resilient. I believe we will get there, but it might be helpful to give you some context of my own personal journey with diversity, equity, and inclusion at BP.

I have been with the company for 30 years. And I say often that for all of that time, I have really believed that our company has had extraordinarily good intentions, intentions on diversity and inclusion, but we just haven’t always effectively executed against those intentions. There has been a gap between who we were and who we knew that we could be.

I am an engineer by training. And I knew that our rigorous commitment to performance was underpinned and sustained by data. So why not take the same approach to the way we work in diversity and inclusion? In 2016, I decided to issue a challenge to my leadership. And I wrote a memo outlining how I thought we could do things differently and how we could better leverage data on hiring, promotions, and other areas to accelerate our progress. And before I knew it, I had memoed myself into a new job as our Chief Diversity Officer.

While engineering and operations had been the foundation of my career, diversity and inclusion has become my mission and my purpose. And since taking on the role, the movement towards the data-driven approach has underpinned everything we do to make BP an even more diverse and inclusive workplace, where everyone is valued.

Delivering on our good intentions perhaps matters more now than ever before. And while the world faces a host of challenges, there’s an opportunity to build back better for those with the courage to act.

This summer, there were a few steps that we decided to immediately take for all US employees when we saw the opportunity. In June, we observed Juneteenth this year as a day of reflection for all US employees to give people a chance to pause and reflect. We added the Martin Luther King, Jr. holiday as an official BP holiday starting in 2021. And we have prohibited the Confederate flag from all BP sites around the country.

That was just a start, however. And in August, we launched our framework for action. There is an old saying you probably recognize that underpins the importance and the power of data and helping organizations achieve their goals and to deliver on good intentions. It’s simply that “what gets measured, gets done.” And I’m proud to say that BP is choosing to do just that with our framework for action.

With the full backing of BP’s leadership, this framework has three pillars: transparency, accountability, and talent. On transparency, our main commitment is that we are going to publish our comprehensive D&I report, both internally and externally. And it will come in early 2021, alongside our annual corporate report and our sustainability report. We want a data-driven approach that gives plenty of visibility and ultimately leads to real accountability for the agenda.

And on accountability, we will clearly link the progress in diversity and inclusion to performance management and, indeed, ultimately to compensation. Within BP, we are continuing to build an inclusive environment. And we will increase dialogue and education, including a focus on anti-racism.

On talent, we will drive increased hiring and progression of African Americans and other underrepresented groups. We know that can't happen without increasing the diversity of our talent pools. We will refine the metrics and processes aimed at increasing the diversity of our talent pools and our guided slates. And a big part of this will be fostering more strategic relationships with universities, especially historically black colleges and universities.

This is just a start. And BP's framework for action is just that: a framework. But, like the frame of a house, other essential components have to be added. This gives us the foundation and the structure to gauge how our aspirations and our good intentions will translate into tangible reality for everyone. What gets measured, gets done. And our framework is giving us the tools to first measure the right things so we know that we can do the best things.

There's plenty of more to do. And I'm proud of our commitment to be better and to do the work to improve people's lives.

CHAIRPERSON WIGGINS: Thank you, Ray.

Noha? Noha, I think you're on mute.

CHAIRPERSON WIGGINS: Noha?

MS. SIDHOM: Can you hear me okay?

CHAIRPERSON WIGGINS: Yes.

MS. SIDHOM: Good morning. I would like to express my sincere gratitude to the Commission for your focus on diversity and inclusion as part of this committee as well as for giving me the opportunity to speak regarding the issue.

I am speaking on my own behalf today. These are my views and not the views of the company or the views of our membership.

It is not lost on me that I am here before you just weeks after Ruth Bader Ginsburg, a Jewish woman, became the first woman to lie in state since the first person, Henry Clay, received the honor in 1852. It took 168 years.

Ruth Bader Ginsburg is famously known for saying, “We’ll stop when there are nine.” She was correct. And her legacy certainly marks progress for women and minorities. We are slowly making progress. Actually, the phrase “diversity and inclusion” in and of itself is progress.

My family moved to Omaha, Nebraska from Cairo, Egypt in 1991. I was just nine years old. And, as you can imagine, we were a little bit different being the only Egyptian family in our neighborhood and with only a few in the entire state. I didn't feel different. I felt just like any other kid until one day, my teacher pulled me aside and said, "One of the kids said that you don't like American kids. And you can't say stuff like that because then you'll never belong here," to which I responded, "Belong here? What do you mean?" And I never said that. I never even thought that. I was in fourth grade, still wrapping my arms around I moved to a different continent but certainly not old enough to grasp racism, having only months before that lived in an entirely homogenous community. I didn't feel any different until it was glaringly pointed out.

As I grew up, I had several of these character-building moments. I grew up to realize there was a whole antidiscrimination movement. Back then, it was the antidiscrimination against women and minorities, meaning if they arrive at the gates of the job or in the neighborhood, others try not to treat them any differently. Now, 30 years later, the dialogue has changed to try and embrace women and underrepresented minorities. Today, we are trying to establish a platform for their success. We are trying to include them, be conscious of their culture and work needs. Today, we are aware of discrimination against a broader set of people and the need for a different cultural dynamic. It is no longer about treating us the same, but about diversifying and respecting and including us into the new normal that will inevitably make us a more dynamic and richer Nation. That is progress.

As we have painfully learned over the last six to seven months, creating a new normal is an uphill battle that glaringly points out our differences, not that dissimilar from the ugly and unfair comments made by my fourth-grade teacher but certainly far more amplified. When we turn to measure the progress made by the number of minorities in an industry or the number of women in the industry, what is often lost is the number of people that don't misjudge, that don't have the opportunity to begin with.

One lesson learned from the pandemic is that the human brain has a difficult time processing really large numbers or grasping exponential growth. We have lost well over 200,000 people during this pandemic. And at a certain point, 1,000 or 2,000 is much easier for a person to truly comprehend. So we have statistics, such as 8 percent of the energy workforce is black, according to a recent report by the nonprofit Energy Future Initiative, while women make up between 23 and 32 percent. Not surprisingly, women make up a higher percentage figure in the renewable industry.

And a 2017 report from the University of Massachusetts found that black oil and gas workers earn 23 percent less than white workers in comparable roles. It is easier to think that or wrap our heads around these percentages than the number of candidates that get turned down or along the way never had the opportunity that puts them in the right place to get their foot in the door.

The energy industry as a whole is making progress. Most of the large companies in the energy sector have instituted significant initiatives within their companies to promote women and minorities. EEI should be applauded for their board’s recent endorsement of a diversity and inclusion commitment that builds upon the existing programs of their member companies.

The energy industry is undergoing a significant change in how we serve US customers. Renewable initiatives, technology, and innovation are reshaping the discussion with the consumer. And part of that dialogue must be having a positive impact on or at least an equal impact on minority communities.

A joint test from Berkeley University 2019 study found that, even when income is held constant, predominantly black communities have almost 70 percent fewer rooftop solar installations than predominantly white communities. Diversifying energy space at every level is key because it allows the industry to better serve the communities we are so proud to be a part of.

I would be very remiss if I didn’t address the fact that there are significant benefits to companies that make diversity a top priority. A decade’s worth of research has demonstrated that while homogenous groups tend to reach consensus faster and feel more comfortable with their answers, they often arrive at the wrong answer. Diverse groups take longer to deliberate, feel less confident in the answer they have arrived at, but more often arrive at the correct answer.

Further, a large statistical study published in the Academy of Management Journal in 2017 found that companies with women in their senior ranks contribute to the long-run performance and lessening the chances of risky strategies being adopted.

According to a 2019 study conducted by S&P Global Market Intelligence, firms who appoint women in CEO and CFO positions are outperforming relative to their male counterparts. And they are boosting their firms' financial performance. The studies looked at the Russell 3000 index that appoints new CEOs and CFOs. Over the course of a 17-year period, data found that female CFOs generated a combined $1.8 trillion -- yes, with a t -- more in profit access than the sector averages. Firms with female CEOs and CFOs have produced superior stock price performance compared to the market average. In the 24 months post-appointment, female CEOs saw a 20 percent increase in stock price momentums. And female CFOs saw a 6 percent increase in profitability and 8 percent larger stock returns. These results are economically and statistically significant.

I’m not overly surprised by these rates because in my experience, you have to overcome so many obstacles as a woman to get those positions that you almost have to be so much better than your male counterparts. The bar is so much higher, it is almost unfathomable to think that you could do worse. Indeed, there are significant benefits to the bottom line, but a lot of work lies ahead.

One particular area remains starkly undiversified, where the focus on diversity and inclusion remains weak. It also happens to be the area I am more versed in, which is the lack of diversity in the commodity trading space in general and certainly in energy.

I run a small energy trading company. Our team is in the process of raising our first fund. Over the last few months, I have done countless pitches from single-family offices to some of the largest investment firms in the country. I have spoken to one woman.

As part of our pitch, we were aiming to raise 25 percent of our funds from women and underrepresented minorities and have set a goal to hire 25 percent female traders. The response to that slide of the pitch deck has been extraordinarily interesting. It is usually a pause at that point of the deck, which is often punctuated by my stating it is a goal and a high priority for us. And the response is usually something like this, “If you can do that, that’s terrific” or some more honest ones are, “Where are you going to find them?” or “I have a daughter,” “wife,” fill-in-the-blank about an important female relative. “And I’m happy to see stuff like this.”

