

1 U.S. COMMODITY FUTURES TRADING COMMISSION (CFTC)

2

3 VOLUNTARY CARBON MARKETS CONVENING

4

5 Thursday, June 2, 2022

6 9:08 a.m.

7

8

9 U.S. Commodity Futures Trading Commission

10 Three Lafayette Centre

11 1155 21st Street, N.W.

12 Washington, D.C. 20581

13

14

15 BEFORE:

16 Rostin Behnam, Chairman, CFTC

17 ALSO PRESENT:

18 Kristin N. Johnson, Commissioner, CFTC

19 Christy Goldsmith Romero, Commissioner, CFTC

20 Summer K. Mersinger, Commissioner, CFTC

21 Caroline D. Pham, Commissioner, CFTC

22

1	AGENDA	
2	PRESENTATION	PAGE
3	Opening Remarks	
4	Commissioner Rostin Behnam	6
5	Commissioner Kristin N. Johnson	14
6	Commissioner Christy Goldsmith Romero	16
7	Commissioner Summer K. Mersinger	19
8	Commissioner Caroline D. Pham	21
9	Keynote Speakers:	
10	U.S. Senator Debbie Stabenow (D-MI),	
11	Chairwoman, Senate Committee on	
12	Agriculture, Nutrition and Forestry	23
13	U.S. Congressman David Scott (D-GA-13),	
14	Chairman of the House Agriculture	
15	Committee	25
16		
17	Panel 1: Carbon Offset Standards and Quality	
18	Initiatives	31
19	Moderator: Kelley Kizzier, Bezos Earth Fund	32
20	Stephen Donofrio, Ecosystem Marketplace of	
21	Forest Trends	35
22		

1	AGENDA (Continued)	
2	Sonja Gibbs, Institution of International	
3	Finance and Integrity Council for	
4	the Voluntary Carbon Market	44
5	David Antonioli, Verra	52
6	Mary Grady, American Carbon Registry	58
7	Kristen Gorguinpour, Climate Action Reserve	65
8	Thomas Hale, Ph.D., Blavatnik School of	
9	Government, University of Oxford	70
10		
11	Panel 2: State and Federal Regulatory Updates	90
12	Moderator: Nat Keohane, Center for Climate and	
13	Energy Solutions	92
14	Jason Gray, UCLA School of Law	93
15	John E. Morton, U.S. Department of Treasury	101
16	Sean Babington, U.S. Department of	
17	Agriculture	105
18	Carol A. (Annie) Petsonk, U.S. Department	
19	Of Transportation	113
20	Philip B. Duffy, Ph.D., The White House	
21	Office of Science and Technology Policy	122
22	Christine Dragisic, U.S. Department of State	127

1	AGENDA (Continued)	
2	Panel 3: Carbon Offsets Trading and	
3	Infrastructure	150
4	Moderator: Eric Pitt, Ceres Accelerator for	
5	Sustainable Capital Markets	151
6	Kathy Benini, Sustainable1, S&P Global	155
7	John Melby, Xpansiv	161
8	Dan Scarbrough, IncubEx, Inc.	167
9	John Frederick, Indigo Agriculture	176
10	Evan Ard, Evolution Markets	181
11	Mike Kierstead, Intercontinental Exchange	186
12	Pete Keavey, CME Group	191
13		
14	Panel 4: Market Participants Recommendations	
15	for the CFTC	207
16	<u>Part I</u>	
17	Moderator: Janet Peace, BlueSource	209
18	Mark Kenber, Climate Advisers	213
19	Bella Rozenberg, International Swaps and	
20	Derivatives Association	222
21	Linda French, JPMorgan Chase & Co.	231
22	Aoife Kearney, Neuberger Berman	236

1	AGENDA (Continued)	
2	Darcy Bradbury, the D.E. Shaw group	241
3	Alexia Kelly, Netflix	246
4	<u>Part II</u>	
5	Moderator: Angela Churie Kallhauge,	
6	Environmental Defense Fund	256
7	Chuck Conner, National Council of Farm	
8	Cooperatives	260
9	Shelby Swain Myers, American Farm Bureau	
10	Federation	265
11	Tyson Slocum, Public Citizen	271
12	Jeff Swartz, BP	279
13	Michael LeMonds, Holcim US	283
14		
15	Closing Remarks	
16	Commissioner Caroline D. Pham	294
17	Commissioner Summer K. Mersinger	294
18	Commissioner Christy Goldsmith Romero	294
19	Commissioner Kristin N. Johnson	295
20	Commissioner Rostin Behnam	296
21		
22		

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

2 CHAIRMAN BEHNAM: Good morning, everyone.

3 Maybe take our seats in the next couple of minutes and  
4 we will start up.

5 [Pause.]

6 CHAIRMAN BEHNAM: All right. We will get  
7 started. I have some remarks here, and I know my  
8 colleagues do too. We have Commissioner Johnson who is  
9 with us remotely, and then the others obviously are  
10 here in person. And I will give my remarks and we will  
11 go down the line and then we will kick off with the  
12 first panel. I know we are going to have some people  
13 coming in and out throughout the day because we have  
14 multiple panels to discuss and obviously folks joining  
15 us virtually.16 Good morning and welcome to the Voluntary  
17 Carbon Markets Convening. I want to thank my  
18 colleagues, Commissioners Johnson, Goldsmith Romero,  
19 Mersinger, and Pham for joining us today. I also want  
20 to acknowledge the members of the Climate Risk Unit and  
21 our distinguished keynote speakers, which I am very  
22 excited about, multiple moderators and panelists. I

1 want to extend gratitude to David Gillers, the CFTC's  
2 Chief of Staff and the CRU Director and Abigail Knauff,  
3 a Special Counsel in my office and the CRU Deputy, and  
4 all of the staff of the Climate Risk Unit for their  
5 work in initiating and putting this convening together.

6           There has been an outpouring of interest  
7 since I announced the convening last month, and I  
8 believe this interest is a testament to the strength of  
9 public-private partnerships aimed at determining how  
10 the derivatives markets can facilitate the transition  
11 to a net zero economy. There is now a common  
12 understanding that climate change presents an emerging  
13 and increasing threat to financial stability and can  
14 cause sub-systemic shocks and wide-ranging ripple  
15 effects to the U.S. financial system and the larger  
16 economy.

17           However, climate change also presents  
18 opportunities as we work to ensure decisive and  
19 cohesive leadership over the markets and institutions  
20 charged with monitoring and managing the risk, capital,  
21 and asset allocation. The derivatives markets overseen  
22 by the CFTC are used for hedging a range of risks in

1 the traditional commodity as well as interest rates,  
2 FX, credit, and equity markets. These markets also  
3 serve as powerful information resources for hedgers and  
4 investors when it comes to price discovery, market  
5 transparency, and facilitating the allocation of  
6 capital towards sustainable investments.

7           Market participants from across all sectors,  
8 including the agricultural, industrial, and financial  
9 sectors, will increasingly turn to the derivatives  
10 markets as they manage the impact of both physical and  
11 transition risks related to climate change.

12           I am very proud of my own efforts over the  
13 last several years in support of the Commission and  
14 industry efforts as former sponsor of the CFTC's MRAC,  
15 whose Climate-Related Market Risk Subcommittee report,  
16 was released in 2020, "Managing Climate Risk in the  
17 U.S. Financial System," and I would be remiss if I did  
18 not mention former CFTC Commissioner Bart Chilton, who  
19 many years ago exemplified the role policymakers have  
20 the potential to play, and the efforts also of the Bank  
21 of England and the Network for Greening the Financial  
22 System, the Financial Stability Board, IOSCO, and many



1 others who are working towards achieving sustainable  
2 finance and resilient financial markets.

3           At the heart of their efforts and in the  
4 pages of the MRAC Subcommittee's climate report is the  
5 concept of partnerships. The CFTC is uniquely poised  
6 as the regulator at the forefront of climate-related  
7 risk management as firms and individuals will  
8 increasingly turn to the derivatives markets to  
9 mitigate climate change-induced physical and transition  
10 risk and seek price discovery for new and evolving risk  
11 management products.

12           Recognizing the CFTC's leadership and  
13 vigilance in overseeing these markets, I announced the  
14 creation of the internal Climate Risk Unit in March  
15 2021, to thoughtfully leverage the agency's resources  
16 and expertise to better understand the role of  
17 derivatives and pricing in mitigating climate-related  
18 risk and support the orderly transition to a net zero  
19 economy through market-based initiatives.

20           In addition to designing and executing  
21 today's meeting I am pleased to announce the CRU's  
22 leadership in drafting a request for information on

1 climate-related market risk. The request for  
2 information will also seek responses on questions  
3 specific to data, scenario analysis, and stress  
4 testing, risk management, disclosure, product  
5 innovation, voluntary carbon markets, digital assets,  
6 greenwashing, financially vulnerable communities, and  
7 public-private partnerships in engagement. The  
8 Commission may use this information to issue new or  
9 amended existing guidance, interpretations, policy  
10 statements, and regulations or take other potential  
11 Commission actions.

12           The voluntary carbon markets are growing  
13 exponentially. Last year, the voluntary carbon markets  
14 exceeded \$1 billion in value for the first time, and  
15 some forecast the additional financing from carbon  
16 markets could exceed \$1 trillion by 2050. In November  
17 2021, the 26th U.N. Climate Conference of the Parties,  
18 or COP26, concluded in Glasgow with a new set of  
19 initiatives to advance the Paris Agreement's goal of  
20 limiting global warming. Among the key outcomes was an  
21 agreement on the so-called Article 6 Rulebook to  
22 facilitate international trading of emissions

1 reductions. Article 6 of the Paris Agreement had  
2 previously set out a framework for cooperative  
3 approaches to achieve national carbon reduction and  
4 removal targets. But the absence of an agreement on  
5 specific implementation guidelines rendered it  
6 inoperative. The Article 6 Rulebook ushers in an  
7 exciting new era for international carbon markets.

8           The private sector has demonstrated its  
9 leadership and ingenuity by initiating, among other  
10 efforts, the Taskforce on Scaling Voluntary Carbon  
11 Markets to accelerate the growth and adoption of  
12 voluntary markets. Multiple carbon offset derivatives  
13 contracts are already listed on the CFTC's regulated  
14 exchanges today, and more are expected in the future.

15           The CFTC must build its capacity to ensure  
16 the ongoing integrity of these markets, identify and  
17 pursue any potential fraud or other abusive practices  
18 in the underlying markets, and promote responsible  
19 innovation and fair competition. In other words, we  
20 are now past the point of wondering whether our  
21 derivatives markets are implicated by the voluntary  
22 carbon markets. The answer very clearly, in my view,

1 is yes, and we, as a regulator, have an imperative to  
2 examine these markets to assess credibility and  
3 integrity.

4           Multiple private sector-led voluntary carbon  
5 market initiatives are underway to address the  
6 integrity of the supply and demand for carbon offsets.  
7 It is critical that voluntary carbon markets support  
8 high-quality, data-supported carbon offsets that  
9 meaningfully reduce or avoid carbon emissions. It is  
10 also critical that we acknowledge that carbon offsets  
11 are only one tool to mitigate emissions, and should  
12 only be used when all other means have been exhausted  
13 to mitigate emissions.

14           There is enormous potential for companies in  
15 all sectors to meet sustainability goals and net zero  
16 commitments, but emission reduction is not a one-size-  
17 fits-all undertaking. While carbon offsets may provide  
18 an efficient and cost-effective means to check that box  
19 and populate the balance sheet, if those offsets do not  
20 represent true abatement, either because they lack  
21 integrity or the underlying infrastructure lacks  
22 transparency, then VCMs remain in a perpetual limbo,

1     akin to being stuck in a regulatory sandbox.

2             Today's convening aims to provide a public  
3     forum for a wide variety of market participants in the  
4     voluntary carbon markets to examine the issues related  
5     to the supply and demand for high-quality carbon  
6     offsets with a focus on integrity, infrastructure, and  
7     credibility. To reiterate, the CFTC is here as a  
8     market regulator to ensure, where appropriate, that  
9     VCMs grow in a responsible way with appropriate  
10    supervision and necessary guidance and guardrails.  
11    Indeed, our efforts today demonstrate a very  
12    intentional first step towards increasing U.S.  
13    participation in international cooperative efforts.

14            As I have mentioned, as the derivatives  
15    regulator we have an imperative to understand how these  
16    markets operate, and the purpose of today's convening,  
17    in addition to reaching a better understanding of the  
18    markets, is to pose the underlying question that really  
19    permeates every panel, and for which we are very eager  
20    to hear your input -- what role should CFTC play in  
21    these markets? We are here today to further ensure  
22    that the right choices are made and to take the

1 necessary steps to understand and support, where  
2 appropriate, responsible innovation to tackle the  
3 climate challenge.

4           Again, I am honored and pleased to welcome  
5 all of you here today. I am very grateful for all of  
6 you to be here today and provide your expertise and  
7 input. And with that I am going to hand it over to my  
8 colleague, Commissioner Johnson, for any comments that  
9 she may have.

10           COMMISSIONER JOHNSON: Good morning. Thank  
11 you, Chair Behnam.

12           On May 20, 2021, a little over a year ago,  
13 citing the increased frequency and severity of "extreme  
14 weather risks leading to supply chain disruptions,"  
15 President Biden issued an Executive order acknowledging  
16 the significance and urgency of the need to address the  
17 intensifying impacts of such climate events, including  
18 "physical risk to assets, publicly traded securities,  
19 private investments in companies, as well as transition  
20 risks."

21           In addition, the Executive Order on Climate-  
22 Related Financial Risk underscored the need to study

1 and assess pathways to participate in the global  
2 transition towards solutions to address underlying  
3 concerns while maintaining, if not enhancing, the  
4 competitiveness and growth of the U.S. economy.  
5 Undoubtedly, voluntary carbon markets will play an  
6 important role in these efforts.

7 I am grateful to Chair Behnam for his  
8 leadership as previous sponsor of the MRAC Committee,  
9 his continuing partnerships with FSOC and other  
10 domestic Federal regulatory agencies, as well as  
11 international regulators, the Bank of England, and  
12 IOSCO, among others, and for convening this very  
13 important gathering today. I look forward to hearing  
14 from each of you, as experts and stakeholders who have  
15 taken your time to join, educate, and advise us, as we  
16 undertake next steps as the singular regulator of our  
17 markets.

18 Thank you so much for joining us. I am sorry  
19 I cannot be present with you today.

20 CHAIRMAN BEHNAME: Thanks, Commissioner  
21 Johnson. And now Commissioner Goldsmith Romero,  
22 please.

1           COMMISSIONER GOLDSMITH ROMERO: Good morning  
2 and welcome to the CFTC. I especially want to thank  
3 the Chairman for his leadership in this area and the  
4 staff and all of the participants who are here today.

5           As expressed in President Biden's Executive  
6 Order on Climate-Related Financial Risk that my  
7 colleague just cited, a whole-of-government approach  
8 will lead to greater understanding of the financial  
9 risks that climate change poses and to the development  
10 of effective strategies to mitigate those risks.

11           The CFTC should be at the forefront of  
12 financial regulatory efforts to understand and identify  
13 actions to mitigate climate-related financial risks  
14 that impact CFTC-regulated markets. When I testified  
15 at my confirmation hearing I said that as our markets  
16 evolve with emerging issues like climate and digital  
17 assets, regulators must be thoughtful and deliberate.  
18 It is important to learn the facts, to listen to all  
19 sides, to understand consequences of any action, and  
20 collaborate with other regulators. Being thoughtful  
21 helps keep markets resilient, transparent, and free of  
22 fraud and manipulation while promoting responsible



1 innovation.

2           Today is an opportunity to learn, to listen,  
3 and understand. First, the Commission can benefit  
4 significantly in understanding physical climate risk  
5 directly from those in our markets who bear the risk.  
6 Second, the United States has an opportunity to be a  
7 leader in the emerging voluntary carbon and  
8 sustainability markets, and public input can help  
9 realize that opportunity.

10           As a market regulator, the CFTC's mission is  
11 to promote the resilience, the vibrancy, and the  
12 integrity of our derivatives markets. Commodities  
13 markets have been impacted by significant climate  
14 disasters such as wildfires, hurricanes, flooding, and  
15 other disaster events that have caused devastating  
16 financial losses to farmers, ranchers, and producers,  
17 losses that have impacted our derivatives markets.

18           In determining how to promote the resilience  
19 and the vibrancy of these markets, it is appropriate  
20 for the Commission to seek data and input on climate-  
21 related physical risk from those in our markets who  
22 bear the brunt of that risk and the public, and the

1 Commission should be thoughtful and deliberate in any  
2 future action and consider potential consequences on  
3 farmers, ranchers, and producers.

4           Additionally, the Commission's role extends  
5 to promoting responsible innovation, which includes the  
6 evolution of climate and sustainability products in our  
7 markets. There is a growing global market demand for  
8 derivative products that could serve as a hedge against  
9 both physical risks of climate change as well as  
10 transition risks as companies move toward a net zero  
11 environment. With a growing number of companies making  
12 net zero pledges, there is notable interest in carbon  
13 offset or sustainability products. However, concerns  
14 about transparency, credibility, and greenwashing may  
15 hamper the integrity and growth of these markets.

16           I look forward to your input on whether there  
17 are customer protections, guardrails, or standards that  
18 the Commission should consider as part of its mission  
19 to promote market integrity and transparency and to  
20 keep our markets free of fraud and manipulation. I am  
21 interested in hearing what special or unique  
22 circumstances, considerations, or challenges these

1 carbon markets present. I am particularly interested  
2 in hearing about customer protections, standards, or  
3 guardrails that are needed in order to achieve  
4 transparency, credibility, and integrity, and I am  
5 interested in thoughts on the appropriate role of the  
6 CFTC to promote responsible innovation in these  
7 markets. As the sponsor of the Technology Advisory  
8 Committee I am also interested in any input and  
9 thoughts, whether at this event or after, about how  
10 technology could play a role in promoting scaling up of  
11 these markets.

12 I look forward to the discussion and I  
13 appreciate all of you for taking the time to share your  
14 insight.

15 CHAIRMAN BEHNAM: Thank you. And  
16 Commissioner Mersinger.

17 COMMISSIONER MERSINGER: Good morning and  
18 thank you all for being here today. I know you are  
19 taking time out of your very busy schedules to be here,  
20 and we greatly appreciate it. And we really appreciate  
21 the fact that you are here to share your perspectives  
22 with us today. I think it is really important to have

1 this discussion in the public, so I am glad we are  
2 doing this.

3 I have no doubt that the discussion today, as  
4 outlined in the agenda shared with us just last night,  
5 will be very compelling, but I am primarily interested  
6 in hearing explanation about how this impacts the work  
7 we do here at the CFTC, especially the role that this  
8 will have in our legacy agriculture contracts.

9 Growing up on a farm, I watched drought,  
10 flooding, and violent weather destroy our livelihood in  
11 a matter of hours. I distinctly remember many mornings  
12 riding my dad's truck, surveying what was left of our  
13 cornfields after a hailstorm or seeing the burnt spikes  
14 of the wheat that turned too soon because of extreme  
15 heat and lack of rain.

16 For production agriculture, the financial  
17 risks of climate and extreme weather is, and has always  
18 been, real, and our farmers and ranchers have been  
19 using legacy agriculture contracts to hedge those risks  
20 since the inception of those markets. However, our  
21 role as derivative market regulators hits very narrowly  
22 into this broader discussion, and I hope we can

1 highlight that today so that there is no confusion at  
2 the end of the day as to what we can and cannot do here  
3 at the CFTC.

4 Again, thank you all for being here and for  
5 sharing your knowledge and expertise with us today.

6 CHAIRMAN BEHNAM: Thank you. And finally,  
7 Commissioner Pham.

8 COMMISSIONER PHAM: Good morning and thank  
9 you to all who are here in the room and watching  
10 online. I am so pleased that you could be here with us  
11 today because it is always great to see the CFTC  
12 engaging with the public prior to engaging in any  
13 policymaking or rulemaking.

14 It is critically important that we get the  
15 benefits of all participants' technical expertise and  
16 knowledge. I am especially looking forward to hearing  
17 about market-driven solutions in the voluntary carbon  
18 markets. Derivatives are a powerful risk management  
19 tool, and I believe in the power of the markets to  
20 provide solutions.

21 Climate-related issues in our markets do need  
22 to be thoughtfully studied. The impact so many

1 important stakeholders, from market participants to end  
2 users and up and down the value chain, and as my  
3 colleague, Commissioner Mersinger, just powerfully  
4 explained.

5 I do think that any action beyond roundtable  
6 discussion needs to carefully consider the impact on  
7 small entities, and we cannot unduly burden the  
8 substantial numbers of growers, producers, and other  
9 end users who depend on our markets for risk management  
10 and price discovery. After all, that is the original  
11 purpose of our markets and of this Commission.

12 Thank you. I look forward to the discussion  
13 today.

14 CHAIRMAN BEHNAM: Thanks, Commissioner Pham.

15 And now we have, I think, the great benefit  
16 of hearing from the Chairs of the Senate and House  
17 Agriculture Committee, who were gracious enough to put  
18 together a few minutes of remarks before we kick off  
19 with the first panel. So, I am going to hand it over  
20 probably to the folks behind that black glass window  
21 and see if they can kick up, first, Chairwoman  
22 Stabenow's comments.

1           SENATOR STABENOW: Thank you, Chairman  
2 Behnam, and thanks to the Commodity Futures Trading  
3 Commission for hosting this important event on how  
4 carbon markets can help address the climate crisis.

5           In his time as Commissioner and now as  
6 Chairman, and even before that as a member of my staff,  
7 Rostin Behnam has been extremely forward thinking on  
8 this issue, and I really appreciate it. In fact, he  
9 was one of the first regulators to talk about the  
10 financial risks presented by the climate crisis.

11           As we develop solutions to this global  
12 challenge we need to bring all parties to the table and  
13 explore every avenue to meet our climate goals.  
14 Financial markets, and particularly derivatives  
15 markets, have an important role to play. Carbon  
16 markets provide valuable incentives for industry to  
17 reduce emissions, and they drive revenue for farmers  
18 and foresters by paying them for the climate-smart work  
19 they do on their land.

20           Environmental markets, more generally, allow  
21 producers to hedge the risks associated with the  
22 climate change. When combined with other policies such

1 as clean energy standards, incentives for things like  
2 electric vehicles -- made in Michigan, by the way --  
3 and adoption of more bio-based products and renewable  
4 fuels, we can really start to make a difference.

5 But participants must have confidence in  
6 these markets if they are going to be effective. That  
7 is why I am working to pass the Growing Climate  
8 Solutions Act. Farmers, foresters, and landowners are  
9 already generating credits in value. They need the  
10 USDA to provide the tools, the integrity, and the  
11 assurance that their hard work is not wasted.

12 With USDA taking a more active role we will  
13 see more projects and more participants, and this  
14 approach is overwhelmingly bipartisan. My bill  
15 received 92 votes in the United States Senate, and has  
16 the support of major farm groups, environmental  
17 champions, and influential companies. It will bring  
18 greater accountability, and in doing so increase  
19 confidence in voluntary carbon markets.

20 The CFTC shares these same goals, I know. As  
21 Chairwoman of the CFTC's oversight committee, I know  
22 that CFTC is vigilant about promoting integrity in the



1 derivatives markets, and I am excited to see the  
2 results of today's meeting. I look forward to  
3 continuing to work with you to tackle this critical,  
4 critical issue. Thanks.

5 CHAIRMAN BEHNAM: Thank you, Senator  
6 Stabenow, and hopefully to Chairman Scott's comments.

7 REPRESENTATIVE SCOTT: Hello, everyone, and  
8 thank you for inviting me to speak at this historic  
9 event, and I am delighted to be here. And this is  
10 making history, you know, because this is the CFTC's  
11 first-ever Voluntary Carbon Markets Convening, and I am  
12 glad to be with you at this historic occasion.

13 First of all, I really appreciate the  
14 attention you are giving to this topic, and I look  
15 forward to hearing what comes out of this important  
16 hearing. This is a very important issue for  
17 agriculture, for our forestry, for our whole nation and  
18 the world. And, you know, at my very first hearing as  
19 Chairman I pledged to explore every opportunity I had  
20 to mitigate climate change and the significant risks to  
21 our agriculture production. And in September of last  
22 year we explored the potential that voluntary carbon

1 markets could play in that mitigation through my very  
2 first Agriculture Committee hearing.

3           Our ecosystem service markets, including  
4 carbon markets, provide an interesting value  
5 proposition to our farmers, to our producers, our  
6 business interests, and the public at large. These  
7 markets have the potential to create new, fantastic  
8 economic opportunities while also tackling the greatest  
9 challenge of our time, which is climate change. And  
10 also, by rewarding our farmers and our ranchers and our  
11 foresters for implementing practices that sequester  
12 carbon markets, our markets can create an opportunity  
13 for our farmers, for our producers to capture new  
14 financial income streams.

15           And in addition to their economic potential,  
16 voluntary carbon markets have the potential to capture  
17 the significant mitigation available within the  
18 agriculture and forestry sectors. However, given the  
19 variation that exists in today's markets, serious  
20 questions remain over the quality of some of the carbon  
21 credits that are currently being generated. And  
22 likewise, many questions remain about our farmers, our

1 producers' participation in markets, including how to  
2 fairly compensate our farmers and producers.

3           Make no mistake about it -- I want everybody  
4 to know this is very important to me, personally, as  
5 the Chairman of our Agriculture Committee, because we  
6 have got to treat and make sure our farmers and our  
7 producers are treated fairly when it comes to income  
8 possibilities from participating in our carbon markets.  
9 And also, I am very concerned about the ability of our  
10 smaller farmers to participate and also how to reward  
11 the existing stewardships among others.

12           To capitalize on these excellent  
13 opportunities, markets must be developed with the  
14 appropriate safeguards in place to secure the intended  
15 outcomes so that customers and the public will trust  
16 them. And they should rest upon a reliable and  
17 transparent accounting and verification framework.  
18 Very important. Verification is key.

19           And to ensure that they are developing the  
20 environmental and climate benefits that we all desire,  
21 that we all want, markets to seek to compensate farmers  
22 appropriately for their role in storing carbon and

1   reducing harmful emissions. I cannot emphasize it  
2   enough. The verification and making sure that our  
3   farmers and our producers are compensated fairly.

4               And we must ensure that our landowners are  
5   fully informed and that our landowners are aware of  
6   their role in providing carbon offsets. As a whole, it  
7   is a tool within the larger conservation toolbox worth  
8   exposing.

9               Now, moving forward it is also my hope that  
10   we can explore how carbon markets can work alongside  
11   our farm bill conservation programs in our efforts to  
12   further mitigate climate change. These programs play a  
13   leading role in providing and improving farm  
14   productivity, profitability, and environmental  
15   stewardship, and can go hand in hand with voluntary  
16   carbon markets.

17              So, I want to thank you again for having me,  
18   and I want to thank you for having this important,  
19   historic convening. You know, agriculture and the CFTC  
20   have the key roles to play in the development of  
21   voluntary carbon markets, and I look forward to  
22   continuing, and as Chairman of our House Agriculture

1 Committee, I look forward to being a helping hand in  
2 our forward progress of dealing with not only our  
3 nation's most serious issue. This is a world issue,  
4 and we deeply appreciate the CFTC and our agriculture  
5 industry, and our House Agriculture Committee for  
6 helping to provide leadership in this most important  
7 and necessary issue -- climate change. Thank you.

8 CHAIRMAN BEHNAM: Thanks to Chairman Scott,  
9 and I am going to hand it over to Abigail now to take  
10 over with logistics and kicking off the first panel.

11 MS. KNAUFF: Thank you, Chairman. Just a few  
12 logistical and administrative reminders.

13 Participants, please press the button to  
14 activate your microphone when you speak. This meeting  
15 is being simultaneously webcast, and it is important  
16 that your microphone is on so the webcast audience can  
17 hear you. Also, please lean into the microphone when  
18 you speak and keep your phones away from the console.

19 If you would like to be recognized during the  
20 discussion please change the position of your place  
21 card so that it sits vertically on the table, or raise  
22 your hand and the moderator will recognize you and give

1     you the floor.

2                 Virtual participants, please use the Raised  
3     Hand feature in Zoom if you would like to interject.

4                 If you use abbreviations or technical terms,  
5     please explain them the first time they are used.

6     There will be a transcript of this roundtable which  
7     will be posted on the CFTC website.

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

16                Additionally, none of the statements made  
17    during the convening should be construed to constitute  
18    or imply endorsement, recommendation, or favoring of  
19    any organization, products, or services of the United  
20    States government, the CFTC, or any CFTC employees.

21                As noted in yesterday's press release, there  
22    will be a public comment file open until June 15th for

1 the public to submit comments on today's discussions.

2 PANEL 1:

3 CARBON OFFSET STANDARDS AND QUALITY INITIATIVES

4 MS. KNAUFF: And with that I will now  
5 introduce our first moderator, who is joining us  
6 virtually today. Kelley Kizzier is a Fellow with the  
7 Bezos Earth Fund, where she works to identify  
8 strategies and solutions for ambitious corporate action  
9 in carbon markets. She was most recently Vice  
10 President for Global Climate at the Environmental  
11 Defense Fund, where she led EDF's work on international  
12 climate agreements and global cooperation through  
13 carbon markets.

14 Kelley was a lead climate negotiator for the  
15 EU for more than a decade and served for three years as  
16 the co-chair of the Article 6 negotiations under the  
17 Paris Agreement. She currently plays a leading role in  
18 several voluntary carbon market initiatives, including  
19 the VCMi, Voluntary Carbon Markets Integrity  
20 Initiative, and the ICVCM, the Integrity Council for  
21 the Voluntary Carbon Market.

22 Kelley will moderate our first panel today,

1     which will discuss carbon offset standards and quality  
2     initiatives.

3             Kelley, the floor is yours.

4             MS. KIZZIER: Good morning, everyone. Can  
5     you hear me okay?

6             MS. KNAUFF: Yes, we can.

7             MS. KIZZIER: Thanks for having me. I am  
8     delighted to be here to moderate our first panel on  
9     carbon standards and quality initiatives. Voluntary  
10    carbon markets are recently booming and as a result we  
11    see the emergence of initiatives focused on ensuring  
12    that the VCM --

13            MS. KNAUFF: Apologies, Kelley. The audio is  
14    a little muffled.

15            MS. KIZZIER: Okay. Let me try and turn  
16    myself up. Is that better?

17            MS. KNAUFF: We are going to check in with  
18    our tech team.

19            FEMALE VOICE: Unfortunately, there is  
20    nothing we can do for your audio coming in. It will be  
21    on your end.

22            MS. KIZZIER: OKAY. Let me try a different



1 microphone. Is that better?

2 MS. KNAUFF: Do you have two windows open? I  
3 see you twice on Zoom.

4 MS. KIZZIER: What I can do is I will have  
5 the audio go through my cell.

6 Is that better?

7 MS. KNAUFF: Yes. Much better. Thank you.

8 MS. KIZZIER: Okay. So good morning,  
9 everyone. Thanks for having me today. Sorry about  
10 that. Technical problems.

11 I am delighted to be here to moderate our  
12 first panel on carbon standards and quality  
13 initiatives. Voluntary carbon markets are recently  
14 booming, and as a result we see the emergence of  
15 initiatives.

16 Sorry. I have got an echo on my side now.

17 We see the emergence of initiatives focused  
18 on ensuring that the VCM delivers high-quality emission  
19 reductions that are aligned with the goals of the Paris  
20 Agreement.

21 In addition to the work of the major  
22 standard-setting bodies -- and we are lucky to have the

1 major American standard-setting bodies represented  
2 today on our first panel -- there are other initiatives  
3 underway, and these are working well to establish high-  
4 quality standards for the voluntary carbon market.

5 I think these have just been mentioned, but  
6 to mention them again they include the Integrity  
7 Council for the Voluntary Carbon Market, which focuses  
8 on establishing Core Carbon Principles in an assessment  
9 framework for VCM projects, and the Voluntary Carbon  
10 Market Integrity Initiative, which focuses on the role  
11 of carbon credits in real and meaningful company  
12 climate actions. These and others are certainly a good  
13 place for financial regulators to look when considering  
14 their next steps.

15 So, without further delay I will turn to our  
16 panel. First, we have Stephen Donofrio. Stephen is  
17 the head of the global carbon market trade and  
18 transparency platform, Ecosystem Marketplace. He has  
19 more than 15 years of experience in voluntary carbon  
20 markets and sustainability disclosure, previously with  
21 leading climate action organizations including the  
22 Chicago Climate Exchange and CDP.

1           This morning, Stephen is going to give us an  
2   overview of the voluntary carbon market to give us  
3   context and to kick us off. Stephen, over to you.

4           MR. DONOFRIO: Thank you. Thanks, Kelley.  
5   First let me thank the CFTC for organizing today's  
6   roundtable. Thank you to Chairman Behnam, the  
7   Commissioners Johnson, Romero, Mersinger, and Pham.  
8   Thank you very much for having everybody here today.  
9   Also, to my distinguished colleagues, many of those who  
10   have been in this market longer than I around this  
11   table and also online in the virtual audiences. It is  
12   a pleasure to have this opportunity, I think  
13   collectively, to be together and to talk about where we  
14   can see the market going in the future, also the risks,  
15   the opportunities, and everything in between.

16           Thank you, Kelley, for your opening remarks.  
17   I will do my best to provide an overview of the  
18   voluntary carbon markets in eight minutes. If I do  
19   start to go over time just let me know and I will cut  
20   myself off.

21           Just so everybody has a familiarity with who  
22   Ecosystem Marketplace is, we are nonprofit initiative

1 of forest trends, which makes us uniquely positioned as  
2 an independent, neutral platform for collecting all  
3 carbon market trade data from the over-the-counter  
4 market as well as exchanges over the years. And we do  
5 this through, historically it has been an annual  
6 survey. We have now moved into an online system where  
7 we are collecting trade data on a more frequent basis.  
8 And our ambition over the next six months is to be able  
9 to report pricing and data and information as frequent  
10 as monthly or as needed, going forward.

11           We come to this with about two decades of  
12 experience tracking the market, providing reports,  
13 content insights that hopefully a lot of the colleagues  
14 in this room have had a chance to digest, a lot of  
15 colleagues have contributed to, and we are very  
16 grateful for the collective support that we get in  
17 order to do our work.

18           What we end up being able to produce, not  
19 just these annual reports, State of the Voluntary  
20 Carbon Markets, which are free to download, available  
21 on our website, providing price information by project  
22 type, standard, country, all other details that might

1 be of interest to potential investors, buyers of  
2 credits, as well as product developers and regulators.

3 We primarily get our data on sales from  
4 product developers and intermediaries and investors,  
5 and it is confidential data that gets disclosed  
6 uniquely to us, which we then turn into aggregated  
7 analysis and information.

8 Just briefly in numbers, just a few numbers  
9 here. We now have over 200 organizations worldwide  
10 that are reporting to us from over 40 headquarter  
11 countries. The credits that are transacted and are  
12 reported to us are originating in over 100 countries.  
13 These credits, as I mentioned about standards, I have a  
14 couple of standards with me on my panel today. The  
15 majority of standards that exist and are represented by  
16 the data that we have you will see in the information.  
17 And as was mentioned, we recorded that the market had  
18 over \$1 billion last year, and we are going to be  
19 releasing very soon the full 2021 calendar year update  
20 of the market, which even further accelerated past \$1  
21 billion.

22 I was asked to give an overview of the

1 history of the voluntary carbon markets. I do not have  
2 the time to go through all of these details. But the  
3 reality is for all of us that we have been working at  
4 this for potentially three to four decades, if you  
5 consider the early days of experimentation by NGOs and  
6 governments to establish payments for ecosystem  
7 services. And in the early days, we go back to 1992 to  
8 1997, Kyoto Protocol and then the ultimate U.S.  
9 withdrawal from the Kyoto Protocol arguably can be  
10 attributed to the fact that we now have such a robust  
11 voluntary carbon market. If the United States had not  
12 pulled out of the Kyoto Protocol, likely would have  
13 been part of compliance programs and the voluntary  
14 market would not exist in the same way it does today.

