLIPS: Yeah, I would just add, I think
20 it would be very difficult for the CFTC to adopt
21 some kind of standard. The science is always
22 developing. There are new articles evaluating the

1 methodologies coming out all the time. And so, I
2 think let the private sector develop the
3 methodologies.

4 And to the extent that the CFTC can get
5 involved, I think it is making sure that projects
6 that do comply with the methodologies. I think that
7 there are problems with some of the methodologies,
8 but I don't know how the CFTC can or should get
9 there. So I reiterate enforcement, enforcement,
10 enforcement.

11 MR. MACKLER: That's great. There's -- there's
12 so many ways in which we can unpack this
13 conversation.

14 And, you know, there -- and be -- because
15 we're limited in time, maybe one thing that I sort
16 of hear, when I, and what I think about a lot when
17 we -- when we're starting to really engage with
18 these issues is the flag that comes up a lot in
19 when we're thinking about the integrity of these
20 markets is really around additionality.

21 Are these tons, are these reductions real? The
22 other part of this that hasn't come up as much and

1 that I'd love some reactions from this panel on is
2 the permanence question and are these reductions,
3 are these credits being used in the marketplace for
4 what they are, you know, in an appropriate way.

5 Can they be actually taking CO2 emissions off
6 of the corporate ledgers permanently as they are
7 being claimed to do in a lot of cases? Is that the
8 appropriate use and is that something that the CFTC
9 and the government bodies should be looking at as
10 well?

11 MR. FORRISTER: On this one, I would say wait
12 for the ICVCMs guidance on this because I think it
13 will be a topic that they cover. And it's one where
14 all of the standards have some slight variation in
15 how they do permanence. It is something that I
16 think is important to harmonize so that they're not
17 all different.

18 MR. MACKLER: That's right, and I know
19 Jonathan you wanted to jump in.

20 MR. GOLDBERG: All right. Yeah, I was going to
21 say, I mean, it seems like there's sort of twofold
22 part of the question. One is, you know, what people

1 say they're using the credit for. So if you're
2 emitting a ton of carbon through flying or through
3 other activities, that's a permanent emissions.

4 There are some types of carbon credits that
5 are never going to be permanent removals by the
6 nature of them. There are ways to think through
7 different permanence and durability and different
8 types of credits by measuring the duration of
9 storage against something like an engineered
10 solution.

11 That's quite difficult to do and somewhat
12 subjective, even within the science. So I'm not
13 sure that the CFTC will be able to determine that,
14 but it should be able to determine whether people
15 are abiding by the rules that they've laid out and
16 the standards that they've set.

17 MR. TENNY: I would agree with that. Nothing's
18 permanent, even permanence. And so, as much
19 certainty as can be provided in timeframes, I think
20 that we see that there are timeframes associated
21 with these products. And there are plenty of
22 safeguards that are in place already.

1 The registries that we -- our member companies
2 would work with provide really good safeguards
3 already. So we have to just deal with the fact that
4 nature is changing all the time. And so, if we can
5 roll with that, then I think we'll get to the right
6 place.

7 MR. MACKLER: Yeah, I think the point is that
8 there's a timescale associated with the emissions
9 and there's a timescale associated with the action
10 on a reduction and are they in sync, that's the
11 question.

12 Any other thoughts from the panel on this or
13 anything else? Yeah.

14 MR. PHILLIPS: So my understanding is that
15 carbon stays in the atmosphere for about a hundred
16 years. So I think that when we're thinking about
17 carbon offsets and permanence, I think carbon would
18 need to be removed from the atmosphere for at least
19 about a hundred years, the same duration as carbon
20 stays up there.

21 MR. GOLDBERG: Yeah, I mean sorry, but carbon
22 stays in the atmosphere for much, much longer than

1 that.

2 MR. PHILLIPS: Right.

3 MR. KEAVY: So I mean, there is not a scenario
4 where you just sort of let nature be nature. And
5 match on a permanent basis, like that will not
6 work.

7 There are other mechanisms that you can think
8 through, like you can think through different
9 stacking of credits, you can think through
10 different types of credits that you can buy over
11 time that can approximate the permanence of a CO2
12 emission that goes into the atmosphere. But it is -
13 - it's not correct to think of it that way.

14 We really should not think of it that way.
15 When companies or governments are emitting carbon,
16 it is lasting in the atmosphere for a thousand year
17 plus. We can't get an exact number, and you should
18 think through what you are doing against those
19 emissions for a roughly equivalent basis.
20 Otherwise, it's a bad trade for the atmosphere.

21 MR. MACKLER: Thanks for that clarification,
22 Jonathan. I think that's a really important point

1 to inject into this conversation. I think with
2 that, we'll turn it back over to the Chairman.

3 MR. BEHNAM: Sasha, thank you. Thanks to the
4 panel. I'm going to turn it over to Commissioner
5 Goldsmith Romero if she has any closing remarks.
6 You're good? Okay. In the interest of Dave's blood
7 sugar level, we're going to wrap this up.

8 Thank you everyone for your time, your
9 patience, your contributions from the government
10 panel to everyone in the public sector, private
11 sector. We have our work to do, but we will
12 continue to engage, to listen and take your
13 feedback. And I think above all else, this is a
14 collective action problem.

15 So the, you know, the effort has to be from
16 the ground up and it has to be all of us together.
17 So we'll continue to participate, take a look at
18 the record and then, you know, we have, as I said,
19 some steps ahead in the next couple of months.

20 But I do want to thank my fellow Commissioners
21 for being here, their participation, their
22 advocacy. And I will end with thanking Abigail

1 Knauff and David Gillers, as was mentioned a few
2 times today.

3 This doesn't happen without them. All of you
4 know as I said, their organization, their
5 expertise, getting everyone together, getting the
6 right people together is invaluable.

7 So thank you. Dan, thank you for your
8 participation. Welcome back. And everyone have a
9 great evening. And please be in touch with all of
10 your input and expertise. Thank you.

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