When I composed the slides, I thought people would stay silent on it. I didn’t think it would elicit a response that it was a difficult goal or a show of societal progress. To me, that says we need to do a lot more work here.

Even in drafting my comments for today, I am worried that the wrong investor with deep pockets, most likely not a woman or underrepresented minority, will watch this and say, “I don’t want to invest in that fund.” My public statement that a pivotal point in the company’s success is a hindrance to our future. I guess

I will tell you in five years.

I have been in the commodity space for over a decade. Things have improved, but I am still too often the only woman in the room. According to a 2018 Bloomberg article, in the top echelons of leadership of the world’s leading commodity trading firms, only 5 percent of the leadership positions are held by women. On the trading floors at even some of the largest commodity trading floors in the world, out of hundreds of traders, there may be 5 to 10 percent female traders if I am being generous. I have done a lot of research, and I couldn’t find a thorough academic study on women in the commodity trading space.

This is not to say that women are not working at large commodity trading firms, many with a focus on an energy. Those firms have employed women. We are often found in compliance departments, HR, legal, maybe even in the C-suite as the token women. We are seldom found managing the trading operation or even a group of traders, making the allocation decisions, or even being groomed or mentored as a quant for a trading role.

I have interviewed a few female traders that seek me out because they are tired of the culture on the trading floor. I have also interviewed countless trading groups, folks that want to come over as a group because they find more success working together. None of those groups have included women. To me, that says we need to make some changes on our trading floors. We need to give women and minorities the space to be in those roles and encourage a more inclusive culture on our trading floors.

I urge you as the regulator to join me in asking the commodity trading community in general; in particular, in energies, to focus on mentoring women and minorities to eventually be placed in higher-earning roles and to creating an environment that doesn't just focus on antidiscrimination and increased percentages but, instead, fulfills the progress of the phrase "diversity and inclusion."

With that, thank you for the opportunity.

CHAIRPERSON WIGGINS: Thank you, Noha.

Lopa?

MS. PARIKH: Good morning, Commissioner Berkovitz, Chairman, and Commissioners. Thank you for the opportunity to participate today in this important discussion.

I am here today on behalf of the Edison Electric Institute, or EEI. EEI is the trade organization for the US electric companies in the United States. Our members provide electricity to about 220 million Americans and operate in all 50 states and the District of Columbia and are regulated at the state and the Federal level. As a whole, the electric power industry supports more than seven million jobs in communities across the United States. And EEI members are committed to providing affordable and reliable electricity to customers, now and in the future.

ESG, or environmental, social, and governance, issues are a priority to EEI and its member companies. Environmental criteria can be used to look at how a company performs as a steward of the natural world and historically has been the most prominent sustainability concern for our industry.

EEI’s member companies are in the middle of a long-term transformation in how electricity is transmitted, generated, and used. As a result of this change, the mix of resources used to generate electricity in the United States has changed dramatically over the last decade and is increasingly clean.

Starting in 2016, natural gas surpassed coal as the main-source electric generation in the United States. And in 2019, natural gas powered 38 percent of the country’s electricity, compared to 23 percent for coal-based generation. Over the past eight years, more than half of the industry’s investments in new electricity generation have been in wind and solar resources. And nearly 40 percent of America’s electricity is generated from carbon-free resources, including nuclear energy, hydropower, solar, and wind.

These same changes had a profound impact on the sectors’ carbon dioxide emissions. Overall, at the end of 2019, emissions from the electric power sector were 33 percent below 2005 levels, their lowest level since 1987. Collectively, EEI member companies have reduced their emissions by approximately 45 percent since 2005. This trend will continue as more than 40 EEI members have announced forward-looking carbon-reduction goals, half of which include a net-zero goal by 2050 or earlier. As a result, EEI members are on a path to reduce carbon emissions by at least 80 percent by 2050 compared to peak levels in 2005.

Social and governance components have increased in prominence in recent years. Social criteria, for example, can be used to examine how a company manages relationships with its employees, acquires customers and the communities in which it operates. Governance topic can relate to a company’s leadership, executive pay, audit, internal controls, and shareholder rights, among other board-level and management decisions.

The financial community has become increasingly interested in ESG issues over the past few years. For example, all three of the major credit-rating agencies are considering ESG. Each is taking a unique approach, ranging from determining what is financially material to include in ratings to creating a separate and distinct ESG rating or grade.

As the most capital intensive industry in the United States, EEI is working with its members to provide relevant and standardized ESG data and information to the financial community and other interested stakeholders. In 2016, EEI and its member company ESG Sustainability Committee began to meet with major institutional investors and other relevant stakeholders to solicit feedback on how the industry can continue to respond to investor needs for ESG information. Outreach was conducted with investors, proxy services, ESG data providers, credit-rating agencies, and other trade groups.

Our member companies worked with the financial community to develop a voluntary ESG sustainability reporting template that meets investor needs by providing concise information in a consistent format.

The ESG template is a first-of-its-kind, voluntary, sector-wide template. It is data-driven and provides consistent information across all of EEI’s member companies. As such, the template promotes greater transparency and comparability. And it also enables companies to disclose information related to their long-term sustainability outlook, governance, and oversight strategy. This voluntary reporting is not financial in nature and is in addition to and outside of any reporting that member companies already do to the SEC on financial reporting issues.

The voluntary reporting template has positioned the industry well and is focused on two over-arching sections: a qualitative section, which is intended to highlight the ESG sustainability governance strategies in a brief, two- or three-page summary; and an Excel-based quantitative section, which includes standardized metrics on generation, capacity, emission, human resources, water, and waste, as well as specific metrics related to natural gas distribution utilities.

The template is now used by over 90 percent of EEI's membership and is achieving our objective of providing a specific set of the most relevant ESG metric to investors on a consistent basis.

And, just as with environmental goals, EEI member companies are also making progress on diversity and leadership. EEI member companies are leading other Fortune 500 companies on diversity and leadership positions. As of 2019, regulated electric companies had 20.9 percent female CEOs, 28 percent female board members, and 24.8 percent minority board members compared to 6.6 percent, 22.5 percent, and 16.1 percent, respectively, for Fortune 500 companies.

The template is a work in progress. We are now beginning a version 3 revision process, which will be released next year for disclosing 2020 data and information. Our members have also been working together on initiatives to improve diversity and enhance the disclosure of diversity information in the workplace and throughout the supply chain with key focus on workforce welfare and racial equality.

Now, recognizing that there are various inputs into electric generation, EEI has embarked on a joint initiative with the American Gas Association called the Natural Gas Sustainability Initiative, or NGSI. The goal of NGSI is to create an overarching ESG sustainability reporting program for the entire natural gas value chain with the goal of creating a voluntary framework for disclosing consistent company-level ESG information to investors in a concise and consistent format.

NGSI is broader in scope and more ambitious

responsibly sharing the values held by public power in the local communities that we serve across the country, which is more of a Main Street focus than a Wall Street focus. And number three is to attract and retain talent. You value this as part of the corporate culture.

So, starting at the environmental component of the statement, first and foremost, we are in the energy industry. And we represent over 50 public power utilities with a very broad diversity of assets, but we are the market's interface for our client organizations and do not directly generate energy ourselves, although our clients do. Our clients are located anywhere from the Southeast, throughout the Midwest, and all the way to the Pacific Northwest, and pretty much everywhere in between. We have every geography, and most every state has different requirements, resources, and economics at play. We actively help our clients navigate the choices they have when selecting new resources or retiring older resources in their portfolios and continue to support their decisions throughout and after their selection process, but we do not take a single point position on any of the hybrid generation over another in any of our clients' portfolios.

Focusing more on The Energy Authority's specific footprint as a services organization, we have done several things to try to be good stewards of our resource use. And our continuing programs, include recycling in our office spaces, reducing paper products, going more electronic, reducing travel where we can, and installing water bottle fillers, those sorts of things, those sorts of small grassroots programs. But, taking it further, things we are looking at including include carbon offsets for conferences, continuing reduction of travel, reducing energy consumption in data centers and office spaces as well.

Moving into the social component of the statement, which considers the company's business relationships, as a services organization, TEA is people. How we treat our employees is a reflection of who we are. We are a performance driven culture, and we know the value of supporting the whole person. That includes ensuring equitable pay, education, health benefits, time off to recharge, and an opportunity to develop both personally and professionally.

TEA consciously participates in volunteering efforts. Some examples include on the national level participating with American Public Power Association’s Day of Giving. TEA has sponsored this several years to give back to local communities that are host communities serving annual events. We also provide leadership and support for the MIT Hack-a-thon. And, more community-based, we support local giveback efforts. And we are very involved in university partnerships to develop financially-based professions and the students coming out of those programs. We had even sponsored a trade floor lab environment at a local university to give students real-world trading and investing experience. We also encourage a lot of board involvement. We host women’s and leadership forums and participate on several women in energy boards. We support collegiate scholarships for first-generation students pursuing STEM degrees and work on several university business advisory councils.

Employee health and safety is also key to our programs, and we try to provide flexible work programs for both hours and locations, which has absolutely been used a lot during this COVID period. We provide health and wellness initiatives for staff and have a very open and adaptable PTO policy, paid-time-off policy, for personal needs to provide adaptability to our staff.

If you really focus on the diversity/inclusion component of the ESG program, this is critical to TEA, The Energy Authority. I'm sorry. I keep using TEA. It's our acronym.