15           So, there are many organizations that had a  
16 role in doing that. I will not go back through all of  
17 these years that you see here. But what is clear to be  
18 able to demonstrate is that the market has had ups and  
19 downs. It has reflected changes in policy at the  
20 domestic level or international negotiations level. It  
21 has reflected changes in technology and opportunities  
22 to invest both domestically here in the United States,

1 in North America, which really, in the early days, was  
2 where the supply and demand for the voluntary market  
3 came from. After a few years in realizing we needed  
4 more volume and more opportunities for supply, buyers  
5 began looking overseas and project developers began  
6 looking overseas.

7           And that brings us through a whole shift of  
8 investing into new types of projects that are large-  
9 scale forest conservation, like REDD+, into today where  
10 nature-based projects and solutions are clearly  
11 dominating in terms of interest from product  
12 developers, investors, and off-takers. That does not  
13 mean that renewable energy or technological type of  
14 projects are not a part of the market. They very much  
15 are, and I will talk about that also in just a moment.

16           So, in more recent years, it was mentioned by  
17 Kelley that there have been some advancements in terms  
18 of identifying opportunities for improving integrity in  
19 both the supply and demand side through various  
20 initiatives. I will leave my panelists to talk about  
21 the more recent developments in the market from that  
22 front as well as talk about the Paris Agreement Article

1 6 and the implications of that.

2           What I do want to focus on is just how we  
3 have seen the market grow, and also, as I mentioned,  
4 have peaks and valleys in the past decade-plus. What  
5 is most notable is that in 2019, the market started to  
6 really turn. We saw that after the Paris Agreement was  
7 signed in 2015, there was a bit of a lull. But then as  
8 market confidence really came back into play because of  
9 net zero commitments and carbon neutrality commitments  
10 from the demand side, recognizing that there is an  
11 urgent need to invest into emission reductions today  
12 through various types of opportunities, including  
13 market-based approaches.

14           And so that opened up a whole opportunity for  
15 not just new projects to be purchased and credits  
16 originating from those projects to be purchased, but  
17 also projects that had been originated prior to 2018 or  
18 2017, that still had valid emission reductions  
19 associated to them, even coming from the clean  
20 development mechanism, which was part of the Kyoto  
21 Protocol.

22           So, as we saw in 2021, three quarters through



1 the year we were on track towards \$1 billion in market  
2 notional value. It ended up far exceeding that, and as  
3 I mentioned, we will be reporting that final number  
4 very soon.

5           And what I think I want to highlight is just  
6 the move that we have seen the market as catering to  
7 two maybe fundamental factors in terms of the contract  
8 structures, one being these long-term nature design of  
9 corporate commitments around climate action, net zero  
10 goals that are 20, 30, 40 years, carbon neutrality  
11 goals that are multiple years in advance require  
12 thinking today about how to secure emission reductions  
13 into the future. So, what was largely a spot cash  
14 market is now also becoming a cash-forward market, and  
15 as we have seen in the last year with exchanges coming  
16 back into this market offering futures products as  
17 well. So, we are really excited to see how that  
18 continues to evolve and how the market appetite for  
19 securing long-term strips is accelerating.

20           And I know I am running close on time, and I  
21 wanted to highlight this one side here, which just  
22 provides a glimpse into one slice of the information,

1 looking at project categories. I have broken this down  
2 into nature-based versus technological. There is  
3 relatively a split in terms of volume, but as you can  
4 see by pricing the prices are what changed the market  
5 value. It also is important to recognize that we are  
6 looking at hundreds of millions of tons of traded CO2.  
7 So, when we are averaging out project, for forestry,  
8 for example, that range from below \$1 a ton to some of  
9 them over \$200 a ton, when we average that together  
10 that is the volume-weighted average prices that we are  
11 seeing here today.

12 Renewable energy is notable and the  
13 significant amount of volume that is transacted.  
14 However, it is also important to recognize that the  
15 price per ton has been declining over the past several  
16 years. Again, I will not dive into more of this. We  
17 do have reports that are available publicly, and I know  
18 I need to move on to finalize my comments.

19 There is a growing conversation around  
20 availability of supply in the market and whether or not  
21 there is enough supply to meet demand. We have a  
22 consolidated database of over 14 standards and their

1 registry data, and what we have compiled here and what  
2 I have shown here is year-to-date, this is up through  
3 April of this year, how issuances, the green bar, has  
4 progressed over the past several years, in 2021 hitting  
5 a milestone, you know, a marker in terms of number of  
6 issuances. But year-to-date we have seen the amount of  
7 issuances decline while the pace of retirements appears  
8 to be staying steady.

9           And so, we are eager to see how more supply  
10 can come online faster. I know the standards are  
11 working diligently with their project developers and  
12 project proponents to improve efficiency in the  
13 process, but it is also about new methodologies, new  
14 project types, new technological approaches,  
15 understanding how we can bring more and more projects  
16 online.

17           So, I will leave my comments there. I am  
18 very happy to answer questions in the Q&A, and thank  
19 you very much for the time.

20           MS. KIZZIER: Thank you, Stephen.

21           Next, we have the pleasure of hearing from  
22 Sonja Gibbs. Sonja is the Managing Director and Head

1 of Sustainable Finance for the Institution of  
2 International Finance, or IIF. The IIF was project  
3 sponsor for the original task force on scaling the  
4 voluntary carbon market, and Sonja now sits on the  
5 board of the governing body that emerged out of that  
6 task force, which is the Integrity Council for the  
7 Voluntary Carbon Market.

8 Sonja, over to you.

9 MS. GIBBS: Thanks, Kelley. Thanks, Kelley.  
10 It is great to see you and other Integrity Council  
11 board members here today, and thanks to the CFTC for  
12 inviting us. It is a tremendously important topic.

13 I am going to skip right to Slide 5, because  
14 Stephen has done a great job setting up the backdrop.  
15 So, I will skip all the scene setting. I don't know  
16 who is handling the slides, or do I do that myself?

17 [Pause.]

18 MS. GIBBS: As Stephen has set out, voluntary  
19 carbon markets have faced challenges around  
20 fragmentation and perceptions of quality, and this is  
21 where the Integrity Council for the Voluntary Carbon  
22 Market, the ICVCM, comes into it. The explicit purpose

1 of this council is to ensure that voluntary carbon  
2 markets accelerate a just transition to 1.5 degrees  
3 Centigrade by setting out a definitive set of global  
4 threshold standards, making a global benchmark for  
5 carbon credit quality, and they draw on the best  
6 possible science and expertise available so that high-  
7 quality carbon credits can channel finance to genuine  
8 and additional greenhouse gas reductions and removals  
9 that go above and beyond what could otherwise be  
10 achieved.

11           So, you know, it is really important to note  
12 that the voluntary carbon markets are not a primary  
13 solution for fighting climate change, and that is an  
14 argument that is heard a lot in climate debates. So,  
15 it is a complementary tool to reduce and remove  
16 emissions over and above what would otherwise be  
17 possible, and it can also help channel capital from  
18 mature economies, who are obviously responsible for the  
19 bulk of carbon emissions, to emerging markets that are  
20 most impacted by climate change. And voluntary carbon  
21 markets can also help accelerate innovation and uptake  
22 of emerging breakthrough technologies.

1           And, of course, one of the challenges to  
2 voluntary markets is they have been lacking the  
3 consistently high integrity necessary to achieve its  
4 full potential. So, without integrity we really can't  
5 scale voluntary carbon markets, and we use the acronym  
6 CLEAN here, which we thought was very clever, to  
7 describe our vision of a high-integrity market --  
8 catalytic, local, empowering, additional, and nature  
9 positive. All really important attributes.

10           But to get there we have got to address all  
11 three pillars of what it means to be in high-integrity  
12 voluntary carbon market, and first we have got to know  
13 that credits are doing, you know, as the British say,  
14 they "do what they say on the tin," because there is a  
15 definitive threshold standard for high-quality credits.

16           Second, we have got to have the confidence  
17 and transparency in the pricing of high-quality  
18 credits, trading in a market that is based on rigorous  
19 standards and sound market infrastructure. And  
20 finally, integrity means, of course, that buyers are  
21 making legitimate claims, using these high-quality  
22 credits as part of a credible net zero pathway. And

1    what the Integrity Council does is focus on the first  
2    two of these pillars, but we work closely with  
3    organizations like the Voluntary Carbon Markets  
4    Integrity Initiative, the VCMI, that are focusing on  
5    this third pillar, demand-side integrity.

6               In this work we are really grateful to have  
7    the help of so many market experts, our moderator,  
8    Kelley, and a number of speakers here today -- Nat  
9    Keohane, Alexia, Alexia Kelly, David Antonioli right  
10   here, Jeff Swartz, Mark Kenber. So, it is great to  
11   have so much expertise in this endeavor.

12              Our mandate. The Integrity Council is  
13   mandated to establish, host, and curate a set of Core  
14   Carbon Principles, the CCPs, that are a definitive set  
15   of global threshold standards; that we provide  
16   governance and oversight over standard-setting  
17   organizations on how they adhere to the CCPs as well as  
18   on market infrastructure and participant eligibility;  
19   and we help coordinate and manage interlinkages --  
20   connect the dots -- between so many individual parts of  
21   the market, and define a roadmap for responsible growth  
22   of voluntary carbon markets.

1           So, the Core Carbon Principles, the CCPs  
2 themselves. This is central to the work, obviously.  
3 And we have got a world-class, Expert Panel, who are  
4 very hard at work, 24/7, making sure that we are  
5 integrity-led, grounded in the science. The core of  
6 the standard is the CCPs, high-level principles  
7 supported by an assessment framework setting out the  
8 detailed criteria for each principle. And if you think  
9 this is easy, you know, think again. There is a lot of  
10 controversy around all of these principles and  
11 standards, and this Expert Group is hard at work  
12 fleshing these out.

13           There are two parts. First, quality  
14 principles for carbon credits, like additionality,  
15 permanence, and so on, and second, integrity principles  
16 for carbon crediting programs, including how the  
17 programs are governed and robust independent  
18 validation, verification, and so on.

19           So, our core focus for the first half of this  
20 year has been to develop these CCPs, and in July we are  
21 going to launch a rigorous and inclusive public  
22 consultation phase, overseen by the British Standards



1 Institute, and they are part of our executive  
2 secretariat for the board, and that is going to run for  
3 60 days. We hope to hear from all of you in the course  
4 of this consultation. And the next phase is going to  
5 be to apply the CCPs, both to assess carbon crediting  
6 programs and to assess types of carbon credits by  
7 sector so we can issue accreditation where appropriate.  
8 And, meanwhile, we will pilot our assurance model  
9 leading to ongoing market oversight and enforcement.  
10 It is the power to name and shame, ultimate sanction to  
11 withdraw accreditation.

12           We are going to engage widely across the  
13 market, working to secure broad acceptance and take-up  
14 of the CCPs, and ongoing connections in liaison with  
15 regulatory bodies, including the CFTC, IOSCO, and so  
16 on, in order to make sure that these CCPs are well  
17 understood and socialized. And we are going to  
18 collaborate with other organizations to foster  
19 transparency and good infrastructure, and ensure that  
20 the market can really play its part in fostering an  
21 orderly, fair, and affordable climate transition.

22           So, I know we are going to be short on time

1 so I won't spend a lot of time, but this is just an  
2 overview of the structure of the Integrity Council. We  
3 have got a really broad range of expertise on our Board  
4 of Directors, on the Expert Panel, and our  
5 Distinguished Advisory group. There is a Board of  
6 Directors Facebook. You can see it all here, our  
7 wonderful chair, Annette Nazareth.

8           And I just wanted to mention a word here to  
9 commemorate the passing of Hugh Sealy, whom many of you  
10 will know, was our co-chair on the Board of Directors  
11 who suddenly passed away this year, and we miss him  
12 greatly. He was a wonderful man. And Annette is doing  
13 yeoman's work in carrying on.

14           Importantly, we have three places for  
15 representatives of indigenous peoples and local  
16 communities, and this has been a real goal and  
17 challenge for us in establishing this kind of expertise  
18 and presence on the board. It is tremendously  
19 important to have representation from these groups.

20           Here is an overview of our Executive Panel,  
21 12 leading carbon market experts, lots of technical and  
22 sector expertise, including in nature-based activity,

1 energy, agriculture, climate policy, and so on. And we  
2 have a wonderful, Distinguished Advisory Group across  
3 all types of posts. Many of these people are going to  
4 be familiar to you. And we have most recently welcomed  
5 Hindou Ibrahim to the Distinguished Advisory Group.  
6 She is President of the Association for Indigenous  
7 Women and Peoples of Chad. So, it is a really  
8 fantastic group and it would be well advised to take a  
9 look at these folks who will be our ambassadors for the  
10 Integrity Council and the CCPs.

11           And this is just a representation of the  
12 initial sponsors of this work, and the ongoing support  
13 of these organizations is tremendously important across  
14 the carbon markets value chain.

15           So, I will stop here, call for feedback and  
16 implementation when our public consultation launches in  
17 July, and we really look forward to hearing for you all  
18 on your responses. Thank you.

19           MS. KIZZIER: Thank you, Sonja.

20           Next, we have the opportunity to hear from  
21 the major American voluntary carbon market standard-  
22 setting bodies. And first we have David Antonioli, the

1 Chief Executive Officer of Verra. David, apologies for  
2 slaying your last name.

3 MR. ANTONIOLI: That's okay. Thank you,  
4 Kelley. Thank you for the invitation and thank you,  
5 Chairman Behnam and Commissioners Johnson, Goldsmith  
6 Romero, Mersinger, and Pham for the opportunity to  
7 speak here. It is a real honor and hopefully we can  
8 elucidate and articulate a little bit about what the  
9 carbon markets are all about.

10 In my presentation, if we can get it up there  
11 please -- here we go. Let me just talk a little bit  
12 about who we are so you understand the context. We are  
13 a nonprofit organization established in 2007. It was  
14 established in the United States in 2009. And our job  
15 really is to certify the outcomes of environmental and  
16 social projects. And we do that through our standards-  
17 based programs, of which there are many. The most  
18 important one, sort of our flagship program, is the  
19 Verified Carbon Standard, which is the world's leading  
20 carbon credit standard used in the voluntary carbon  
21 market. We have issued 934 million credits for more  
22 than 1,800 projects, and in the U.S. there are 48

1 million credits from almost 100 projects. So, it is a  
2 wide variety of projects around the world. Many of  
3 them are also certified to our Sustainable Development  
4 Standards, the Sustainable Development and Verified  
5 Impact Standards, and the Climate Community and  
6 Biodiversity Standards.

7           As Sonja mentioned, and Stephen also alluded  
8 to, many of these projects have non-carbon benefits  
9 that are also important for projects to be able to  
10 demonstrate. So, they are reducing poverty. They are  
11 addressing adaptation challenges. They are helping  
12 communities thrive. And so many projects choose to  
13 certify and demonstrate that they are also not just  
14 reducing greenhouse gas emissions but also providing  
15 important benefits for communities.

16           At the risk of running into the belly of the  
17 beast here I will articulate a little bit, or explain  
18 what we do so that you can understand the context in  
19 which we operate. Our program, the VCS program, has  
20 four major components. At the core of it is the VCS  
21 standard, which is basically the set of principles that  
22 all of the credits that we certify need to meet. And

1 so, these are elements that you might have heard, such  
2 as additionality, permanence, the fact that you need  
3 independent auditing, the fact that projects need to be  
4 transparently listed. These are all core principles --  
5 to borrow a phrase from Sonja -- that all of our  
6 credits need to meet. And they get operationalized  
7 through the three different elements of the program,  
8 what we call the programmatic elements of the VCS  
9 standard.

10           The first one are the accounting  
11 methodologies. So, in order to define and measure the  
12 emission reductions you need to have an accounting  
13 methodology that sets out exactly what sort of data  
14 parameters you are going to gather, on what basis. It  
15 sets out the project boundary, what the baseline  
16 scenario is, and really is a tool and a methodology  
17 that one needs to follow in order to determine and  
18 prove that you have reduced the emissions that you  
19 claim you have.

20           And then one of the key pillars of the  
21 program is that it needs to be independently verified.  
22 And so, we have a number of auditors that work under

1 our supervision, and they need to make sure that the  
2 projects are following the rules. So we, ourselves, do  
3 not verify the projects themselves. We oversee  
4 auditors who are doing that on a regular basis. We do  
5 check on the auditors' work, and we work with the  
6 accreditation entities to make sure that they have the  
7 capacity and the training they need to be able to audit  
8 under this work.

9           And then finally is the registry system. So,  
10 if you go to this link right here, the Verra registry,  
11 you can find out pretty much anything you ever wanted  
12 to know about any of the projects that we have  
13 certified. And you can find all of the auditors'  
14 reports, the project descriptions, how many credits  
15 they have issued, whether they have been retired and on  
16 whose basis. And the registry really is a key element  
17 of the program and the system to make sure that we  
18 avoid double counting, and that there is full  
19 transparency behind all of the credits that we issue.

20           And so together these really form the basis  
21 for what we do. That is really the key components of  
22 the VCS program that fit together to create the VCS

1 program.

2           And then the carbon credits really come from  
3 the idea that a number of corporates sought to  
4 understand and take action on climate change in a way  
5 that was missing from the regulatory bodies. So, they  
6 do continue to be an important tool, but we see it as a  
7 complementary tool to internal reductions, and  
8 potentially government action as well. And we are  
9 starting to see acceptance of the carbon credits from  
10 the voluntary market in other markets worldwide. The  
11 voluntary carbon market as a whole, and the  
12 infrastructure that we have built, we believe is a  
13 ready-made, easily scalable infrastructure that can  
14 finance reductions at scale, and in many ways it can  
15 support national climate efforts around the world.

16           And I did want to point out that these are  
17 two very important initiatives. Sonja already  
18 mentioned it. We talked about the VCMI. But these  
19 really are about the supply and the demand side of  
20 things. And I think that on the supply side, just to  
21 echo what Sonja was saying, the ICVCM really will  
22 hopefully create a threshold level of performance that



1 carbon credits will meet and give the market the  
2 confidence it needs to invest in them. And on the VCMi  
3 side, that is the demand side, we actually think that  
4 there is quite a bit of more confusion around what are  
5 the claims the companies are making? What is really a  
6 carbon neutrality claim? What does it really mean, or  
7 climate friendliness? Those claims really need to be  
8 identified and articulated and defined in a much more  
9 clear way, and that is really the work of the VCMi,  
10 that we are looking forward to seeing the outcomes of  
11 that.

12           And then finally, in terms of regulatory  
13 implications, as I mentioned before the voluntary  
14 market has historically come from the idea of  
15 corporates taking action to address climate change.  
16 But there is an increasing maturity and momentum behind  
17 the voluntary markets that is creating initiatives that  
18 are harmonizing the quality standards and increasing  
19 transparency, which we think will be very powerful and  
20 very helpful to drive climate action.

21           The voluntary markets really are not a single  
22 activity but a mosaic of activities, and what we are

1    seeing is that there is potential for asymmetrical  
2    information that may provide the framework for proper  
3    regulatory action. We think that there is a lot of  
4    work that could be done in respect of ensuring, again,  
5    that the claims that companies are making in respect of  
6    climate change are accurate and really do hew to a  
7    consistent level of performance.

8            You know, there is a bit of potential here in  
9    terms of advertising or consumer protection that could  
10   be provided, and there are also financial and  
11   securities regulations to promote market stability and  
12   confidence to ensure investor protection.

13           Thank you very much, and I would be glad to  
14   answer any questions at the end of the session.

15           MS. KIZZIER: Thank you, David.

16           Next we have Mary Grady. Mary is President  
17   and CEO of Environmental Resources Trust at Winrock  
18   International, where she oversees the American Carbon  
19   Registry as well as the Architecture for REDD+  
20   Transactions, or ART. Mary?

21           MS. GRADY: Thanks, Kelley, and thank you  
22   very much to the Commission.

1           Well, David did a great job of explaining, in  
2   a very simplified way, the work that we do as a carbon  
3   standards body in terms of overseeing the development  
4   of quantification methodologies for the measurement,  
5   monitoring, reporting, and verification of emission  
6   reduction and removal activities, overseeing an  
7   independent third-party verification, and managing a  
8   registry where there is a transparent view into the  
9   projects themselves as well as the issuance of  
10   serialized credits, the transfer and retirement of  
11   those credits, and everything behind them.

12           ACR was founded in 1996. We have been doing  
13   this work, as described, for over two decades, and in  
14   addition to working in the voluntary carbon markets we  
15   are an approved Offset Project Registry for the  
16   California Air Resources Board. We have been working  
17   with the Air Resources Board for over 10 years now, to  
18   help them implement the cap-and-trade program in the  
19   state. And we are also approved by the International  
20   Civil Aviation Organizations, ICAO, to supply units to  
21   the carbon offsetting scheme for international  
22   aviation, the CORSIA.

1           ACR's geographic focus is almost exclusively  
2   in the U.S., and our sectoral scope in terms of  
3   crediting ranges from forestry, improved forest  
4   management, reforestation, as well as industrial  
5   projects, such as those that capture and store carbon,  
6   those that capture methane, and also a transition to  
7   low global warming potential refrigerants.

8           As Kelley mentioned, the other program that  
9   is managed by our group under Winrock International is  
10  the architecture for REDD+ transactions, or ART, and  
11  ART's geographic focus is international. However, the  
12  sectoral scope is focused on crediting national and  
13  subnational governments in forest countries for  
14  reducing emissions from deforestation and forest  
15  degradation, which is called REDD+.

16          So, I think the backdrop for the quality  
17  discussion, I would like to assume that the intent for  
18  quality in carbon markets has always existed. It has  
19  really just been an evolving concept. Stephen  
20  described this foundational history of the Kyoto  
21  Protocol, and in its own carbon mechanism, the Clean  
22  Development Mechanism, or CDM, under the United

1 Nations. And I think that the unfortunate inception of  
2 the lack of trust in markets is a consequence of this  
3 implementation of this market that started more than 20  
4 years ago.

5           The CDM was set up to channel carbon finance  
6 through markets to developing countries to decarbonize  
7 their own economies, and it has been an experience in  
8 learning by doing. There have been really a lot of  
9 good outcomes, maybe not some good outcomes, I would  
10 say much more heavily weighted towards good outcomes,  
11 and there is no question there have been lots of  
12 lessons learned.

13           One of those lessons learned is that the  
14 question for perfection can stifle innovation, and  
15 another lesson is that a centralized approach doesn't  
16 always deliver the best outcome. It can create  
17 bottlenecks, it can create inefficiencies, and it  
18 stifles innovation. The reason this is important to  
19 understand is because, as Stephen outlined, the fact  
20 that the U.S. was not part of the Kyoto Protocol meant  
21 that we had to develop our own carbon markets, and the  
22 foundation of a lot of the carbon markets in the

1 beginning, in the voluntary space, was actually the  
2 CDM. So, we used the basis of the CDM and then  
3 expanded, and the voluntary market became all of these  
4 markets outside of governments.

5           This non-CDM voluntary carbon market really  
6 is innovated by nature, and we grew to fill a gap in  
7 sectors that the CDM did not address, such as the land  
8 use and forestry sector, and also filled a gap in  
9 geographies, since we were including all countries and  
10 the ability to generate credits.

11           The voluntary carbon market has been agile to  
12 adapt and improve. The standards bodies that have  
13 evolved have enhanced transparency, and we have tested  
14 different approaches to measurement, monitoring,  
15 reporting, and verification of carbon credits, and  
16 those evolutions continue with technological advances.

17           Most recently we have seen the emergence of  
18 crediting programs that are focused at jurisdictional  
19 scale forestry for reducing deforestation rather than  
20 at the project level. So, these are the kinds of  
21 evolutions that we are able to do in this space, which  
22 is different than something that is under a centralized

1 program.

2           The overall result -- and David alluded to  
3 this -- is actually a convergence in compliance and  
4 voluntary carbon markets, as the major carbon market  
5 standards have all been approved by and adopted by  
6 international carbon compliance markets, such as the  
7 International Civil Aviation Organization's CORSIA, as  
8 well as by carbon markets in California, Colombia,  
9 South Africa, and others.

10           So, the independent standards such as those  
11 that are around the table today, we are really  
12 operating across markets. We register projects and we  
13 issue credits. Those credits can then be used by both  
14 compliance and non-compliance actors.

15           In this ongoing quest for quality across the  
16 markets the challenge we are presented with is how to  
17 accelerate the legitimate climate action of  
18 governments, corporates, and civil society, while we  
19 are scaling those actions to reduce and remove  
20 emissions. And what we have learned is that it is hard  
21 to have a one-size-fits-all, top-down prescriptive  
22 approach to carbon integrity. We are dealing with

1 different geographies, different social and economic  
2 realities, and what will work in the North is not  
3 likely to work in the South.

4           So, the idea that we really need to be  
5 realistic about is setting standards that ensure  
6 integrity while also allowing for innovation. This is  
7 why the global community, under the UNFCCC, shifted  
8 from the centralized approach under the Kyoto Protocol  
9 to the decentralized approach under the Paris  
10 Agreement, and the global carbon markets have followed  
11 suit and are now converging on rules around functional  
12 equivalency for quality, so how to harmonize all of  
13 these different approaches to ensure that we have  
14 comparability and fungibility in credits across markets  
15 and that we are able to have confidence in the quality  
16 of all of those.

17           Thank you very much.

18           MS. KIZZIER: Thank you so much, Mary.

19           I would like to finish the panel in the next  
20 13 minutes in order that we have time for about 15  
21 minutes of questions. But I want to make sure  
22 everybody has time to say what they need to say,



1 because this is a really important introductory first  
2 panel that sort of sets the context for the day. But  
3 if the next speakers could try to keep it to about six  
4 or seven minutes then we will have some time for  
5 questions.

6           Next, we have Kristen Gorguinpour, who is the  
7 Vice President of Programs at the Climate Action  
8 Reserve. Kristen, over to you.

9           MS. GORGUINPOUR: Thanks, and I appreciate  
10 the opportunity to speak this morning. So, I will  
11 start off with just providing kind of an overview of  
12 the Climate Action Reserve and kind of our history and  
13 kind of our approach to offset crediting.

14           We were launched in 2001, as a result of  
15 California's legislature action to release spur climate  
16 mitigation, and focusing on voluntary reporting. And  
17 then, in 2008, we made a switch to kind of focusing on  
18 project-level offset accounting, and thinking about how  
19 can we really bring high-quality offset standards to  
20 the market, and kind of what does that look like. So,  
21 we have done that through a standardized approach,  
22 which I will talk about in just a minute.

1           The Reserve does have three programs that it  
2   does operate, similar to some of the other standards  
3   here speaking today. One program we do have is we  
4   serve as the Offset Project Registry, serving to kind  
5   of help California implement their cap-and-trade  
6   program. We also have a program called Climate  
7   Forward, which focuses on ex ante crediting, so  
8   essentially crediting kind of future emissions in  
9   recognition of future GHG impacts.

10           And then our other main program is our  
11   Voluntary Offset Program, which is primarily focused in  
12   North America. And so, with that program what we have  
13   tried to do is really focus on high-quality standards  
14   and thinking about what is the best way to go about  
15   doing that. And at the heart of that process is really  
16   like a public stakeholder process for developing  
17   methodologies through a standardized approach.

18           When I talk about a standardized approach I  
19   am really talking about two things. One is looking at  
20   a standardized approach from the perspective of  
21   additionality, and thinking about what is the criteria  
22   that will demonstrate that these projects are actually

1 additional and should be credited for purposes of  
2 carbon, and getting away from this project-specific  
3 assessment and kind of taking that subjectivity away.  
4 We also view standardization through looking at the  
5 quantification approach and thinking about how we  
6 standardize baselines and the business-as-usual  
7 approach, thinking about just the quantification of  
8 thinking about emissions factors and just approaches to  
9 quantification.

10           So, through this process we think it kind of  
11 makes a very clear perspective of what should be  
12 included and credited as an offset, and it also  
13 provides some certainty to the market, to understand  
14 what is the amount of credits that are going to be  
15 issued, what the activities that need to be engaged in  
16 to actually get those credits.

17           Taking a little bit of a step out and kind of  
18 looking at our program and where we are working in  
19 North America, we are seeing huge growth, even within  
20 just our registry itself. We currently have over 500  
21 account holders that are either developing projects  
22 within our system or transacting our credits, and to

1 date we have issued 171 million credits, both under the  
2 compliance offset protocols as well as the voluntary  
3 side.

4           So, there is a very huge opportunity that we  
5 are seeing in North America. There is lots of  
6 investment within this space, new financial power  
7 essentially coming in and kind of thinking about how do  
8 we leverage this market, how do we move forward with  
9 implementing projects? That provides opportunity for  
10 innovation in this space. We are often thinking about  
11 what are the new protocols that we can develop by  
12 maintaining these high standards.

13           But, because there are new players coming  
14 into the market there are lots of challenges associated  
15 with that and different approaches for how people are  
16 quantifying offset emissions and reductions and  
17 removals. So, thinking about the quality initiatives,  
18 particularly on the supply side, I think the Reserve's  
19 perspective is that they are vital, these initiatives,  
20 for kind of maintaining the integrity of the program  
21 that the current standards have established to date,  
22 and thinking about how these standards will really kind

1 of shine the light on more of the opaque processes and  
2 credit issuance processes that are not necessarily  
3 following the bigger standards approach to crediting.

4 I think it is going to provide a common  
5 framework for how we even talk about these things. So  
6 often at the Reserve we get questions about how do you  
7 think about, you know, what is your approach to double-  
8 counting, and permanence? There are different  
9 perspectives, and kind of providing that common  
10 framework is going to be essential.

11 I do think there are challenges with trying  
12 to define what the standard is and what high quality  
13 means, and I think Mary alluded to this a little bit.  
14 But it is difficult to have a standard that is a one-  
15 size-fits-all, given all the nuance within this sector  
16 and thinking about different approaches to how we might  
17 view different approaches to crediting. So, thinking  
18 about how we can really give a fair assessment of the  
19 programs given all of the different approaches and  
20 nuances in this space.

21 So, I think one of the challenges is how do  
22 we get this right, because I think it is also important

1 to be very clear for the market to understand how they  
2 are actually going to view this information. So, I  
3 think it is going to be really important that we do  
4 have a community of stakeholders that are engaged in  
5 this process for developing these standards, the people  
6 that are going to be able to make it real and practical  
7 and be able to be implemented.

8 Thank you.

9 MS. KIZZIER: Thank you, Kristen.

10 And last but certainly not least we have Dr.  
11 Thomas Hale, a professor at the Blavatnik School of  
12 Government, University of Oxford. He is the co-chair  
13 of the Independent Expert Peer Review Group for the  
14 U.N.'s Race to Zero campaign, and is a lead at the Net  
15 Zero Tracker.

16 Thomas, delighted to have you.

17 DR. HALE: Thanks, Kelley, and thank you  
18 everyone for the great comments so far. I will try to  
19 be quite brief so that we can get to the discussion,  
20 Kelley.

21 But it is a real pleasure to talk about this  
22 because I am delighted to see the CFTC taking this

1 issue up. It is a really important conversation  
2 because the quality and integrity of carbon markets and  
3 carbon trading is really critical to the broader  
4 challenge of how we get to net zero. So, I am going to  
5 offer three quick points to try to wrap up this part of  
6 the conversation.

7           First, I just want to put the voluntary  
8 carbon markets a bit into the broader context around  
9 corporate climate action and the transition to net  
10 zero. I want to highlight where the limits of the  
11 voluntary carbon markets are at the moment, I think  
12 being very clear-eyed about what is not working. I  
13 want to think about how we think about some of the ways  
14 in which standards and regulations, including perhaps  
15 from the CFTC in the future, could help to overcome  
16 some of those limits.

17           So, the first point, how does the voluntary  
18 carbon market fit into the broader context of corporate  
19 climate action? Well, as we have already heard there  
20 has been a huge explosion, of course, of corporate net  
21 zero targets. In the Net Zero Tracker there is a  
22 project that Kelley mentioned. We looked at the Forbes

1 2000 companies all around the world, and of those  
2 2,000, about a third now have some kind of net zero  
3 target. That is up from a fifth last year, so it is  
4 growing very quickly. And, of course, those are  
5 corporate net zero targets where we see similar actions  
6 from cities, from states or provinces or regions, and,  
7 of course, from the national governments. So,  
8 something like 90 percent of global GDP is now covered  
9 by some kind of national net zero target.

10           So obviously that varies a lot across  
11 different parts of the world here, and where I am  
12 sitting, in the United Kingdom, the number of Forbes  
13 2000 companies that have a net zero target is somewhere  
14 in the 70 to 80 percent range, and in the U.S. it is  
15 more around 40 percent, but again, this is moving very  
16 quickly.

17           Of course, those net zero targets vary hugely  
18 in quality. Some are really robust plans, including an  
19 all-of-company emissions around its value chain with a  
20 very clear sense of scope and real kind of mechanisms  
21 for accountability and deliverables and targets and  
22 transparency, and some are really just a press release.



1 So, this is why we have seen a lot of criticism arise,  
2 particularly around these offsets in net zero  
3 transition plans because of this huge diversity and,  
4 frankly, the real work that needs to be done on quality  
5 and robustness of these corporate net zero plans.

6           So, we have kind of reached the end of the  
7 beginning, if you want, of net zero, where it is now  
8 kind of widely accepted as a paradigm for corporate  
9 climate action and indeed for other actors, national  
10 governments as well. But we are now in the harder,  
11 more robust operationalization.

12           So, the second point -- where does that  
13 connect to the voluntary carbon markets? Well, we have  
14 heard from other speakers how it was developed and what  
15 its scale and potential might be, but I think it is  
16 really important in this conversation to look not just  
17 at what is possible but what has really happened in  
18 practice, and to be quite clear-eyed, as I said, about  
19 that, because in theory, practice and theory are the  
20 same, but in practice, they are not.

21           And the voluntary carbon market, as it has  
22 existed so far, has really suffered, I think, from two

1 limits, one on quality and one on quantity, and the two  
2 are, of course, connected. Quality is obviously two  
3 variables still. We have had a number of people today  
4 talking about all of the great work they are doing to  
5 build up quality standards, which is excellent, but  
6 there are plenty of people in the voluntary carbon  
7 market who are not putting in that work to look at  
8 quality in quite the same way, and that means we have a  
9 lot of risk because buyers and stakeholders will be  
10 looking for the extreme examples. For example, there  
11 has been media recently around some credits that were  
12 generated with enhance oil recovery, where you pump  
13 carbon underground to get more oil back up, and the  
14 credits were counting the carbon that was used to pump  
15 into the ground but not the carbon from the oil that  
16 got pumped back out. So obviously, for a consumer or  
17 stakeholder, that looks a little bit suspect.

18           And here real transparency is a big barrier  
19 to success. Shockingly, of those third of Forbes 2000  
20 companies that have some kind of net zero target most  
21 of them, more than half, do not actually specify  
22 whether or not they will use offsetting in their

1 achievement of that target, and those that do say they  
2 will use it, two-thirds of those do not say whether or  
3 not they will put any kind of boundaries on the quality  
4 of those offsets. So, there is a real lack of  
5 information on how we can assess the robustness of  
6 these targets because the voluntary carbon markets are  
7 still too loosely standardized and too loosely  
8 regulated.

9           That quality problem feeds really into the  
10 quantity problem because, you know, we have reached, as  
11 someone said, \$1 billion in volume, which is certainly  
12 a landmark, but obviously for this to be a really  
13 important part of our broader transition it is going to  
14 have to be many times that to have a real dent on the  
15 problem. So, we need a new approach.