As we are a highly cooperative organization, we recognize that we have far more innovative thought and have greater outcomes when we have a diversity of opinions and ideas represented at our team. Although we are a relatively small company at 220 employees, we have become intentionally more diversified through the years. I can speak that within my area alone at the company, we have approximately 25 percent minority or international staff. We recognize this is just a starting point. And one of our ESG goals will be to work on continued integration of additional diversity of thought as we move forward.

To briefly mention, one of our successful legacy diversity initiatives is our women in our workforce in leadership positions at The Energy Authority. We took a very focused approach to increasing women in the workforce. And this initiative has greatly changed the makeup of the firm. Starting at the top, I am proud to say that we have a female CEO, Joanie Teofilo, who is listening in on this meeting today. She was promoted to the position from within, having run the trading analytics area and also a trade desk as well as the middle office, sitting in a few roles through the company through time.

And, as Paula Glover mentioned at the beginning of the panel, promotions from within are a meaningful factor of the diversity/inclusion initiative bubble. Currently, we are about 38 percent of the executive teams being female. Again, these were promotions from within the company, growing employees and providing a development path for women at the firm. Looking back 10 years, the women in leadership roles at the company was a mere 14 percent. So we are approaching tripling that level.

The work in this space is not done, but

looking back on the results, it has given us fuel to continue to forge ahead. And, as Ray Dempsey mentioned in his remarks earlier in the panel, “what gets measured, gets done.”

The final component of our statement, the governance, speaks of board leadership. And it is the foundational principle for The Energy Authority. We are a fully transparent organization to our clients. It’s one of our hallmarks, and it’s been something that has set us apart from many other market-interfacing energy companies. From a political perspective, The Energy Authority is not a lobbying organization. Due to diversity of our clients and their very resource-mixed local communities, geographies, and policies, we are often very supportive of their initiatives. We can help what they are driving, but we do not take advocacy positions of our own or on their behalf.

And board governance is a representation of each of our member owner utilities. And they are representations of their communities. The board members come to the board table wearing their own companies’ hats, so to speak, but are also keenly aware to put on their Energy Authority hats to ensure that we are making decisions and guiding the organization in a manner consistent to drive its success.

So, in conclusion, to wrap up my remarks on the panel today, The Energy Authority has several ESG efforts already in place, but I will echo what several other of the fellow panelists have said today, which is we recognize this is just a start. As part of our strategic plan, we are transitioning from an organic approach to ESG practices to a more focused and intentional deployment of ESG programs. We will leverage our unique culture and our innovative workforce and young workforce in a lot of ways to explore and expand our efforts into areas that are more meaningful to our employees, our clients, and our board of directors, engaging all levels of our staff in developing ESG programs moving forward, making sure that we are including everybody. We are fully committed to the belief that we are stronger through our diversity of thought and look forward to implementing more programs that promote inclusion and collaboration among our team.

Thank you all.

CHAIRPERSON WIGGINS: Thank you, Malinda.

Bill?

MR. McCOY: Good morning, Mr. Chairman, Commissioner Quintenz, Commissioner Behnam, Commissioner Stump, and Commissioner Berkovitz, and also Members and Associate Members of EEMAC. I am Bill McCoy with Morgan Stanley. And thank you for this opportunity to speak about Morgan Stanley's ESG initiatives.

Financial services firms are in a unique position to promote environmental, social, and governance initiatives. As a global financial services provider, Morgan Stanley partners with clients and stakeholders to mobilize capital at scale to tackle global sustainability challenges, including climate change and inequality. The firm is deeply committed to delivering long-term value for clients and shareholders in ways that benefit the environment and society. Climate change is an economic reality. And Morgan Stanley supports the transition to a low-carbon economy through policies, activities, products and services that help mitigate climate risks and catalyze market-driven low-carbon innovation.

The firm publishes analyses to help clients and stakeholders navigate the low-carbon transition. To reduce our own footprint, we aim to achieve carbon neutrality for our global operations by the year 2022. The firm is committed to mobilizing $250 billion to support low-carbon solutions by 2030. And last month, Morgan Stanley announced its commitment to reach net-zero financed emissions by 2050.

The firm recently joined the Global Steering Committee of the Partnership for Carbon Accounting Financials. Morgan Stanley will lend insights and expertise to help PCAF develop a global accounting standard that can be used by all financial institutions to measure and reduce their climate impact in their financing and investment activities.

In response to the events of 2020 that have focused attention on racial and social injustice in our society, much of the financial services industry has responded by revisiting and increasing their efforts on their diversity and inclusion initiatives. Morgan Stanley has had a longstanding commitment to diversity and inclusion with a focus on our employees, on suppliers, and the communities where we work and live. Our skilled and creative workforce is comprised of individuals drawn from a broad cross-section of the global communities in which we operate and who reflect a variety of backgrounds, talents, perspectives, and experiences.

We pursue a comprehensive diversity and inclusion strategy based on four pillars: accountability, representation, advancement, and culture. The firm’s culture is defined by our core values, and we inform our employees in everything we do. Toward that aim, this year, we added “Commit to Diversity and Inclusion” to our existing core values of “Doing the Right Thing”; Putting Clients First”; Leading with Exceptional Ideas”; and “Giving Back.” While Commit to Diversity and Inclusion has always been implied in the core value of Doing the Right Thing, this year’s events underscored the importance of making it an explicit core value of the firm.

Driving awareness of and accountability for diversity and inclusion efforts among managers across businesses is key to making progress. Morgan Stanley conducts annual diversity reviews to actively monitor representation as well as the impact of promotions, hires, and attrition on its talent pipeline. By sharing this diversity information with managers firm-wide, the firm seeks to drive governance and accountability.

Hiring and supporting the careers of underrepresented groups supports business success. To build a diverse talent pipeline, we use global, targeted recruitment and development programs to hire, retain, and promote women and multicultural talent. These professional development programs help employees to hone key skills, build networks, and gain exposure to senior management. We partner with organizations that support recruitment of female and minority career reentry candidates. Our campus recruiting efforts have also sought for diversity among entry-level staff.

Amidst growing evidence that diverse organizations often outperform their peers, Morgan Stanley employees' policies and practices, including those on pay, that help attract, retain, and advance underrepresented talent. To promote equitable awards for all employees, including women and ethnically diverse employees, the firm has enhanced, robust practices that support fair and equitable compensation and reward decisions based on merit; ongoing review of compensation decisions, including at the point of hire and promotion; and regular assessment of the firm’s reward structure.

An inclusive, collaborative workplace helps to generate stronger work and results. Employees are encouraged to get to know colleagues who do not share their background, seek input from a wide range of individuals, and embrace opportunities to publicly recognize teammates, especially those who are underrepresented at the firm.

Morgan Stanley also supports a popular global network of close to 20 employee affinity groups which hold year-round networking and professional development events and enable colleagues across business units to share ideas and experiences.

We value diversity not only among our employees but in every aspect of our business. For example, we actively seek out diverse-owned companies that can meet our business needs through our supplier diversity programs. We work with a variety of these companies to foster strategic business relationships, which, in turn, stimulates the growth of many small businesses and drives economic development in local communities.

Small multicultural businesses can face significant barriers to success in their early stages. The Morgan Stanley Multicultural Innovation Lab serves as a tech accelerator for startups led by multicultural entrepreneurs. This program pairs the entrepreneurs with seasoned in-house professionals to break down those barriers to success. The firm provides access to capital and expertise that many diverse vendors lack. The lab connects these vendors and their teams to the resources they need to grow and scale their businesses along with an initial equity investment. The entrepreneurs then have the opportunity to pitch to a network of investors, potential business partners, and customers to take their companies to the next level.

Finally, our efforts to promote diversity and inclusion extend beyond our own walls. Wherever we operate, we seek to actively support diverse communities by sponsoring prominent organizations and events and by taking a public stand for inclusion. Some examples for the last two years include donating $1 million to the Hispanic Federation campaign for an even brighter Latino community focused on education and service programs; promoting LGBT marriage equality in Japan by leading an initiative within the foreign banking community to express public support for the American Chamber of Commerce in Japan’s viewpoint on marriage equality; committing $1 million to Catalyst, the global women’s advocacy and research organization; and committing $5 million to the NAACP Legal Defense Fund. The firm is also matching dollar for dollar US employees’ contributions to the fund.

Morgan Stanley also joined an open letter to the legal community, which the general counsels of 12 financial institutions published on September 30th. It memorializes our commitment to various diversity and inclusion goals based upon three pillars. The first is focused on internal action, such as enhancing opportunities for racially and ethnically diverse individuals within our corporate legal departments. The second is focused on external supplier engagements, such as working with law firms and other legal service providers to increase diverse representation on our matters. The third is focused on social action efforts, such as ensuring that our pro bono and other outreach efforts assist disenfranchised communities.

Through pro bono and skills-based volunteering, Morgan Stanley supports a number of programs allowing employees to make a lasting impact through its local nonprofit partners. Supporting local communities is a priority year-round, but each year, the firm strengthens the impact that its employees can make during its dedicated global volunteer month. Over the 15 years of this program, Morgan Stanley employees around the globe have delivered more than 2.4 million hours of service.

Thank you again for permitting me to discuss these ESG initiatives. And I look forward to any questions and further discussions.

CHAIRPERSON WIGGINS: Thank you, Bill.

At this time, I would like to open the floor to questions and comments from Associate Members on these remarks from our first panel. And, if you would, please use the chat feature to indicate to Abigail if you have a question or a comment that you wish to make.

MS. KNAUFF: Dena, I have not received any questions, but if anyone would like -- apologies. I have a question from Delia Patterson.

CHAIRPERSON WIGGINS: Delia? Please unmute your line and proceed.

(Pause.)

CHAIRPERSON WIGGINS: Abigail, is there anyone else? I'm not hearing from her.

MS. KNAUFF: Commissioner Berkovitz has a question.

CHAIRPERSON WIGGINS: Commissioner, please go ahead.

COMMISSIONER BERKOVITZ: Okay. I would just like to thank everybody. Those were excellent and very informative presentations.

I have a question. Noha, on your presentation --

MS. SIDHOM: Yes?

COMMISSIONER BERKOVITZ: -- you talking about specifically one area of challenge, particular challenge

I think. Even on the challenging here, I think you indicated there were particular challenges on women and promoting diversity in energy trading, in particular. I am wondering if having been in that chair yourself, you might be able to expound on that and whether you think the lack of diversity in trading actually affects trading itself and perhaps risk-taking, whether there are certain -- oh, I will just be blunt about it. I mean, trading is often due to sort of sort of a macho risk-taking, hard-charging culture. I guess perhaps these days, in many instances, it has become more quantitative and quant-driven and algorithmic driven, but still you have traders making trading decisions and a trading culture; how a diversity issue may affect actually how trading is conducted. So I would be really interested in your further thoughts on this area.

MS. SIDHOM: Absolutely. Thank you very much for the question.

I do think that we are going through a little bit of a transition in the trading world, at-large and also in energies in that -- you are right -- we are transitioning from, “I got my buddy this job. And I’m teaching him how to trade. And here's kind of how we do things on the floor." That doesn't really exist anymore. We're transitioning to more of a quant-type model, which I think creates an opportunity. There are a lot of women that are coming out of the math and science and computer science world that are really interested in this state because, particularly in energies and at least in power, there is an opportunity to really also have a social impact in that our trading does drive value for the consumer. And it does result in a lot of investment in renewables, which is why we are seeing a large pickup on environmental products, which we covered I think two committee meetings ago. So there is that aspect of it.

But you are right in that there is still a little bit of like machoism on the trading floor. And I think that is what companies really need to focus on. How do we make sure the women that we are bringing in at the quant-level are able to fit in on the dynamics of the trading floor?

I'll tell you when I started as general counsel of a trading company, gosh, eight or nine years ago, it was a little bit difficult to fit in on the trading floor because you got kind of the usual male comments when you walked onto the floor until they realized, that wasn’t going to fly with you. So a lot of it was kind of making your own inclusion, and now we have to focus on that being a broader company effort of companies ensuring that their female employees and their minority employees feel comfortable on the trading floor, also that they have that opportunity. There just aren’t a lot of recruiting efforts to integrate women on trading floors, and I think that needs to change.

And as far as how does that drive the trading, I absolutely think that it is a different perspective on risk. In fact, when I built my company, one of the major mantras was the first thing we are going to do is establish a significant risk platform that goes onto all of our algorithms. And I think that comes from my legal background of being risk-averse. Obviously I can’t say that is true of every female trader, but I think just having that different perspective, as you include more women and more minorities, you just naturally add more perspective to the dynamics on the trading floor. And is it going to make it more conservative? I think it depends on the company culture, but I think, in general, just having that different perspective is another way to view the trade.

I'm not sure if that fully answers your question.

COMMISSIONER BERKOVITZ: Yes. Yes. Thank you. That is very helpful, very interesting. Thanks.

MS. SIDHOM: Thank you.

CHAIRPERSON WIGGINS: Abigail?

MS. KNAUFF: The operator may have been able to bridge Delia to this line. Go back to Delia.

CHAIRPERSON WIGGINS: Okay. Delia, please go ahead.

THE OPERATOR: She actually disconnected and is going to reconnect to the WebEx audio.

MS. KNAUFF: So Delia did send me her question separately. She said in Ray's opening remarks, he noted "what gets measured, gets done." Malinda Prudencio noted it as well in her remarks. Delia would like the panelists to address what they think would be important to be measured as they move towards a more diverse and inclusive workplace.

CHAIRPERSON WIGGINS: Ray, do you want to respond to that?

MR. DEMPSEY: I can. Thank you for the question. It is important. And I have to admit there is probably many layers in my view about the things to be measured. Some things are the sort of obvious, simple things, like representation. But there is more. And then oftentimes, they are contributing elements, the things that you do as the inputs that can matter even more to the ultimate performance and progress.

At BP, we have two ambitions, as we call them. One is a global gender ambition, and it is aimed at improving the representation of women in leadership in our company. It is due to be achieved by the end of this year. And I know that we have fulfilled at least one component of it already and hard at work at trying to close the gap for the balance. But we won't finish with this ambition. We will reset an ambition early in the new year to help us continue to increase the representation of women at leadership in our company.

In the United States, we have a US minority ambition that was launched in 2017. And it is aimed at increasing the representation of minorities at all levels in our company in the United States. And I am delighted that we have actually achieved that ambition, which was due to be achieved by 2025, already. And, similarly, as with the global gender ambition, we will look to reset our US minority ambition for further progress in the new year.

But we don't stop there. We examine our inputs around recruiting, the applicant flow. We pay attention to the performance rating outcomes of our employees around the country. We look for indicators about who stays and who leaves. We look for information that will help guide us in just employee data around satisfaction with our company. And we look at that across various demographics to be sure that we don't see issues that warrant specific intervention.

When we say "what gets measured, gets done," we really mean it in a very broad way. And so what we are trying to do is ensure that we have a real businesslike approach to understanding what will make us be successful at being a more diverse and inclusive company.

I hope that helps.

CHAIRPERSON WIGGINS: Malinda, did you want to answer that question as well? I think you are on mute, Malinda.

MS. PRUDENCIO: Certainly. Am I back now? Okay.

So we are not nearly as far along as defining our goals as Ray is at BP with the exception of the women in energy piece. And, as Noha mentioned, historically trade floors have not had a high representation of women on the trade floor.

We didn’t set a specific number in hitting a target. We just had a very conscious goal of increasing women in our space in the industry. And that’s when we began reaching out to the women in energy forums and getting engaged with different women board opportunities to try to incorporate more influence of women in the industry and also working on ensuring that our promotional opportunities included eligible women throughout the organization. And there have been several efforts made internal on that.

And, like I said, having a focus on that has produced a result that I feel are very, very strong, especially given our industry. So, although I don’t have a complete menu of what our next targets are since we just really drew up our strategic plan and we’re just working on this component of it now, I would definitely say that whatever you pay attention to, whatever you set your goals on is what you pay attention to, you will see the results on it.

CHAIRPERSON WIGGINS: Thank you.

Abigail, do we have anyone else who has a question?

MS. KNAUFF: I just want to make sure if we could hear Delia, if she had any follow-up questions or comments.

MS. PATTERSON: Yes. I appreciate Ray’s and Malinda’s thoughts. I was just wondering if Paula might have some recommendations on what should be measured, obviously the numbers in terms of how well folks are doing. And I think Ray also mentioned satisfaction and the like. Anything else? I am taking notes for my own organization.

MS. GLOVER: Thank you so much, Delia, for the question. I think what I would add to what Ray and Malinda both said is that I think there’s that quantitative, the numbers that are in your data, but the qualitative is equally as important. So doing culture surveys and understanding, as I talk about, inclusion, the culture of your organization I think is really kind of the first step of where you are and what is baseline.

What I have heard from some leaders is that oftentimes what we list on what I would say on the wall of values may not necessarily be in our culture at every level. These are large organizations. And so you may see it at the top, but do you see that same kind of value exhibited, at the very first level, the frontline workers of your association or organization? And so to me, it’s a mix of both of those things that you need to measure. And that should be pretty specific.

I think the other side is really around your supplier diversity numbers and how you are doing in each different category if you have multiple categories and understanding how people categorize themselves. I will give you an example. If you look at me as myself, I could really if I had the certification fit in every single level. Right? I could fit as a woman-owned business, an African American-owned business. I could fit as a disabled business, a veteran-owned business, LBGTQI. And understanding what those different categories are, where businesses fit, and how they categorize themselves if that is by certification, and then kind of building out from there. Those would be the other things I would suggest.

CHAIRPERSON WIGGINS: Thank you.

MS. PATTERSON: Thank you, Paula.

CHAIRPERSON WIGGINS: Abigail, any --

MS. KNAUFF: We have one question from Sarah Tomalty, BP.

CHAIRPERSON WIGGINS: Oh. Okay. Sarah?

MS. TOMALTY: Hi. I noted that several of the speakers discussed the importance of offering diverse candidates opportunities for advancement. And I liked Bill McCoy’s note that Morgan Stanley is offering opportunities for diverse candidates to gain exposure to senior management. But I know our younger employees at BP have expressed concern about being able to interact with senior leaders during this period of working from home during COVID. And I was wondering if any of the speakers have any recommendations for providing employees with these opportunities, especially during COVID.

CHAIRPERSON WIGGINS: Does anyone from the panel want to --

MS. GLOVER: So I'll take a stab at it. I mean, look, we're all in a Zoom virtual world. And I think it also creates an opportunity for leaders to connect with the employees very differently. And it may be doing listening sessions, sometimes during work hours, sometimes maybe even after work hours. But for younger employees, who certainly are probably far more technology-driven, kind of using either your internal intranet, doing Zoom calls, listening sessions with very small groups of people, I mean, those are other ways that you can connect and employees can connect with leaders in a way that is super thoughtful.