16           And if we think about how to take things  
17 forward we have to kind of go back a little bit to  
18 first principles and what do we actually want these  
19 markets to help us do. They can help us reduce  
20 emissions, of course, they can help us protect and  
21 restore nature, and they can help us develop new  
22 technologies that could be useful for neutralizing

1 residual emissions. But I think whole net zero  
2 paradigm, though, really changes a lot of legacy  
3 approach in the voluntary carbon markets because we are  
4 not really just thinking about how we can be more  
5 efficient by reducing emissions. We are thinking about  
6 how do we radically decarbonize the entire world in a  
7 few short decades, and that requires a different  
8 approach than many of the sort of legacy products and  
9 legacy providers have been used to providing so far.  
10 That is the scale of the challenge, I think, that comes  
11 from this net zero term.

12           We, at Oxford, have developed a set of  
13 principles on net zero-lined offsetting, which  
14 basically, to sum up and just say we should, of course,  
15 make them high quality so you are getting what it says  
16 on the tin, as Sonja was saying, but also to make sure  
17 that the use of offsets is not delaying or substituting  
18 for the immediate decarbonization that we need to see  
19 happen across the economy, and instead using, as was  
20 said, offsets as a tool to go above and beyond to help  
21 us speed up that pathway and to do some other things  
22 that might be useful at transferring technology or

1 resources to those parts of the world or the economy  
2 that would benefit from it. So that is a really big  
3 reshaping of what the system needs to achieve and how  
4 we do it.

5           Final point, and I will end here, is how do  
6 we think about the standards and regulations and  
7 perhaps even the role of entities like the CFTC in this  
8 huge need to kind of reimagine what carbon markets can  
9 and should do. I like to use the metaphor of a  
10 conveyor belt of governments. So, we think about  
11 transitioning from the voluntary space, where we have  
12 initiatives like some of the ones on the panel today,  
13 and thinking about this in a real way to how that  
14 becomes a national standard that consumers can use in  
15 the market.

16           When you think about something like  
17 disclosure climate-related risks, you can see a real  
18 transition over time from voluntary measures to then  
19 kind of orchestrated programs like the TCFD framework,  
20 to now regulation, where many large economies also  
21 proposed by the SEC are now requiring, or moving to  
22 require companies to disclose this kind of information.

1 So, I imagine, and I think we all could maybe benefit  
2 from looking toward that kind of conveyor belt as well  
3 in the voluntary carbon market space as well, and so  
4 this discussion is indeed very timely.

5 Kelley, back to you.

6 MS. KIZZIER: Thanks, Tom. I want to open to  
7 questions. Abigail, I am going to have to rely on you  
8 for the room. So maybe we will open questions to the  
9 room first, and if those participants online could  
10 raise their hands I can take your questions in turn.

11 MS. KNAUFF: Sure. We have our first  
12 question from Tyson Slocum.

13 MS. KIZZIER: Tyson, please.

14 MR. SLOCUM: Thank you so much. Great panel.  
15 I really appreciated all the perspectives and  
16 particularly the comments from Professor Hale, who I  
17 think raised some very important questions. And so  
18 just building off of what Professor Hale was talking  
19 about, we have got significant growth that is going on  
20 from all of these corporate net zero commitments.

21 And my question is, it seems like the  
22 discussions on assessing the integrity of offsets,

1 while I am grateful it is happening, it seems like it  
2 is awfully late in the game for this to all of a sudden  
3 be an important issue to be assessing. When you speak  
4 to any independent expert, the problem is the integrity  
5 of offsets, you know, the additionality, the  
6 durability, all of these things. And many of the  
7 panelists talked about how they have been doing this  
8 work literally for decades, in some cases.

9           And so, my question is, I see a disconnect  
10 between the ability of the current institutions to  
11 effectively manage the significant growth to come of  
12 assessing the integrity of these offsets with the  
13 current track record of poor performance, that we have  
14 a crisis of integrity in offsets. And I am just trying  
15 to figure out how to manage that going forward, and  
16 doing other things like, it is one thing to have  
17 standards. It is another thing to have enforcement to  
18 ensure that there is oversight over the claims and  
19 protocols being made. Thank you.

20           MS. KIZZIER: Thank you. Which of our  
21 panelists would like to take a crack at that question  
22 first?

1           MS. GIBBS: Kelley, I am happy to kick off,  
2 and I think others have comments as well.

3           MS. KIZZIER: Thank you, Sonja.

4           MS. GIBBS: It is a terrific question, and  
5 look, I think, as you note, a lot of this work has been  
6 going on for decades. The difficulty is that it is in  
7 various corners of the globe, as we discovered in  
8 bringing together this expert panel. There are people  
9 in academic settings, in think tanks, in environmental  
10 groups who have so much expertise, but the systems for  
11 evaluating integrity, it is fragmented.

12           So, the point of what we are doing at the  
13 Integrity Council is to bring these groups together to  
14 work on a common standard that will help the markets  
15 scale, and as for sort of enforcement and oversight, I  
16 mean, it is a key question and one that we think about  
17 a lot on the Board of Directors.

18           Ultimately, I think that the vision has to be  
19 that this is an integrated and interoperable market  
20 between voluntary and compliance markets and there will  
21 be appropriate regulatory oversight. In the meantime,  
22 given the challenges of this topic -- you know, each



1 project, each credit is a snowflake. You know, it is  
2 all very bespoke, this evaluation. Developing  
3 standards is hugely challenging, as you know.

4           So, by doing this with a market-led approach,  
5 right, so with this private market-led, well-supported  
6 Integrity Council, these standards should come into a  
7 well-accepted being, right? When they are finished,  
8 when we get the consultation done, get the responses  
9 in, we should have grounds for widespread acceptance in  
10 the markets. And at that point, ideally, regulators --  
11 the CFTC, IOSCO, others -- will be able to look at  
12 these standards and say, "Okay, this is something that  
13 we can adapt and use for appropriate market regulation,  
14 in due course."

15           So that is kind of the approach, right, sort  
16 of one ring to bind them all, as it were. That is sort  
17 of my take on it, but others may have comments.

18           MS. KIZZIER: Thank you, Sonja. Do any of  
19 the representatives of the standards-setting bodies  
20 want to come in there. David, Mary, Kristen?

21           MR. ANTONIOLI: Yes. No, thank you, and  
22 thank you for the question. I think it is a great one,

1 and I think there is that perception out there.

2 However, I do believe that the key problem is not one  
3 of integrity, of crisis of integrity as you call it,  
4 but really a crisis of confusion, that there are a  
5 number of different solutions out there, and that it  
6 has created some confusion and some fragmentation.

7           In the meantime, we have seen millions of  
8 dollars invested in projects throughout the world that  
9 are delivering concrete, real benefits for the climate  
10 and for communities all around the world. And I think  
11 that is a really important piece of the story that  
12 needs to be understood.

13           And the creation of these two important  
14 bodies, the Integrity Council for the Voluntary Carbon  
15 Markets and the Voluntary Carbon Markets Integrity  
16 Initiative, are exactly what you are suggesting, which  
17 is we are coming together to define what is a threshold  
18 level of performance that you need on the supply side,  
19 from the standard-setting perspective, and the kinds of  
20 credits that we issue, and what are some credible  
21 claims that you need to have in order to have  
22 consistency in respect of what the companies that are

1 using the carbon credits and, ideally, are on a  
2 trajectory to meet that net zero target, what they are  
3 doing and how they are using those credits.

4           If we can bring those together we will reduce  
5 the confusion and be able to create an even bigger and  
6 more impactful market that will complement internal  
7 reductions made by companies.

8           MS. KIZZIER: Thank you, David, and thanks to  
9 speaking to the confusion as well because that is a lot  
10 of what I see, along with continuous improvement. I  
11 don't think there is ever a time when we just get this  
12 perfect. You have to be continuously improving over  
13 time.

14           And speaking of trends over time, Stephen,  
15 did you want to come in here?

16           MR. DONOFRIO: I did. Thank you. So, what I  
17 heard from the final panelist was more of a question  
18 about integrity of the demand side approaches around  
19 net zero and where carbon credits fit into those  
20 climate commitments. And I think the difference of  
21 evaluating the supply side and the demand side together  
22 is that the supply side has been working around

1 integrity and credibility for, like you said, the past  
2 two to three decades. The standards have been  
3 advancing their approaches, advancing methodologies,  
4 modernizing their approaches as new data, new  
5 technologies around mode sensing become available for  
6 forestry and REDD+ projects.

7           So, David talked about coming together, but I  
8 think there is an important rationale for keeping the  
9 conversation around integrity distinct between supply  
10 and demand side, for one. And I guess I would just  
11 close to say that as we look at the opportunities that  
12 this provides, not just to corporates to advance their  
13 climate goals, it also, as David alluded, it is  
14 providing finance and support for the agricultural  
15 sector. We are seeing more initiatives that are  
16 popping up to develop approaches to support farmers,  
17 not just here in North America but worldwide. There  
18 are cookstoves projects that are reducing the amount of  
19 deforestation and land utilization that is required by  
20 ensuring we can more sustainably use resources and  
21 provide social benefits to communities and individuals  
22 in places that wouldn't otherwise be able to afford it.

1           So, we shouldn't silo ourselves too much in  
2   focusing on one of the end purposes, which is climate  
3   action, but instead looking comprehensively at how it  
4   can improve sustainable development, not just  
5   internationally but also here in the United States.

6           DR. HALE: Kelley, can I say really quickly  
7   on the point of whether the demand and supply side  
8   should connect or not? I hear your Stephen that there  
9   are very different levels of maturity in some of these  
10   conversations, but to my mind it really has to be  
11   connected to have legitimacy and integrity. And one of  
12   the problems, one of the sources of confusion, is  
13   actually coming from the lack of connection between  
14   them.

15           So, if you are corporate-setting a net zero  
16   target and you are actually buying a lot of really good  
17   offsets but you are not also driving decarbonization  
18   throughout your supply chain then you are not really  
19   delivering on what a high-integrity net zero target  
20   would look like, even though you are buying some really  
21   potentially good net zero sort of compatible offsets.

22           So, with only one we are not going to have

1 the legitimacy that corporates are seeking with these  
2 kinds of targets, and so I fear without a kind of  
3 integration across them we will actually have more  
4 confusion and undermine the ability to really get to  
5 where we need to get to.

6 MS. GIBBS: Could I just come in quickly to  
7 respond to Thomas, Kelley, and that is exactly why the  
8 VCMi on the demand side and the Integrity Council on  
9 the supply side are working closely together. It is an  
10 important point. The concepts are distinct, as Stephen  
11 points out, but they are interrelated, and they are  
12 both needed.

13 I would also highlight here the Glasgow  
14 Financial Alliance for Net Zero, the GFANZ. A lot of  
15 the work that is going to be done there around  
16 transition planning, goal setting, all that sort of  
17 thing, is going to be directly applicable to standards  
18 in this market as is some of the work that is in the  
19 SEC disclosure consultation and the ISSB as well, which  
20 are calling for disclosures around the use of offsets.

21 MS. KIZZIER: Thank you, Sonja. Kristen, do  
22 you want to come in here, or has most stuff been

1 covered? I want to make sure we get to other questions  
2 if we have them. Kristen? You are on mute.

3 MS. GORGUINPOUR: Sorry about that. I will  
4 just make a brief comment, you know, I think to the  
5 experience of the standards currently. So, I think all  
6 that experience can be leveraged, and we are seeing  
7 kind of, in the marketplace, how regulatory bodies are  
8 adopting the standards and approaches from the  
9 voluntary carbon market and kind of what that would  
10 look like. California has adopted many of the  
11 approaches that we, Verra and ACR, have implemented,  
12 and they made changes to that. I think it will be like  
13 an ever-evolving process as the market is changing with  
14 lessons learned.

15 MS. KIZZIER: Thank you, Kristen. Mary?

16 MS. GRADY: I think the panelists have  
17 covered it well. I mean, the point is that we,  
18 particularly those of us who have been in the market  
19 for a long time, are in a state of constant evolution  
20 and improvement. We are learning by doing. We are  
21 learning from the experiences of what is happening with  
22 projects on the ground and improving our methods, our

1 transparency. And it is important because as we are  
2 doing that and growing our methods to be able to reach  
3 small farmers and forest landowners in the U.S., for  
4 example, it really is driving finance to additional  
5 activities.

6           The biggest concern that we feel is out there  
7 is the emergence of this new era of Carbon Cowboys that  
8 see the market as a way to make a lot of money, and  
9 they are coming in and they are quick and they have got  
10 venture funding. They do not have the same kind of  
11 climate basis motives. They do not have the  
12 transparent governance or processes. And so, we are  
13 really hopeful that the initiatives such as the ICVCM  
14 are going to be helpful to deliver that sense of  
15 quality and assurance to the market.

16           MS. KIZZIER: Thank you. Yes, a threshold  
17 standard can bring it together.

18           Tyson, thank you for your question. I think  
19 you can see that it hit the sweet spot in terms of some  
20 of the things our panelists wanted to talk about.

21           Abigail, is there another in the room?

22           MS. KNAUFF: I am not seeing any other



1 questions. Do any of the Commissioners have any  
2 questions?

3 [No response.]

4 MS. KNAUFF: I think that is all that we have  
5 from the room. Does anyone remotely have any  
6 questions?

7 MS. KIZZIER: I don't see any hands raised,  
8 but there are several people on the phone. So, if  
9 people on the phone just want to speak up with  
10 questions that would be great.

11 [No response.]

12 MS. KIZZIER: I think we are at time and we  
13 don't have questions, I really want to thank you for  
14 having me and to all these excellent panelists. I  
15 think what we are hearing is that to allay the  
16 confusion and to bring it all together we do need to  
17 look to initiatives like the Integrity Council or to  
18 the VCMi or to the net zero initiatives to really try  
19 and help us understand what high quality is and what  
20 does it mean to make a high-quality claim.

21 [Pause.]

22 MS. KIZZIER: Hopefully I have solved that

1 problem.

2           You know, obviously you need a level of  
3 nuance when you go to the actual credit level, but  
4 there are things you can do with combinations of  
5 project type of standard-setting body that can really  
6 start to allay the confusion, make sure that we are on  
7 track with continuous improvement, and really have a  
8 threshold standard for what good looks like.

9           So, thank you very much. Thank you to all of  
10 our panelists. Thank you to the organizers, in  
11 particular, Abigail, who I was in touch with a lot, and  
12 I am looking forward to the other panels of the day.

13           MS. KNAUFF: Thank you, Kelley. I will pass  
14 it over to David.

15                           PANEL 2:

16                   STATE AND FEDERAL REGULATORY UPDATES

17           MR. GILLERS: Thank you. Thank you, Abigail.  
18 Thank you, Kelley. And as I am introducing our next  
19 panel, would the government panelists on Panel 2 head  
20 over to where Panel 1 is now sitting?

21                   It is my great pleasure to introduce Nat  
22 Keohane, who is the moderator of our second panel,

1    which will discuss state and Federal regulatory  
2    updates.

3               Nat is President of the Center for Climate  
4    and Energy Solutions, otherwise known as C2ES, the  
5    nonpartisan, nonprofit organization that works with  
6    policymakers and businesses to accelerate the  
7    transition to a thriving, just, and resilient net zero  
8    emissions economy.

9               Dr. Keohane is a globally recognized expert  
10   on climate policy, carbon pricing, and the economics of  
11   climate change, and has helped to shape market-based  
12   climate policies in California, the U.S., and  
13   internationally.

14              Before joining C2ES in 2021, he headed a  
15   climate program at the Environmental Defense Fund, and  
16   in 2011 to 2012, Nat served in the White House as  
17   Special Assistant to President Obama for Energy and  
18   Environment. Previously he taught at the Yale School  
19   of Management where he was Associate Professor of  
20   Economics.

21              No stranger to the CFTC, Nat was also a  
22   member of the Market Risk Advisory Committee's

1 Subcommittee on Climate-Related Market Risk.

2           It is really a pleasure to have you, Nat, and  
3 take it away.

4           DR. KEOHANE: Thanks very much, David, and  
5 thanks to Chair Behnam and Commissioners Johnson,  
6 Romero, Mersinger, and Pham for the opportunity and for  
7 this panel. This is really a terrific panel of experts  
8 from various agencies and departments across the U.S.  
9 government as well as representing states, but I also  
10 want to add, I mean, each of these folks on the panel  
11 is a deep expert and brings huge experience and  
12 expertise in climate policy in their own right. So, it  
13 is really a pleasure to be on this panel.

14           I also want to note, since many of the  
15 panelists are from various departments and agencies in  
16 the U.S. government, there is an ongoing policy process  
17 inside the government to build and develop a policy  
18 position involving many of these agencies. But that is  
19 ongoing, and so I want to emphasize right now the folks  
20 on the panel are speaking from their perspectives and  
21 from the agencies' perspectives, but they are in the  
22 process of developing that kind of unified position.

1 So, the perspectives we will hear today are part of, I  
2 think, building that going forward.

3 I also want to just briefly note, we heard  
4 about the Integrity Council for the Voluntary Carbon  
5 Market in the previous panel, and I just want to note  
6 and I think it is pertinent here, my organization,  
7 C2ES, is part of the Executive Secretariat of that  
8 Integrity Council, so that is one perspective that I  
9 bring to this.

10 As I said, we have got a great panel, several  
11 folks online as well as in person, and I will just  
12 introduce each panelist as I turn to them, and I will  
13 do that in the order that is on the agenda.

14 We will start with Jason Gray. Jason is  
15 Project Director of the Governors' Climate and Forests  
16 Task Force at UCLA School of Law, and he is a recent,  
17 former regulator and policymaker in the California Air  
18 Resources Board and so comes to us with that  
19 perspective, although also currently now at UCLA.

20 Jason, over to you.

21 MR. GRAY: Thanks Nat, and thanks to CFTC and  
22 everybody else for the invitation to be here. It is an

1 honor to be on this panel and to listen to the  
2 discussion as it is continuing for a very timely  
3 discussion.

4 I am going to present some perspectives from  
5 my former role as the head of the California Cap-and-  
6 Trade Program, where I oversaw all aspects of the  
7 program including offsets design and implementation. I  
8 also previously served as a regulatory attorney on the  
9 program design so I have some of that perspective as  
10 well.

11 With that said I have a caveat. I am not  
12 here speaking on behalf of the California government --  
13 I can no longer do that -- and these views are my own.  
14 The new role I have at UCLA, which I will just mention  
15 for the following reason, is really supporting tropical  
16 jurisdictions and states and provinces around the  
17 world, and they look to development strategies that are  
18 low-carbon, reducing deforestation, and leveraging all  
19 available tools, including voluntary and compliance  
20 markets. So many governments that I know help support  
21 are also looking at some of the same questions you are  
22 all looking at today.

1           I am going to provide a few points of context  
2   which I hope are useful for compliance and voluntary  
3   markets, and some of these may repeat some things from  
4   the last panel, so apologies for that. And hopefully  
5   these describe how offsets can be an important part, a  
6   small but important part, of government programs like  
7   the whole-of-government approach taken by California.

8           First, as you heard before, there are key  
9   differences between voluntary and compliance markets.  
10   This looks at who designs them, who approves decisions,  
11   who oversees them, and consequences for noncompliance,  
12   and from a regulatory perspective, at least from an  
13   environmental regulatory perspective, there are  
14   additional levels of rigor and legal mandates in a  
15   compliance market.

16           Second, and this, I think, was emphasized at  
17   the last part of the previous panel, there are  
18   longstanding voluntary programs and experiences in  
19   compliance markets and voluntary markets where the  
20   fundamental question of scope, authority, design, and  
21   implementation have been tackled for years and provide  
22   a really good place to start. California certainly

1 learned a lot from the programs that you heard from  
2 earlier, and adapted those programs into the compliance  
3 regime.

4 Third, many of the design element relate  
5 directly to these integrity measures that we all agree  
6 are necessary to demonstrate a real offset, in an  
7 offset that is looking to reduce or sequester  
8 greenhouse gasses. That is their purpose. These are  
9 crucial to ensuring confidence in the underlying  
10 instruments and, I think, for regulators like the CFTC  
11 also, confidence and certainty in the derivatives of  
12 those instruments. These need to be real,  
13 quantifiable, verifiable, permanent, enforceable, and  
14 additional, terms that are very consistent to the U.N.  
15 process as well as through all these different markets.

16 How you define and implement these terms is  
17 very important, and I will go into how California has  
18 done that for some of these elements in the California  
19 regulatory program.

20 First, California focuses on data quality and  
21 verification of that data. Any program, voluntary or  
22 compliant, is only as good as its data quality.



1 Offsets are no different. To be real, verifiable,  
2 quantifiable there has to be rigorous data that can be  
3 independently verified, and that data needs to be  
4 available for buyers to assess and conduct their due  
5 diligence. That is consistent across the voluntary  
6 markets you heard from before as well as the California  
7 compliance market. And parts of the confusion that I  
8 see emerging are some voluntary platforms purport to  
9 sell credits or certificates or even tokens, but the  
10 underlying information about the underlying reductions  
11 in the instruments may not always be available for the  
12 buyers to actually assess.

13           Second, California developed standards that  
14 set the rules. These publicly vetted and, in  
15 California's case, regulatorily approved standards set  
16 the monitoring, reporting, verification requirements,  
17 what are eligible activities and practices that are  
18 creditable, making sure that it is not the snowflake  
19 approach but really looking at a performance standard  
20 so that these projects can be assessed in a similar  
21 fashion. And this goes to additionality criteria as  
22 well as criteria for permanence, which in the

1 California program is 100 years.

2           From an additionality perspective, defining  
3 the scope is critical to eligibility. California took  
4 a different approach to defining additionality than the  
5 financial test that is under the clean development  
6 mechanism. California assesses additionality against  
7 the activity as to whether it is above and beyond any  
8 legal requirements and above and beyond a conservative  
9 business-as-usual scenario. This means that in a place  
10 where most of the sectors are regulated by reported  
11 greenhouse gasses, offsets are very limited in where  
12 they can come from.

13           California regulates electricity,  
14 transportation fuels, heating, and industrial  
15 emissions, so there are really very few places offsets  
16 can actually come from, from an additionality  
17 perspective, in this compliance market. In California  
18 that means forest projects, destruction of refrigerant  
19 gases, destruction of methane from dairy digesters,  
20 mine methane capture projects, rice cultivation  
21 projects, and urban forest projects. These are  
22 currently the only accepted offsets in the regulatory

1 program in California. And importantly, California has  
2 litigated this approach.

3 Third, California requires its program to be  
4 transparent, showing all the project data, verification  
5 requirements, where the credits are, where they have  
6 been retired, and this is available for the more than  
7 500 projects California has issued almost 240 million  
8 credits to over the years, in 38 states across the U.S.

9 Fourth, to ensure reductions in coverage  
10 sectors California has limited the quantity of offsets  
11 to a very small percentage of the compliance entities  
12 obligation, currently at 4 percent.

13 Fifth -- and we heard about this before --  
14 enforcement is critical, how that is enforced in the  
15 voluntary markets through contracts, how that is  
16 enforced in a regulatory program to a regulatory  
17 authority.

18 And finally, assessing whether there is  
19 additional non-carbon impacts to be considered, social  
20 and environmental safeguards in international forest  
21 context help benefits like water, air quality, toxics  
22 in the domestic context.

1           There are also critical factors that may also  
2   support integrity. These go to the goals of the  
3   program. Are you looking for cost containment? Is  
4   that a purpose of the offsets? Are you looking to  
5   drive investment in under-flooded sectors or hardened  
6   carbonized sectors? Certainty elements, locational  
7   requirements, regulatory perspective, who will regulate  
8   this. Is there overlapping jurisdiction?

9           And finally, it is important to also  
10   recognize that there are important investments needed  
11   in sectors that may not be eligible for offsets. For  
12   instance, targeting solar installation in  
13   underrepresented communities or looking to drive  
14   investment into areas where methodology for strict  
15   accounting of permanent reductions may not be ready  
16   yet, may not be available yet, but finding ways to help  
17   finance those activities.

18           So, all these combined are really the types  
19   of things that California has tried to assess in its  
20   compliance market. And I will leave it for there and  
21   hope that was a useful perspective. Thank you.

22           DR. KEOHANE: Thanks, Jason. Very useful

1 perspective.

2           The next panelist we have is John Morton.

3 John is the Climate Counselor to the Secretary in the  
4 U.S. Department of the Treasury. John.

5           MR. MORTON: Thank you very much, Nat.

6 Thanks to Chair Behnam and fellow Commissioners. The  
7 word "timely" has been used several times. This is an  
8 extremely timely and important topic, and I am thrilled  
9 that you are pulling this together, for many reasons.

10           With demand for offsets projected to grow  
11 significantly in the years ahead there is, obviously,  
12 much work to be done, both in the public and private  
13 sectors, to ensure market integrity. This work  
14 includes setting high standards for credit quality and  
15 additionality, promoting strong measurement,  
16 monitoring, reporting, and verification, and developing  
17 a framework for how and when offsets factor into  
18 corporate net zero targets, all of which have been  
19 discussed by previous panelists.

20           Ultimately, the overarching focus must remain  
21 on realizing the sharp emissions reductions called for  
22 this decade on the path to net zero by 2050. Voluntary

1 carbon markets should not substitute for or delay the  
2 achievement of strong, science-based targets in line  
3 with a 1.5-degree pathway.

4           The panel that preceded us, the first panel,  
5 focused on efforts to enhance the integrity and quality  
6 of credits from the demand and supply side, and it is  
7 clear that this is a first-order threshold issue. To  
8 avoid greenwashing and protecting investors and  
9 consumers, credits must deliver the promised emissions  
10 reductions or removal outcomes.

11           At Treasury, we are following steps by the  
12 private sector to self-organize around quality  
13 standards, and while we are cognizant of the potential  
14 pitfalls and challenges in voluntary carbon markets, we  
15 see tremendous potential here as well and look forward  
16 to further public-private dialogue on the proper and  
17 high-integrity approach. We believe the CFTC has a  
18 critical role to play here, and it will be crucial to  
19 call and draw upon the expertise represented on this  
20 panel, including the experienced negotiating standards  
21 for international market mechanisms like CORSIA and  
22 others, as well as the regional compliance markets that

1 have set standards for regulated entities to use  
2 offsets in tandem for allowances.

3           At Treasury, our overarching climate strategy  
4 is to enable and expedite the net zero market  
5 transition while ensuring the resilience of the U.S.  
6 financial system to climate-related risks. We see VCMs  
7 as playing a potentially extremely important role in  
8 that strategy, and we are seeing VCMs intersect with  
9 our work at Treasury now in several contexts. First,  
10 in our work with multilateral development banks and  
11 multilateral environmental and climate funds, which in  
12 many ways have led in building credit markets in  
13 developing countries. Number two, in our ongoing  
14 engagement with U.S. financial institutions around  
15 their transition pathways and those of their clients.  
16 And third, in our role as co-chair of the G20  
17 Sustainable Finance Working Group, which is focusing on  
18 how to enhance the credibility of financial institution  
19 net zero commitments.

20           One takeaway from all these conversations is  
21 the potential for innovation in terms of new project  
22 types and crediting methodologies. Today we see an

1   urgent need for climate mitigation projects that are  
2   not currently profitable or bankable in certain  
3   markets, and demand from offset buyers is potentially a  
4   large source of impact-oriented capital that could make  
5   these projects viable and enable them to move forward.  
6   We, at Treasury, look forward to continued dialogue  
7   around how VCMs can serve to channel capital to advance  
8   the net zero market transition.

9           And finally, as we discuss ensuring the  
10   integrity of carbon markets today we should also be  
11   mindful of where we are going over the medium term.  
12   Achieving the "net" in a net zero world by mid-century  
13   will require carbon removal and storage at scale.  
14   Voluntary carbon markets should, ultimately, match  
15   companies that have residual, non-abatable emissions to  
16   high-quality removals. And so, we need to be thinking  
17   today about how we are going to grow the pipeline of  
18   high-quality removal projects, both nature- and  
19   technology-based. And on technology-based removals in  
20   particular, the Department of Energy recently announced  
21   important steps, and we know there is significant work  
22   underway as well in this area in the private sector.



1           So, with that, let me say thanks again to the  
2 CFTC for hosting this event, and I look forward to the  
3 continued discussion here and as follow-up. Thank you.

4           DR. KEOHANE: Thanks, John.

5           Next on the panel is Sean Babington, the  
6 Senior Advisor for Climate in the Office of the  
7 Secretary at the U.S. Department of Agriculture.

8           MR. BABINGTON: Thanks, Nat, and thanks to  
9 the CFTC, Chairman Behnam, fellow Commissioners, for  
10 your interest in this really important topic and this  
11 dialogue. I also want to recognize the previous work  
12 that the CFTC has done in this general arena, the  
13 formation of the Subcommittee on Climate-Related Market  
14 Risk and additional dialogue that you all have carried  
15 out.

16           You know, USDA agrees with a lot of the  
17 sentiments that have been shared today, fellow  
18 panelists, that the primary focus on climate change  
19 mitigation needs to continue to be driving steep  
20 emissions cuts from key emitting sectors and that  
21 voluntary carbon markets may play a role, assuming they  
22 are high integrity, high quality, especially in these

1 hard-to-abate sectors, and also when included as part  
2 of a comprehensive emissions reduction plan that also  
3 includes direct emissions reductions.

4           USDA has an important body of work  
5 contributing to those reductions in the agriculture and  
6 forestry sectors as well as the sectors responsible for  
7 the majority of our emissions, electricity and  
8 transportation. This work includes USDA's Rural  
9 Development mission area, which provides hundreds of  
10 millions of dollars annually in grants and loans to  
11 finance the deployment of renewable energy and energy  
12 efficiency upgrades. It also includes our Research and  
13 Farm Production mission areas, which pursue development  
14 and deployment of cleaner transportation fuels from  
15 agricultural and forestry feed stocks to replace  
16 traditional fuels, including jet fuel.

17           And outside of the dialogue over the electric  
18 and transportation sectors we also have key equities in  
19 the traditional agricultural and forestry sectors, and  
20 those sectors have key differences when discussed in  
21 the context of climate change. Agriculture has the  
22 distinction of being both uniquely very vulnerable to a

1 warming climate and climate impacts and also a domestic  
2 source of emissions. The sector is responsible for  
3 roughly 10 percent of domestic emissions, but has the  
4 potential to be a smaller source or even a sink with  
5 additional research and investment.

6 Separately, domestic forests, which, of  
7 course, span public and private forest lands, are a  
8 carbon sink and could do even more with the right  
9 policy and incentives.

10 At USDA we are pursuing a department-wide  
11 approach to drive nature-based climate solutions and  
12 really harness the power of the land sector to reduce  
13 emissions and store carbon. The sources and sinks of  
14 emissions in the agricultural sector are very diffuse,  
15 spanning millions of acres, thousands of farms, each of  
16 them a small sink or source on its own. And for the  
17 most part USDA's authority in this space is not as a  
18 regulator but rather as an entity that can provide  
19 incentive-based policies, and that is what we are  
20 focusing on, voluntary, producer-led, incentive-based  
21 policies that are flexible but can also dramatically  
22 increase the adoption of more sustainable and climate-

1 smart practices.

2           We are doing that work through our existing  
3 slate of private lands conservation programs. For  
4 those who are sort of familiar with some of our work  
5 that would be, for example, the EQIP program, the CSP,  
6 the Conservation Stewardship Program, the Conservation  
7 Reserve Program, along with some new initiatives that  
8 we have rolled out under this Administration, notably  
9 the Partnerships for Climate-Smart Commodities Program.  
10 The Partnerships program is a billion-dollar grant  
11 program, launched by Secretary Vilsack in February of  
12 this year, which is geared toward deriving additional  
13 adoption of climate-smart commodity production  
14 practices and fostering additional development in  
15 commodity markets for climate-smart commodities.

16           There is tremendous interest in this program.  
17 We have received, and our first application deadline  
18 just passed last month, we received \$18 billion in  
19 applications for direct grants, coupled with \$8 billion  
20 in private sector match, for a \$1 billion grant  
21 program. There is tremendous interest, and we are  
22 going to have some hard decisions to make over the

1 summer here.

2 But there are a lot of things we are going to  
3 learn coming out of this program because we have  
4 included several key priorities as ranking criteria, a  
5 major focus on equity and historically underserved  
6 producers and communities along with asking applicants  
7 to outline a very robust and comprehensive plan for  
8 monitoring, measurement, verification, and reporting of  
9 the greenhouse gas benefits of their proposed projects.  
10 And as I said, we expect to learn a great deal out of  
11 this program and think that some of those outcomes can  
12 be very relevant and constructive in the dialogue that  
13 we are having on market integrity today.

14 Beyond the Partnerships program, USDA is  
15 investing in a landmark Soil Health Monitoring Network  
16 as well as taking steps to improve the USDA Forest  
17 Service's globally recognized Forest Inventory and  
18 Analysis Program, to better account for carbon fluxes  
19 in our forest and landscapes. And indeed, everything  
20 we are doing on climate at USDA is grounded in these  
21 principles of sound science and the need to have robust  
22 and credible measurement monitoring verification to

1 underpin all of our work and investments.

2           Really simply put, if the emissions  
3 reductions and carbon removals that we are pursuing and  
4 promoting are not real and do not pencil out in  
5 science, then that is both bad for the climate and it  
6 is bad for the integrity of our work at USDA, not to  
7 mention any private sector efforts that intersect with  
8 that work.

9           So, building on the comments from my  
10 colleague from Treasury, when it comes to those private  
11 sector efforts and the carbon credit marketplace, we  
12 think about the agriculture and forestry sectors as a  
13 potential source of those credits, particularly when  
14 they are appropriately deployed as part of a  
15 comprehensive strategy that includes those direct  
16 emissions reductions.

17           Given the sizeable unrealized potential in  
18 these nature-based solutions, along with how expensive  
19 we have actually found this climate mitigation to be in  
20 the ag and forestry sectors, we do need to embark on a  
21 thoughtful discussion regarding how to finance these  
22 climate-smart practices and whether private sector

1 efforts may be a piece of that puzzle, and I think that  
2 is part of what the convening here today is designed to  
3 start that dialogue.

4           As you know, these private sector markets  
5 have varying standards, varying degrees of rigor and  
6 monitoring required, so using sound science, recognized  
7 tools to verify this work and instill integrity in  
8 these marketplaces will be critical. And again,  
9 recognizing that some emitting sectors like aviation  
10 are difficult to decarbonize and credits may need to be  
11 pursued as a supplement to those direct emissions  
12 reductions.

13           USDA is very supportive of increasing  
14 government research, data collection in this arena, and  
15 we should also evaluate options for addressing real  
16 concerns with voluntary credits, including carbon  
17 accounting principles like additionality, leakage,  
18 avoidance and double-counting, other important  
19 principles.

20           And finally, in conclusion, it does bear  
21 mentioning that USDA does have some statutory authority  
22 in this arena, specifically Section 2709 of the 2008

1 Farm Bill related to environmental markets. And the  
2 sectional law directs USDA to help facilitate farmer,  
3 rancher, forest-landowner participation in these  
4 markets, and we would welcome an ongoing dialogue with  
5 fellow panelists, other stakeholders, and certainly  
6 CFTC as we continue our future work pursuant to this  
7 authority.

8 As this conversation continues to unfold, we  
9 will continue to make critical investments to support  
10 these MMRV efforts, and as I mentioned earlier, I feel  
11 strongly it is in all of our best interests to ensure  
12 the integrity of the greenhouse gas mitigation efforts  
13 that can contribute to these markets, whether that  
14 contribution is through a government incentive program  
15 or a private sector marketplace or other programs.

16 Thank you very much for the opportunity to be  
17 here today. I am looking forward to the ongoing  
18 dialogue. Thanks.

19 DR. KEOHANE: Thanks John.

20 Next, we have Annie Petsonk, the Assistant  
21 Secretary for Aviation and International Affairs at the  
22 U.S. Department of Transportation, and somebody who has



1    been a leader in this set of issues for many decades.

2    Annie, it is really a pleasure. Over to you.

3                   MS. PETSONK: Thank you so much. Terrific to  
4    be here. Chairman Behnam, I really want to thank you  
5    for organizing this conversation and for your continued  
6    interest in these issues over the years, and thank you  
7    to the Commissioners who are here with us today or  
8    listening in. Commissioner Mersinger, your farm  
9    experience rings very personal chords with me because I  
10   grew up in rural Pennsylvania, and both the vagaries of  
11   weather and the potential impacts of climate and the  
12   importance of ensuring that farmers have the ability to  
13   have their efforts to farm in more carbon- and climate-  
14   friendly ways be remunerated are very much near and  
15   dear to me as a personal matter.

16                   At the Department of Transportation, we start  
17   from the premise that emitting sectors need to look  
18   first to reduce their own emissions directly. That is  
19   why we are working across our different modes of  
20   transportation, including the historic investments  
21   coming through the Bipartisan Infrastructure Law to  
22   boost electric vehicles across America with charging

1 stations, and also, we have developed and released, at  
2 the 2026 Conference of the Parties to the Framework  
3 Convention on Climate Change last year, a U.S. Aviation  
4 Climate Action Plan which focuses beginning with  
5 reducing emissions directly from aviation.

6           However, aviation is one of those hard-to-  
7 evade sectors, as Sean mentioned, along with maritime  
8 shipping, which, in both instances, it is really hard  
9 to move these vessels through the air and on the oceans  
10 with things other than liquid transportation fuels.  
11 And so, while we expect electrification to play a role,  
12 particularly with regard to short-hop flights -- and  
13 there is quite affirmative activity on that -- because  
14 both aviation and shipping, for long haul, rely on  
15 large, capital stock, intensive investments with long  
16 capital stock lifetimes, we do expect that out-of-  
17 sector reductions will play a critical role in helping  
18 these sectors meet their goals.

19           Well-designed, market-based environmental  
20 policies, by setting ambitious goals and providing  
21 flexibility on how to meet the goals, and catalyzing  
22 competition and innovation in the search for better,

1 cheaper, faster ways of meeting the goals have  
2 tremendous potential to help meet the urgent challenge  
3 of the climate crisis.

4 I want to profile one instrument which was  
5 developed for the aviation sector and specifically  
6 which interfaces with voluntary carbon markets, and I  
7 will discuss some of the strengths and some of the  
8 challenges that that instrument faces, and then I'll  
9 talk about the role of government.

10 CORSIA, or the Carbon Offsetting and  
11 Reductions Scheme for International Aviation, is the  
12 first global-sectoral market-based carbon emission  
13 reduction program in the world. It was established  
14 under the auspices of the International Civil Aviation  
15 Organization, or ICAO, which is the U.N. agency charged  
16 with establishing standards for the international  
17 aviation industry, and it was established with the  
18 support of industry, labor, and governments.

19 CORSIA limits the net emissions of  
20 participating international airlines to the average of  
21 their 2019-2020 emissions levels, and allows them the  
22 flexibility to meet those limits using two forms of

1 emissions currency, if you will. The first are CORSIA-  
2 approved carbon credits, coming mainly from the  
3 voluntary carbon market, which comes through a screen  
4 of CORSIA eligibility. The second emissions currency,  
5 if I can use those terms, that airlines can use to meet  
6 their obligations under CORSIA, is sustainable aviation  
7 fuel, or SAF. And CORSIA has developed a set of  
8 standards for quantifying the climate benefits of  
9 sustainable aviation fuels as well as sustainability  
10 requirements for those fuels.

11           And so airlines who need to address emissions  
12 above the CORSIA baseline can do so either by tendering  
13 CORSIA-approved voluntary carbon credits or they can  
14 reduce the number of credits that they tender by  
15 burning sustainable aviation fuels and quantifying,  
16 using ICAO-approved methodologies, single methodology  
17 across ICAO, with the opportunity for those who are  
18 promoting the fuels or advocating for the fuels to put  
19 forward their own quantification methodologies,  
20 provided that they meet ICAO rigorous standards. And  
21 the amount of emission reductions associated with those  
22 fuels can directly reduce the amount of offsets that

1 the airlines need to purchase.

2           In designing CORSIA -- and I will speak to my  
3 personal role in that regard, working with many, many  
4 others across the U.S. government and the non-  
5 governmental sector, industry, and many other  
6 governments around the world -- we looked, in part, to  
7 the successful U.S. Acid Rain Trading Program, which  
8 really is, in my view, the gold standard for the design  
9 of market-based environmental policy. And that was  
10 adopted as part of the Clean Air Act amendments of  
11 1990, and I would encourage the Commission to look  
12 carefully at the minimum elements for integrity and  
13 transparency that were included in the Acid Rain  
14 Trading Program. The Acid Rain Trading Program  
15 achieved dramatic reductions in sulfur dioxide  
16 emissions, saving \$1 billion in compliance costs for  
17 the industry, compared to technology-based  
18 alternatives.

19           CORSIA is not perfect and was not able to  
20 incorporate all the design features of the Acid Rain  
21 Trading Program, but it has taken rigorous steps to  
22 address two issues that have been highlighted here,

1 including by the question asked of the previous panel.  
2 The first is so-called additionality. ICAO developed a  
3 series of emissions units criteria that while they do  
4 not, in and of themselves, provide a harmonized  
5 standard for governing additionality of offset projects  
6 do provide a basis on which the CORSIA Technical  
7 Advisory Board can evaluate offset programs that apply  
8 for CORSIA eligibility. And I want to focus on this  
9 additionality issue for just a minute.

10           What makes the voluntary carbon market very  
11 different than compliance-based cap-and-trade programs  
12 is that the unit of currency in a voluntary carbon  
13 frame is based on reducing emissions below what would  
14 have otherwise occurred.

15           Now, I want to tell you that what would have  
16 otherwise occurred when I came into this building this  
17 morning is that I would have stopped at a bakery along  
18 the way and gotten my usual breakfast, which I will  
19 tell you, when I am coming to a conference like this,  
20 might consist of six croissants. But I didn't stop  
21 there, and so, in principle, since I consumed less than  
22 what would have otherwise occurred, I could sell those

1   uneaten six croissants to someone else.

2               In order to verify the credibility of those  
3   six croissants, you need to know what I really eat for  
4   breakfast, and that takes some research and some very  
5   intensive work, and a number of the voluntary standards  
6   have tried to do that kind of work over the years. But  
7   I use the croissant example to illustrate the  
8   difference between regulated, compliance-based markets  
9   and voluntary markets.

10             The second piece that CORSIA tried to tackle  
11   was I might say to one of my fellow panelists here, "I  
12   will sell you four of those uneaten croissants, but I  
13   will also sell you three of those uneaten croissants."  
14   Unless there is a double-entry bookkeeping system to  
15   assure that I am not double-selling the croissants, the  
16   uneaten croissants, the fundamental integrity of the  
17   system cannot be assured.

18             And so, in CORSIA we included a provision  
19   that requires, before any emissions units can be  
20   transferred, an attestation from the host country  
21   government of the carbon offsetting project that the  
22   host country government will not count the reduced

1 emissions towards its own commitment under the Paris  
2 Agreement. The actual awarding of the attestation is  
3 not perfect. It could be stronger. But I encourage  
4 you to look at it as one attempt to address the issue  
5 of double-counting.

6           And I focus on that because what we are  
7 talking about here is, in the sense of double-entry  
8 bookkeeping, not just the asset creation but, on the  
9 other side of the books, the obligation, and the  
10 obligation I liken to a debenture to the atmosphere.

11           How private voluntary carbon markets and  
12 programs handle that double-entry bookkeeping, in terms  
13 of their relationship to the host jurisdiction in which  
14 their projects are located, is an important issue for  
15 the Commission to take a look at. And that is  
16 particularly important where the transaction involves a  
17 promise today to sell a reduction earned in the future.  
18 That is a future. That is squarely within your  
19 jurisdiction, in my view. And that makes the work of  
20 this Commission all the more important.

21           We and other agencies and stakeholders are  
22 happy to share our perspectives with you on how the



1 lessons learned from CORSIA and other market-based  
2 measures can inform sound government policy and foster  
3 public trust in offset quality while providing  
4 investors, officers, and directors with the tools to do  
5 the due diligence to ascertain whether their  
6 investments are actually achieving the environmental  
7 results need to undergird their corporate citizenship  
8 claims. The Department of Transportation is eager to  
9 engage with you, with the inter-agency, and with  
10 stakeholders as you move forward considering standards  
11 and guidance that can enable companies and communities,  
12 including farmers, to channel the power of markets in  
13 the service of driving economic development forward  
14 while driving emissions down. The task is urgent.

15 Thank you.

16 DR. KEOHANE: Thank you, Annie.

17 We have got two more panelists, and I want to  
18 make sure we have a little bit of time at the end for  
19 questions as well. So, I will ask the panelists to  
20 stick with aiming for four to five minutes.

21 Phil Duffy is our next panelist. Phil is the  
22 Climate Science Advisor at the Office of Science and

1 Technology Policy at the White House. Phil, over to  
2 you.

3 DR. DUFFY: Thank you, Nat, and thanks to the  
4 Chair and CFTC for organizing this important  
5 conversation, and thank you for the opportunity to  
6 participate.

7 I, as the scientist in the room, thought that  
8 I would spend my four or five minutes reviewing and  
9 expounding on some of the science relevant to voluntary  
10 carbon markets. And I will start at a very, very high  
11 level and then zoom down to a greater level of  
12 specificity.

13 At the highest level we all know that to meet  
14 Paris Agreement goals we, meaning humanity, need to get  
15 to net zero emissions as soon as possible, within the  
16 next several decades. And so, what that means is that  
17 we do need offset because we recognize that there are  
18 certain sectors that will be very difficult to  
19 decarbonize, and so to achieve net zero we will have  
20 to, for the foreseeable future, offset emissions from  
21 those sectors.

22 We also recognize, scientifically, that our

1 capacity right now to do CO2 removal, although  
2 substantial, is limited and is, in fact, less than we  
3 know that we are going to need in the long run, and  
4 that is the reason why we all recognize that it is so  
5 important to reserve offsets for emissions which are  
6 truly difficult to eliminate. If we use offsets  
7 instead of eliminating emissions which could be  
8 eliminated then we run the risk down the road of simply  
9 running out of capacity to do further CO2 removal when  
10 we are really going to need it.

11           We also all recognize that most of the  
12 offsets being done now use the so-called nature-based  
13 pathways, reforestation and so forth, and the main  
14 reason for that, of course, is that those approaches,  
15 the nature-based approaches to CO2 removal at present  
16 are much, much less expensive than the more  
17 technological approaches like direct air capture.

18           The nature-based approaches, again,  
19 reforestation and so forth, have other advantages.  
20 They are, as we say, shovel-ready. If done well they  
21 can have important co-benefits like increasing  
22 biodiversity and enhancing regional and local

1 economies.

2           The nature-based solutions have important  
3 risks, which have already been mentioned -- permanence  
4 or lack of permanence, such as from wildfire; leakage,  
5 meaning that emissions occur elsewhere instead; lack of  
6 additionality, which Annie just now, I think,  
7 illustrated very nicely with a couple of examples. And  
8 as Annie said, the lack of additionality is  
9 particularly a challenge in the case of offsets based  
10 on avoided emissions rather than those based on actual  
11 negative emissions.

12           So, to be a little bit more specific, one of  
13 the scientific and technical challenges we face in  
14 offsets is around the issue of soil carbon. We know  
15 that the capacity of agricultural soils to store more  
16 carbon, theoretically, is great. We also recognize  
17 that it is enormously challenging to measure progress  
18 and increasing soil carbon storage.

19           There was a very interesting, I thought,  
20 article in the *Journal of Science* that came out in  
21 March, which essentially said the following, and that  
22 is that at the level of individual fields we really are

1 very, very challenged right now to measure progress in  
2 storing soil carbon at a useful level of accuracy and  
3 precision. And so, what this article suggests is two  
4 approaches to agricultural offsets, and one is to do  
5 soil carbon offsets not at a field level, or to  
6 structure offsets not at a field level but at a  
7 regional level, the idea being that while it is  
8 challenging to measure soil carbon storage at the level  
9 of individual fields, we can do it now, even with  
10 present technology, with reasonable accuracy at a  
11 regional level. And so, offsets could be structured  
12 based on measuring soil carbon at a regional level and  
13 crediting participants for progress that occurs at a  
14 regional level.

15           Another approach is simply to base  
16 agricultural offsets on other forms of emission  
17 reductions, and there are plenty of emissions from the  
18 agricultural sector which can be reduced and which can  
19 easily be measured.

20           So, a couple of concluding thoughts. We do  
21 need carbon offsets. That is how we get to net zero.  
22 It is important, again, that offsets be used only for

1 emissions which are truly difficult to decarbonize. A  
2 number of folks have emphasized the importance of good  
3 measurement monitoring and verification of offsets.  
4 And along those lines, the government is undertaking an  
5 effort to coordinate and expand and improve our ability  
6 to measure emissions and removals of CO2 from the  
7 atmosphere from all sources including the land sector.

8           And I should say that, well, certainly I  
9 don't think anybody thinks it is appropriate for the  
10 government to be in the business of offset  
11 verification. What we do hope, however, is to achieve  
12 useful synergy between what we are doing at the  
13 government level and what is going on in the private  
14 markets. And specifically, what I am referring to is  
15 the fact that there is a lot of exciting science, for  
16 example, on better soil carbon measurement going on,  
17 both within government and also outside of government,  
18 and it would be very, very useful if the private sector  
19 and the government efforts can inform one another and  
20 can help one another. I think the potential exists for  
21 each effort, the private and the public, to benefit  
22 from the work that the other is doing.

1           So those are my thoughts. Thank you, and I  
2 would be happy to take any questions.

3           DR. KEOHANE: Thanks very much, Phil.

4           Last on our panel is Christine Dragisic, the  
5 Branch Chief of Partnerships and Initiatives at the  
6 Office of Global Change, the Bureau of Oceans and  
7 International Environmental and Scientific Affairs, in  
8 the U.S. Department of State. Chris, over to you.

9           MS. DRAGISIC: Hi. Thanks, and thanks very  
10 much for the invitation to be here today. I truly  
11 appreciate it. Sorry not to be able to join you in  
12 person, but we are very grateful for the leadership of  
13 the Chair and the CFTC in convening this discussion,  
14 which has brought together a lot of people working on  
15 different aspects related to carbon markets at I think  
16 quite a critical time.

17           So, the Department of State has the lead on  
18 international climate policy, including as it relates  
19 to international carbon markets, and we coordinate very  
20 closely with U.S. agencies working on domestic carbon  
21 credit markets where those interests intersect with our  
22 own international efforts. So hopefully you will hear

1 a lot of very similar themes echoed today.

2           One thing I just wanted to highlight that a  
3 number of my colleagues have mentioned is that our  
4 overarching focus, really, is on setting ambitious  
5 climate targets -- nationally determined contributions,  
6 net zero targets -- and prioritizing emissions cuts in  
7 this decade. We need to see all entities, governments,  
8 corporations, and others, working urgently to reduce  
9 their own emissions across Scopes 1, 2, and 3, and only  
10 after that do we turn to question of offsets. Carbon  
11 markets, including voluntary carbon markets, cannot  
12 serve as a substitute for these goals. So, I wanted to  
13 start out by noting that that is absolutely critical.

14           Within that, then, we are very focused on  
15 ensuring market integrity and on questions related to  
16 offset quality, additionality, as you have heard,  
17 transparency, and other issues. In this light we work  
18 actively on the number of initiatives that relate to  
19 carbon markets, and through this work we have been  
20 engaged in establishing a number of international  
21 carbon market frameworks and on developing the related  
22 guidance for these frameworks.



1           One of the things we are most focused on are  
2 negotiations on what is called Article 6 of the Paris  
3 Agreement. As you may know, Article 6 includes  
4 guidance on both the new carbon crediting mechanisms  
5 established under the Paris Agreement and on what are  
6 called decentralized cooperative approaches. Under  
7 these decentralized approaches some parties to the  
8 Paris Agreement will engage in international transfers  
9 of greenhouse gas mitigation that involves carbon  
10 credits, will authorize their use towards NDC climate  
11 targets or other international mitigation purposes,  
12 will report on the transfer, and will adjust for these  
13 transfers in accounting for their climate targets,  
14 their NDCs.

15           Each party engaged in these approaches is  
16 expected to report some pretty extensive information  
17 about how the underlying carbon credit meets Article 6  
18 guidance, including how they have environmental  
19 integrity, avoid double-counting, promote sustainable  
20 development, and transparent governance. These  
21 reporting requirements clearly signal parties,  
22 government expectations for some of the more technical

1 aspects of carbon credit activity design and credit  
2 certification. The guidance for the carbon crediting  
3 mechanism, what is called 6.4, have even more detail on  
4 issues like conservative baselines and measures to  
5 address the risk of reversals.

6           We are also very actively engaged in ICAO's  
7 CORSIA carbon market mechanism, which Annie spoke to a  
8 few minutes earlier. As Annie noted, CORSIA  
9 established rules and procedures to facilitate airlines  
10 in meeting their emissions reductions obligations,  
11 including cure offsetting. So, airlines must use  
12 approved eligible credits towards the CORSIA offsetting  
13 requirements.

14           The State Department represents the U.S. on  
15 the Technical Advisory Board body that advises ICAO  
16 counsel on these eligible carbon credit certification  
17 standards, based on their alignment with CORSIA's  
18 eligibility criteria and guidelines. And these  
19 criteria contain in-depth requirements for the  
20 standards and their credits. The evaluation of the  
21 standards themselves usually takes about a year for  
22 each program.

1           We have seen these criteria and the ICAO  
2   evaluations positively influence independent standards  
3   governance and technical approaches to develop and  
4   certifying credits. And I will note here that all of  
5   the CORSIA eligible standards, and so far there are  
6   eight, including some that you have heard from today,  
7   also supply credits used in voluntary carbon markets.

8           We also have done a lot of work on voluntary  
9   mechanisms and international mechanisms related to the  
10   forest and land sector. One of the key initiatives is  
11   the LEAF Coalition, which brings together public and  
12   private sector partners to aggregate demand for forest  
13   carbon credits and results-based payments. LEAF is  
14   currently the largest public-private effort ever  
15   assembled to end tropical deforestation, and it sources  
16   credits certified to the independent ART TREES  
17   standard, which you heard about a bit earlier.

18           We have led work on the Forest Carbon  
19   Partnership Facility and the Biocarbon Fund Initiative  
20   for Sustainable Forest Landscapes. These initiatives  
21   pioneered crediting and results-based payments at a  
22   national and sub-national level for forests and for

1 entire landscapes, including agriculture, respectively.

2           Last year we launched a program called the  
3 Offsetting National Emissions Through Sustainable  
4 Landscapes program, ONE-SL, which builds capacity and  
5 addresses barriers to integrating forest carbon  
6 projects into broader sub-national or country scale  
7 forest carbon crediting programs. It is also  
8 developing tools to support participating countries in  
9 taking decisions related to these carbon markets in the  
10 context of influencing their NDCs under the Paris  
11 Agreement.

12           Finally, we participate in the Country  
13 Contact Group advising the Voluntary Carbon Markets  
14 Integrity Initiative, or VCMI, which you have heard  
15 about, which is a multi-stakeholder platform working on  
16 a code of best practices for the voluntary independent  
17 certification of business claims related to their net  
18 zero climate strategies, and particularly their use of  
19 carbon credits in relation to those claims.

20           In all of these initiatives we have worked  
21 with a wide range of partners to develop or directly  
22 shape high-integrity policy frameworks and carbon

1 market mechanisms. We also work to establish the  
2 technical guidance necessary for these frameworks to  
3 function, and ideally reinforce consistency across the  
4 different systems, for example, supporting meta-  
5 standards like those you see in CORSIA and VCMi.

6 I will note that carbon markets are perhaps  
7 the one area in which there is the most fluidity across  
8 cutting influences between international and domestic  
9 systems, guidance and rules, voluntary and compliance-  
10 driven supply and demand. So, for this reason we work  
11 very closely with the colleagues you see here today on  
12 the panel, with others in the USG, to try and ensure  
13 consistency in policy approach across the different  
14 initiatives in which we engage.

15 I think I will stop here. I know we are  
16 short on time, but I am very happy to answer any  
17 questions later today. I look forward to engaging  
18 further. Thank you.

19 DR. KEOHANE: Thanks very much, Chris, and  
20 thanks to the entire panel.

21 We have a few minutes left. I want to see  
22 whether there are questions folks have from the

1 audience or any questions that panelists want to pose.  
2 Tyson.

3 MR. SLOCUM: Thank you so much, and I agree  
4 it was a fantastic panel. My question is on trying to  
5 establish and verify permanence, especially for forced  
6 offsets. What are some of the Federal agencies and  
7 departments doing in that regard? Because that is the  
8 one issue that I think is so challenging is how do you  
9 ensure that directing financing to support these  
10 projects, these projects to stop deforestation, that  
11 they are going to be long-lasting enough to offset the  
12 emissions? Yeah, that's it. Thank you.

13 MR. BABINGTON: You know, I am happy to jump  
14 in sort of briefly from the USDA perspective and just  
15 with sort of an admittedly base-level knowledge about  
16 the complexity of some of these standards and programs.  
17 However, the concept of buffer pools seems to be  
18 relevant here, right, that if you assume that whether  
19 it be an insect or disease outbreak, a wildfire, a  
20 drought-induced disturbance to that forest, that you  
21 are going to lose some -- 10, 20 percent, whatever it  
22 is -- over the lifetime of the project length, you

1 know, whatever the standard that you are aiming towards  
2 applies. Then you just sort of only count 80 or 90  
3 percent of that carbon, and, you know, you're just sort  
4 of building that into your assumption.

5           So, I think that is a relevant sort of  
6 principle to think about here. And as I mentioned in  
7 my comments earlier, USDA's Forest Service is, one, the  
8 largest and we think the most prestigious forest  
9 research organization in the entire world, and we  
10 steward a long-term dataset going back to the beginning  
11 of the last century around our forest cover inventory,  
12 the Forest Inventory and Analysis Program.

13           So there is a good deal of government data  
14 there and research that I think can be part of that  
15 discussion, along with a whole bunch of innovative  
16 folks in the private sector who come in and meet with  
17 us regularly, to talk about additional capacity, with  
18 satellites and remote sensing and things that can  
19 really help us be very precise and very rigorous when  
20 we think about forest carbon monitoring and carbon  
21 fluxes going into this discussion and others. Thanks.

22           DR. KEOHANE: I'm looking at other folks on

1 the panel. I know Annie, would you like to come in? I  
2 know that Chris and Jason and Phil -- I mean, we have  
3 some of the world's experts on deforestation here as  
4 well. Chris, I saw you raise your hand, and Jason and  
5 Phil, if you would like to come in, I know you could  
6 each speak really to this point as well.

7 MS. DRAGISIC: Obviously this is something  
8 the U.S. government cares a lot about. I'll let Jason  
9 and Annie certainly come in, and I will note that I  
10 think this is very different if you are talking about  
11 project-level approaches or what we call jurisdictional  
12 approaches, so national or sub-national scale programs.  
13 And that is actually why you have seen international  
14 policy move towards these jurisdictional approaches  
15 over the last decade. In fact, in the UNFCCC these  
16 were agreed in 2010, in part because the risk of non-  
17 permanence is much less when you are looking across a  
18 much broader area.

19 So, most of the work that State Department  
20 does on forest carbon markets as they relate to forests  
21 are actually at that jurisdictional level, that state,  
22 provincial, or national level. Within that, I think



1 the focus on buffer pools is exactly right. Most of  
2 the approaches that we have engaged with actually  
3 require the use of buffer pools. And there are two  
4 ways of doing that. You set aside credits from a  
5 specific program so that in the pretty unlikely chance  
6 that there is actually a reversal across an entire  
7 jurisdiction you draw on the credits that have been set  
8 aside in that pool. And then in many cases we actually  
9 aggregate the buffer pools across a number of different  
10 programs because the risk of a reversal across 8, 9, 10  
11 different jurisdictions across the world is actually  
12 much less too, so you have that buffer pool set aside  
13 and then you can draw on that in the unlikely case  
14 there is a reversal at that scale. I will leave it  
15 there.

16 DR. KEOHANE: Thanks, Chris. Let me go to  
17 Phil and then Jason.

18 DR. DUFFY: Yeah, thanks. Well, in the  
19 specific instance of wildfire risk, it is also  
20 important to mention that there are things one can to  
21 do manage the land in ways that reduce that risk, and  
22 the main thing you can do is managing the fine fuels.

1 And, of course, one of the drivers of increases in fire  
2 risk is climate change but another is buildup of fine  
3 fuels due to historic fire suppression. So, management  
4 of the fine fuels, removal of the fine fuels, most  
5 efficiently through controlled burning, can really be a  
6 very significant lever in reducing fire risk, and  
7 therefore improving the prospects for permanence in  
8 forest offsets.

9 DR. KEOHANE: Thanks, Phil. Jason.

10 MR. GRAY: Great. No, just to echo what  
11 Chris and folks have said, this is something that has  
12 been addressed and is continually evolving in both  
13 voluntary and compliance markets. For the California  
14 approach there has been a very close collaboration with  
15 U.S. Forest Service, both utilization of FIA data but  
16 also specific work on remote sensing and looking at  
17 risk for wildfire, which is something I know the  
18 California Resources Board continues to look at. So  
19 that is really done through a buffer pool approach in  
20 the California program now.

21 I think it is also important to recognize  
22 that some of the projects within the California program

1 are pretty massive. In particular, the forest space,  
2 about half of the offset credits coming from forests  
3 are from tribal and Alaska Native corporation-owned  
4 lands or managed lands. These are very large, and I  
5 think that buffer pool approach and that risk  
6 mitigation is done there.

7           For the context of some of the sub-nationals  
8 that I work with now, similar to what Chris mentioned,  
9 it is really looking at that sub-national level  
10 approach, so not project by project, but looking at a  
11 larger scale. So just a couple of thoughts on that.

12           DR. KEOHANE: Thank you. Annie, did you want  
13 to come in?

14           MS. PETSONK: Just only to say that Christine  
15 mentioned the ART or architecture for REDD+  
16 transactions, which is a multiyear-developed scientific  
17 standard that also addresses the permanence and buffer  
18 question.

19           DR. KEOHANE: Well, thanks all. We will be  
20 able to go a few minutes longer but we will try to wrap  
21 up by 11:50 or so. Let me take the moderator's  
22 prerogative and ask a question of the panel, also as a

1 way of wrapping up.

2           We've heard, I think, a lot of individual  
3 issues around additionality, data monitoring,  
4 transparency, accounting that folks have raised with  
5 respect to credit quality. I am curious to go back to  
6 Chair Behnam's original question around the role of the  
7 CFTC here. Where would you, given your experience and  
8 your perspectives, suggest that regulatory bodies like  
9 the CFTC or voluntary efforts like we heard about  
10 earlier, the Integrity Council and VCMi, where should  
11 they focus? Is it on some of those issues you have  
12 raised? Is it on a need for a unified emissions  
13 accounting approach? Where should CFTC and voluntary  
14 efforts focus?

15           And maybe I can use this as a way to go back  
16 down the panel in the same order we had. Jason, I will  
17 start with you, and this will also double as the sort  
18 of wrapping up. So, if you can keep your comments  
19 quite short we will be able to get to everyone. Thank  
20 you. Jason.

21           MR. GRAY: Thanks, Nat, and thanks everybody  
22 for the invitation and for the discussion.

1           I think part of the focus -- that is a hard  
2 question, because it is like is there one area to focus  
3 on? And I think the answer really is no, there is a  
4 multi-level here.

5           I guess my view is making sure that there is  
6 an ability to reduce the confusion that currently  
7 exists in the marketplace, both on the voluntary side  
8 and on the regulatory side, just how those overlap. I  
9 think the accounting side is something that everyone  
10 agrees on has to be very robust, based on the best  
11 science possible, and with abilities to update as that  
12 science improves. I think maybe from a CFTC  
13 perspective, looking at how to reduce that confusion,  
14 add some certainty for folks that may be in futures or  
15 options or on exchanges.

16           So those would be kind of my parting  
17 thoughts.

18           DR. KEOHANE: Thanks. John.

19           MR. MORTON: Yeah, I think it's hard again to  
20 pick out one. I think we have discussed the many  
21 issues that are on the table, and I think the  
22 resolution of them in as expeditious a manner as

1 possible will enable capital to flow in more credible,  
2 high-integrity ways, which is important for our shared  
3 goals of net zero by mid-century. And so, the "North  
4 Star" here needs to be a set of standards and high-  
5 integrity principles that guide that transition, not  
6 any other.

7           I think it is the case that having  
8 transparency around the question of additionality and  
9 harmonization around the question of additionality  
10 strikes me as being at the core of so much of what we  
11 are talking about, which can be talked about through an  
12 integrity lens or through many other lenses. But this  
13 question of additionality, reaching a clear agreement  
14 on the use of proceeds that go beyond current use of  
15 proceeds, but that we can collectively agree are  
16 additional and high integrity I think is key, and I  
17 would urge focus to be put on that question.

18           And I guess finally I would say, the faster  
19 we can get there, the deeper the liquidity is likely to  
20 be. And we know now that there is capital ready to  
21 deploy towards high-integrity standards. So, I urge  
22 this group to continue their work as quickly as

1 possible in the voluntary arena, with the hopes that we  
2 will see further formalization in the months and year  
3 ahead. Thank you.

4 DR. KEOHANE: Thanks. Sean.

5 MR. BABINGTON: I agree with everything Jason  
6 and John said, that, you know, the importance of these  
7 carbon accounting principles and getting some  
8 harmonization and standardization is just going to be  
9 critical to folks having confidence in these projects  
10 in these markets going forward.

11 I might say two things a little bit more  
12 specific to USDA's constituency, and one was brought up  
13 by Jason, but, you know, making sense of the confusion  
14 about the marketplace right now. I've been, whether it  
15 is listening to it in congressional testify or being  
16 out on a farm, I have heard the term "Wild West" thrown  
17 around quite a few times, with producers trying to make  
18 sense of the various options that have been thrown at  
19 them by their crop advisor or their conservation  
20 district, or their ag retailer regarding these new  
21 carbon projects. You know, I don't think we take a  
22 position on what is good or what is bad, but there does

1    need to be some, what is this offering and how can this  
2    work for an individual farmer, rancher, forest  
3    landowner?

4               The second piece I would mention, and I won't  
5    take a position on which entity, whether it be CFTC or  
6    the other folks who were on the first panel, but an  
7    issue that we think is important and we have centered  
8    our work around is diversity of participants who are  
9    working in these spaces.

10              We have got a whole host of landowners across  
11   different parts of the country who are looking for  
12   additional revenue streams, additional economic  
13   opportunities, and we think about this marketplace,  
14   again, when coupled with steep emissions, direct  
15   emissions reductions. We think about this evolving  
16   marketplace as an economic opportunity for those  
17   landowners who can add an additional revenue stream,  
18   who can keep their farms as farms, keep their forests  
19   as forests. There is development pressure all over the  
20   place, which we all know, and this can be a part of  
21   that discussion.

22              But right now, there is a narrative, or at



1 least some evidence that we are talking about large-  
2 scale, significantly sized landowners here, and I think  
3 we are looking at our work certainly to involve those  
4 folks but also to involve our smaller holders, are  
5 historically underserved producers and communities. So  
6 that is really important. And it is not just diversity  
7 of producers, it is also diversity of crops and forest  
8 types. It is not just the big corn-soybean rotations  
9 in the Midwest, when we think about the farming side.  
10 We want to involve specialty crop producers across the  
11 country. We want to involve livestock and ranching.

12 So, you know, just to enter that into the  
13 discussion here. We think those are all really  
14 important things to be cognizant of. Thanks.

15 DR. KEOHANE: Thanks, Sean. Annie.

16 MS. PETSONK: I agree very much with John and  
17 Sean. In some respects, from my perspective, carbon  
18 accounting and the voluntary carbon markets are in a  
19 similar, not exactly analogous but similar, position to  
20 the state of accounting prior to the '33 and '34 Acts.  
21 We don't have a single set of GAAP, generally accepted  
22 accounting principles, in the project space, and for

1 corporates, while there is the greenhouse gas protocol  
2 by which many, many corporates report their emissions,  
3 that reporting, and their commitments, define three  
4 scopes: Scope 1, direct emissions; Scope 2, indirect  
5 emissions; and Scope 3, emissions one layer out from  
6 indirect, such as the emissions from travel, which are  
7 what come into the Department of Transportation's  
8 purview.

9           Everyone's Scope 3 emissions is somebody  
10 else's Scope 1 emissions, so the relationship between  
11 the emissions accounting at the project level and  
12 emissions accounting at the corporate level is complex.  
13 We also don't have a single analog to FASB, the Federal  
14 Accounting Standards Board. Do we need one? What are  
15 the lessons that you all have learned in your sister  
16 agencies in the financial area learned from the  
17 evolution of GAAP and FASB that could be usefully  
18 applied here? Thank you.

19           DR. KEOHANE: Thanks, Annie. Phil.

20           DR. DUFFY: Thank you. Well, at OSTP we are  
21 very, very focused on getting better at measuring and  
22 monitoring emissions and removals of greenhouse gasses

1 to the atmosphere, and we are pretty good at doing that  
2 on large spatial scales. As I said earlier, when we  
3 get down to the finer and finer spatial scales it  
4 becomes more and more challenging. And, of course,  
5 those final spatial scales are exactly where the carbon  
6 markets operate.

7           So, what we are focused on is, in order to  
8 improve our capabilities, improving coordination across  
9 Federal agencies, transitioning a lot of the really,  
10 really great measurement capabilities that have been  
11 demonstrated in a research mode, transitioning those to  
12 operational mode. We are also, of course, very, very  
13 interested in making progress on the fundamental  
14 science and technology of measuring emissions and  
15 removals. And there, as I mentioned, we do see a lot  
16 of potential for synergy between the work that we can  
17 do in government and some of the really, really good  
18 work that's happening in the private sector.

19           So again, our focus really is on better MMRV,  
20 which we think will go a long way towards improving  
21 confidence in these markets.

22           DR. KEOHANE: Thanks, Phil. And Chris.

1           MS. DRAGISIC: Thanks. I think I would say  
2 two different things. We think that when you look at  
3 voluntary market initiatives like the VCMi there really  
4 is a huge potential value-add in focusing on best  
5 practices on the use of voluntary carbon credits  
6 towards corporate targets. There are a few topics  
7 related to this that we talked about, MRV and  
8 neutrality baselines.

9           But perhaps one of the most critical issues  
10 is transparency. Transparency around corporate climate  
11 targets, their emissions, the actions taken to reduce  
12 those emissions, transparency around how mitigation  
13 outside of a company's operations are supply chain that  
14 is supported, including through results-based payments,  
15 transparency on what carbon credits were sourced and  
16 how those were used, and transparency on whether the  
17 mitigation associated with those credits is counted  
18 towards the NDC of the host country, and whether a  
19 corresponding adjustment has been applied in accounting  
20 for an NDC. Those are real issues. They are very live  
21 right now, and there is great benefit in providing more  
22 clarity and more guidance on that.

1           And then as for the regulatory bodies like  
2   CFTC, like FTC, in an evolving space like this week  
3   think a critical first step, and one that you have very  
4   thankfully brought about, is a conversation exactly  
5   like this. We need to be talking. We need to hear  
6   what everybody is doing.

7           I think there are two areas where regulators  
8   could potentially be very helpful. One is in providing  
9   guidance on the transparent disclosure of claims,  
10   including in marketing and branding materials, and a  
11   second is guidance on how to ensure that credits that  
12   underpin listed contracts are real.

13           So those are just two areas. I think more  
14   will come in future discussions, but I wanted to leave  
15   you with that.

16           And as a final thought, and others have said,  
17   that I just wanted to highlight the real urgency of  
18   this task. We absolutely have to cut emissions by  
19   nearly half this decade. We have to reach net zero  
20   around mid-century. We do not have the time to waste,  
21   so every tool we can bring to this challenge is  
22   absolutely needed, and we thank you for your efforts.