I think for leaders, really, what the challenge is it's almost sometimes convincing people to trust that these conversations will be productive and have a particular outcome because you just don’t necessarily know how people are coming into a conversation, how willing they are to be open based on what they think the response may be. And so I would say to leaders who are going to embark on that, it is important to be I think particularly sensitive and maybe have a heightened awareness that employees may not necessarily see you the way that you see yourself. And so there may be a gap there that you’re going to have to try to bridge.

CHAIRPERSON WIGGINS: Bill, did you want to answer as well?

MR. McCOY: Yes.

MR. DEMPSEY: I will jump in. Even as your colleague -- I’m sorry, Bill. I didn’t mean to interrupt you, but I had a quick point and then hand it back to you. All right?

I have to admit during this pandemic time, it sometimes does feel a bit difficult to stay connected, but in a strange way, I find that I still do it quite a lot. Later today, I have three get-to-know-you sessions that have come from my offer and my invitation to people.

And I think there’s sort of a double edge to the recipe that makes this sort of thing really, really work. I think leaders have to be really clear with the offer and the invitation to make themselves available. And then they have to actually follow through. When someone says, “Hey, you said that you were open to having a conversation. I would love to get some time,” you have to do it. And that’s what I think is a really important part of my responsibility. But, frankly, it’s one of the most important and valuable things that I spend time on.

And for younger people who are looking for those opportunities, I guess I’d just have to encourage them to be courageous. And something I often say to people is, “I don’t know of any of you, I have no colleagues who have ever said, ‘No, I’m not interested in talking to you’ when a person said they would like some time.” The struggle may be that they have to say it will be next Tuesday, you know, at 3 in the afternoon because that is just the first available slot in the calendar. And as long as both sides are willing to take on that flexibility, I think it can still be very richly rewarding.

I make no guarantees or promises about the usefulness or the value of my input or my advice, but I always learn from those conversations. And hopefully I am able to contribute things that help other people on their journey.

Bill, again, I’m sorry for the interruption. I’ll turn it back to you.

MR. McCOY: No, actually, that’s a good transition, Ray. Thank you. Because, really, I’m just echoing what Paula and Ray have said, that we are living in a Zoom environment. I think very early on, it was recognized, within our institution and others, that it was important, particularly for the managers, incumbent on the managers to reach out to the team to keep people together through videoconferencing and the like.

And I agree with you, Ray. While junior staff should be encouraged to reach out, it’s really incumbent on the managers to make sure that they stay connected in bringing the teams together, either one on one or collectively as a team, so that people feel connected.

That's people working from home.

Thanks.

CHAIRPERSON WIGGINS: Thank you.

Abigail, are we ready to move on to the EEMAC Members now?

MS. KNAUFF: Yes. We can move on to the Members. And Derek Sammann from CME Group has a question or comment.

CHAIRPERSON WIGGINS: Okay. Derek, please proceed.

MR. SAMMANN: Hi. Thank you. And good morning. I want to thank the participants for what has been a really thoroughly engaging discussion on this important topic. And I would really like to share a couple of comments from the CME perspective on how we think about diversity, equity, inclusion in our firm, but, really, I want to start with applauding the Commission for setting up this panel and elevating the discourage of these issues across this industry, using this as a platform for book information sharing, best practices setting, and being able to learn from our peers as to what learnings people have applied over the last number of years on their own D&I journeys and where that is taking them.

This is an area of particular interest for me as I sit on the Executive Committee of our Global Diversity and Inclusion Council. I am committed to helping our industry, not just our firm, make progress and further progress in this area.

At CME Group, we believe that advancing policies that strengthen the integrity of our global community from workforce empowerment to corporate stewardship to community commitments, sustainable solutions, a lot of what we heard about so far on the panel today. As the ESG movement continues to gain traction and momentum globally, we have been actively engaged in various ESG activities for a number of years through our corporate social responsibility initiatives, addressing sustainability issues through our ERM programs and otherwise. We have also worked to continually contribute and improve on these important issues. We recently completed a competitive review of how others in our industry -- benchmarking matters a lot -- on managing and reporting on their ESG initiatives as well as a materiality assessment to identify, define, and prioritize the social, environmental, and governance issues that we can make the most impact in and that matter the most to our key stakeholders and constituents.

Going forward, we have committed to reporting on our progress in a cohesive and actionable framework, a lot of what we heard from the success of the companies we heard today. In fact, our first annual ESG report was published just this past summer. And we are also developing an enhanced ESG disclosure framework on our website. And all of these efforts are subject to oversight of a board level that has prioritized this as well.

It is our intent to enrich the broader conversation around ESG, both within our company and across the industry. Ultimately, we believe this will further strengthen trust in our organization among our key stakeholders and positively impact the communities in which we live and work.

Importantly -- and we heard a lot of this from everyone who spoke today -- our employees are the biggest part of our success and really creates momentum for us within CME Group. We engage with and empower our employees through a number of what we call employee network groups. Some people call them employee resource groups, but we refer to them as employee network groups. We have a total of 10 of these groups, the first of which was established back in 2012 under the WIN Group, which is the Women's Initiative Network. We have groups all the way through the different constituencies across our client-base globally. We have a group called BOLD, which is Black Organization for Leadership and Development. We have got a group called CAN, which is our Connecting Asia Network, and all the way through PRIDE, which is our LGBTQ community; and HOLA and our Hispanic groups. So we, like others that we have heard today, hear a lot about importance of empowering and building up and enabling growth and opportunities and mentorship within and across communities in the organization, both vertically and horizontally. And that is a big part of what we're focusing on.

So, again, I want to thank the Commission for expanding the dialogue on diversity and inclusion, allowing us to hear from each other what those best practices are, how they impact positive change in our industry and raise the bar for ourselves and each other to continue to make progress down our own individual firm journeys that reach an aggregate benefit to net outcome for everybody. So thank you for the time, and I look forward to the balance of the conversation.

CHAIRPERSON WIGGINS: Thank you.

Abigail, do we have any questions from any other EEMAC Members?

MS. KNAUFF: I don’t see any questions from the other members at this time, but Commissioner Behnam is on the line. He would like to share a few words.

CHAIRPERSON WIGGINS: Okay. Commissioner?

COMMISSIONER BEHNAM: Thanks, Abigail. And I just want to jump in. I missed my opening statement. I was on a panel starting at 9 o’clock as well, and I couldn’t grab the opening statement slot with the EEMAC. So I just want to say hello to everyone, thank Commissioner Berkovitz, Abigail, Dena as well for running it. It was great to listen. I joined about 45 minutes after, got to hear some of the conversations from energy space and then Morgan Stanley as well and CME more recently, so an issue I care deeply about and all the E, the S, and the G are very important. It's great to hear from the end-user community and our market participants, what everyone is doing. This is a collective issue, and it's good to hear that we're all on board and trying to tackle them, ask the right questions, and address them. So thanks again to Commissioner Berkovitz for raising awareness and having this discussion and certainly look forward to the balance of the morning's conversation. Thanks.

MS. KNAUFF: Dena, we have a question from Rob Creamer.

CHAIRPERSON WIGGINS: Okay. Rob?

MR. CREAMER: Hi there. First of all, thank you for hosting this important conversation today. I really enjoyed hearing from everyone. This certainly is a very important issue throughout our industry. And we at the PTG certainly take it seriously. And many firms are working on initiatives to try to strengthen the diversity, inclusion, and equity in our firms and across the industry. I'm wondering how people feel about the perception of trading in society impacts the types of applicants to our industry.

CHAIRPERSON WIGGINS: Anyone who would like to respond?

MS. SIDHOM: I'm happy to take a stab at that. It is really interesting because as somebody who has done recruiting for my former company, I think that I would get all of these folks that would come in and say, "You know, trading is really interesting, but I really want to be an investment banker. You know, I'm weighing this offer against investment banking." So I don't know that it's kind of like this stigma against trading and being in finance. I think we're starting to lose a lot of that. And I think because of the transition to more quant and more algorithmic trading, more of a data-driven focus, we're losing some of that like perception of machoism on the trading floor since people are recognizing like as part of the financial infrastructure, I can do a lot of positives. So I've definitely seen the tone change over the last 10 years.

The other thing that I think is kind of interesting -- and I always point out to people when we go to meetings and they say, “Well, aren’t you guys like Enron” or “financial traders?” We get a lot of that in the power community, and it’s very unfortunate because when you look at the data, we really do drive a significant amount of cost savings to the customer. In regional markets that have less liquidity, the customer pays significantly more or states that lack retail competition. So that social good is definitely there, and we just need to I think be stronger in conveying that message out to folks. But where we get that kind of feedback, my response is always, “Well, if you don’t like financial institutions, you have a mortgage. You have a credit card. Have those things helped you move ahead?” We need this framework in order for us to really be successful as a country.

MR. CREAMER: Noha, I wholeheartedly agree and appreciate your comments there. I feel like most of the big kind of news articles and things that come out are always about some nefarious activity or some event in markets. And I don’t think young kids who are making decisions about career paths, things that they want to pursue have a really accurate perception of how important markets are in society today for the average person and how they can be involved and do very good work using markets, understanding markets, and participating in financial markets.

And I feel like things have shifted, as you have pointed out, from the trading floor to where we are today in terms of how trading is conducted. And there is so much opportunity for people to get involved.

MS. SIDHOM: I agree. And I hope you continue to spread the word, too. I’m certainly trying to do that.

CHAIRPERSON WIGGINS: Thank you.

Abigail, do we have any other questions?

MS. KNAUFF: I do not have any questions from any of the Members at this time.