1 DR. KEOHANE: I want to thank the panel and I  
2 will turn it back to Abigail.

3 MS. KNAUFF: Thank you, Nat. We will now  
4 have a 60-minute lunch break, so we will return at  
5 12:55. Please keep in mind that all visitors will need  
6 to pass through building security upon reentering after  
7 lunch. Thank you.

8 [Recess.]

9 PANEL 3:

10 CARBON OFFSETS TRADING AND INFRASTRUCTURE

11 MR. GILLERS: As folks are taking their seats  
12 I will just start the introductions over here.

13 Thank you, everybody, for coming back despite  
14 our fire drill. We are going to begin the third panel  
15 in just a moment, in which we will discuss carbon  
16 offsets trading and infrastructure. It will be  
17 moderated by Eric Pitt. Eric works in climate finance  
18 with the nonprofit, Ceres, also no stranger to the  
19 CFTC, where he leads policy advocacy work on climate-  
20 aligned investment products and retirement investing.

21 Previously he worked in the fixed income  
22 markets and JPMorgan, where he managed traders,

1 structurers, and analysts who were responsible for  
2 providing liquidity and U.S. corporate credit to  
3 institutional investors around the world. Eric was  
4 responsible for market structure initiatives including  
5 the launch of a new electronic trading platform, which  
6 led to serving on the board of Tradeweb. Eric is also  
7 an advisor to several fintech and climate tech  
8 companies and investment funds. He has spoken on  
9 market structure at the SEC, the Fed, and numerous  
10 industry events.

11 Eric graduated from Harvard College with a  
12 degree in physics and has an MBA from Columbia  
13 University.

14 Eric, over to you.

15 MR. PITT: Thanks so much, David, and thank  
16 you to the Commission for having us all here. Thank  
17 you, Chair Behnam, and all the Commissioners. It is a  
18 pleasure to be here to discuss this quickly evolving  
19 and crucial topic.

20 Ceres is a sustainability nonprofit that has  
21 been working with investors and companies to drive  
22 change for over 30 years. The Accelerator for

1 Sustainable Capital Markets was founded to promote  
2 systems change and works closely with financial  
3 regulators, including the Fed, the SEC, and, of course,  
4 the CFTC.

5           Much of the progress we have seen in climate  
6 finance in recent years has been due to the work of the  
7 special subcommittee initiated by Chair Behnam and led  
8 by Bob Litterman. In the time since that report was  
9 published so much has changed in climate finance. The  
10 idea of climate change as a significant financial risk  
11 has moved from the margin to the mainstream. The SEC  
12 has proposed mandatory corporate disclosure of climate  
13 risks and greenhouse gas emissions. Just Tuesday, the  
14 Net Zero Asset Managers Initiative announced commitment  
15 by 83 asset managers, aligning \$16 trillion in assets  
16 with net zero targets. These are promising signs that  
17 government and business are recognizing the scale of  
18 the work to be done.

19           Conspicuously absent from any accounting of  
20 progress is a federal price on carbon. No other action  
21 could have as profound an impact on investment and  
22 climate solutions in this country. We have all



1 benefitted from the tremendous potential for innovation  
2 in the U.S. economy, but until incentives are properly  
3 aligned we are missing opportunity for job and wealth  
4 creation. There are important equity issues to be  
5 addressed, but address them we must.

6           As we have heard today, other countries and  
7 states in our union have enacted carbon prices and  
8 market mechanisms with growing portions of the economy  
9 covered. We must find the courage to regulate  
10 greenhouse gas emissions in this country.

11           Voluntary markets have emerged in the absence  
12 of such policy. These markets are a sign of optimism  
13 and a cause for hope. There is a precedent for  
14 voluntary markets setting the stage for subsequent  
15 compliance markets, as we have heard today from  
16 panelists, and we should all applaud the innovation and  
17 leadership of the market participants we are hearing  
18 from today in helping to stand up these markets.

19           How do we build confidence in these markets?  
20 The promise of an offset market lies in its potential  
21 to allocate capital flexibly, to the best and most  
22 efficient carbon sequestration projects. This

1 potential can be realized when risk capital enters the  
2 market. Investors will need to confident in project  
3 integrity and market transparency to allocate  
4 meaningful capital to these markets.

5           For these reasons, I am very pleased to see  
6 the CFTC become active in this area. I believe the  
7 Commission's involvement could play a big role in  
8 building the needed confidence in these markets.

9           Before turning it over to our distinguished  
10 panelists I want to share guidance that Ceres recently  
11 published in a report on the use of carbon offsets by  
12 corporations. First and foremost, as we have heard  
13 said by so many today, companies are responsible for  
14 reducing their emissions. They should set science-  
15 based targets in line with the Paris Accord and focus  
16 on reducing their operational emissions, emissions from  
17 energy purchasing by purchasing renewable energy, and  
18 emissions in their supply chain.

19           They should use offsets only in addition to a  
20 concerted effort to decarbonize. These offsets should  
21 be of the highest quality, and we have heard so much  
22 talk about the different issues driving quality. We

1 urge them to pay attention to the environmental justice  
2 issues and ensure that the projects truly contribute to  
3 the fight against climate change.

4           Now I would like to offer our panelists the  
5 opportunity to present their comments, and I will start  
6 with Kathy Benini, Managing Director at S&P Global.  
7 Thank you.

8           MS. BENINI: Thank you. It is a pleasure to  
9 be here, and I thank the Chairman and the Commissioners  
10 for establishing this day to get the information out to  
11 the marketplace.

12           Registries are a critical aspect of the  
13 infrastructure to support this growing market. Our  
14 background, just to give some credibility to why we are  
15 here today to participate, is we have been 12 years  
16 formally IHS Market and now S&P Global. We support  
17 over 13 environmental programs across carbon, water,  
18 and biodiversity. We host both compliance programs and  
19 voluntary programs, and new emerging national and sub-  
20 jurisdictional programs. So, we have supported a lot  
21 of countries who have created their first national  
22 REDD+ programs, we created the first NDC national

1 registry, and we are supporting the federal government  
2 of Canada with all their registry systems. So, we have  
3 been in it for a bit of time and have learned a lot in  
4 12 years.

5           What is a registry? I will start with that.  
6 It tracks the lifecycle of an environmental asset. So,  
7 what does that mean and what does it involve? You have  
8 to think that a registry is composed of three  
9 components. One is the technical component, the  
10 technology, embodying the security and the rules of the  
11 program. Of course, that is key.

12           The next part that is key is the terms and  
13 conditions of the registry. How do you operate? What  
14 are the rules of the registry? What are people  
15 recognizing when they put their assets or trade? What  
16 are the conditions of how you are utilizing that  
17 software?

18           The next component is the operations of the  
19 registry. The key component is your know-your-customer  
20 checks. It is very, very important, and there have  
21 been issues early on in the market of the know-your-  
22 customer checks not being done effectively or

1 efficiently. It has to be financial-grade type of  
2 assessment of companies in order to feel comfortable of  
3 knowing your counterparty.

4           What aspects of the registry help support the  
5 trust and building trust and confidence in the market?  
6 Let me take you through a few components. Today, most  
7 of the speakers have talked about transparency. Well,  
8 how do registries provide transparency? Almost all  
9 registries have a public view, and that allows everyone  
10 to go in and look at information on the project. They  
11 are able to see all the documentation of that project.  
12 What is the plan for the project? What are the  
13 different aspects or additional attributes besides  
14 carbon that is listed? So, it is very important to  
15 have that level of transparency for the public.

16           The next component that is really critical is  
17 integrity. How do registries help on integrity? Well,  
18 a few steps. One is project registration. So, every  
19 program that was here today represented has a process  
20 to make sure that one project is registered only once  
21 in their registry, so that they check various aspects  
22 of that project to make sure it has been only

1 registered with them once.

2           Additionally, each registry assigns a serial  
3 number, a number so that you know the singularity of  
4 that credit and you can track that credit through its  
5 lifecycle, from issuance to transfer and to retirement.  
6 That also adds to the integrity. And the first, and as  
7 I mentioned, robust KYCs, know-your-customer checks,  
8 are really critical for integrity.

9           So, registries help people track their  
10 assets. They get to see their whole account and they  
11 get to see all their activity, because reporting and  
12 having information readily available is a key component  
13 of the registry.

14           The final thing, which is looking at all of  
15 my colleagues to my right, is that a registry should  
16 have access for the participants to liquidity, and that  
17 is the API or various types of connections so that it  
18 goes to the exchanges, brokerage firms, clearinghouses,  
19 offering services to OTC transactions to have cash and  
20 position settlement, all critical components.

21           So that is the core component of the  
22 registries. Now one thing I would like to bring up is

1 what is a challenge? What is one of the challenges for  
2 growth in these markets? And it was mentioned earlier  
3 this morning. Double-counting and double-claiming I  
4 think is one of the key components that we have to  
5 solve for going forward.

6           Now we looked at this market, and having been  
7 there 12 years, we looked that we needed to, how do you  
8 know each registry is checking that that project has  
9 only been registered once? But what do you do when you  
10 have quite a few voluntary programs, and a few national  
11 programs starting to issue credits? How do you ensure  
12 that things have not been issued in more than one  
13 program?

14           So, we recently launched Carbon Meta-  
15 Registry, and there could be more coming, and there  
16 also is effort by the World Bank to do something  
17 similar, but more at a data level.

18           One of the things that has to be checked is  
19 that it does not matter what program. A project should  
20 be checked against all other projects, from GPS  
21 location, from KML files, to make sure that someone has  
22 not registered their project in more than one program.

1           The other thing that is really important is  
2 double-claiming and tracking. This morning we talked  
3 about tracking for authorized units based on Article 6,  
4 and also tracking corresponding adjustments. So,  
5 having known this, we have a huge board of advisors of  
6 excellent companies, NGO, observers, the World Bank,  
7 and many participants, we have sub-jurisdictions plus  
8 national programs on our board, advising us the best  
9 way to sort of handle when a project comes in that has  
10 already been registered with somebody else.

11           So, this advisory board is starting to go  
12 through what are the rules that should occur? Okay, it  
13 could be possible that two projects, one a cookstove  
14 and one a REDD+ project, could sit in the same  
15 location, but you couldn't have two REDD+ projects in  
16 the same location, or certain types of methodologies  
17 can impact the output of the amount of crediting for  
18 the other methodology.

19           So, these are things that there are people  
20 looking at it and working to create the rules to  
21 understand that something has not been double-counted.  
22 Really, really important. And when you have that basis



1 you can go further on to look to expanding the  
2 marketplace. We need robust infrastructure and we need  
3 connectivity to exchanges and liquidity providers. We  
4 have worked with clients across the globe, and all of  
5 them want to have safe, secure, trust and confidence,  
6 and they want to have access to liquidity.

7 And that is all I am going to cover right  
8 now. I want my distinguished panelists to go, and then  
9 I am very open for questions later. Thank you.

10 MR. PITT: Thank you so much, Kathy.

11 Now John Melby will speak, the President and  
12 Chief Operating Officer of Xpansiv.

13 MR. MELBY: Thank you, Eric. Thank you,  
14 Chairman Behnam and the Commissioners here. It is a  
15 pleasure to be speaking to you all about the  
16 environmental markets. It is something that we have  
17 spent our whole entire careers, most of us up here,  
18 working on, so it is nice to see it getting to a point  
19 where we are able to have these types of discussions.

20 Just as a way of background, Xpansiv is a  
21 company that is completely focused on ESG-inclusive  
22 commodities, so starting with carbon but water,

1 renewable energy, digital fuels. And what we are is  
2 really a combination of two companies that came  
3 together. One was a spot exchange for these types of  
4 assets and then the second was a market infrastructure  
5 data company. We brought them together to help build  
6 out what we felt is a necessary infrastructure for  
7 these markets to scale.

8           If you think about how we think about  
9 commodity markets evolve, they really have evolved  
10 historically around physical locations. So, you have  
11 Chicago with the railroads. You have the North Sea or  
12 Cushing, Oklahoma, or the pipeline infrastructure comes  
13 together and they become very important parts of those  
14 commodities.

15           In the case of digital commodities, which is  
16 effectively what happens in the registries that Kathy  
17 described, where does that delivery go? So, what we  
18 have aimed to do is to build out that digital  
19 infrastructure that provides the equivalent of that  
20 delivery function in those other commodities.

21           Just as a quick picture here of how we see  
22 the market coming together, and it is how we have

1 operated our business, what Kathy described on the  
2 carbon offset registry structure is on the left side of  
3 that diagram. It also includes the standards that were  
4 talked about. The first panel, I think, did a very  
5 good job describing how those standards have come  
6 together and what they do. The registries are the  
7 infrastructure by which they sit on. And then on the  
8 far-right side is where most of the other folks here on  
9 the panel are, is the derivatives exchanges, the  
10 professional brokerages. There are also price  
11 reporting agencies and all those other types of assets,  
12 market participants.

13           What we do is we sit in the middle. We have  
14 a portfolio management tool that connects into the  
15 leading registry systems across the globe, and that  
16 then connects into a spot exchange that we operate, and  
17 that spot exchange then creates a set of products to  
18 trade, and then we provide market data out to the  
19 marketplace as well as to the various entities on the  
20 far right there.

21           These markets have begun to scale in a very  
22 meaningful way. So as kind of a sense of context, I

1 want to make sure people are aware that these are  
2 markets that have grown and they continue to grow. We  
3 had almost 600 million carbon offsets transferred  
4 through our system, meaning connecting the various  
5 registries last year. So, there is a significant  
6 amount of activity, and that is up massively from  
7 before. And on the spot exchange we see that 122  
8 million offsets traded on screen last year. So, these  
9 are numbers that are growing quite rapidly.

10           And then we saw the development of the  
11 external parts of the market. So just kind of a quick  
12 view of how we see the markets grow, what has happened  
13 is in the early days of these carbon markets every  
14 offset was unique and traded in a unique way. So  
15 basically, you had bespoke products. So, you would  
16 have to look at what a vintage was. Was it verified by  
17 Verra? Was it verified by ACR or Gold Standard? Is it  
18 located in a certain location? And so, everything  
19 traded as a bespoke product in the marketplace and that  
20 is very difficult to scale, which created a problem for  
21 project developers who were looking to get financing,  
22 and then ultimately to create out a forward curve for

1 transactions and then ultimately to derivatives.

2           As was talked about in the panel before, the  
3 development of CORSIA, Xpansiv worked very closely with  
4 a number of airlines during the CORSIA process and has  
5 worked with the International Airline Transportation  
6 Association to develop a co-branded exchange on that  
7 for the airlines. And in doing so we realized that  
8 there was the need for a set of products that people  
9 could transaction, that they could have confidence in  
10 what they were buying and selling, but yet to group  
11 them into some kind of standardized product.

12           So, we developed the Global Emission Offset,  
13 which is referred to as a GEO, which is the first  
14 standardized contract that grouped a number of offset  
15 types together in the marketplace. So effectively what  
16 that is, is it creates a product where the seller has  
17 to deliver an offset, so physically deliver an offset  
18 via the registry, to the buyer, that meets the criteria  
19 of that program. And in the case of the GEO, it  
20 mirrors very closely to the CORSIA program. It is a  
21 little bit narrower in scope.

22           And then that started developing and began to

1 trade meaningfully, and you can see the volumes as they  
2 started to improve. And then CME Group, who is on the  
3 panel here, developed a futures contract on top of  
4 that, and that certainly helped accelerate and bring  
5 focus into the marketplace.

6           And then on the back of that, one of the  
7 conversations that was said in the very beginning is  
8 the nature-based products versus technology-based  
9 products. We developed the N-GEO product, which is a  
10 nature-based global emission offset, and that began to  
11 trade, and is actually the most commonly traded  
12 standardized contract in the carbon offset space.

13           So, these markets have continued to grow  
14 rapidly. I think all of the folks on the panel would  
15 say the same thing. But part of what is happening is  
16 we collectively are bringing the market infrastructure  
17 that we would know from other commodities, be it  
18 energy, agriculture, and the like, and helping scale  
19 those markets, and that is what we aim to do and think  
20 that those are important tools to bring to bear.

21           I am happy to talk about it or answer any  
22 questions later. Thank you.

1           MR. PITT: Thank you very much, John.

2           Next up is Dan Scarbrough, Co-Founder,  
3 President, and COO of IncubEx.

4           MR. SCARBROUGH: Thank you to Chairman Behnam  
5 and to the Commission, first and foremost, for putting  
6 this event together, on a topic that has been very  
7 close to me for quite some time, virtually my whole  
8 career. And I am really happy to be participating  
9 today. Thank you for the invitation.

10           Regulated exchanges have been performing a  
11 very key role in environmental markets now for nearly  
12 20 years, dating back to the first such exchange, the  
13 Chicago Climate Futures Exchange, which I was fortunate  
14 to be a part of in 2004, launching the SO2 futures  
15 contracts, NOX, compliance carbon in the case of the  
16 Regional Greenhouse Gas Initiative, and furthermore,  
17 voluntary carbon futures as far back as 2008. So, this  
18 is a topic that has been around for quite some time.

19           I will try to keep my remarks brief, just so  
20 that there is time for questions and answers. I am  
21 happy to field any questions.

22           Quickly on IncubEx, we are a specialist

1 environmental product developer that was founded in  
2 2016. Primarily our management team comes from Climate  
3 Exchange, Intercontinental Exchange, after the  
4 acquisition in 2010. We have been around in  
5 environmental markets. Some of our colleagues, Dr.  
6 Michael Walsh, Nathan Clark, were some of the real  
7 pioneers, I think, in the voluntary carbon market going  
8 back to Chicago Climate Exchange in the late 1990s,  
9 early 2000s.

10           IncubEx primarily is a partnership model.  
11 So, we have a partnership with leading exchanges,  
12 technology companies, really focused on innovation,  
13 product development. We partnered with the EEX Group  
14 in 2017. That was also the year they acquired U.S.-  
15 based DCM and Nodal Exchange. And we have been in  
16 partnership with Nodal and EEX since 2017, helping them  
17 launch really the broadest set of environmental  
18 contracts on any exchange in that period of time.

19           We also announced a technology partnership  
20 with Trayport in November of last year to create what  
21 we call the Voluntary Climate Marketplace, which is an  
22 OTC, bilateral platform for voluntary carbon offsets.



1           A couple of quick observations and remarks on  
2 voluntary carbon. Voluntary carbon markets have been  
3 around for 30-plus years. In many ways they have  
4 evolved in that period of time, primarily on the back  
5 of technology companies and registries, really  
6 innovating and continuing to provide some of the  
7 valuable services that Kathy had mentioned. Just from  
8 my perspective, the way that I look at security and  
9 kind of validation in the voluntary carbon market, I  
10 would look at it much in the same way that you look at  
11 IT security, that a layered approach is necessary,  
12 having KYC performed at the registries in addition to  
13 layered KYC at either trading platforms, regulated  
14 exchanges. The normal KYC that companies would go  
15 through to trade futures contracts on any regulated  
16 exchange really helps provide some of that layered  
17 approach. So, you have the registries, you have  
18 exchanges really providing a lot of that really  
19 additional security in the marketplace.

20           Common attributes, I think a lot of the  
21 participants have really spoke to carbon offsets, the  
22 robust third-party verification of these products. I

1 think it is less about is this a valid offset.  
2 Invalidation is very rare in the voluntary offset  
3 markets. However, in the eyes of a buyer who is buying  
4 a voluntary offset, it is very much a matter of "in the  
5 eye of the beholder," is what I like to say. You know,  
6 everyone has a different opinion on things like  
7 additionality, things like permanence. There are a  
8 number of offset protocols. If you look at the  
9 registries I think it is a testament to the number,  
10 really, in the cycle of protocols that these things  
11 have gone through version 1 through many, many versions  
12 of protocols that have advanced over the years, based  
13 on the science, based on new information, and a lot of  
14 the registries, I think, have aligned on many of those  
15 things.

16           There really is, for all intents and  
17 purposes, from a market perspective, no such thing as a  
18 good offset. That is really up to the opinion of the  
19 buyers. And again, that is not speaking to the  
20 validity of the issued credit. These are tracked.  
21 There are measures in place to account for double-  
22 counting.

1           But what I think we have started to see, and  
2 I think John alluded to as well, are really some of the  
3 compliance markets also providing some guidance on what  
4 constitutes a good offset. So, CORSIA is a good  
5 example of the aviation industry has a program coming  
6 online that, for all intents and purposes, is a  
7 compliance market for the aviation industry, and now is  
8 in a pre-compliance phase that much of the broader  
9 voluntary market is now pointing to CORSIA as a  
10 standard.

11           You look at things like the California Cap-  
12 and-Trade program under AB 32. You have offsets that  
13 are usable for a portion of the compliance in AB 32,  
14 and only a subset of offsets -- certain project types  
15 within the Climate Action Reserve. There is a process  
16 to take a Climate Action Reserve offset and have that  
17 certified as a CCO effectively, or a California  
18 Compliance Offset.

19           Just a quick note on Chicago Climate  
20 Exchange, just as an example of the voluntary carbon  
21 market existing for many years. From 2003 to 2010,  
22 this was really a compliance market, for all intents

1 and purposes, where companies were taking a voluntary  
2 but legally binding commitment to reduce their  
3 greenhouse gas emissions ahead of any Federal mandate  
4 to do so. But at the peak of the program you had over  
5 400 members, approaching 500 members, that really took  
6 a voluntary but legally binding commitment to reduce  
7 emissions. Significant traded volume. As you can see,  
8 150 million tons were traded in the spot market, and  
9 again, this is back in 2003 to 2010 time-frame, with a  
10 weighted average price in the market of \$3.26.

11           So as an example, companies trying to really  
12 reach a consensus, very significant stakeholder  
13 engagement, with scientific community, with government  
14 agencies that were involved in kind of setting this  
15 program, and people getting around the table and  
16 agreeing on some of these standards. Again, it is an  
17 example of voluntary carbon markets kind of forming a  
18 consensus many years ago.

19           This slide really is speaking to what I would  
20 call kind of the evolution of the voluntary carbon  
21 markets. Still, to this day, much of the activity is  
22 predicated on a very project-specific level. So, you

1 will have a buyer of an offset that is looking for, in  
2 some cases, the individual project ID number. They  
3 want a specific project, a certain developer, a certain  
4 verifier, a certain registry, a certain vintage, and  
5 there are marketplaces that are developed to really  
6 facilitate that, as John alluded to, the expansive  
7 marketplace, CBL markets, as well as what we formed  
8 with Trayport in the Voluntary Climate Marketplace.

9           This is really part of the infrastructure  
10 complementing some of the things Kathy was speaking to  
11 on the registry side, whereby now you are starting to  
12 see some standardized products develop. I think, at  
13 least from my perspective, what these standardized  
14 products are starting to represent are baskets or  
15 portfolios of offsets that point to certain standards  
16 or sub-standards in the market, something like CORSIA  
17 as an aviation industry offsetting contract. That is a  
18 standardized product that can be traded in the over-  
19 the-counter market, can be traded on OTC platforms, can  
20 be traded now on futures exchanges as well. And then  
21 ultimately, over time, global standards, global  
22 benchmarks that will emerge as well.

1           I think with respect to compliance markets we  
2   are a lot closer to that, in the case of the EU ETS,  
3   California Cap-and-Trade markets, the Regional  
4   Greenhouse Gas Initiative that have all been around for  
5   10 to 15 years and advanced in that period of time. In  
6   the case of voluntary carbon, we are kind of  
7   undertaking that step in the evolutionary process right  
8   now.

9           I touched on the Voluntary Climate  
10   Marketplace. This is really an over-the-counter,  
11   bilateral market, a platform developed with Trayport,  
12   which we think will bring best-in-class market access,  
13   transparency, in a very neutral trading platform that  
14   will be open to the community of energy traders on the  
15   Trayport system, which is over 6,000 traders at the  
16   moment. So, this is a piece in that first kind of  
17   piece of the evolutionary cycle of the voluntary offset  
18   market.

19           MR. PITT: You have one minute please, Dan.

20           MR. SCARBROUGH: Just quickly, rounding out,  
21   going to the futures side of the business and some of  
22   these standards that are starting to develop, in

1 partnership with Nodal Exchange we are in the process  
2 of launching some contracts that serve a subset of the  
3 voluntary carbon markets. Some of these are CORSIA-  
4 related futures contracts, nature-based contracts, the  
5 certified emission reduction market, which had been  
6 listed as futures on many other exchanges throughout  
7 time as well. But really to provide a portfolio  
8 approach to try to bring some of this fragmented,  
9 opaque pricing into a regulated setting, bringing that  
10 best-in-class market infrastructure to a broader set of  
11 the voluntary carbon market. So, this is a very near-  
12 term launch that is planned for later in June.

13           These are some of the specific contracts,  
14 building on the existing contracts that you see there,  
15 the California compliance offsets, both the CCO-8 and  
16 CCO-0, and then some of the new contracts that are  
17 planned for launch later this month.

18           This is really just illustrating the growth  
19 of environmental open interests, just on Nodal  
20 Exchange, generally, but I think if you looked across  
21 all the exchanges you would see a similar chart where  
22 open interests now approaching 3 million contracts

1 across global environmental contracts at ICE, EEX  
2 Group, CME Group, some of the major exchanges. So that  
3 is really a testament to that 20-year history of the  
4 markets. Thank you.

5 MR. PITT: Thank you very much, Dan.

6 Our next speaker will be John Frederick,  
7 Chief Financial Officer of Indigo Agriculture.

8 And if I could ask the remaining panelists to  
9 try to stick to about five minutes, just so we have  
10 some time for questions. Thank you very much.

11 MR. FREDERICK: Sure. Thank you. Good  
12 afternoon. I'm John Frederick, Chief Financial Officer  
13 of Indigo Agriculture. It is a pleasure to be here  
14 with you today. I would like to thank Chairman Rostin  
15 and the Commissioners for inviting us. We are very  
16 excited to participate today.

17 I am not here today to argue the importance  
18 of addressing climate change at this point. The 2022  
19 IPCC report really lays that out much better than I  
20 could, and the risks are becoming increasingly more  
21 complex and difficult to manage and really compounding  
22 the overall risks to us and the planet.



1           But while climate outlook seems difficult at  
2 best, I am convinced that the commodities markets and  
3 the CFTC has an important positive role in slowing and  
4 reducing greenhouse gasses. And that really comes from  
5 us doing what we do best -- innovating and holding each  
6 other accountable.

7           And I would really like to thank again, and  
8 why I'm so grateful for the opportunity to speak with  
9 you and to really be with these distinguished panel  
10 members today, I think it really brings to the fore  
11 what we can do as a financial market to really catalyze  
12 the reduction of greenhouse gasses.

13           Indigo, as we sit here today, is really on  
14 the eve of issuing our first vintage of carbon credits  
15 later this month. These credits are measured and  
16 reported and verified by Indigo, audited by third  
17 parties using Climate Action Reserve's Soil Enrichment  
18 Protocol, a 141-page, scientifically reviewed and  
19 validated protocol. This protocol, along with a  
20 similar protocol from Verra, really provides that  
21 rigor, that quality that is necessary around  
22 measurement, reporting, and verification of carbon

1 credits, which are produced in tandem with that set of  
2 physical commodities.

3           The science is robust and the math behind  
4 these measurements are complex, for certain, but it is  
5 really necessary to accurately, at scale, measure and  
6 account for sequestered carbon to ensure these actions  
7 are real, measurable, verified, additional, permanent,  
8 and unambiguously owned. Certainly, you heard my  
9 distinguished panel member, Kathy, mention really  
10 wanting to get at that heart of not getting any double-  
11 counting into the market and really holding ourselves  
12 accountable for that high-quality standard.

13           We really believe that in order to ensure the  
14 confidence of buyers of these credits, the agriculture-  
15 based credits in the market, and make sure that they  
16 can feel comfortable and confident when they report  
17 their plans to reduce their carbon footprints to the  
18 SEC, that that high-quality standard really needs to be  
19 adhered to.

20           These data assets, these credits, really  
21 reflect sustainable agriculture practices like nutrient  
22 management, limited no-till and cover crop practices.

1 It is powered by nature, more specifically  
2 photosynthesis, arguably one of the most scalable  
3 processes for removing carbon dioxide from the  
4 atmosphere and sequestering it in the ground.

5           To frame this opportunity that faces us,  
6 think for a moment about an aerial view of farmland.  
7 You know, conventional farming can really leave the  
8 soil without crop cover. It can be distributed through  
9 traditional tillage, allowing for the release of  
10 greenhouse gasses through normal microbial and chemical  
11 actions in the soil. In fact, the USDA was quoted as  
12 saying that U.S. falls and winters, according to them,  
13 the soil through the fall and winter is really bare and  
14 mostly brown during those time frames. So, if you  
15 really think about the opportunity that we have, it is  
16 really about taking that brown and turning it green.  
17 It is about turning it green with vegetation that can  
18 unlock nature's natural carbon removal technology,  
19 photosynthesis.

20           But as we all know, farming practices aren't  
21 free. Cover crops cost money, the equipment to do it  
22 costs money, and the farmer is already economically

1 under pressure. They are under pressure from dramatic  
2 increases in key input costs, notwithstanding the  
3 commodity price increases that we have seen. So, this  
4 industry, this agricultural industry, really needs an  
5 economic stimulant to catalyze action to support  
6 environmental sustainability.

7           This is where we all come into the picture,  
8 and this is where we become part of the solution.  
9 Demand for high-quality agricultural credits is  
10 considerable, and currently materially exceeding  
11 supply. Indigo is partnering with some of the largest  
12 agricultural input providers, equipment manufacturers,  
13 cooperatives, data aggregators to try to catalyze and  
14 build this supply by helping farmers increase their  
15 profitability through sustainable farming practices.  
16 So, think about this in terms of catalytic finance.

17           We then convert their data from these  
18 practices to carbon and other ecosystem credits which  
19 we monetize for them, giving them the predominant  
20 amount of proceeds from these credit sales. We sell  
21 these credits directly to companies that wish to offset  
22 their remaining footprint, after reducing as much as

1 they can through reductions in their practices, through  
2 improved carbon practices, and those companies then  
3 retire those credits through the registries.

4           So really, to ensure that these credits have  
5 demonstrable value and really to ensure the integrity  
6 of the market, rigorous carbon measurement standards, I  
7 think we have been talking a great deal about those  
8 standards and how these protocols need to be rigorous.  
9 That really needs to be our focus. We need to work  
10 together, in unison, carbon credit issuers and  
11 originators, trading platforms, standard-setting  
12 bodies, and regulators alike, to accomplish this  
13 important goal of addressing climate change.

14           So, I would like to say thank you again and I  
15 look forward to a great conversation.

16           MR. PITT: John, thank you.

17           Our next speaker is Evan Ard, CEO of  
18 Evolution Markets.

19           MR. ARD: Great. Thank you, Eric. I  
20 appreciate this. Thank you to the Chairman and the  
21 Commissioners for convening today. It is a very  
22 important issue, close to the hearts of everyone here.

1           Just quickly, Evolution Markets, we are a  
2 futures and swaps introductory broker regulated by the  
3 NFA here in the States, as well as the FCA, Financial  
4 Conduct Authority, in the U.K. We also have a Net Zero  
5 Solutions Group, which effectively works with  
6 corporates to identify what their carbon footprint is  
7 and help them on their journey to net zero, including  
8 ultimately taking action, which could be reducing their  
9 own internal missions or buying offsets, purchasing  
10 renewable energy, things of that sort. It gives us a  
11 broad view of the sustainability space and a particular  
12 broad view of how we look at the voluntary carbon  
13 markets, both from a markets perspective, where are  
14 brokers are facilitating trades every day, we well as  
15 from on the corporate side, and what corporates need  
16 and want in order to meet their sustainability  
17 objectives, and from the side of the producers, the  
18 project developers, and what it takes for them to work  
19 through the process to generate the supply of credits  
20 that is necessary to meet that corporate demand.

21           I think it is important, when we talk about  
22 the role of the markets, to give an idea of the scale

1 and the necessity for the market today. In order to  
2 meet the target of increasing the global temperature of  
3 just 1.5 degrees Celsius, we need to get to a net zero  
4 economy by 2050, and obviously we need to cut our  
5 emissions in half by 2030. That is not that far off.  
6 We are talking 25 billion tons need to get reduced,  
7 certainly through efficiency, through the energy  
8 transition, through decarbonization of the economy, and  
9 as some of the panelists earlier today have mentioned,  
10 offsets should come last, but they are an essential  
11 part, nonetheless.

12           We think there is going to be 15, 20 percent  
13 of that 2030 target will come from offsets. We are  
14 talking 5 billion tons. That is a 15x size of the  
15 market. That is a massive amount of capital that needs  
16 to get allocated to these markets over the next, less  
17 than a decade. So, the markets are going to play an  
18 essential role in not only mobilizing that capital but  
19 also providing the necessary risk management for that  
20 capital to be able to be mobilized, and that is  
21 essentially the nexus of where we come together today.  
22 And you see it on this panel, between the OTC

1 marketplaces and the exchanges to my right, and as a  
2 broker we play in the middle of both of those.

3           So just to give you some perspective on how  
4 important we think the OTC market is, because I know my  
5 exchange colleagues will discuss the role of the  
6 exchanges here in the voluntary market, the carbon  
7 market is truly an incubator. The ideas for how these  
8 products come together typically start among the  
9 initial players who are working on finding solutions,  
10 mobilizing capital, and a couple of the panelists  
11 before me described some progression from products that  
12 have made their way to the futures market, including  
13 the GEO and NGO futures, which are listed at CME, and  
14 the MBT future at ICE, as well.

15           The OTC markets also play an important role  
16 in innovation and risk management. Much of the risk  
17 management that we see today in traditional commodity  
18 markets -- energy and other more established  
19 environmental commodity markets -- start at OTC. We  
20 are able to establish liquidity. We are able to put  
21 together structures that met the market needs, and  
22 ultimately progress their way onto the exchange where



1 it was necessary for the true liquidity to be mobilized  
2 in order to provide the risk management solutions that  
3 the market needs.

4           In that context, the CFTC is going to play a  
5 very important role going forward, as the regulator of  
6 these markets, in ensuring that there is proper  
7 oversight and that they operate well, and that there is  
8 confidence in these markets. So ultimately the way to  
9 mobilize capital is to ensure that those who are going  
10 to be bringing this massive amount, perhaps trillions  
11 of dollars of capital to the voluntary carbon markets,  
12 or carbon offset markets in general, I should say, that  
13 there is a way for them to mitigate the risk that they  
14 see inherent in doing the primary financing of these  
15 transactions. That is where the exchanges and the  
16 futures contracts come in, and forward contracts, and  
17 certainly that is the important role that the CFTC will  
18 be playing. Now, with its current contracts, it is  
19 certainly going forward as additional contracts are  
20 created and migrating.

21           And with that I will turn it over to the rest  
22 of my colleagues. Thank you.

1           MR. PITT: Thanks so much for those remarks,  
2   Evan.

3           Our next speaker is Mike Kierstead, Head of  
4   Environmental Products at ICE.

5           MR. KIERSTEAD: Thank you, Eric.  
6   Commissioners, Chairman, thank you very much for having  
7   us here today. It is great to have a seat at the  
8   table. I do believe these carbon markets are going to  
9   continue to grow, so these types of conversations are  
10  very important to have on an ongoing basis, so I  
11  appreciate that.

12           So, I thought I would talk about the agenda  
13  and the objectives for my bit here today. Obviously,  
14  what is the science behind net zero, the global carbon  
15  budget, and how the carbon cycle can add or remove from  
16  that budget; how environmental markets, explicitly  
17  environmental commodities work to be able to price that  
18  and reconcile the science; and then what role do  
19  project-based credits play. And the asterisk is there  
20  because we need to be careful with the word  
21  "voluntary," which I will get into in a few moments'  
22  time.

1           So, whether you call it net zero,  
2 sustainability, energy transition, or ESG, what is  
3 important is going back to the first principles, which  
4 is the science. And if the mitigation pathway is to  
5 1.5 degrees, then that is the budget. That is the  
6 carbon budget that we have to work with. So as  
7 greenhouse gasses are emitted and go into the  
8 atmosphere, we need to find ways to pull it out so we  
9 truly get to a flat, net zero position, and that is  
10 where the carbon cycle comes into play, and the  
11 associated futures products with it.

12           A good example of carbon going into the  
13 atmosphere is through transportation or electricity  
14 generation, that CO2 being emitted into the atmosphere.  
15 It is also known as a negative externality, which ICE  
16 prices through mandated cap-and-trade carbon allowance  
17 products. Then there is the other side, which are  
18 positive externalities, which is a nature-based credit,  
19 for example, which is pulling carbon out of the  
20 atmosphere, or renewable energy credits, which are  
21 effectively carbon neutral in that they don't emit any  
22 CO2.

1           ICE prices all these contracts through  
2 futures, and you can see across the bottom banner there  
3 how we do that. So again, carbon allowances would be  
4 representative of a negative externality, how we price  
5 that. Nature-based solution and renewable energy  
6 credits are example of positive externalities.

7           So, project-based credits and the asterisk.  
8 We need to be careful when we talk about calling it a  
9 voluntary carbon credit because if you set a mandate to  
10 your constituents, to your shareholders and  
11 stakeholders to become net zero, to be sustainable,  
12 that is not voluntary anymore. So, it is very  
13 important to keep that commitment that we realize that  
14 not only are these products important but it is  
15 becoming more of a mandate. If you have made that  
16 agreement to your shareholders then it is something  
17 that you stick to.

18           The taxonomy of where we list the futures  
19 credits, obviously nature-based reduction and removal  
20 versus tech-based reduction and removal, the ICE  
21 nature-based carbon credit future is in the nature  
22 space to begin with, and largely because the

1 technology-based removals, today there is a very  
2 limited supply of those physical credits available to  
3 deliver into a physical futures market.

4           Some of the headwinds that we see in this  
5 space, which is to the right on my slide, so supply  
6 sits with the numerous standards and methodologies,  
7 whether that is registries or standardizations. The  
8 issue there is that because there are so many  
9 registries there is no standardization. It is  
10 important that as these markets scale, these standards,  
11 registries, methodologies become one.

12           On the monitoring, reporting, and  
13 verification, precision, you think of a renewable  
14 energy credit, the megawatt hour is generated and  
15 minted at the wind farm, at the solar facility, where  
16 here there is verification, there is a long lead time,  
17 there is a process to get that supply to the market.  
18 And continuing with the bottlenecks, manufacturing of a  
19 carbon credit. RECs, for example, are minted on a  
20 monthly or quarterly basis, where soup-to-nuts for a  
21 carbon offset product can take a while.

22           Standards and registries, market governance,

1 and cybersecurity, obviously very important. What we  
2 would like to see is that as these markets become more  
3 of a financial asset that they are treated as such as  
4 far as security and regulation goes.

5           Last, I want to give a quick buy-side example  
6 on who, how, what, and when, using a compliance, cap-  
7 and-trade program and how precise that is. So, who?  
8 It is a polluter-pay model. It clearly identifies who  
9 owns the ton. How? It defines how to calculate,  
10 report, and verify that liability. What? It tells you  
11 how to compensate, by buying a permit to pollute and  
12 retiring that. And then when? It tells you when to  
13 retire your permits by, whether it is an annual or tri-  
14 annual basis.

15           All of these building blocks are currently  
16 not inexistent in this space, so it is very important  
17 that as we standardize and as this market scales, that  
18 we take into consideration lessons learned from the  
19 existing mandated cap-and-trade programs.

20           So, with that thank you very much, and I will  
21 pass it on.

22           MR. PITT: Thank you so much, Mike.

1                   And our final speaker is Pete Keavey,  
2   Managing Director of Energy and Environmental Products  
3   at the CME Group.

4                   MR. KEAVEY:   Good afternoon.   Thank you for  
5   the opportunity to present today.

6                   So, in the interest of time and the topic I  
7   will limit my presentation to the voluntary carbon  
8   market topic for today.   So, what are our futures  
9   contracts?   What do they cover?   I love Venn diagrams,  
10   so here is a Venn that shows you basically what the  
11   similarities and differences are between the three  
12   futures contracts that we have listed.   I won't go into  
13   all the attributes, but there are general similarities  
14   between the structure of the futures contracts, whether  
15   it be on vintage years, registries, what type of  
16   projects, or in or out of those futures contracts.

17                  And in the materials you can just see what  
18   the differences and similarities are, but right in the  
19   middle there are a few things:   standardized contract  
20   size, the delivery mechanism, and the settlement  
21   through CBL Markets, who is our delivery agent and spot  
22   market on this set of futures products.

1           And the registries vary between the futures  
2 contracts. The most popular is our nature-based  
3 contract, which we have, I think, discussed at length  
4 here today, and that is all delivered into the Verra  
5 registry, which you heard from earlier on the panels.

6           So, just a little more data and detail on the  
7 variety of the different contracts. We don't have  
8 enough time to really run through all of the  
9 intricacies of how the contracts work, but they are  
10 listed as standard futures contracts that work very  
11 similar to the commodity products that we are all used  
12 to operating under as a regulated marketplace.

13           Here are some stats which you can look over  
14 at your leisure. I have the May 30th stats today. I  
15 want to give like an idea of what the scope of the  
16 market is. To date -- this is since we launched our  
17 first contract just over a year ago -- we have had  
18 111,000 contracts traded. That is about 111 million  
19 credits. We have 22,000 roughly open interest between  
20 the three contracts. That is 20 million credits in  
21 open interest. The majority of those sit in the  
22 nature-based contract. About 19,000 of those contracts



1 today sit in the nature-based, which has proven to be  
2 the most popular and most liquid contract there today.

3           We have about 80 firms participating, or have  
4 participated in this contract to date, so it is  
5 relatively broad constituents that are interested. We  
6 have had 12 successful delivery cycles, and with that  
7 we have had over a dozen of our FCMs participating in  
8 those deliveries. So, it is operating very well under  
9 our regulated structure today as a futures market, with  
10 broad acceptance and participation across our customer  
11 groups.

12           Everyone has alluded to the rapid growth of  
13 the market, and I just read off our most recent stats,  
14 but this chart just shows since the launch it has been  
15 a fairly steep rise in activity and in growth and in  
16 open interest. Basically, why has this happened? The  
17 feedback that we have received from our customer base  
18 is that the exchange role is welcome because it adds  
19 the three things that every traded commodity market  
20 needs, which is liquidity, transparency, and price  
21 discovery into the future. So, a forward curve is  
22 vital. And also, the customer intermediation and the

1 credit intermediation aspect of a regulated exchange  
2 has been welcomed in getting this market to grow from a  
3 very fragmented spot market into a much more  
4 centralized, easy-to-value, easy-to-observe futures  
5 market.

6           So just a few on pricing. We haven't spoken  
7 too much about pricing here today so I just wanted to  
8 show the charts and give you a feel for the different  
9 products. The CORSIA product is the first one that we  
10 launched. That is our GEO contract. We spoke at  
11 length about that earlier today. It was the most  
12 forward-looking organization that basically laid down  
13 the initial standards that were widely accepted by the  
14 market. There was a period of price increase but you  
15 can see it there. It has not been a parabolic rise.  
16 It has been a relatively stable price environment for  
17 all of these products.

18           The light blue on top is the nature-based  
19 products, and then the other two are the technology-  
20 based, CORSIA, and core GEO products.

21           And that is really all I had. I just wanted  
22 to give everyone sort of a feel for how big the futures

1 market is and put some actual numbers, 20 million  
2 credits of open interest and 110 million of volume  
3 since we have launched, and get a feel for how big the  
4 futures market is relative to some of the explanations  
5 of the size of the market today. Thank you.

6 MR. PITT: Thanks so much, Pete. I am going  
7 to kick it off with a question for the panelists and  
8 then we will turn to the audience.

9 What is the role of speculation in this  
10 market or other financial players who are not  
11 themselves project developers or companies looking to  
12 retire these credits, and has there been an evolution  
13 recently in terms of the types of market participants  
14 that you all are seeing? And for those financial  
15 market participants, is that largely in sort of  
16 intermediating and sort of like quicker holds type of  
17 activity or is that a long-term view of people building  
18 up an inventory, you know, a buy-and-hold type of  
19 program? So, whoever would like to take that.

20 MR. ARD: Eric, maybe I can start. You know,  
21 spanning both the exchanges and the OTC market I think  
22 we have a pretty fair sense of who the different

1 counterparties are. There is a fair amount of what you  
2 might call speculative interest, or financial interest  
3 is probably the better way to put it, I think the way  
4 the market sits now. A lot of those early players who  
5 some of them, to be sure, are taking on their own  
6 climate targets and they are using their own offsets  
7 that they are creating, but they are creating much more  
8 than they actually need, or that their customers need,  
9 or their supply chains need, and therefore playing an  
10 important part of mobilizing capital towards developing  
11 new projects that can be available for the corporates  
12 that are out there.

13           They have expertise left over from the  
14 previous carbon market under the Clean Development  
15 Mechanism that they are leveraging today. In some  
16 cases they have actual projects that they have kept  
17 going in the interim period between Carbon 1.0 and  
18 where we are, Carbon 2.0. But the most important thing  
19 that they do now is they provide that liquidity, they  
20 are a warehouse of these credits, and they also can  
21 provide an important innovation in terms of the  
22 products that are created, in terms of buying and

1 selling of the credits themselves as well as bringing  
2 capital into new projects. So that is the role that we  
3 see today.

4 MR. PITT: Does anybody have a different  
5 perspective?

6 MR. KIERSTEAD: I would just add to the  
7 liquidity standpoint, where to bridge the gap between a  
8 bid and an offer, and, you know, Pete mentioned, as one  
9 of the three pillars of an exchange is liquidity.  
10 Financial intermediators do need to be in that space to  
11 provide that liquidity, and really offer the ability to  
12 scale the market.

13 MR. PITT: Great. Thanks so much. Are there  
14 questions from the audience, from the room? Tyson?

15 MR. SLOCUM: Thank you very much, and again,  
16 really interesting panel.

17 So, my question is about the products that  
18 are offered in the futures market. It is my  
19 understanding that the exchanges rely upon the  
20 registries for offset verification, and then the  
21 registries have these protocols, some of which are  
22 scientifically peer-reviewed, as you have said, to

1 ensure that the procedures for the offset are sound.

2           Where does enforcement of those protocols fit  
3 in with that? So, who is making sure that the forest  
4 manager or the farmer or the renewable project  
5 developer is doing what they said they would do in the  
6 proposal?

7           MR. FREDERICK: If it is okay I will go ahead  
8 and take that first. I think from our perspective we  
9 see third parties working with the registries and  
10 working with the project developers in really kind of  
11 an audit fashion. As a company and as an issuer of  
12 these credits, we also have a responsibility for  
13 permanence and continued monitoring. So, for us it is  
14 really an ongoing, 100-year obligation to continue to  
15 track and make sure that those practices continue, at  
16 least in an agricultural context. So, it is really the  
17 audit function that is associated with the registry by  
18 the third party who is doing it on behalf of the  
19 registry, would be our point of view.

20           MR. PITT: Anybody else on that?

21           MR. SCARBROUGH: Yeah, just quickly to add to  
22 that. I think, as I mentioned before, I think the

1   layered approach to security and integrity in the  
2   market is key, and third-party verification has been  
3   something that has been a part of the voluntary carbon  
4   market for quite some time. These verifiers are  
5   working in accordance with the rules and principles,  
6   the protocols that have been developed by the  
7   registries. But these are independent verification  
8   companies that are going about and doing this  
9   verification.

10           So, you know, I think that separation of  
11   duty, kind of having multiple stakeholders involved in  
12   that process and the creation of offsets is key.

13           MR. MELBY: If I could add, as well, there  
14   are a lot of standards out there, as people said  
15   before, but these products are trading on the standards  
16   that are seen to be of the highest quality, so the  
17   market really does care. So, if someone goes in and  
18   buys a product to offset their emissions, they want to  
19   make sure that they are buying something that is going  
20   to stand up.

21           You have Verra, ACR, Climate Action Reserve -  
22   - they were on earlier today -- that have spent a

1 decade or more building up integrity trust systems.  
2 Then you have the registry providers -- S&P, APX --  
3 that also do KYC, all the processes that help create  
4 that robust infrastructure, and then the futures  
5 exchanges and other entities to have infrastructure  
6 they are required. Ultimately, these are products that  
7 are being bought for a purpose to address an  
8 environmental problem, and any company that is going  
9 out and spending money to do that wants to make sure  
10 that what they buy is going to be trusted.

11           So, what you will see is the market values,  
12 and you can see the pricing shows this too, values,  
13 those higher-quality offset providers or those that  
14 have a reputation of being very, very rigid. So that  
15 is a key component of how these markets evolved.

16           MS. BENINI: And just to add, just for  
17 clarification of terminology, the group that spoke this  
18 morning are the standards bodies. They set the  
19 methodology with stakeholder engagement. They set the  
20 protocols. The registry infrastructure can either be  
21 run by these standards or they could be provided by a  
22 third-party provider, like we do.



1                   So, we agree protocols with the standards  
2   body to double-check, but the setting of the protocols  
3   and the methodologies are the standards bodies, and  
4   then the registry administration component might be  
5   validating that all the documentation has come in as  
6   expected, that there is an independent verification  
7   report before issuance, you know, there is a process  
8   and a checklist to make sure everything is there before  
9   you issue a credit. So just for clarification.

10                  MR. PITT: Nat, did you have a question?

11                  DR. KEOHANE: Yeah. Thanks very much. I  
12   just wanted to pick up on one of the themes that I  
13   think we heard from the morning panels. I think we  
14   heard a number of folks in each panel talking about the  
15   existence of some confusion or uneven quality now in  
16   the marketplace and the value of having standardization  
17   or harmonization around quality, to build on what the  
18   standards organizations are doing but also to maybe  
19   create some greater clarity in that. We heard that on  
20   the voluntary side, the Integrity Council, and we heard  
21   some discussion of that in the second panel as well.

22                  And I am just curious for thoughts from this

1 panel. I heard a few different things. I heard some  
2 of you talking about the importance of quality in the  
3 marketplace, and I hear others saying it is all in the  
4 eye of the beholder, and so there is a variety of that.  
5 I'm curious about whether there is a need for greater  
6 consistency or harmonization around quality and what  
7 the impact would be, perhaps on liquidity and the  
8 volumes in the marketplaces that you all oversee.  
9 Thanks.

10 MR. MELBY: I'm happy to take a stab at that.  
11 CORSIA was an example that was brought up earlier,  
12 helped organize buying, made it easier for companies to  
13 decide what they should buy. As I described earlier,  
14 when I presented in the beginning opening remarks the  
15 way the voluntary carbon market has traded historically  
16 is a single project-by-project basis. So, you can  
17 imagine if you are a corporation and you are trying to  
18 meet your commitment and the first thing you have to do  
19 is figure well, what is a quality offset, and it is  
20 confusing. The comment earlier said it was confusing.  
21 So CORSIA helped the airlines sort that out  
22 through a very rigorous process, and a lot of

1 corporations then said, well, that seems to be a good  
2 way to start. So, the CORSIA eligible, and then there  
3 was the nature-based approaches that all of us have  
4 worked on.

5 I think the most important thing that could  
6 be done is to have it be clear for companies on what  
7 they could buy to meet certain requirements. That  
8 doesn't mean that they all have to be the exact same  
9 offset type, because there are plenty of reasons for  
10 different types of offsets, but to have a set of  
11 clarity for when the company buys that offset that they  
12 are not going to have to later on be worried about  
13 greenwashing or something not being valid, or whatever,  
14 all those types of things.

15 So that clarity will provide a mechanism for  
16 these markets to scale, it will provide liquidity, and  
17 most importantly, to address what Evan brought up, it  
18 will provide capital that will enable us to create that  
19 many projects globally.

20 MR. KEAVEY: And can we also just, from a  
21 futures perspective, we are trying to create a  
22 benchmark, and benchmarks do not necessary meet every

1 single need for every single consumer in the market.  
2 It is a benchmark that credits can be measured against.  
3 So, we have the standards that have been set down by  
4 the registries. CBL Markets manages a spot market that  
5 has a variety of different projects at different  
6 valuations and different qualifications.

7 But when we are trying to build liquidity and  
8 price discovery in a market you need to work against a  
9 common standard that may not meet everyone's needs but  
10 it can certainly form a price discovery mechanism, a  
11 benchmark for you to value quality and value price, on  
12 a relative basis if your needs happen to be different.  
13 And that is true for every commodity market, not just  
14 voluntary carbon markets. That is why people are happy  
15 to take delivery today, even though it is a seller's  
16 option -- you know, the seller has the decision about  
17 which credits to deliver. People are willingly taking  
18 delivery today.

19 So, the market is functioning very well in a  
20 regulated environment today, in the futures market.  
21 And then the other concerns can be dealt with either  
22 outside of that regulated world, in the spot market, or

1 consensus can build and liquidity can build around a  
2 certain set of parameters that exist today.

3 MR. ARD: Just quickly, I would agree with  
4 what Pete said. We have corporate clients who, they  
5 are out on a limb, to a certain extent. There are not  
6 clear standards in terms of what they should be as a  
7 carbon offset and what they shouldn't buy. They are  
8 concerned about their corporate reputation, as they  
9 should be. But we also applaud their courage in being  
10 out front and doing something the climate, because we  
11 need to do something now in order to really meet the  
12 targets coming down the line.

13 So, I think there is a certain amount of  
14 reliance on the existing systems, not only just the  
15 marketplaces that are here on my panel but the  
16 registries from before, and leaning into that current  
17 infrastructure as the attitudes of the market shift  
18 around what is high quality and not high quality is a  
19 difficult place to play. But I think some corporations  
20 have taken it upon themselves to get out there anyway,  
21 and I think that should be applauded.

22 And then to the question on how that impacts

1 liquidity, I think Pete answered that quite well. It's  
2 like liquidity will come where people coalesce around  
3 those ideas of quality, and therefore need to hedge or  
4 use the futures markets to buy supply.

5 MR. FREDERICK: Yeah. I think, adding to  
6 that, it feels to me that if we really want to drive  
7 efficiency into the market, harmonization of some of  
8 the registry standards could be beneficial, while we  
9 acknowledge that there can be some differences and  
10 there could be differential pricing for some of those  
11 differences.

12 The attributes around quality are relatively  
13 immutable. We touched on some of them. They have to  
14 be additional, these things that we are doing  
15 permanent, unambiguously owned, free of leakage, and  
16 really doing no harm. I think those attributes end up  
17 being immutable and something that if an issuer, an SEC  
18 registrant, who wants to buy these credits are really  
19 going to have to feel very comfortable that there is  
20 something real behind this and those harmonized  
21 standards and those quality attributes are going to be  
22 quite important to building faith and trust in the

1 market.

2 MR. PITT: Thanks so much. I think we are at  
3 time, so I just want to thank the panelists, all of  
4 you, for your comments today. I'm sorry we don't have  
5 more time. I have a bunch more questions I would love  
6 to hear the answers to, and I am sure others do as  
7 well. But that will bring a close to this panel. I  
8 want to thank David Gillers and Abigail Knauff for all  
9 the great work in bringing this together, and again,  
10 thanks to the Commissioners and the Chair for having us  
11 here today.

12 Back to you.

13 PANEL 4:

14 MARKET PARTICIPANTS RECOMMENDATIONS FOR THE CFTC

15 MS. KNAUFF: Thank you, Eric. We are going  
16 to turn now to our fourth panel, which we divided into  
17 two parts to accommodate all the market participant  
18 viewpoints that we will hear from here today.

19 Dr. Janet Peace will moderate the first part  
20 of the panel, and as I am introducing we are going to  
21 do a little switcheroo, so folks that are on the fourth  
22 panel in either Parts 1 or 2 please feel free to take a

1 seat back at the panel tables.

2 Dr. Peace is the Chief of Advisory Services  
3 at BlueSource LLC, where she provides strategic advice  
4 to companies, NGOs, and policymakers on market-based  
5 climate policy options for reducing greenhouse gas  
6 emissions and the use of environmental credit markets.  
7 Fifteen years prior to BlueSource she was part of the  
8 leadership team at the Pew Center on Global Climate  
9 Change and helped launch its successor, the Center for  
10 Climate and Energy Solutions.

11 At Pew and C2ES Janet led the work on market-  
12 based policies including carbon pricing and the use of  
13 carbon offsets, engagement with the corporate  
14 community, climate disclosure, corporate  
15 sustainability, climate resilience, and carbon capture,  
16 use, and storage. Dr. Peace is on the board of The  
17 Climate Registry and the Pricing Carbon Initiative as  
18 well as the advisory board for the American University  
19 Center for Environmental Policy.

20 Dr. Peace holds a PhD and master of science  
21 in economics and undergraduate degree in geology.

22 Dr. Peace, I am going to turn it over to you.



1           DR. PEACE: Thank you, Abigail. I appreciate  
2 the introduction, the invitation to this session, and I  
3 want to thank the Commissioners, as everyone has in  
4 every other panel, about holding this particular  
5 roundtable and your interest in this topic. We all  
6 appreciate it.

7           A little bit about the company that I joined  
8 a few years ago, BlueSource. It has been around 20-  
9 plus years. It is probably one of the most established  
10 project development companies in North America. We  
11 obviously develop carbon offsets. We work with the  
12 clients, helping them understand what these markets  
13 look like, how they should be moving forward.

14           And in February, just recently, we announced  
15 that we were merging with another well-known company,  
16 Element Markets, and all of this will be under the  
17 banner of TPG Rise Fund, chaired by Hank Paulson. If  
18 you don't know about the TPG Rise Fund it is the  
19 largest climate impact fund in the world. So largest  
20 impact fund -- pretty cool. Pretty cool to be  
21 associated with that. Our merger with Element will  
22 make us one of, if not the largest company devoted

1 exclusively to the purpose of protecting the  
2 environment and accelerating action on climate change.

3           The necessity and the demand for readily  
4 available solutions to address climate change, as we  
5 have heard all day, is really accelerating at an  
6 unprecedented pace. The renewed focus on ESG in the  
7 corporate community is pretty exciting, and that has  
8 been part of it, but I would say the real driver has  
9 been this commitment to net zero. Companies,  
10 universities, cities, states, governments, I mean, I  
11 have been in this market a long time and it is so  
12 exciting to see the power of a price on carbon really  
13 drive action. Market-based environmental credits can  
14 provide an opportunity, as we have heard over and over  
15 again, for private capital to invest in projects that  
16 are beneficial to the climate, like conservation, like  
17 regenerative agriculture, and other types of industrial  
18 emission reduction projects.

19           A couple things that I think are important to  
20 talk about in terms of misperceptions. One you have  
21 heard about over the day which is if you want to know  
22 what the "Wild, Wild West" in carbon markets looked

1   like you should have looked at it 20 years ago, because  
2   20 years ago I would say, yeah, this was the "Wild,  
3   Wild West". And today you have heard about the  
4   registries, setting the standards. You have heard  
5   about how verifiers go in and check to make sure that  
6   the numbers and the projects are what they say they  
7   are, and we heard about the tracking to ensure that  
8   there is not double use of a credit.

9               But there are -- what did somebody call it?  
10   -- carbon cowboys, maybe carbon cowgirls too. There  
11   are folks out there that are experimenting, and that is  
12   what this market is supposed to do. It is supposed to  
13   incentivize innovation. So, there are companies and  
14   individuals out there who are trying to do new things,  
15   and that is very exciting, but some of them are not  
16   using a methodology that was created by a third party.  
17   They are creating their own projects, they are not  
18   having a third party verify, and they are not having a  
19   registry track those reductions. So, some of that is,  
20   I think, causing some confusion among buyers. It is  
21   hard to know. But I think when you look at the  
22   registries and the history of the development of the

1 registries and the improvements over time I think those  
2 have been a sign of maturity, if you will.

3           Another thing that I think is kind of a  
4 misperception -- and I am an economist so I think about  
5 it from this perspective -- that when a company buys  
6 offsets from a company like BlueSource, that is money  
7 out the door. And I haven't met a company yet that  
8 doesn't try to minimize costs, especially if they think  
9 about these costs going up in the future. So, the fact  
10 that they are spending money out the door gives them a  
11 direct incentive to try to reduce that cost by  
12 mitigating emissions, by innovating in new technology.  
13 There was a good report that Ecosystem Marketplace put  
14 out a few years ago where they looked at companies that  
15 actually buy offsets and they found that companies that  
16 buy offsets actually do more mitigation than companies  
17 that don't. I think that is pretty darn interesting.

18           So, those are a couple of, I guess, insights  
19 that I thought I would share. And now let's go ahead  
20 and get started with our panel. This and the next  
21 panel are going to be market participants, basically,  
22 and you are going to hear challenges and opportunities.

1 You are going to hear about derivatives. And hopefully  
2 by the end we can talk about recommendations for the  
3 role of CFTC in these markets.

4 Our first speaker is Mark Kenber. He is  
5 going to be virtual, and there he is. Hey, Mark. Mark  
6 is the Co-Executive Director, External Affairs, for the  
7 Voluntary Carbon Markets Integrity Initiative, VCMII.  
8 He is also the Managing Director at the environmental  
9 consultancy, Climate Advisers.

10 Mark, do you want to give a few opening  
11 remarks?

12 MR. KENBER: Yeah, thank you very much,  
13 Janet, and thank you all for inviting me here today. I  
14 am sitting here in the south of the United Kingdom,  
15 where, as you may be aware, we are celebrating 70 years  
16 of the Queen being on the throne, so that is why I am  
17 wearing a tie and looking very festive.

18 As Janet mentioned, I have two roles, or  
19 several roles in voluntary carbon markets. One, I am  
20 the Co-Executive Director of the Voluntary Carbon  
21 Markets Integrity Initiative, which I will speak to  
22 mostly in this initial presentation, but I am also a

1 board member of the Integrity Council of the Voluntary  
2 Carbon Market, and you have heard from many of my  
3 colleagues throughout today, and a board member of  
4 Verra, one of the standards you have also heard from  
5 today.

6 I think a lot of the discussion that I have  
7 heard, and I have dipped in and out of today's meeting,  
8 has focused on the supply side of the market, the  
9 quality of credits, transactions, transparency in the  
10 credits, and not so much on either the whole system  
11 governance or, in particular, the demand side.

12 I will talk briefly on the whole system  
13 governance aspect of it, which I think are very  
14 important to bear in mind. Voluntary carbon markets,  
15 or carbon markets generally, exist to serve a public  
16 purpose, to accelerate emissions reductions and  
17 removals and to generate additional finance,  
18 particularly to developing countries where carbon  
19 reduction removals take place. So, therefore, it is  
20 essential that we assess and measure whether the market  
21 is serving that public purpose.

22 It is obviously important to make sure that

1 transactions are carried out honestly, that they are  
2 verified, and all the other things that people have  
3 discussed, but often we can get down into that and  
4 forget the big picture of the market as a whole. So,  
5 two or three quick recommendations on how we should be  
6 looking at the market and what is needed.

7           One is you need to have transparency on every  
8 aspect of every transaction and every project and  
9 credit that is delivered into the market in as real  
10 time as possible, both so that we can carry out the  
11 assessment that I just mentioned on whether the market  
12 is serving its public purpose or not, and we can only  
13 do that if we really know that the market is driving  
14 additional emissions reductions removals, that is to  
15 say, above and beyond policy requirements, above and  
16 beyond commitments and obligations to decarbonization  
17 by corporates, and the finance that is generated  
18 through carbon markets is, again, above and beyond  
19 existing sources of flows of public finance and private  
20 finance. This market needs to be additional and we  
21 need to have the transparency across the market to be  
22 able to judge that is indeed the case.

1           You also need transparency, and I will come  
2 back to this in a moment, to assess the use of carbon  
3 credits on the demand side. And as I mentioned in the  
4 context of the VCMII, I will mention a bit more about  
5 that. We also need to look at, as part of whole system  
6 governance, the participation of all sectors in the  
7 market. Now at the project level, most of the  
8 standards have very good and well-applied rules and  
9 procedures for ensuring the participation of effective  
10 local communities, setting up benefit-sharing systems,  
11 ensuring that really all stakeholders are engaged in  
12 both the design and implementation of projects.

13           But the markets themselves are designed by  
14 people like us, not the people who are necessarily  
15 involved in the projects directly, or affected by the  
16 projects, or have projects on their land or in their  
17 communities. And we need to make sure that the market  
18 is designed from the outset, and reformed, bearing  
19 those people in mind, and that those views and those  
20 stakeholders are part of market design and governance  
21 process. And that is not only because it is the right  
22 thing to do -- it seems to me axiomatic that we would



1 expect all stakeholders to be involved -- but because  
2 if we want the market to grow, built on trust and  
3 integrity, then we need to reflect those opinions,  
4 those stakeholders' views and their needs from the  
5 outset, not just once we have got down to the project  
6 design and implementation level.

7           And thirdly, we need to think about the  
8 governance of carbon markets in the broader context,  
9 and as some have mentioned this already earlier today,  
10 of other markets and other actions. So, climate  
11 policy, finance policy, energy policy, corporate  
12 disclosure requirements, a whole bunch of regulations,  
13 policies, and actions that are taking place outside the  
14 strict confines of carbon markets, and voluntary carbon  
15 markets in particular, but which are clearly affected  
16 by them, and, in turn, affect them. And we have seen  
17 this recently with the recent outputs from the SEC  
18 which talked about the use of carbon credits. But how  
19 the market develops needs to take into account those  
20 developments, and those developments, again, need to  
21 take into account the market.

22           I mentioned the issue of transparency. One

1 of the issues that perhaps has been neglected, to a  
2 certain extent, until recently, is the demand side of  
3 the market, and that is to say what criteria should  
4 judge what credible use of carbon credits looks like  
5 and what claims can be made about it. Now all of you  
6 in the room and on the line will have seen the multiple  
7 claims that companies and other organizations make  
8 about their carbon climate commitments and their use of  
9 carbon credits. We have climate-neutral emissions,  
10 neutral GHG, neutral climate, neutral carbon, neutral  
11 net zero, net zero-aligned, climate positive -- I could  
12 go on for a long time. Very rarely do those things  
13 mean the same thing, and it is often very difficult to  
14 actually find out what they do mean. In the very small  
15 print in corporate sustainability or other reports you  
16 have to really dig in to find the criteria that are  
17 being followed to make those kinds of claims, and often  
18 much of the information is not available.

19           So if, as investors, the general public, but  
20 in particular consumers who are increasingly making  
21 purchasing decisions based on environmental attributes  
22 of the companies they are buying from, and in

1 particular, the climate claims that they make, it seems  
2 to me essential that there is harmonization,  
3 consistency, and most importantly, honestly and  
4 transparency in what those claims are, and that, as I  
5 mentioned at the very beginning, that the use of carbon  
6 credits is in addition to, and not instead of,  
7 decarbonization of value chains. And for that reason,  
8 the Voluntary Carbon Market Integrity Initiative next  
9 Tuesday will be launching a provisional code of  
10 practice to answer those two specific questions -- when  
11 and under what circumstances should a company be making  
12 use of carbon credits, and second, what are the claims  
13 they should be making about them?

14           And I am obviously not allowed to give away  
15 all the secrets that are in the report but I think it  
16 is fair for me to say that there are four broad  
17 elements of it, which I will go through very quickly.

18           One is a set of prerequisites. What is basic  
19 corporate good practice in dealing with climate change?  
20 It means having a long-term net zero commitment. It  
21 means having short-term, interim targets that are  
22 consistent with meeting that global net zero goal that

1 we all signed up to in the Paris Agreement. It means  
2 providing transparent inventories. It means that your  
3 public policy advocacy and engagement is consistent  
4 with those internal corporate commitments and those  
5 public commitments to net zero by mid-century. A set  
6 of prerequisites which ensures that use of carbon  
7 credits followed the widely accepted mitigation  
8 hierarchy of setting targets and reducing emissions  
9 first.

10           The second section would be on the claims  
11 themselves, and they combine both ensuring that  
12 companies are on track to meet the interim targets that  
13 they have set, that should be aligned with science in  
14 meeting net zero by mid-century, and the use of high-  
15 quality carbon credits to compensate their remaining  
16 emissions at any given time. And there is a hierarchy  
17 of claims that if you look out on Tuesday you will see  
18 how those are scheduled, with the idea being to  
19 incentivize progression of the hierarchy.

20           Third, we talk about the credits themselves,  
21 and you will, I am sure, be delighted to say that we  
22 are not trying to create another standard. We are not

1   trying to replicate or duplicate the work of the ICVCM,  
2   CORSIA, and others, and we very clearly point to those  
3   two initiatives in particular, as well as some other  
4   buyer-beware criteria to ensure that when companies are  
5   buying credits they are getting (a) what is says on the  
6   tin, and (b) they are getting the quality that they  
7   demand.

8                   And then, finally, the fourth section will be  
9   on transparent reporting of both the corporate  
10   decarbonization, which is often done through other  
11   initiatives, and the credits that have been used.

12                  And I return to my initial point to finish.  
13   The issue of transparency is absolutely essential here,  
14   not only because of the public purpose of the market  
15   that I mentioned at the beginning, but if the markets  
16   are growing it needs to be based on trust, and trust  
17   can only be earned if we are able to scrutinize what  
18   companies are saying, what project developers are  
19   doing, where the benefits are arising and where they  
20   are being shared. Only then will the public believe  
21   that corporate claims, based on their own  
22   decarbonization and use of carbon credits, are valid,

1 are acceptable, and are real. And I think if I were to  
2 make one recommendation to you all today is to focus on  
3 transparency, because that will give us and the board a  
4 world of confidence to trust in carbon credits and the  
5 use that is made of them.

6 So, Janet, I will leave it there, but I am  
7 happy to answer any questions later.

8 DR. PEACE: Thanks, Mark, and we will come  
9 back with questions after everybody has a chance to  
10 give opening remarks.

11 Our next speaker will be Bella Rozenberg,  
12 Senior Counsel/Head of Regulatory and Legal Practice  
13 Group, International Swaps and Derivatives Association,  
14 ISDA.

15 MS. ROZENBERG: Thank you, Janet. Hello,  
16 everyone. Thank you to the Chairman and the  
17 Commissioners for organizing this important discussion,  
18 and I am extremely pleased to be here today.

19 I am going to start by underscoring the  
20 importance of voluntary carbon markets. We are  
21 gathered around this table today because the market  
22 demand for voluntary carbon credits, or VCCs, is

1 growing, both in the United States and on a global  
2 scale. It is important to recognize that the voluntary  
3 carbon market, in its essence, is a market-driven  
4 solution to climate change. It is clear that market  
5 participants recognize the urgency to reduce, remove,  
6 or avoid greenhouse gasses, and those market  
7 participants that have the ability to generate VCCs are  
8 doing so not driven by a regulatory incentive or  
9 requirement but by a desire to contribute toward the  
10 global fight against climate change. So those  
11 generating VCCs are able to sell credits to other firms  
12 or companies that want to contribute in this effort but  
13 don't yet have the technological capabilities to reduce  
14 or avoid greenhouse gas emissions efficiently.

15 I think we have established here we do have  
16 the demand, but the next question is where do we go  
17 from there? How do we make this market liquid,  
18 transparent, and resilient? And I think this is why  
19 the CFTC has gathered this convening, to get this  
20 information from the market participants.

21 In our view, to achieve this goal we believe  
22 that we should focus, as a community, both private

1 sector and public sector, on three key areas. The  
2 first one is developing a strong legal foundation for  
3 the treatment of voluntary carbon credits, or VCCs,  
4 across jurisdiction. The second area is providing  
5 regulatory clarity on the treatment of financial  
6 instruments tied to VCCs. And the third, establishing  
7 good governance throughout the market value chain.