CHAIRPERSON WIGGINS: Okay. I will turn it back to you.

MS. KNAUFF: Thank you, Dena.

At this time, the EEMAC will take a brief break. EEMAC Members, Associate Members, guest panelists, and Commissioners, please keep your phone on mute and turn off your video during the break. Return at 11:15 to begin the second panel. Thank you.

(Recess taken.)

MS. KNAUFF: I would like to call the EEMAC back to order and turn the agenda back over to Dena.

CHAIRPERSON WIGGINS: Thank you, Abigail.

Our second panel today will provide a survey of ESG derivatives products listed on three exchanges. Our speakers are Derek Sammann, Senior Managing Director, Global Head of Commodities and Options Products at CME Group; Steven Hamilton, Global Head of Financial Derivatives, ICE Futures U.S.; and Megan Morgan, the Global Head of Equities and Index Sales with Eurex Exchange. Derek?

MR. SAMMANN: Great. Thanks, Dena. I appreciate. And thank you to Commissioner Berkovitz for inviting me to present to the committee here this morning. Thank you as well to Chairman Tarbert and the other Commissioners. I would also like to thank Abigail and your staff, Commissioner Berkovitz, for, as usual, herding the cats to get these presentations to come together so smoothly. So thank you.

We appreciate this opportunity to share an update on some of the CME Group’s products that help market participants manage emerging and increasing ESG-related risks. I will cover some of what we offer today, but I also want to emphasize our ongoing commitment to developing ESG derivatives as our clients’ risk management needs evolve and shift going forward.

I will begin with a few overall remarks about how we approach product development in general and then specifically in the area of ESG. More and more, market participants are considering ESG factors as part of their overall investment strategy. In addition to presenting on our ESG futures this morning, I will focus a little bit today on the E of ESG as climate-related risks continue to present an increasing need for risk management, particularly in the commodity space.

At the MRAC subcommittee’s recent report on managing climate change risk in the US financial system also points out, we believe this is an area where innovative derivatives products can and should be part of the solution. CME Group offers benchmark futures and options in some of the areas most affected by climate change, such as fossil fuels and agriculture. It is important to note that our portfolio of risk management products is designed to help global customers manage price risk in today’s energy and agriculture ecosystem while also enabling market evolution towards alternative sources of cleaner energy and sustainable agriculture. We continue to develop and enhance new products across asset classes, which can help customers manage risks associated with renewable energies and environmental change as we transition to a more sustainable economy.

We do not believe in a “build it, and they will come” approach to product development. Instead, we use a complicated process, regularly seeking customer input and feedback to understand the gaps in the market and the developing products and services in partnership with our customers that address those specific needs in both today’s world as well as as the world evolves. To illustrate that methodology, I would like to spend a few minutes talking through a couple of examples. We will start with ESG futures.

Interest ESG investments has accelerated over the last year as overall awareness around ESG initiatives has increased and as ESG indexes, which are more exposed to tech, rather than energy and industrial, have been outperforming traditional indexes. This has contributed to increased demand for our E-Mini S&P 500 ESG futures. In fact, in just the last few weeks, we saw an increase in volumes and open interest, with open interest increasing by about 20 percent just in the last 10 days.

We launched our E-Mini S&P 500 ESG futures contracts back in November 2019 as our first equity product in this category. These futures contracts give clients exposure to S&P 500-listed firms that meet ESG criteria that align with the investment decisions in either the personal or institutional values. This product is a cash-settled futures contract based on the S&P 500 ESG Index, which is a broad-based market cap-weighted index designed to measure the performance of securities meeting sustainable criteria and excluding those that are involved in things like tobacco, controversial weapons, or greater than 5 percent of revenue streams thermal coal, or a low United Nations global compact score, all by maintaining similar overall industry group weight at the S&P 500.

As of September 30th this year, there are 299 companies in the S&P ESG Index, including CME Group. We have launched these contracts based on customer demand for ESG derivative solutions. Participants in our market, while currently predominantly European-based asset managers, we are continuing to see growing interest from US clients as well. We also have insurers and hedge funds involved in this product. And banks are facilitating liquidity as well as proprietary trading firms providing on-trade liquidity on a global basis.

Our futures contract currently trades in average daily volume of about 500 contracts. Open interest is about 4,800 contracts, represents about $720 million.

Since launch, we have engaged with our customers to get their feedback on how they approach ESG and how we can continually evolve in these products to meet their core needs. Each client’s approach to ESG is different. Some are looking to use ESG futures in the dedicated ESG funds while others have said they are using them within their non-ESG funds to help improve the portfolio’s overall ESG score.

One other challenge for ESG investing is that there is no commonly agreed standard on categorizing ESG, which means each asset manager can be in a position to be finding that on their own. In fact, some asset managers even are resistant to having a single standard because they are able to market their individual standards as promotional elements and differentiation to attract new assets.

As the S&P 500 is the world's most widely watched equity index, we are hopeful that its ESG version will become a similar market standard. The ESG space will continue to evolve. We're encouraged by the early participation in our offering, and we look forward to evolving this market further in partnership with our global customers.

Turning now to the environmental side, we want to talk a little bit about our ESG-related announcement that we recently made, which was us working on launching the first ever futures contract on the water designed to help not only the ag market but also industrial and commercial water users. With nearly two-thirds of the world's population expected to face water shortages by

2025, water represents a growing risk for businesses and communities around the world. Our new water futures contract will provide a regulated market-based solution for managing risk in the most active and dynamic water markets in the US, which is in California. This will be a cash-settled product based on the Nasdaq Veles California Water Index. Each contract will represent 10 acre-feet of water. The index has the weekly benchmark spot price for water rights in California based on the volume-weighted average of the transactional prices in California’s five largest and most actively traded water markets.

Nasdaq developed this index in partnership with Veles Water Limited, a firm specializing in the development of financial products for water markets. Data utilized in the calculation of the index is provided by WestWater Research, an economic consulting firm focused on the pricing, valuation, and transaction advisory services for water rights and water resource development.

Going forward, we believe a robust, transparent market will help to create a full-in curve so water users can hedge future price risk. Our contract is to be listed with eight quarterly expirations, and the term structure across the curve will provide useful data that could potentially lead to more efficient and sustainable consumption decisions around managing the price of accessing water. We hope to launch this product later this quarter pending regulatory review.

Beyond water, we are working with producers and commercial participants across all commodity segments to develop derivatives products from used cooking oil to liquefied natural gas, from copper to palladium, all of which play a role in these centers as they transition.

In closing, I hope these examples give you an understanding of just a few of the ESG products that CME Group continues to bring to market. We believe that derivatives play a key role in helping market participants better manage climate-related risk and facilitate price discovery today and going forward as we transition to a greener and more sustainable future.

And, with that, I will turn it back to the committee. Thank you.

CHAIRPERSON WIGGINS: Thank you.

Steven?

MR. HAMILTON: Thanks, Dena. Thank you, Commissioner Berkovitz, Chairman, and the rest of the EEMAC for the opportunity to talk to you and to Abigail for organizing me. Is my slide deck ready to go, the title slide?

I will start by introducing myself. My name is Steven Hamilton. I'm the Global Head of Financial Derivatives at ICE, here today to talk to you about the ICE futures offering in terms of ESG-listed derivatives products and specifically the ICE MSCI ESG Index Futures listed on ICE Futures U.S.

The first slide that I am going to talk to is entitled, "Tailwinds." So the demand and the noise around sustainable investments shows no sign of slowing down. And what we have seen during 2020 and its impacts on society has likely helped focus the importance of environmental, social, and governance factors on companies' performance. There's been numerous reports on this over the last six months, which I don't plan to recite to you, but the effects on global supply chains, energy usage, treatment of the workforce have all come to the floor as real non-traditional risk factors. On this slide, I’ve noted the fiduciary and regulatory requirements of businesses and the need to mitigate those risks, especially reputational.

But all of this stems from the last point on the slide, which is that it’s driven by client demand. So as new investors come to the market, armed with more information, they’re making more demands that their money is invested wisely and in line with their beliefs, but there is also increasingly demand from current old money, if you like, because strong ESG scores are highly correlated with above-average returns in the medium- and long-term. But the takeaway from that is, while regulators around the world are increasingly taking measures to bring more transparency and standardization on having investment firms integrate ESG factors into their investment and risk processes, client demand and returns will always be drivers of investment activity.

Next slide, please. So ICE serving global markets, I am going to talk to the ICE offerings more broadly. I apologize for the busy slide here. We’re a quite busy organization.

If we start with the premise that ESG investing is a process that requires access to relevant, transparent, and standardized tools from data to tradeable products, ICE has developed ESG solutions across the different business lines, as you can see here.

So the New York Stock Exchange, a global leader in raising capital works with listed companies, sharing knowledge and encouraging reporting on ESG. As a data provider, our ICE Services Group offers access to standardized ESG-referenced data; works with our clients to design tailormade ESG indices that can be used for performance measurement.

And, finally, on the derivatives trading and clearing side, where I sit on the exchange side, ICE exchanges have long provided investors with the tools to transition to less carbon-intensive fuels than carbon emission derivatives in Europe, a market we have been in since 2003. And more recently, we have partnered with MSCI to launch futures on the MSCI ESG Leaders Indices and MSCI Climate Change Indices.

Next slide, please. Why MSCI for our ESG Index Futures? Our current suite of ICE MSCI Index contracts have become key instruments used by institutional investors for their equity allocations. An interesting measure of that can be found in the CFTC trading reports showing that about 72 percent of both our EM and E for futures open interest is held by asset managers or institutions long-developed or emerging market equities. And both of our EM and E for futures products are amongst the top 10 equity index futures in the world by open interest.

MSCI is the world’s largest provider of ESG indices. I calculate more than 1,000 equity and fixed-income ESG indices. And they have 30 years of experience in the area. MSCI launched the first socially responsible investing index in May 1990, the MSCI KLD 400 Social Index.

And approximately $13.1 trillion in equity assets under management of benchmarks to MSCI indices as of the end of last year. Of this, approximately $220 billion in institutional, retail, and exchange-traded fund assets are benchmarked to MSCI ESG indices. While that is currently only about 1.7 percent of the total, it is rapidly growing.

Requirements for asset managers are also fast evolving. In ICE, we work with our customer base to ensure we offer a suite of contracts that enables them to easily implement a change of asset allocation policy or transition management cash optimization. A brief example of this, which was in the press earlier this year, the Danish Labor Market Pension Fund, PenSam, said it had switched weightings and it has passively managed listed global equities portfolio to take account of climate factors by adopting the MSCI All-Country World Index, Climate Index, for the whole 4.8 billion euro allocations.

Move to the next slide, please. I will talk about why we chose the ESG Leaders methodology. Again I apologize for quite a busy slide. So I will try and summarize quickly. We chose the Leaders methodology, I mean, it is a comprehensive set of exclusion criteria applied, excluded producers of nuclear power, alcohol, gambling, tobacco, civil firearms, any type, so any controversial weapons or companies involved in severe controversies. And it has a best-in-class approach to the indices: select the highest ESG-rated companies in each sector of the parent index. And this is reflected by the act that is under management gathered within the segment.

If we move to the next slide, please, we can talk about some of the challenges before moving on to the opportunities within ESG. It seems from people that I speak to, the single biggest challenge brought up in connection with ESG is standardization or perhaps the lack thereof of consistency in ESG ratings and index providers.

The challenge for us as an exchange is to create the market around a set of widely used benchmarks. As ever with derivatives markets, we will see liquidity flow to the standardized and accepted products based on these benchmarks, which will go someway to address the consistency issues.

We also see quite diverse ESG regulatory regimes. In Europe, the adoption is very much regulatory driven. In the US, it seems that the regulatory investors are not as aligned. In the US, we have investors increasingly asking companies to disclose information related to ESG factors. BlackRock has gone on the tape saying it will avoid investments in companies that have a high sustainability-related risk. This is a move that Larry Fink says will fundamentally change how American companies conduct business.

Conversely, the U.S. Department of Labor has had a more conservative view on the integration. On August 31st, the Department of Labor proposed a rule that would require retirement plans to only focus on issues that have an economic effect on a retirement plan, perhaps not taking into account ESG-related issues. These divergent processes are certainly a challenge.

If we move on to the next slide, where we talk about opportunities, index providers will increase the transparency in ESG ratings and data. And since November last year, MSCI ESG research has made ESG ratings of over 2,800 companies publicly available.

Climate change concerns are very much back in scope. So they are published at the beginning of the year by the World Economic Forum showed for the first time the top five long-term risks perceived were all environmental. That led to a growing demand for environmentally focused investments, leading to increase the number of financial products but also a focus on those standards and increasing regulatory and government action. For example, the European Union will sell 225 billon euros of green bonds to finance climate-friendly projects as part of the pandemic recovery fund.

That's it in terms of slides for me. And thank you. I hope at least some of that was useful. And I will pass on the baton.

CHAIRPERSON WIGGINS: Thank you very much.

Megan? Megan, can you unmute your line?

MS. MORGAN: I can unmute and start my video all at the same time.

Thank you. And thank you to the Commission for giving us this opportunity to talk about what we are doing in Europe. My name is Megan Morgan. I am the Global Head of Equity and Index Sales for Eurex. For those that don't know, Eurex is the leading European derivatives exchange across many asset classes: equity, fixed-income, assets, and commodities. And while we specialize in European markets, we are also expanding our global footprint to other markets with our MSCI franchise.

So today I really just want to walk you through our ESG story over time because I think it really will give you an idea of why certain products are gaining traction, why we list the products we do, in what order, and where we look to go in the future. And I have been told I have the gift of gab. And we have a lot to talk about in 10 minutes. So excuse me if I speak really, really fast.

Our efforts in ESG really started in 2018, when we were approached by a Scandinavian asset manager whose company has decided that if they wanted to sell ESG funds, they need to be 100 percent compliant with their ESG principles in their entire portfolio. And what this really means is prior, of course, they were executing these ESG principles in their main investment strategy, which was 90 percent to the fund and executed in the cash market but not in their cash equitization leg, which was 10 percent, the remaining 10 percent, and done in standard benchmark derivatives. So the PM went to roll his derivatives position, he found that there were no ESG derivatives to roll into. And he was at that moment limited to two choices: either keep the cash as cash or put that cash in the securities and just rebalance every day. The first was prone to tracking error, the latter prone to -- was very, very costly.

So, as a result, he went to the exchanges to list derivatives. And, really, he wanted three things. He wanted liquidity, transparent order book pricing, and a recognizable benchmark that had an ESG filter in line with their house policy. But the message was very, very clear from him that when it came to ESG needs in the derivatives market, right now, liquidity and order book pricing had a higher priority than expressing a specific opinion about sustainability.

So we used this as an opportunity to consult the market. I mean, as my colleagues in the other exchanges say, we don’t make products in a bubble. We do it with client feedback. And if one asset manager is asking for this, there is likely a lot of others that are thinking about it.

And so we mainly focused on the Scandinavian markets, country funds and asset managers, because they are really the epicenter of sustainable investing, but also talked to French and German asset managers and insurers as well. And what we found was that, even without regulation mandating derivatives usage and sustainable investing, asset managers in Europe really believe it is their fiduciary duty to invest in a sustainable way. And they want to apply these ESG principles that they have developed in-house through as much of their portfolios as possible. But, again, the message was clear over and over again. When it came to the derivatives market, liquidity and order book pricing were key.

So as my fellow colleagues on this panel know, building liquidities in a new product is probably the hardest part of our job. Derivatives markets don't grow in straight lines. They grow in hockey sticks. You've got 2 traders, 8 traders, 20 traders, 1,000. And getting to that inflection point is really the main part of my job every day.

So when we think about building a liquid ESG benchmark, we know that the only way to get to that inflection point is if investors truly believe that the underlying index provides a standard proxy for ESG investing. And in a world where there is no common agreement on the E, the S, and the G, let alone ESG, I mean, this is quite a challenge to find an index methodology that everyone can agree on.

We looked at the range of the ESG investment strategies that we could list derivatives indices. And, obviously, there is very, very targeted belief, like impact investing to broad-based indices with simple exclusion, taking out baseline companies that everyone can agree are not ESG-compliant. And what we found in this market consultation in 2018 is right now in this ESG investing lifecycle, if we truly want to prioritize building liquidity in the ESG derivatives market, simplicity is the winner: staying as close to existing benchmarks and finding common ground on what we should exclude. That is why thus far in our product launches, we have mainly focused on exclusion indices, working with well-established benchmark providers, like our sister companies STOXX and MSCI. So these exclusion indices are norms-based screening, excluding companies everyone can agree are not ESG-compliant: gambling, controversial weapons, tobacco, thermal coal.

In February of 2019, we launched our first exclusion index: the STOXX Europe ESG. This is simply based on the STOXX Europe 600, a broad-based benchmark with 600 European companies, and excludes tobacco, controversial weapons, thermal coal, companies that are not in line with the U.N. global compact principles.

Interestingly enough, in addition to the exclusion index, we have deviated from our plan and also launched two indices based on integration methodologies, so using ESG scoring as a way to build the index: the Euro Stock 50 Low-Carbon Index and the STOXX Climate Impact. And we did this because we had heard from the insurers in this consultation that they were really concerned about their exposure to climate change and wanted the ability to hedge this in the derivatives market.

They also wanted to demonstrate to their investors that they were using a benchmark aligned with a climate taxonomy similar -- you hear these names like

Paris-aligned benchmark or climate transition benchmark. But, again, knowing that liquidity and order book pricing were important, we built the low-carbon index. It is as simply taking the Europe STOXX 50 and reweighting the 50 components according to their carbon intensity, so overweighting companies with low-carbon footprints and vice versa. And the actual index lowers the carbon footprint by 63 percent based off of the regular benchmark.

That said, we also heard from the same insurers the desire to hedge long-term risk. The climate of the future. And the STOXX Europe climate impact takes the STOXX 600 constituents and only keeps the companies that aim to have a low-carbon footprint in the future. And we do this by using data from the CDP that looks at companies' forward-looking carbon emissions footprint by looking at four datapoints: where the emissions are now, what does climate change mean to the company, how does the company manage climate risk, and what is their strategy to solve climate change in the future. And they grade these companies A to D-. And we keep the best in class, which I think was around

233 components.

So after the launch of these three indices in 2019, we only saw trading and open interest accumulate in the exclusion index. So the feedback from the market was very, very clear. It is just not ready for indices based on integration methodology.

So our next step was to expand our exclusion footprint globally in Q1 of this year, 2020. We launched futures on STOXX USA Exclusion Index and five MSCI-screened indices. So it’s screened methodology. We have talked about the Leaders methodology. The screened methodology is MSCI’s basic exclusion indices. And we launched five: EM, EAFE, World, Japan, and USA. Again, the goal was to find liquid benchmarks that asset managers were currently using and offer the same product with a slight ESG tilt.