8           Importantly, ISDA is actively involved in the  
9 work of each of these areas, and I would like to spend  
10 a few minutes on each of these areas.

11           The first one, developing a strong legal  
12 foundation for the treatment of VCCs across  
13 jurisdictions. It is important to establish the legal  
14 nature of voluntary carbon credits which will determine  
15 how a VCC can be created, transferred, and retired. It  
16 affects what type of security may be taken and enforced  
17 in relation to VCCs and how that can be achieved as  
18 well as how VCCs would be treated following an  
19 insolvency, including with regards to netting.

20           And I would like to spend just a minute on  
21 this issue because it is very important for market  
22 participants but it is also very important for ISDA.



1 As you may know, ISDA stands ready to create a document  
2 for the secondary market that will include spot,  
3 options, and forwards contracts. In order to create  
4 global standardized documents, it is very important  
5 that the VCCs that are going to be referenced in the  
6 document are of sound legal nature and they are treated  
7 consistently across jurisdictions. And what I mean by  
8 that, last year we published a paper that analyzed how  
9 VCCs are treated in different jurisdictions, and what  
10 we found out is that some jurisdictions view VCCs as a  
11 bunch of contractual rights.

12           So, if you have a bunch of contractual rights  
13 you have to look at how these credits are going to be  
14 created, transferred, and retired from the contracts  
15 law perspective. I don't want to be too legal here,  
16 but the question becomes, you know, if I transfer my  
17 credits will clawback provisions apply? And, in  
18 addition, how would security interests work if you have  
19 a bunch of contractual rights?

20           Other jurisdictions, for example, under the  
21 English law, they view them as intangible property, and  
22 we believe that is how VCCs should be treated. But

1 even then, as I mentioned, before, the issues of  
2 creation, transfer, retirement of credits under  
3 property law arise as well, so different jurisdictions  
4 have kind of different views on property law and that  
5 creates an issue. So now you can imagine that it would  
6 be quite challenging for us to create consistent global  
7 documentation if different jurisdictions have different  
8 approaches to VCCs. So, we hope that there will be a  
9 point, either through a legislative amendment or some  
10 sort of announcement from different jurisdictions there  
11 will be a decision to have a consistent treatment of  
12 VCCs.

13           The good news here in the United States, at  
14 least for purposes of bankruptcy law, since VCCs are  
15 considered commodities it is quite clear that because  
16 they are commodities VCCs will enjoy the safe harbors  
17 of the bankruptcy code, so a non-debtor can enjoy safe  
18 harbors, including the sell-off rights. And this is an  
19 important issue that I think market participants should  
20 focus on.

21           As I noted, and others talked about, in order  
22 to optimize the enormous potential that global

1 voluntary carbon markets can offer, we need to work  
2 towards creating a strong legal foundation for VCCs  
3 across jurisdictions and not just in the United States.

4           The second area is providing regulatory  
5 clarity on the treatment of financial instruments tied  
6 to VCCs. First and foremost, it is very important that  
7 the CFTC's recent confirmation that VCCs are  
8 commodities is important as this market sometimes is  
9 perceived to be unregulated and lacking standards, with  
10 no ability to prevent greenwashing. Since VCCs are  
11 commodities, the Commission has the authority to go  
12 after the participants who engage in fraud and  
13 manipulation in the spot market. If we want to make  
14 these markets flourish, there can be no room for  
15 greenwashing to double-counting of credits. In other  
16 words, there should be no room for fraud.

17           Today, earlier this morning, ISDA published a  
18 paper that examines various derivatives products that  
19 reference VCCs, and the goal -- again, I want to spend  
20 a little bit more time on the issue of regulatory  
21 clarity, because I think it is very important for this  
22 market. There is a lot of discussion as to how

1 voluntary carbon markets are unregulated, and there  
2 different violative behaviors that take place, conduct.  
3 But I think it is important to sit back and take stock  
4 of what authority the Commission has in order to sort  
5 of create order in this market. And I think this paper  
6 answers this question a little bit. It describes  
7 different contracts that the CFTC has authority over.  
8 Clearly, the CFTC has authority over derivatives  
9 contracts. So, for example, if you have a VCC swap  
10 that is financially settled, it is going to be within  
11 the CFTC jurisdiction. And granted we do not have a  
12 lot of swaps that are financially settled, but there  
13 are some, and if they are then they will be subject to  
14 reporting rules, record-keeping rules, margin rules,  
15 you name it, the whole gamut of the post-Dodd-Frank  
16 regulation.

17 But most importantly that we should focus on  
18 is on VCC futures contracts. The CFTC has exclusive  
19 jurisdiction over these contracts, and because VCCs or  
20 voluntary carbon credits are commodities, the CFTC has  
21 special interest in commodity futures contracts when  
22 they are physically delivered and settled. And

1 historically, former and current CFTC officials did  
2 say, you know, noted the importance of delivery points  
3 in the context of commodity futures contracts, and it  
4 specifically said it is important to prevent fraud and  
5 manipulation, it is important that these delivery  
6 points have rules and governance standards that  
7 describe how transfer and delivery of commodities take  
8 place so it should be free of fraud and manipulation.

9           So, if you extrapolate this logic to VCC  
10 futures, that are commodity futures contracts, one can  
11 say that the CFTC, in combination with SROs, self-  
12 regulatory organizations, and exchanges, have  
13 authority, to some extent, to conduct due diligence  
14 over some registries because they are delivery points  
15 for VCC futures contracts.

16           And by no means I want to challenge the work  
17 of the registries, but what I want to say is that I  
18 think if there is some due diligence done in  
19 combination -- it can be the CFTC or SROs, or both -- I  
20 think it gives market participants that extra  
21 confidence that there is governance in place, that  
22 there is a governance in place that will minimize

1   unethical or prohibitive conduct, that there are  
2   procedures in place that will describe how these  
3   credits are transferred and retired. So, there is a  
4   sense of security, from the market participant's  
5   perspective, that they are using good, reliable carbon  
6   credits.

7                   And the last area that I think it is  
8   important to focus on is establishing good governance  
9   throughout the market value chain. ISDA is actually  
10  involved in the work of the Integrity Council for  
11  Voluntary Carbon Markets, ICVCM, which was convened  
12  last year and is responsible for the development of  
13  blueprints for this market. We support the work of  
14  ICVCM and join in their commitment to set and enforce  
15  definitive global threshold standards, drawing on the  
16  best expertise available in order to ensure high-  
17  quality VCCs. And again, the work of ICVCM is very  
18  important for us, as an organization that is going to  
19  be drafting standard documentation for voluntary carbon  
20  markets. It is important for us to reference carbon  
21  credits of the highest standards and quality.

22                   So, I am going to stop here and I will be

1 happy to take any questions later on. Thank you for  
2 your time, and I look forward to the continued  
3 discussion.

4 DR. PEACE: Thanks, Bella. And for the rest  
5 of our speakers, we need to shorten down a little bit,  
6 just so that we make sure everybody has enough time and  
7 that we have maybe a few minutes at the end for  
8 questions. I think we have had some really good  
9 comments so far.

10 Our next speaker is Linda French. She is the  
11 Executive Director of ESG Policy and Regulation,  
12 Sustainability and Global Government Relations at  
13 JPMorgan Chase & Co.

14 MS. FRENCH: Great. Thanks, Janet, and thank  
15 you to the Commission for having us here today.

16 I will just start off with framing up how  
17 JPMorgan participates in the voluntary carbon markets,  
18 and then move to making three high-level observations  
19 on what we are seeing as the voluntary carbon markets  
20 are continuing to develop.

21 So how JPMorgan participates, we are a buyer  
22 of offsets. We have an ongoing commitment to

1 maintaining carbon neutrality for our operational  
2 carbon footprint. And to meet this commitment we first  
3 prioritize improving energy efficiency and sourcing  
4 renewable energy, and then purchase high-quality carbon  
5 removal offsets to address any emissions that we are  
6 not yet able to eliminate. And I think it is important  
7 to reiterate here that, as we have heard from others,  
8 our view also is that offsets are not a substitute for  
9 decarbonization. We are using offsets as a part of a  
10 broader strategy, where we have publicly disclosed  
11 targets to reduce our operational emissions year over  
12 year, and only then are we using high-quality carbon  
13 removal offsets to address the remaining unavoidable  
14 emissions.

15           So, our observations today are going to be  
16 kind of from that perspective as a buyer, but in  
17 addition to acting as a buyer, various parts of the  
18 firm also participate in voluntary carbon markets in  
19 different capacities. So, investing in new fund  
20 structures and providing finance and advice to clients,  
21 and then we also expect to start trading voluntary  
22 carbon markets products later this year, with reviews



1 and due diligence ongoing.

2           So, three high-level observations. First, as  
3 we have heard from many others today, market  
4 development of standards for different tiers, different  
5 types of offsets is going to be essential for scaling  
6 voluntary carbon markets. As a market participant we  
7 have a very strong interest in scaling voluntary carbon  
8 markets for high-quality offsets that have a concrete  
9 environmental impact.

10           We currently do extensive due diligence  
11 against a stringent set of criteria that we use to  
12 assess the quality of carbon credits, and those  
13 criteria inform not only our evaluation of the credits  
14 that we purchase for our own business but also guide  
15 our overall perspective on how the carbon markets  
16 should evolve to help meet global decarbonization  
17 goals.

18           A second observation is that we are seeing  
19 the market work through a number of challenges as it is  
20 continuing to develop, but overall, we are pleased to  
21 see the progress that the market is making. Many of  
22 these challenges are oriented around the

1 standardization that needs to happen to achieve scale  
2 while also maintaining credibility and integrity and a  
3 focus on quality.

4           A lot of market participants have been slow  
5 to enter exchange-traded carbon markets because we  
6 don't yet have definitive standards for different tiers  
7 or types of offsets, and there is currently a gap  
8 between the offsets represented by standardized  
9 contracts versus the character of the underlying demand  
10 from firms that are buying offsets for their own use,  
11 like JPMorgan. Although that is something that, you  
12 know, we expect that to change as the market grows and  
13 develops further, and I am happy to get into more  
14 detail on the panel discussion on some of the  
15 challenges that we are seeing.

16           I guess to continue on that, overall, we  
17 think the market is headed in the right direction  
18 toward convergence and consensus on standards, and the  
19 fundamentals of the market are robust. There is not a  
20 concentration of buyers or sellers. You have a lot of  
21 diverse views and biases and objectives, which is a  
22 great foundation for a market. And there is also a

1 robust and growing ecosystem of service providers that  
2 are competing to provide a better service to developers  
3 in the broader market. And I think a number of us  
4 today have mentioned the Taskforce on Scaling Voluntary  
5 Carbon Markets, which has done a great job of  
6 identifying the structural issues here, and then that  
7 important work being taken forward by the Integrity  
8 Council for the Voluntary Carbon Markets, and we are  
9 seeing strong market support in anticipation for the  
10 forthcoming Core Carbon Principles, and more broadly,  
11 just a huge amount of interest from the market in  
12 capital flowing in.

13           So, all the pieces are there. We are in a  
14 phase now where the market is continuing to work out a  
15 lot of those structural issues, and we are seeing  
16 progress.

17           Last observation is that this market is  
18 fundamentally global, and international coordination is  
19 going to be incredibly important to avoid regulatory  
20 fragmentation that would inhibit scaling of voluntary  
21 carbon markets. We are not just seeing interest in the  
22 U.S. We are seeing broader global interests in scaling

1 voluntary carbon markets, from London to Singapore to  
2 Hong Kong, among others. And the global nature of the  
3 market is fundamental to the product itself, so there  
4 is a real risk here that uncoordinated regulatory  
5 efforts will increase fragmentation and actually  
6 inhibit the scaling that needs to happen.

7 And we think that the CFTC has an important  
8 role to play in leading globally, to ensure that there  
9 is that effective interface with other markets, with  
10 other regions, with other regulators, so that there is  
11 seamless oversight over a globally fragmented market.

12 DR. PEACE: Thanks so much, Linda.

13 Our next speaker is Aoife Kearney, Assistant  
14 General Counsel with Neuberger Berman, a private asset  
15 management firm.

16 MS. KEARNEY: Hi, everyone. I thought my  
17 name might be a struggle. So I'm Aoife.

18 DR. PEACE: That is much better. Thank you.

19 MS. KEARNEY: These Irish names, they are  
20 tricky for non-Irish people to pronounce.

21 So firstly, I would like to say thank you  
22 very much to the Commission for hosting this event on

1 this expanding and exciting sector. I have really  
2 enjoyed listening to the other panels, and it is really  
3 heartening to see such a huge level of interest and  
4 also lots of convergence between speakers in terms of  
5 their views on what the path forward is. So, it is  
6 really great to be involved in this conversation and  
7 thank you for the invitation to participate.

8           In terms of what I would like to see done or  
9 how I see the market developing, I know that there has  
10 been a huge development in the market and how it is  
11 becoming more standardized. And perhaps it was, Janet,  
12 as you referred to it 20 years ago. I would also kind  
13 of think, as well, as Mary referred to carbon cowboys,  
14 and Sean was speaking about the "Wild West."

15           So, I think it is fair to say that there is  
16 some room for improvement or work to be done on  
17 building market participants' trust in carbon offsets.  
18 And when I think about it, I think about what do we  
19 need to do to make sure that those trust levels are  
20 where they need to be, and I should have prefaced that  
21 by saying that there has been a huge amount of work  
22 done by the private sector, which needs to be leveraged

1 off.

2           But given the scope of the growth that is  
3 expected and that we are already seeing in the carbon  
4 markets, I think that it is a great time for the public  
5 sector and its considerable resources to get behind  
6 progressing voluntary carbon markets on their journey  
7 and get them where they need to be so that investors  
8 and market participants feel comfortable. And indeed,  
9 increased regulatory monitoring and guidance also help  
10 build upon and protect the good actors, for example,  
11 those that were presenting in the first panel and all  
12 of the great work that they are doing. And it also  
13 limits the market's vulnerability to potential bad  
14 actors, because, of course, this is a growing area with  
15 growing economic opportunities. So that is always  
16 something to be mindful of.

17           In terms of the move forward, I would say  
18 that I think that greater sanitization is really key,  
19 and I would leverage off the point that Linda was  
20 making in terms of enhanced convergence of  
21 international standards and interoperability. I am  
22 based in Ireland, and I say the EU received ESG

1 regulation standards, you know, best practice. You  
2 know, it is coming, taken fast. And while that is  
3 excellent and it is really helpful, we need to make  
4 sure that we have standards that, once adopted in one  
5 jurisdiction, will work in another, because we need to  
6 respect the global nature of this market, and that is  
7 what makes it work.

8 I would also say that I would really put  
9 emphasis on transparency. And I think we can agree  
10 that the data is not exactly where we would like it to  
11 be, so greater transparency and more disclosures I  
12 think would facilitate a better quality of disclosure,  
13 ultimately to end investors but also would help  
14 facilitate a more robust due diligence process by  
15 companies that are investing in carbon offsetting  
16 projects so that they are very comfortable that they  
17 have the level of disclosure they need to be as robust  
18 as we would expect them to be in their due diligence.

19 And when we are speaking about transparency,  
20 every speaker today has made the point that they view  
21 carbon offsets as one part of a multifaceted approach  
22 to tackling climate risk, and that it is not something

1   that should be used in isolation. And leveraging off  
2   that point, I would say that where a company is just  
3   using carbon offsets and isn't taking other steps to  
4   reduce their carbon emissions, then that a scenario in  
5   which you could say that they were failing to mitigate  
6   long-term climate risk. And when we are talking about  
7   transparency, that is something that will be  
8   interesting to know how are they using their carbon  
9   offsets and what part of their overall climate strategy  
10  is that playing.

11               So, I guess, in summary, essentially, I would  
12  like to make it as easy as possible for investors to  
13  identify a genuine carbon offset, and by "genuine" I  
14  mean one that satisfies the permanence and  
15  additionality criteria and that investors can  
16  confidently invest in, in the knowledge that, as has  
17  been said multiple times today, it is doing what it  
18  says on the tin.

19               So, I will just hand back to you, Janet.

20               DR. PEACE: Thanks, Aoife. And thanks for  
21  your grace as I butchered your first name too.

22               Our next speaker is Darcy Bradbury, Managing



1 Director, Head of Global Public Policy at the D.E. Shaw  
2 Group. Darcy, off to you.

3 MS. BRADBURY: Thank you, and thank you to  
4 the Chairman and Commissioners for inviting me. It has  
5 been terrific to hear people all day who are so engaged  
6 and knowledgeable about these issues.

7 The D.E. Shaw Group manages more than \$600  
8 billion in investor assets globally, across a wide  
9 variety of types of assets, including highly liquid  
10 assets like futures, energy and carbon, less liquid  
11 assets, and we have a whole group that has developed  
12 renewable energy facilities for the last 15-plus years.

13 Given our role in the markets, primarily as  
14 an investor, and since this convening is being held at  
15 the CFTC, I wanted to sort of drill down a little bit  
16 and give some data and some high-level thoughts about  
17 what makes a derivatives market more attractive to  
18 investors. And I also want to highlight the importance  
19 of what the CFTC officially calls "speculators," those  
20 who invest or trade assets not as producers or users.  
21 So, not iron miners or steel factors, not farmers or  
22 bakeries, but investors in firms like mine that manage

1 assets on behalf of investors.

2           For a market to be efficient, so that farmers  
3 and steelmakers who need to hedge against price risks  
4 can transaction any time they need, efficiently, so  
5 with low transaction costs, and at prices that reflect  
6 broad market views, a market needs investor like my  
7 firm. Any individual mining firm or bakery might only  
8 need to transact in markets a few times a year to hedge  
9 their risks of changing prices, and they may not know  
10 where to find counterparties. We have heard a lot  
11 about these very innovative, over-the-counter markets,  
12 but many participants and people who are attracted to  
13 these markets will not really know where to find them,  
14 hence the value of centralized derivatives markets that  
15 the CFTC supervises so well.

16           And so, a liquid, efficient market attracts  
17 investors like my firm, who will invest regularly, not  
18 just around a crop cycle or a new factory coming up  
19 online and who use robust data to develop hypotheses  
20 about where the price of any commodity is going. Not  
21 surprisingly, given everything we have heard today, the  
22 U.S. voluntary carbon markets don't really meet those

1 tests yet. They are growing, and I certainly applaud  
2 the focus and effort we have heard in the prior panel.  
3 Very impressive. But realistically, I think we have to  
4 understand we are in the early stages of this, and, in  
5 fact, even the more developed compliance markets in  
6 Europe are not as liquid as most of the futures markets  
7 that we trade.

8           And in the U.S., the two regional contracts  
9 which attract the most volume are -- and this is my  
10 trader's technical term -- are "sparsely traded." I  
11 got some numbers from our traders a few days ago, using  
12 one of the most tracked contracts traded on ICE -- and  
13 apologies to my friends at CME -- the December 22  
14 contract, the European EUA contract has open interests  
15 of about 378 million contracts, which is equivalent to  
16 about 30 billion euro, notional, and the average daily  
17 volume is not quite 22 million.

18           In contrast, the two regional contracts in  
19 the U.S. where there is no national compliance contract  
20 are much smaller, with quite low average daily volume.  
21 The REDD G, the regional contract, has open interest of  
22 about 62 million contracts, and the average daily

1 volume is under 100,000 per day. While the California  
2 contract is bigger with open interest at 174 million,  
3 notional amount maybe \$5 billion, but the average  
4 volume is still only about half a million contracts.

5           So, the bottom line in the U.S., emitters are  
6 mainly procuring contracts directly from auctions or  
7 the OTC transactions that we heard about earlier, not  
8 using the derivatives markets.

9           The development of a national market and one  
10 that is large enough to support more routine trading,  
11 which the efforts described today will hopefully  
12 create, will be needed before the farmer and the  
13 manufacturers will really be able to use carbon  
14 derivative markets to effectively hedge their risks.

15           And my last point is about sort of stability  
16 predictability. Certainly, energy markets move around  
17 a lot, and unusual events like the war in Ukraine or  
18 COVID surge are not predictable. But normal flows of  
19 supply and demand can be analyzed, and we can develop  
20 forecasts. This will be harder to do until the  
21 voluntary markets grow and transactions become more  
22 regular and routine and you can see correlations. And

1 to be frank, the intense policy interests in these  
2 issues, it doesn't always help. For example, the  
3 European Commission recently proposed a pretty  
4 significant intervention, a plan to raise \$20 billion  
5 from sales of their EUA holdings that impacted the  
6 market for compliance contracts significantly. That  
7 may be a very sound public policy decision on balance  
8 for the EU and its citizens -- I do not want to suggest  
9 otherwise -- but if the policy goal, or if one policy  
10 goal is to develop a robust, efficient market for  
11 carbon credits, this kind of a sudden change makes  
12 investors less likely to commit capital. It is just  
13 less predictable, less stable.

14           So, I am confident that the CFTC -- I know  
15 these Commissioners, I know a lot of the staff -- I am  
16 confident you can do a lot to inform policymakers about  
17 how to build an efficient and sustainable market that  
18 can be part of the global solution to address climate  
19 change and facilitate private sector efforts by all of  
20 us to take action. And certainly, we look forward to  
21 being part of those market-based solutions.

22           So, thank you.

1 DR. PEACE: Thank you so much, Darcy.

2 And our last speaker for this panel is Alexia  
3 Kelly. And there she is. Alexia is the Director of  
4 Net Zero + Nature at Netflix.

5 MS. KELLY: Good afternoon, everyone. Thank  
6 you so much for really an excellent day of discussions.  
7 It has been great to listen in and hear so many  
8 insights from both new and old friends. And thank you  
9 to the CFTC for the invitation and for convening this  
10 event today.

11 For those of you who I haven't met I am  
12 Alexia Kelly, the Director of Net Zero + Nature at  
13 Netflix. As many of you know, Netflix is a relative  
14 newcomer to the sustainability space. We firmly  
15 established our sustainability program in October of  
16 2019, but are working to make up for our late entry  
17 with what we hope is both speed and ambition.

18 In March of 2021, we announced our climate  
19 program goals under the Net Zero + Nature umbrella,  
20 which includes a science-based targets initiative,  
21 validated science-based target of 45 percent absolute  
22 reductions below 2019 levels across both Scope 1 and 2

1 by 2030, and our Net Zero + Nature target by the end of  
2 the year.

3 I am very pleased to say that 18 months into  
4 our program we are on track to deliver on our science-  
5 based target, and we have implemented a wide range of  
6 internal emission reduction projects and initiatives to  
7 rapidly reduce our own emissions, which many folks  
8 today have noted should be of primary focus and  
9 importance for companies.

10 These efforts delivered approximately 14,000  
11 metric tons of avoided emissions last year alone, and  
12 we did this by engaging across our entire operation and  
13 supply chain. So, we worked with our utilities, our  
14 landlords, our streaming partners to encourage them to  
15 switch to renewable energy. We swapped in renewable  
16 diesel, we trialed electric vehicles, we replaced  
17 diesel generators with mobile batteries and hydrogen  
18 powering units, and we bought sustainable aviation  
19 fuel.

20 But as someone who can attest firsthand,  
21 decarbonizing companies who operate in the real world  
22 is going to take significant time, effort, and

1 investment. I can't just wave a magic wand and make  
2 fossil fuels disappear from my supply chain. Which  
3 means that we see a really important role for voluntary  
4 carbon markets in enabling us all to collectively  
5 deliver higher climate ambition.

6           We have made an ambitious commitment to be  
7 fully net zero across all three scopes by the end of  
8 this year, and we have based that on what we call a  
9 yes-and approach to climate action, firmly grounded in  
10 what the science is telling us we must do today to  
11 avert the most catastrophic impacts of climate change,  
12 reduce our own emissions and fully offset our footprint  
13 through investment in high-quality carbon removal and  
14 retention projects.

15           In 2021, we screened more than 150 million  
16 metric tons of carbon credit projects and selected a  
17 high-quality portfolio of 17 methane mitigation and  
18 nature-based projects that restore mangroves, improve  
19 forest management practices, increase soil carbon  
20 sequestration, and protect and preserve irrecoverable  
21 carbon stocks in tropical and temperate forests.

22           Over time we are increasingly focused on



1 removals, but for now we include a mix of both removals  
2 and avoidance, because that is what the science tells  
3 us we need to do to avert the most catastrophic impacts  
4 of climate change.

5           These 17 projects delivered, and we retired,  
6 more than 1.5 million tons of mitigation, and provided  
7 much-needed financing directly to the communities where  
8 they originated. More than 70 percent of our portfolio  
9 is also certified under the Climate Community &  
10 Biodiversity Standard.

11           In addition to delivering mitigation outcomes  
12 these projects strengthen vulnerable and disadvantaged  
13 communities, they protect biodiversity, they increase  
14 food security, they protect drinking water, they  
15 generate new jobs and educational opportunities, and  
16 they provide critically needed climate resilience to  
17 some of the world's most vulnerable communities.

18           One of the projects we invest in protects the  
19 headwaters, for example, of a community of nearly a  
20 million people. Those are typically not quantified or  
21 included in the carbon credit evaluation process, but  
22 they are significant co-benefits that should be

1 forgotten.

2           We have also put in place an extensive due  
3 diligence process because while the market has come a  
4 very long way in the last 15 years, there are still bad  
5 actors out there, and that is one of the things that we  
6 believe enhanced transparency and engagement across the  
7 market can help us address. So, we have implemented a  
8 five-step process that really enables us to dig into  
9 the details and ensure that credits are meeting all of  
10 the key quality criteria, including additionality,  
11 including baseline projection, direct sampling wherever  
12 possible, avoidance of double-counting, as well as the  
13 additional community benefits, governance and gender  
14 impacts, and resilience benefits that we spoke about  
15 before.

16           We then conduct expert due diligence and  
17 engagement directly with the project developers  
18 wherever we can, and with impacted communities where  
19 possible. We are working, as well, with a wide variety  
20 of digital and remote sensing technologies to enhance  
21 monitoring, reporting, and verification, and we  
22 generally require and only purchase from the recognized

1 quality standards in the market.

2 We have detailed all of this work, including  
3 our 2030 Decarbonization Transition Plan, in our SASB-  
4 compliant ESG report, and I encourage you to take a  
5 look if you are interested in any further details.

6 We currently engage in a wide variety of  
7 market transactions, predominantly over-the-counter  
8 stock market purchasing to procure these credits, but  
9 we are increasingly entering into bilateral deals and  
10 longer-term offtake agreements with developers as well  
11 as making early investments in projects and trusted  
12 developers and nonprofits in order to secure rights to  
13 a high-quality future supply of credits to deliver on  
14 our annual net zero transition target.

15 Additional transparency and standardization  
16 in the market is coming and is very welcomed,  
17 particularly under the efforts of the Voluntary Carbon  
18 Market's Integrity Initiative -- you heard from Mark  
19 and many others earlier today -- not to be confused  
20 with the Integrity Council for Voluntary Carbon  
21 Markets, which is really focusing on the quality on the  
22 supply side.

1           So, we are looking forward to continued  
2    conservations and the work together to ensure that  
3    carbon markets can play a credible role in the net zero  
4    transition for corporations and governments alike.  
5    Thank you very much.

6           DR. PEACE: Thanks, Alexia, and I am so glad  
7    you talked a little bit about the co-benefits, because  
8    I don't think those have been emphasized enough. I  
9    know from a project developer's perspective our clients  
10   are often asking us about, what are the extra benefits?  
11   Does it help nearby communities? Are there any schools  
12   that can go in and visit those projects? So, I think  
13   the co-benefits are an element of these projects that  
14   rarely get mentioned.

15           Do the Commissioners have any questions for  
16   the panel?

17           [No response.]

18           DR. PEACE: Okay. I think we have just like  
19   two minutes. So, in a quick round robin, if you could  
20   each give one recommendation to the Commission on what  
21   their involvement could or should be in this market.  
22   But we need to be very quick because we only have three

1 minutes.

2 Mark, why don't you give a quick start?

3 Mark, you're on mute. I hate that.

4 MR. KENBER: So, do I. I'm sorry. It is  
5 late in the evening in the U.K. so forgive me.

6 My one recommendation would be that if we  
7 want the voluntary carbon market to grow and serve the  
8 public purpose that I mentioned earlier then it needs  
9 to be built on trust, and trust will only emerge, will  
10 only arise if there is full transparency that allows us  
11 to scrutinize what is going on, for buyers to know what  
12 they are buying, sellers to know what they are selling,  
13 and the public to know what is being claimed.

14 So, I would really ask the Commission to  
15 focus on ensuring the maximum transparency possible  
16 that allows all those things to happen, and that is how  
17 we will grow a liquid and high-integrity market.

18 DR. PEACE: Bella? One thing.

19 MS. ROZENBERG: My one recommendation would  
20 be for the Commission to take stock of the existing  
21 regulatory authority that it has and to make sure that  
22 it can use it efficiently and effectively when it comes

1 to the VCC markets, and to see if there is opportunity  
2 to bring more transparency and consistency into VCC  
3 markets.

4 DR. PEACE: Thank you. Linda?

5 MS. FRENCH: We would like to see the CFTC  
6 play a leadership role, globally, just to ensure that  
7 coordination and interoperability is happening, because  
8 we think that is going to be absolutely essential to be  
9 able to scaling voluntary carbon markets.

10 DR. PEACE: Aoife? Are you still there?

11 MS. KEARNEY: I am still here. I am going to  
12 cheat and put two topics together. So, I am going to  
13 say by transparency but also convergence in  
14 international standards, so a disclosure means the same  
15 thing in one jurisdiction as it would in another.

16 DR. PEACE: That seems like one. Darcy?

17 MS. BRADBURY: Yeah. I guess I would  
18 encourage them to talk more about the existing  
19 contracts, get more information out to market  
20 participants. Maybe this is an unfair thing to say,  
21 but if we spent half as much time talking about carbon  
22 contracts as we do about crypto some days we might all

1 be a little better off. I learned a lot of things  
2 today, and I spent a fair amount of time doing research  
3 before this panel, and I think more people could  
4 benefit from that education.

5 DR. PEACE: Somebody said in an earlier panel  
6 there was a crisis of confusion. I think that is true.

7 Alexia, you have the final thought.

8 MS. KELLY: No pressure. Transparency,  
9 integrity, harmonization.

10 DR. PEACE: Thank you to our panel. I think  
11 you have heard from all how important this market is,  
12 how there is room for improvement, and we appreciate  
13 the time that you have for us.

14 MS. KNAUFF: Thank you, Janet. We are now  
15 going to shift to Part II of the last panel of the day,  
16 and as folks transfer to their seats I am going to  
17 introduce our moderator.

18 We have Angela Churie Kallhauge, who joined  
19 EDF in April of 2022, as the Executive Vice President  
20 for Impact, using inclusive processes and economic  
21 approaches to achieve ambitious climate solutions that  
22 deliver equitable benefits to people around the world.

1 She joined EDF from the World Bank Group, where, for  
2 the past five years, she has led the Carbon Pricing  
3 Leadership Coalition, a voluntary partnership of  
4 governments, businesses, civil society organizations  
5 working to advance carbon policy on the global agenda.

6 Before joining the World Bank, Angela spent a  
7 decade in senior roles in the Swedish government, as a  
8 negotiator to the United Nations Framework Convention  
9 on Climate Change, and led the European Union's team  
10 that negotiated adoption, loss, damage, and capacity  
11 development issues. For two years Angela worked at the  
12 International Renewable Energy Agency in Abu Dhabi,  
13 where she developed and coordinated an agency-wide  
14 strategy on climate change issues.

15 A native Kenyan, Angela is passionate about  
16 climate solutions that improve human well-being  
17 globally, and, in particular, in the developing world.

18 Welcome. Thank you.

19 MS. KALLHAUGE: Okay. Thank you. Good  
20 afternoon, and I really appreciate the invitation to be  
21 here and join you here today. At the outset, I just  
22 want to say that this panel will end at 4:10, and we



1 will still do our utmost best to wind up at 4:15. So  
2 we will have ample time to have this conversation.

3           A couple of words first about the  
4 Environmental Defense Fund, which I will assume that  
5 most people have come across, at least in the United  
6 States. EDF, or Environmental Defense Fund is a global  
7 NGO where we center our work on climate change and  
8 people. We have been dedicated to environmental  
9 justice in local communities, and we established about  
10 50 years ago. One of the trademarks of EDF is the fact  
11 that we use science and economics to identify practical  
12 solutions to the world's greatest environmental  
13 challenges.

14           Our work falls into three broad pillars. We  
15 have just gone through an organizational refresh where  
16 we have reflected on the relevance and impact that we  
17 can make at a time when we really do need urgent  
18 climate action. And the main pillars of our work fall  
19 into three categories: stabilizing the climate system,  
20 strengthening the ability of people and nature to  
21 thrive, and supporting people's health through work  
22 with Healthy Communities. This translate into programs

1    such as the Global Clean Air Climate-Resilient Food  
2    Systems, Climate-Resilient Fisheries, Natural Climate  
3    Solutions, and Clean Energy.

4               When it comes to markets, EDF has been  
5    working in this space for many years. We believe that,  
6    of course, for markets to be effective they need to  
7    operate at scale. They need to be inclusive and have  
8    high standards of integrity, and I think that has been  
9    discussed significantly today. They need to be  
10   effective and accountable. And of course, there also  
11   needs to be predictability to ensure that we are able  
12   to plan for the long term.

13              We have a number of initiatives. I think  
14   there has been mention of two that we are very actively  
15   involved in, the Integrity Council for the Voluntary  
16   Carbon Market, and the Voluntary Carbon Market  
17   Integrity Initiative. The reason is because we believe  
18   when looking at integrity issues we need to look at all  
19   aspects, across the whole spectrum of actions related  
20   to the market, from the demand side to the supply as  
21   well.

22              Two recent initiatives that are relevant to

1 mention in this discussion. One is the Carbon Credit  
2 Quality Initiative that we just started together with  
3 Oeko-Institut in Germany as well as WWF. And through  
4 this initiative we are working to set out quality  
5 objectives for carbon credits, and we have a developed  
6 a comprehensive methodology score credit quality. And  
7 I would be happy to share more information later on  
8 that.

9           And the second one is we launched a guide  
10 together with eight other, should I say, environmental  
11 organizations, local communities, and indigenous people  
12 groups, looking at what constitute good when it comes  
13 to tropical forest investments. So, this Tropical  
14 Forest Carbon Integrity Guide is really meant to be  
15 able to give some clarity, especially to those  
16 businesses that are thinking to go and engage within  
17 the sector.

18           I won't go too much more into what we are  
19 doing since I know we have a group of very exciting  
20 panelists who will speak to us about their activities,  
21 and maybe to get this going I would like to turn to  
22 Chuck Conner, who is the President and CEO for the

1 National Council of Farm Cooperatives. Chuck?

2 MR. CONNER: Well, thank you, Angela, and  
3 Chairman Behnam and Commissioners, thank you for the  
4 opportunity to speak at this important gathering today  
5 on behalf of farmer-owned cooperatives and the more  
6 than 2 million farmer members across the country that  
7 we represent.

8 NCFC is a founding co-chair of the Food and  
9 Agriculture Climate Alliance, which consists of 80  
10 organizations that represent food, agriculture, and  
11 forestry value chain, and I would note Angela as well,  
12 that EDF is also a founding member of that very  
13 alliance. FACA is committed to ensuring climate  
14 policies that impact the food and agricultural sector  
15 that are voluntary, market- and incentive-based, and  
16 policies that help rural economies and communities  
17 better adapt to climate change.

18 Farmer co-ops are at the center of responding  
19 to consumer demands and private sector commitments to  
20 reduce emissions and grow green supply chains. As  
21 trusted advisors to their farmer owners, they are  
22 positioned to support producers' participation in

1 carbon credit programs by providing timely planting  
2 advice, assisting with data collection, and providing  
3 crop production services that complement carbon  
4 markets.

5           Several of our members have recently  
6 initiated programs in this space. They have formed  
7 partnerships with third-party carbon purchasers to help  
8 their farmer members access voluntary carbon markets.  
9 While their objective is similar in that their farmers  
10 receive credit and compensation for adopting and  
11 maintaining climate-smart agricultural practices, each  
12 initiative does vary in its approach.

13           For example, Land O'Lakes Truterra launched  
14 its inaugural carbon program in 2021, offering cash  
15 payments to farmers for carbon sequestration practices.  
16 In the first year of the program, Truterra paid over \$4  
17 million to farmers who sequestered approximately  
18 200,000 metric tons of carbon. For 2022, Truterra is  
19 offering farmers two different options to get involved  
20 in the carbon market space. The program allows farmers  
21 who have adopted sustainable practices since 2019 to be  
22 rewarded for their stewardship. In addition, they are

1 offering a new program, the Truterra Carbon Market  
2 Access Program, to farmers who are just beginning these  
3 selected practices. This program acknowledges the  
4 reality that transitioning to climate-smart practices  
5 does take time and investment.

6           Also last year another co-op, GROWMARK,  
7 announced a partnership with Indigo Agriculture where  
8 the co-ops retailers will help farmers evaluate,  
9 enroll, and implement climate-smart farming practices.  
10 While you heard greater detail about Indigo's program  
11 on the last panel, GROWMARK and its farmers will  
12 leverage Indigo's capabilities for measuring and  
13 verifying on-farm environmental impacts at scale. This  
14 will help translate the results of farmers' efforts  
15 into new sources of revenue for those farmers.

16           Finally, CHS Inc., recently announced a  
17 collaboration with Bayer Crop Science's Carbon Program.  
18 This carbon retention practice program rewards growers  
19 for implementing and maintaining cover crops and  
20 conservation tillage practices on a per-acre and per-  
21 practice basis, after verification of these practices.  
22 The focus is on providing value for practices growers

1 choose to use.

2           I believe co-ops will continue to play an  
3 essential role in assisting farmer members to explore  
4 and implement carbon credit programs. Just like the  
5 existing services that are tailored to each farmer's  
6 operation, having different carbon offset options will  
7 help expand producer participation in these markets.

8           Several challenges remain, however. For  
9 example, how do we incentivize a greater number of  
10 producers to enroll acres in carbon programs? This  
11 will require increased economic return beyond what does  
12 exist today, given the investment costs to participate  
13 in these programs. Further, carbon markets generally  
14 only reward producers for new and enhanced practices.  
15 This leaves out producers who have already adopted  
16 climate-smart practices but aren't in any of these  
17 markets.

18           Work also remains within the agricultural  
19 industry to understand the best practices when it comes  
20 to monitoring, measuring, reporting, and verifying  
21 sequestered carbon and emissions reductions at the farm  
22 level. Private sector innovation and market

1 development should be encouraged in that process.  
2 Sound public policy will also be important, and I  
3 commend the U.S. Department of Agriculture for recently  
4 announcing over \$1 billion of funding for pilot  
5 programs to promote climate-smart agriculture and  
6 market development.

7           As these transactions and cash markets  
8 develop, I believe that the forward contract exclusion  
9 applies. These markets should not inadvertently be  
10 captured by the regulatory regime that is designed for  
11 derivatives. CFTC, I would say, may also want to  
12 consider appointing a liaison to USDA to gather and  
13 share information with them, given Secretary Vilsack's  
14 involvement in this market already, and I understand  
15 there is precedent for doing this type of thing in the  
16 cattle market as well. I also encourage the Commission  
17 to host future roundtables specifically targeted at the  
18 agricultural industry, given the progress that we can  
19 make here.

20           So, thank you again, Mr. Chairman. Thank  
21 you, Angela, for having me as part of this panel.

22           MS. KALLHAUGE: Thank you very much. I think



1 we will just move straight on to the next speaker, and  
2 this is Shelby Swain Myers, who is an economist with  
3 American Farm Bureau Federation.

4 MS. MYERS: Yes. Thank you for the  
5 opportunity to be here and to share the agriculture  
6 producer perspective for voluntary carbon markets.

7 The American Farm Bureau Federation is the  
8 largest general farm organization in the U.S., and we  
9 have existed for over 100 years as a nonpartisan,  
10 grassroots organization with membership in all 50  
11 states plus Puerto Rico. Farm Bureau prides itself on  
12 being the voice of agriculture.

13 My name is Shelby Swain Myers and I am here  
14 on behalf of the American Farm Bureau President, Zippy  
15 Duvall, a farmer from Georgia, as well as our Board of  
16 Directors and our over 6 million farmers and ranchers  
17 across the U.S. and Puerto Rico.

18 I spent the last year on the road, talking to  
19 growers about the opportunities and challenges in  
20 voluntary carbon markets. We have given over 90  
21 presentations across various states, geographies,  
22 cropping and grazing systems, and American Farm Bureau

1 views our role very simply as being an objective voice  
2 for growers, to not provide an endorsement but provide  
3 education.

4           There are over 14 programs, as well as  
5 monitoring, measurement, reporting, verification  
6 platforms that growers can participate in. That is  
7 quite a few to sort through. They come with various  
8 contracts, contract commitments, as well as data  
9 provisions that are unfamiliar and not written for  
10 growers.

11           At American Farm Bureau we focus on ag  
12 sustainability and the story that we have to tell,  
13 being a partner at the table for what we do. You know,  
14 agriculture is highly productive and highly efficient.  
15 For every one input that we use we produce 2.78 times  
16 that amount in productivity, not to mention we are  
17 consistently about 10 percent of the U.S. greenhouse  
18 gas emissions, and in 2020, reported a greater than 4  
19 percent decrease in our greenhouse gas emissions. When  
20 you combine that with our land use, land use change,  
21 and forestry, which represents about a negative 12  
22 percent share of greenhouse gas emissions, the

1   agriculture sector emits negative 2 percent greenhouse  
2   gas emissions in the U.S.

3               Our ability to sequester greenhouse gas  
4   emissions puts us at the forefront of these  
5   discussions, as a key supplier, but it does not come  
6   without barriers, and I am going to get to that here in  
7   a second.

8               As Chuck mentioned, and the Environmental  
9   Defense Fund is also a part of this, the Food and Ag  
10   Climate Alliance was an unprecedented group that came  
11   together, of farmers, forest owners, food sector, state  
12   government, and environmental advocates to provide 40  
13   recommendations related to agriculture, sustainability,  
14   and climate.

15              The three objectives that we supported those  
16   40 recommendations with were voluntary, market-based  
17   incentives, science-based outcomes, and promoting  
18   resilience in rural economies. At the end of the day  
19   it is to do no harm to agriculture, primarily because  
20   our culture is a key supplier of credits, both insets  
21   and offsets. And it is important that growers are  
22   protected and able to participate in these markets.

1           While these markets are seen as a diversified  
2   revenue stream for growers, they are just one of the  
3   many voluntary, market-based incentives that exist in  
4   the private sector. And it comes with many barriers.  
5   For one, verification. We have talked a lot about  
6   third-party verification and audits, and that comes  
7   with costs as well as major data obligations that  
8   growers are asked to meet, not to mention the on-farm  
9   reporting that is required in order to comply with  
10  those verifications.

11           There was also a mention of new practices  
12  that are the only ones that qualify in these markets,  
13  the concern of additionality, and that a grower must  
14  pick up a new practice or add, in addition to the  
15  practices that they already are implementing on their  
16  farm, which inhibits the role of early adopters to  
17  participate in these markets, which many growers are  
18  already doing. I would note that USDA will have a new  
19  survey-based dataset of conservation practice adoption  
20  soon to come. They did a survey over the Spring, to  
21  get a better snapshot of where early adopters are  
22  across the U.S.

1           Another barrier that exists are financial  
2 barriers. Mr. Frederick acknowledged this in the last  
3 panel. It is not inexpensive to pick up conservation  
4 practices. There is significant time and investment,  
5 as well as risks associated with doing that, and while  
6 there is payment associated for these credits it is not  
7 enough, economically, to offset the investments costs  
8 required.

9           I appreciate the comments that were made  
10 about infrastructure because there is incredible  
11 technical support needed, including an upgrade of rural  
12 broadband that will need to come in order for growers  
13 to participate as suppliers in these markets.

14           It also comes with a significant education  
15 trial and error, managing your risk through this and  
16 having opportunities to do this at a low-risk  
17 environment considering agriculture is one of the  
18 riskiest businesses out there. There are long-term  
19 impacts that come with signing these long-term  
20 contracts for growers, and that need to be taken into  
21 consideration, as well as the part that has been  
22 mentioned about permanence and how long we maintain the

1 permanence into the soil.

2           I mentioned I spent the last year on the road  
3 listening to growers, and many of the questions that I  
4 get could be summed up into this list: How will  
5 farmers be paid, and is there an opportunity for that  
6 payment to grow? Will carbon ever become a commodity,  
7 or will the carbon-reducing commodity be what is  
8 traded? And I think a key dimension is the climate-  
9 smart commodity or the carbon itself as a commodity.

10           How will farmer and on-farm data be  
11 protected? We live and work on our farms and ranches.  
12 We raise our families there. That is an important  
13 piece of the puzzle, to make sure that on-farm data  
14 stays protected to the individual.

15           What is the liability of the grower, and what  
16 are the contract obligations that we are meeting,  
17 including the long-term commitments interacting with  
18 the business associated?

19           And finally, who can I trust with my  
20 livelihood? I think that is a very important piece to  
21 this puzzle because farms are not just businesses.  
22 They are livelihoods.

1           Agriculture is working to do its part to  
2   mitigate greenhouse gas emissions, but every farm and  
3   ranch is different. It's an individual business, and  
4   it's an individual, small family business. Farmers are  
5   price takers, both for inputs and for the products they  
6   produce. Farming comes with a huge amount of risk,  
7   with Mother Nature serving as both your friend and  
8   adversary. Growers need a seat at the table that  
9   provides flexibility and autonomy to make the right  
10   decisions that are best for their farm.

11           Thank you for the opportunity to present our  
12   remarks today.

13           MS. KALLHAUGE: Thank you very much, Shelby,  
14   and I think you make a very good point of the  
15   importance of not losing sight of the context within  
16   which markets will be operating.

17           I will turn now to Tyson Slocum, the Director  
18   for the Energy Program, Public Citizen.

19           MR. SLOCUM: Thank you so much. Mr.  
20   Chairman, thank you so much for your leadership on this  
21   and so many other issues. Commissioners, thank you so  
22   much for your engagement and attention to this

1 important issue. And Abigail, there were an awful lot  
2 of speakers today, and I know that was an awful lot of  
3 work, so thank you.

4 I'm Tyson Slocum. I direct the Energy  
5 Program with Public Citizen. We are a national public  
6 interest research and advocacy group representing the  
7 interests of household consumers.

8 Mark Twain once quipped, "Don't let facts get  
9 in the way of making a good argument," and I agree that  
10 voluntary offsets have an important role to play in  
11 combatting the climate crisis. But I keep coming back  
12 to the statement uttered by the individual from the  
13 State Department earlier, who questioned how do we  
14 verify that the underlying carbon offset is real? And  
15 I haven't yet been convinced, through all of the  
16 different procedures and discussions, that we have the  
17 procedures in place to ensure the integrity that these  
18 underlying offsets are, in fact, doing what they are  
19 claiming to do. And I think we really need to address  
20 those facts before this market grows, as it is expected  
21 to.

22 And this market is growing, as we have heard



1 from earlier speakers, because of this rush by so many  
2 corporate and other stakeholders in our society to  
3 issue net zero commitments. And as we heard from  
4 government officials and others, some of those  
5 commitments have a lot of impressive detail to them,  
6 and other read a lot more like it was put together by a  
7 public relations department. And so, it is incredibly  
8 important that offsets be verified if they are going to  
9 play a meaningful role.

10           And there is an important aspect there that  
11 hasn't been discussed yet here today, and that is the  
12 inherent conflict between voluntary offsets and other  
13 potential solutions to the climate crisis, namely  
14 regulatory initiatives. So, let me explain. If you  
15 are pursuing a voluntary offset it can only be credible  
16 if it is not required. So, if there is a regulation in  
17 place mandating that activity, well then that voluntary  
18 offset is no longer valid, right? So, let's say we are  
19 dealing with methane emissions and we have got a  
20 voluntary offset program to try and mitigate methane  
21 emissions, and then the U.S. Federal Government enacts  
22 a methane reduction regulatory program. All of a

1 sudden that voluntary offset market is not very  
2 effective.

3           So, what that means is that it immediately  
4 creates this tension, where participants that have  
5 vested time and money into voluntary offsets are likely  
6 going to be active lobbyists opposing regulatory and  
7 other solutions to the climate crisis, even if those  
8 other solutions are more cost effective and efficient  
9 at achieving emission reductions. And so, I am  
10 concerned by this inherent conflict, and I think that  
11 needs to be addressed.

12           But getting to the point of this panel, which  
13 is addressing what is the CFTC's role, clearly  
14 addressing fraud and manipulation. It is interesting  
15 to me that the global crime-fighting entity, INTERPOL,  
16 literally issued a report on the massive potential for  
17 fraud in the voluntary offset market several years ago.  
18 And that is for a number of reasons, but in part  
19 because of things we have heard today. It is a very  
20 different type of commodity from everything else. It  
21 is not very tangible, like corn or crude oil, and that  
22 makes it more of an opportunity for fraud and

1 manipulation.

2           The U.S. Department of Justice, just a few  
3 months ago, in December, issued a fantastic analysis of  
4 lessons learned from widespread fraud in the renewable  
5 fuel market in the United States and its potential  
6 applications to fraud in the voluntary offset market, a  
7 very important read that I will contribute as part of  
8 follow-up comments by the deadline. But there the  
9 Department of Justice highlighted just how widespread,  
10 varied, and diverse the fraudulent schemes were in the  
11 renewable fuel market, that there was so much fraud  
12 that fraud, at many times, was driving the market price  
13 in the trading markets.

14           There was one example in the Department of  
15 Justice report from just a few months ago where they  
16 highlighted a biofuel facility that had literally been  
17 built but the folks that built it were running out of  
18 cash and they determined that their operations were  
19 uneconomical, but that they proceeded ahead with  
20 cashing in over \$50 million of RINs, renewable  
21 identification numbers, all with their own serial  
22 numbers. They said that they were producing this

1 renewable fuel when, in fact, they hadn't been. And  
2 the EPA, even though it had direct oversight, did not  
3 have an enforcement program. There was nobody going to  
4 these facilities. You can view them from the air, from  
5 a satellite, and while some of those technologies are  
6 good, what I am not hearing enough is the need to have  
7 on-the-ground monitoring to ensure that facilities and  
8 programs are doing what they are saying they are going  
9 to do.

10           And that brings me to the last point and what  
11 the Commission could take away here, is I am concerned  
12 that the protocols for assessing the validity of carbon  
13 offsets are being done by market participants. And I  
14 understand that there is a lot of good intention, a lot  
15 of good work, but there are vested interests that are  
16 playing an active role in shaping those protocols and  
17 those standards, and that creates inherent conflicts of  
18 interest, no matter the best intentions of all of us.  
19 And it would be far more prudent to have a completely  
20 removed standards-setting process that does not  
21 actively include vested interests who are actively  
22 engaged or are financially invested in these carbon

1 offset markets.

2           And so, I think going forward the Commission  
3 can think about, in addition to just general fraud and  
4 manipulation oversight, but considering what minimum  
5 standards would be required for the listing of products  
6 on futures exchanges, to ensure that the standards are  
7 not set through industry self-regulation but through  
8 independent means, and that there are clear enforcement  
9 verification standards. I am not hearing enough detail  
10 about how these things are verified and enforced.

11           Thank you so much for your time. I  
12 appreciate it.

13           MS. KALLHAUGE: Thank you very much, Tyson,  
14 and thank you for raising issues that do need to be  
15 taken into consideration.

16           I will just speak on one of the last points  
17 you made, mainly because it was a concern, I know, even  
18 in my previous capacity we did raise, around who is  
19 setting the rules of the game. But a lot has happened  
20 in the last eight months, and if you look at the  
21 Integrity Council -- as an example, and I will just  
22 speak that as one of them -- the diversity of voices,

1 not just market players. We are getting in  
2 governments. We are getting in indigenous people and  
3 local communities. We are bringing in academics,  
4 bringing in institutions like EDF, into that  
5 conversation, mainly because, at the end of the day, it  
6 is a meeting of minds that will make the market work.

7           So I think that concern is something that we  
8 are all taking very seriously and are working with, and  
9 really even though we do hear a lot from the market  
10 players, I think even just, as the previous speaker was  
11 talking about, the work with agriculture, agricultural  
12 communities and the farmers to educate them is really  
13 part of that bigger picture, and I think it is  
14 something that we will continue to strive to do.

15           Sorry to take time and abuse my prerogative  
16 as the moderator on that.

17           I would like to now turn to a colleague who  
18 is joining us at a late hour from the U.K., Jeff  
19 Swartz, who is Vice President for Low Carbon Strategy,  
20 Regulatory Affairs and Partnerships with BP. Jeff has  
21 been in this space a long time. Good to see you  
22 joining us this evening. Jeff, over to you.

1           MR. SWARTZ: Good afternoon, and good to see  
2   you, Angela. Can you hear me okay?

3           MS. KALLHAUGE: Yes, we can.

4           MR. SWARTZ: Great. Good afternoon, Chairman  
5   Behnam and Commissioners Johnson, Goldsmith Romero,  
6   Mersinger, and Pham. Thank you for inviting BP to  
7   participate in today's voluntary carbon markets  
8   convening. I am BP's Vice President for Low Carbon  
9   Strategy and Regulatory Affairs and I am also a board  
10  member of the Integrity Council for Voluntary Carbon  
11  Markets.

12           I want to start by stating that BP is  
13  committed to constructive dialogue with the Commission,  
14  relating its potential role in promoting fair and  
15  orderly trading in the futures and derivatives markets  
16  that arise from the voluntary carbon markets.

17           BP's ambition is to be a net zero company by  
18  2050 or sooner, and help the world get to net zero as  
19  well. We are not waiting to get into action. We have  
20  set short-term targets and aims for 2025 and 2030, and  
21  since February 2022, our aims are to be net zero across  
22  our operations, production, and sales by 2050 or

1   sooner. We support the use of carbon offsets or  
2   allowances by companies, countries, and society in  
3   enabling the world to get to net zero and meeting the  
4   Paris goals, effective compliance in voluntary carbon  
5   markets where high-quality carbon credits are important  
6   to finance these activities.

7           We expect that global demand for carbon  
8   credits is likely to grow as more companies use them to  
9   achieve their climate-related goals. So, we intend to  
10   continue to offer carbon credits and offsetting  
11   solutions to our customers to help them meet their own  
12   goals. However, we do not plan on using or relying on  
13   offsetting to meet our 2030 net zero aims. We consider  
14   that it makes sense to account for carbon credits  
15   directly related to our business, for example, where  
16   carbon credits are bundled with the energy we sell, and  
17   looking ahead we plan to do so.

18           BP participates in both the voluntary carbon  
19   markets as well as compliance markets, some of which  
20   allow for the use of offsets to achieve their policy  
21   objectives. Within BP's trading and shipping business  
22   we had a low-carbon trading business which plays a



1 vital role in connecting BP and our customers to carbon  
2 pricing activity in the world's compliance and  
3 voluntary carbon markets. We have been active in  
4 carbon markets as far back as 2001.

5 BP Products North America offers compliance  
6 offsetting and voluntary offsetting products and  
7 sources carbon credits from carbon offsetting projects  
8 certified by third-party standards around the globe.  
9 And BP Energy Company is a provisionally registered  
10 swap dealer with the CFTC, and it offers physical and  
11 financial products to the market to mitigate risks,  
12 including compliance offsetting and voluntary  
13 offsetting products. BP Energy Company's swap dealer  
14 business includes developing structured financing and  
15 hedging solutions for our companies in need of  
16 innovative deal structures, and it is here that BP must  
17 tap into less liquid markets, and many times must  
18 warehouse some of that risk in our own portfolio due to  
19 a lack of liquidity in those markets.

20 BP supports the CFTC's role in promoting fair  
21 and orderly trading in the futures and derivatives  
22 markets, including those markets arising from voluntary

1 carbon markets and in protecting these markets from  
2 fraud and manipulation. BP applauds the Commission's  
3 decision to seek public comments on carbon offsets and  
4 encourages more market transparency.

5           We see a need for the CFTC to (1) regularly  
6 review the integrity of established exchanges for  
7 financial instruments arising from the voluntary carbon  
8 markets to help ensure market integrity and increase  
9 liquidity, and (2) to increase transparency to promote  
10 greater investor confidence in the voluntary carbon  
11 market which will lead to greater price discovery and  
12 prevent fraud and manipulation. However, we would  
13 caution against adopting forms of regulation that have  
14 the effect of limiting market participation.

15           Finally, I would like to share with you two  
16 asks for standardization, transparency, and market  
17 integrity in the voluntary carbon markets. One, we  
18 support the CFTC's role in regulating futures and  
19 derivative products that are tied to global voluntary  
20 carbon markets, and we see that there is a need for  
21 greater market standardization in order to help these  
22 markets reach a larger scale. And we would encourage

1 the CFTC to coordinate with global regulators in order  
2 to harmonize efforts to enhance transparency and  
3 integrity.

4 And two, in its role in regulating exchanges,  
5 the CFTC should ensure sufficient transparency exists  
6 in the financial markets tied to the voluntary carbon  
7 market in order to discharge its mission to prevent  
8 fraud and manipulation.

9 Thank you so very much for allowing BP this  
10 opportunity to describe its business and interest in  
11 voluntary carbon markets. Thank you again for your  
12 leadership.

13 MS. KALLHAUGE: Thank you very much Jeff.  
14 And now we will move on to our last panelist, Michael  
15 LeMonds, Vice President, Environment, Land, and  
16 Government Affairs at Holcim US.

17 MR. LeMONDS: Thank you, Angela, Chairman and  
18 CFTC Commissioners, and the staff for organizing  
19 today's symposium.

20 I serve on the executive team of Holcim US.  
21 I have about 20 years of experience in the cement,  
22 roofing, aggregates, and concrete business. My

1 background is specifically in business and  
2 manufacturing and not in the financial markets, so  
3 instruments and some of the terminology we use today is  
4 not part of my lingo, so excuse me if I get some of the  
5 terms wrong.

6 I appear here today to share how Holcim is  
7 working to be a net zero company and how your work in  
8 overseeing the integrity of the carbon markets and  
9 instruments can have an impact on our company, on  
10 American manufacturing, on U.S. competitiveness, and  
11 our ability to meet climate targets set for us by the  
12 Paris Climate Accords.

13 For those of you that don't know Holcim, we  
14 are a global leader in innovative building solutions.  
15 We operate in the U.S. as Aggregate Industries,  
16 Lafarge, Holcim, Firestone Building Products, and  
17 Geocycle. So those are the operating businesses. We  
18 operate in 80 countries, have about 70,000 employees  
19 around the world, and have four primary business lines,  
20 those being cement, ready-mix concrete, aggregates, and  
21 roofing.

22 In the U.S. we have about 350 active

1 manufacturing sites in 43 states, and have about 7,000  
2 employees. And our customers count on us to deliver in  
3 the materials space solutions for structural integrity,  
4 sustainability, and resiliency, to help us build  
5 progress for people on the planet by delivering better-  
6 quality, innovative building materials that enable  
7 greener cities, smarter infrastructure, and improved  
8 living conditions for people around the world.

9           As part of that, we became the first building  
10 materials company to adopt a net zero pledge. Our  
11 journey to net zero will not be easy. For those that  
12 don't know, cement is a very energy-intensive business.  
13 It is trade exposed. The industry is at high risk for  
14 carbon leakage, and unverified credits and deceptive  
15 market practices only hinder our efforts to  
16 decarbonize.

17           For Holcim we are not simply talking about or  
18 looking at buying credits in the voluntary market to  
19 offset our actions. Our journey to net zero is driven  
20 by science. We are the first company in the building  
21 materials space to have a net zero roadmap, 2030, 2050  
22 targets, that have all been independently verified by

1 the Science-Based Targets Initiative. And these  
2 targets require us to cut our emissions across our  
3 value chain, including Scope 1 emissions, Scope 2  
4 emissions, and Scope 3 emissions. So, it is all about  
5 mitigation and mitigation with transparency.

6           As part of our net zero journey we are  
7 actively working on innovative products and solutions  
8 that include low-carbon cement, low-carbon concrete.  
9 We have a goal of recycling, in the U.S., 10 million  
10 tons of material. That is basically taking the road  
11 after we are done with its useful life and reusing it.  
12 And using things like 3D printing to build the homes of  
13 the future.

14           In the U.S., as well, we are working hard to  
15 decarbonize the business. So, we are working to reduce  
16 our Scope 1 emissions by upgrading our plants, by fuel  
17 switching, by utilizing carbon capture, and we are  
18 working on our Scope 2 emissions by investing in the  
19 development and deployment of renewable energy,  
20 including wind farms and solar. And we are working to  
21 reduce our Scope 3 emissions principally by biofuels  
22 and electric vehicles.

1           What we are not doing is we are not making  
2   those emission reductions by using offsets. As the  
3   gentleman from BP spoke, offsets are not part of our  
4   net zero strategy. It is not to say that offsets are  
5   not necessary or a useful tool to achieve net zero but  
6   they should not serve as the main building block for a  
7   company's decarbonization efforts.

8           As you all heard today, voluntary carbon  
9   markets are expanding as corporations seek to offset  
10  their greenhouse gas emissions by paying someone else  
11  to reduce theirs. The CFTC and related agencies need  
12  to ensure that all carbon markets are fair,  
13  transparent, and actually deliver on the long-term  
14  carbon reductions offered by the carbon markets.

15          Regulators must also ensure that the credits  
16  are used to avoid meaningful decarbonization efforts.  
17  We need to ensure that there is a level playing field  
18  for all and that credits are used as a complementary  
19  tool for deep decarbonization but not as a way to  
20  bypass it.

21          Finally, the CFTC and related agencies must  
22  also work to ensure credits are not used to deliver

1 misleading claims of climate-friendly products that  
2 hurt innovation and hurt the deployment of true, low-  
3 carbon products.

4           So, thank you again for the opportunity to  
5 testify today, and I am happy to answer any questions  
6 at the end of the panel.

7           MS. KALLHAUGE: Thank you very much. I must  
8 say, it has been very encouraging to hear consistent  
9 messaging coming from all of you as also have come from  
10 the previous panel.

11           I would like to open the floor for some  
12 questions, and maybe I will start and see if some of  
13 the Commissioners have any questions or reactions?

14           [No response.]

15           MS. KALLHAUGE: Other participants?

16           [No response.]

17           MS. KALLHAUGE: It is the end of a long day.

18           Okay. So, I will turn back to the panel.  
19 There have been a lot of the recommendations that are  
20 coming through around transparency and integrity, the  
21 need for coordination that needs to make sure that the  
22 conflict between regulatory measures and the markets



1 are well addressed, that the key players are well  
2 informed and educated so that they understand the  
3 ramification of the market and their participation.

4           Are there any other key recommendations that  
5 you would like to highlight, or what would be that one  
6 main recommendation that should be addressed at the  
7 outset that we should be putting forward to the  
8 Commissioners? It could be in addition or it could be  
9 an emphasis of something you have already picked up  
10 from also what you have heard through the day.

11           MR. CONNER: I will try first. I will just  
12 say it is the basket of transparency issues as it  
13 relates to bringing more farmers into the fold on this.  
14 You know, agriculture is such a high-risk business, and  
15 the entire sector is about controlling that risk. And  
16 the uncertainty that comes through a lack of full  
17 transparency is just going to be a discouragement for  
18 farmers to participate.

19           And obviously I think we have an opportunity  
20 here. This is why so many of our members are now  
21 playing in this place, and they weren't just a few  
22 short years ago. It is coming, but to really get the

1 kind of performance that we expect through farmers  
2 participation you have got to give them the tools to  
3 know, with certainty, what is involved here, because  
4 they simply cannot and are not going to take on  
5 additional risk in a carbon market. They have too much  
6 already.

7 MS. KALLHAUGE: Okay.

8 MR. SLOCUM: I just noticed a very  
9 interesting disconnect between some elements of, you  
10 know, the first panel, which was highlighting standards  
11 and quality standards for offsets, where I heard from  
12 multiple speakers that we can't have a top-down  
13 solution, that we need to allow for different types of  
14 standards between, for example, North and South, in  
15 order to allow for innovation to bloom.

16 But then from the demand side I was hearing  
17 the complete opposite. I was hearing about the need  
18 for standardization. I was hearing about the need for  
19 one set of standards. And so, it seems like this is  
20 something that needs to be rectified, particularly if  
21 the folks working on developing the protocols and the  
22 standards are speaking much differently than the folks

1 on the demand side. And I think that we have got to  
2 have some more consistency there, or at least  
3 understand why there are those differences.

4 MR. SWARTZ: Angela, if I may, I think the  
5 voluntary carbon market is one in which it is not as  
6 liquid as many other markets today, so we would  
7 encourage the CFTC to look at all ways to encourage  
8 regulation that would encourage greater market  
9 liquidity. At the same time, we are operating in a  
10 world of bottom-up approaches, under the Paris  
11 Agreement, and so we are going to be operating in a  
12 multiplicity of various voluntary carbon markets,  
13 whether that is in the U.S. or Europe or Japan or  
14 wherever.

15 So, there is a need for the CFTC to work with  
16 other regulators around the world, to encourage best  
17 practice, and to try and harmonize those regulations  
18 wherever possible. And I think the work of the  
19 Integrity Council on Voluntary Carbon Markets will be  
20 really key here, because the Integrity Council is going  
21 to come out with some very key recommendations later  
22 this year, and I am sure, as the Commissioners have

1 heard already today, there is going to be a lot of  
2 interesting work that can help guide them in their  
3 work, from the Integrity Council, going forward.

4           So again, I would say encourage  
5 standardization, transparency, market harmonization,  
6 but at the same time, do so in a way that it doesn't  
7 hamper the growth of market liquidity.

8           MS. MYERS: I would echo many of the  
9 recommendations that Chuck made on behalf of the farmer  
10 cooperatives, as well as add that growers that I talk  
11 to, farmers and ranchers, have asked for flexibility,  
12 particularly across the geographies and cropping  
13 systems that they have, as well as the autonomy to make  
14 the decisions that is best for their farms and ranches  
15 and their family situations, their business situation,  
16 their risk tolerate, if they will.

17           And then finding the way in which they get  
18 paid for the full environmental benefit that they are  
19 generating. There is a lot riding on their shoulders  
20 in the practices that they are implementing, and to cut  
21 them short would be sorely unfair for the revenue  
22 potential that we are talking about in the market that

1 is here. So, finding ways that they are fully  
2 compensated for the environmental benefit they are  
3 generating would be a high priority as well.

4 MR. LeMONDS: Maybe I will just offer one  
5 additional comment, and that is the financial markets  
6 today and our shareholders, for the most part, expect  
7 from companies like Holcim, mitigation to be at the  
8 forefront. And when we have discussions about taking a  
9 product where you can take it to 30, to 70 percent  
10 lower carbon content, but to get to the last part you  
11 would have to use offsets, we end up with issues around  
12 integrity of the offsets and transparency, and we  
13 generally get criticized when we even talk about that.

14 So, there is a lot of room for improvement  
15 that you have heard all day long today within that  
16 space before we are able to use that as a credible  
17 mechanism to get to zero-carbon products.

18 MS. KALLHAUGE: Thank you very much. I will  
19 not make an attempt to summarize because I know this is  
20 part of the whole that they day has been with a lot of  
21 valuable insights on areas that the Commissioners can  
22 take into consideration as they look into this issue

1 further.

2           So, I would like to thank the panelists very  
3 much for your insights and your contributions, and I  
4 will pass it back now to Abigail.

5           MS. KNAUFF: Thank you, Angela. So, we are  
6 going to turn now to closing remarks, and I am going to  
7 start with Commissioner Pham, if you have any remarks.

8           COMMISSIONER PHAM: No, thank you. Actually,  
9 just thank you to everybody here in the room. The  
10 discussion was very interesting and informative, and I  
11 really appreciated the great discussion here today.

12           MS. KNAUFF: Thank you. Commissioner  
13 Mersinger?

14           COMMISSIONER MERSINGER: To echo what  
15 Commissioner Pham said, thank you all for being here.  
16 I really do appreciate your time commitment. And I did  
17 just want to highlight part of what Shelby said in her  
18 opening remarks about the fact that when you really  
19 look at the carbon emissions, percentage of our  
20 agricultural producers and agriculture in general, it  
21 ends up being a net negative. And I don't think that  
22 story is told enough, and I am glad that you shared

1     that with us today, so thank you.

2                   MS. KNAUFF:  Thank you.  Commissioner  
3     Goldsmith Romero?

4                   COMMISSIONER GOLDSMITH ROMERO:  Well, there  
5     is a lot to think about.  I mean, we have to be very  
6     thoughtful and deliberate, and we have to think about  
7     the standards setters, the supply side, the demand  
8     side, how to do enforcement, how to bring transparency,  
9     liquidity.  This was incredibly helpful.

10                  I think this is just the start of an ongoing  
11     dialogue, and I certainly invite anyone who wants to  
12     send me or my office things to read and these slides  
13     and other things, I would be happy to continue this  
14     conversation, make sure that we are doing things very  
15     thoughtfully and deliberately.

16                  Thank you, Abigail.  Thank you to the  
17     Chairman.

18                  MS. KNAUFF:  Thank you.  And then  
19     Commissioner Johnson.

20                  COMMISSIONER JOHNSON:  Thank you so much,  
21     Abigail, and everyone who worked tremendously hard to  
22     bring this program together.  Thank you, Chair Behnam,

1 for your leadership, earlier in your tenure as a  
2 Commissioner, in sponsoring the MRAC, and bringing a  
3 very important report to bear, and for your continued  
4 leadership in this space today. We are grateful to  
5 you, as members of the Commission, for your leadership,  
6 and I am thankful for how you have brought so much  
7 brilliant information together for our consideration.

8 MS. KNAUFF: Thank you. And now Chairman  
9 Behnam.

10 CHAIRMAN BEHNAME: Thanks, Abigail. Not much  
11 else to say but I do really want to thank everyone.  
12 This is a tremendous day, and as my colleague said,  
13 certainly the start of a longer dialogue.

14 I think Commissioner Pham noted this morning,  
15 these events for us -- we had one last week as well --  
16 they are long days but this is how we make better, more  
17 informed decisions. A lot of constituents that we  
18 don't typically deal with, but given our markets and  
19 the breadth and the scope of the users of our markets  
20 and the issues at play, making sure that we have a  
21 diverse set of viewpoints is extremely important.

22 I do want a special thanks to Kelley -- I



1 don't know if she is still on -- who seems like a long  
2 time ago she was moderating, but also Nat as well,  
3 Eric, Janet, and, of course, Angela, for moderating.  
4 My colleagues, of course, for their support and their  
5 interest in this issue, and then most importantly,  
6 David and Abigail. I think you can all appreciate how  
7 hard this is to pull off, and they did a really great  
8 job. For many, many months we were thinking about  
9 this, so thank you to them.

10           We are here. We are available. We really  
11 appreciate this conversation. I think there is a lot  
12 to take away, a lot to learn, a lot to think about  
13 relative to our role within the U.S. government, the  
14 larger initiatives within carbon reduction and reducing  
15 emissions and what role voluntary carbon markets can  
16 play in that effort, knowing full well both the risks  
17 and opportunities. But given our experience in  
18 markets, our expertise, I certainly think that we are  
19 going to take a hard look, especially with what I  
20 mentioned earlier today, an RFI going out. We welcome  
21 more feedback and comment on what you recommend and  
22 suggest our role should be.

1           So, with that, everyone have a great evening,  
2 get home safe, and of course, thank you for your  
3 service and your time to give to us today. Thank you.

4           [Whereupon, at 4:07 p.m., the meeting was  
5 adjourned.]

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22