Again, MSCI’s exclusion methodologies are in line with the same principles we heard from the European consultation: screened for thermal coal, tobacco, controversial weapons. MSCI also screens for oil sands, which isn’t applicable to European companies. But one thing that I point out that is interesting is that MSCI screens for nuclear power and in our consultation, we found that that was not something we could screen for in a pan-European index because nuclear power is just different opinions in Europe. You have a handful of countries, like France and Finland and England, that believe that nuclear power is the solution for the climate and have committed to even building more nuclear reactors as a way to get to a zero-carbon-emission footprint. And then you have Germany that believes it is a danger to the environment after Fukushima and in 2011 actually committed to reducing a nuclear footprint.

So now we are here. October of 2020, a year and a half later, after we have launched 10 contracts on 10 indices, we have accumulated 1.3 billion euro notional open interest in these contracts. However, 1.25 billion of that is in futures and options on the STOXX 600 Exclusion Index.

So what does this tell us? I mean, we have a small community of users in the STOXX 600 Exclusion Index: banks, market makers, asset managers. So it’s diverse. However, I would say that the desired trade ESG derivatives is not yet translating into trading ESG derivatives. And, I mean, partly I think this is because we have launched the indices of choice via exclusion indices, but we are not at that inflection point of hitting liquidity thresholds where asset managers can get in. But partly it is because the European market is very sophisticated. And those that want to trade when it comes to ESG, and those that want to trade derivatives in line with these house ESG principles that they have created have very different opinions and very strong convictions to those opinions on what defines ESG. And a simple exclusion is that won't satisfy them.

So now we're migrating into what we call Phase II of our listing strategy. And that is to move away from exclusion indices and into integration, where we are using ESG scoring and positive screening to build indices based on ESG principles. We are starting to get to a place where ESG scoring is becoming more transparent, standard, standardized. and accepted by the European market. And, thus, we believe the scoring methodology can provide that standard proxy to attract liquidity.

In fact, this is a timely panel because in a couple of weeks, beginning of November, we will launch two new ESG indices using integration methodology based on the DAX and the EURO STOXX 50. So, just to give you a little background about those two, the next wave of the future, the DAX ESG will look at the universe of the HDAX, which is 100 companies, German companies, first applied the basic exclusion screen, and also excludes nuclear power in line with German customer principles. But the integration approach, then, looks at three datapoints: ESG scoring done by data provider Sustainalytics, order book volume, and free-float market cap. And, again, these are equally weighted because liquidity is just as important as ESG principles.

The EURO STOXX 50 Index is a fixed 50 component. It screens out the bottom 10 percent based on this ESG scoring, again, same ESG scoring, and then applies basic exclusion screens, keeps nuclear power because it’s a pan-European index. And then it looks at all of the excluded companies by sectors and replaces them by best-in-class companies based on their ESG rating.

So that is our equity and equity index portfolio looking historically and what’s in line to be launched. One phenomenon I wanted to draw to your attention -- and I believe Commissioner Quintenz mentioned this as a point of interest -- is performance. It’s interesting because in our consultations, performance was never really one of the key drivers for designing these indices. Nor was it a motivation to trade these indices. However, looking back on 2020 and, now post-COVID, postmortem, these indices have been outperforming. And this is something that is getting noticed by the investment community. In fact, when we designed the DAX 50, one conversation we keep having is that this index would have never had a company like Wirecard. Right? So performance is starting to become a conversation we are taking with customers as well.

So, just to round out very quickly, you know, we are a multi-asset exchange. We are looking at an ESG strategy with fixed-income. It will mirror the equity index strategy, where we will look at liquidity and price transparency as the priority and use only benchmarks that we are familiar with across investment-grade, high-yield credit markets, and across geographies.

And then I just want to echo what Steve has said. And, when we look at the biggest hurdles and the biggest opportunities, I think the biggest hurdle is also the biggest opportunity. Right? The EU has started to agree on a taxonomy, which kind of provides this common understanding of what is the E. Growth will only come when we agree globally. There has been agreement globally on what is the proxy for E, what is the proxy for S, and what is the proxy for G, and provides a common understanding and standards of what activities are considered sustainable and worth investing and then having the data to measure that. Right? I mentioned our indices use data sources like Sustainalytics, CDP, MSCI, which, in turn, rely on corporate data. And we need a golden source for ESG data. This is just another tool for investors to really ensure they can quantify their ESG principles. And then for us as index providers and benchmark, it can measure their performance against the benchmark we provide.

Thank you very much. I'm done.

CHAIRPERSON WIGGINS: Thank you.

Now we will turn to questions from the Associate Members to the panel. And I think we had a question from Dr. Sandor. Is that correct, Abigail?

MS. KNAUFF: Yes, it is. And the operator is going to just take a minute to connect his audio. He should be on shortly.

CHAIRPERSON WIGGINS: Okay.

OPERATOR: His line is open if he can unmute and speak.

DR. SANDOR: All right. Hello. Can you hear me? Hello?

CHAIRPERSON WIGGINS: Dr. Sandor, go ahead.

DR. SANDOR: Yes. Can you hear me? Hello?

MS. KNAUFF: Dr. Sandor emailed me his question earlier. So I will begin. But, Dr. Sandor, if you are able to start speaking, please cut me off.

DR. SANDOR: Can you hear me? Hello? Can you hear me?

MS. KNAUFF: Yes, we can. Thank you. Please go on.

DR. SANDOR: Thank you. Sorry for the

technical details. And I was not able because of technology for the last comment period on minorities.

AFX, which is an exchange for regional midsized and community banks, developed a coalition of minority depository institutions. Three years ago, we took a look at the patterns of ownership and found that there were only 19 African American/minority banks out of 5,300, which identified the problem we thought in a nutshell.

So we made a special effort to recruit Puerto Rican, Hispanic, African American, Chinese American, Korean American, and Native American banks and were subsequently AMERIBOR, our successor to LIBOR, was endorsed by these minority-owned community banks. They lend money within the community and a PPP program. They made loans as small as $200 to salons, Atlanta shopping centers, et cetera. So they reached into their communities in ways they couldn’t.

We surveyed them recently. And they really don’t need deposits. They’re flush with liquidity, as most American banks are. But what they do need is equity, and they need to be employing that liquidity.

And I wondered if any of the energy companies, utilities, oil companies, people in the energy sector had reached out to become customers of these minority-owned banks, to borrow from them, to give them services because I think pound for pound, building up those folks and their ability to lend is a very, very effective way to help the minority communities. And I don’t know if any of the energy companies or utilities are doing business with minority-owned banks but want to just suggest this as a pound-for-pound cost-effective way to help out that community.

CHAIRPERSON WIGGINS: Thank you, Dr. Sandor.

Does anyone on the panel want to respond to that or do we have another question from an Associate Member? Abigail?

MS. KNAUFF: Thank you, Dena.

We have a question from Dr. Parsons. Dr. Parsons, please share your question.

(Pause.)

MS. KNAUFF: I can read -- Dr. Parsons sent his question so I can read it verbatim. “I am interested in learning more about the water market and data on the water market underlying the forthcoming water futures contract. Is there any peer-reviewed research on that market and spot price data on which the futures contract is settled? WestWater used to report its data publicly but stopped doing so a few years ago. At the time they went dark, I wouldn't have thought that the data was suitable for a futures contract. I'm curious about what has changed.

Just as an example, my understanding is that there are only occasional transactions and that the number of transacting parties is very small. Generally, data in published research could be a good corrective of any false inline impressions. And to go back to NYMEX creation of the Henry Hub natural gas futures contract when it was first proposed to see if he turned it down because of issues with the underlying spot market like the ones I am inquiring about for this water market, back then an enormous amount of work." And then the question ends.

So if anyone on the panel would like to respond to that question? Thank you.

MR. SAMMANN: Yes. Derek. Since it is our product, I'd better jump into that.

So a couple of things. Like all of the price-reported agencies we work with that are Argus or Platts or S&P or anybody else that we use for assessing markets and developing contracts, we have to adhere I think, as the Commission knows, to all of the core principles from the CFTC's rules and regulations such that we need a sufficient amount of underlying data, we need a sufficiently reportable set of datapoints over the underlying market.

So, you know, I think you are absolutely right. A couple of years ago, this data was more sparse. And I think it was not useable and certainly didn't satisfy the core principle criteria that we have to adhere to and then the we develop product and let it go to the CFTC for approval, they review that same underlying dataset as well. So while I can't tell you exactly what WestWater did back in the day a couple of years ago when they went dark, I assume they, like other PRAs, determined that the underlying methodology and the data capture business and the business of being a price-reporting agency was a monetizable asset and they decided they wanted to not distribute that publicly but, actually, then build proprietary products on the back of that.

What I can tell you is that that dataset that we used is, as I mentioned in my comments, sufficiently populated for us to be able to determine a weekly calculation. We don't do dailies, and we also volume-weight those to the extent that -- obviously, if you have a very small transaction, a very large transaction, that volume weight becomes an important part of that calculation process.

So probably the two most important answers are yes, that data has gotten much more robust and yes, we reply on our weekly assessments that we provide, not daily assessments, and that water market is still growing and emerging. Over time, we expect that market and the datapoints, particularly if the evolution of transparent lit markets, like this product we're putting out there, gains traction, we assume there would be more reporting on more datapoints as more data becomes available.

So happy to talk offline about the details of what we can publicly. We filed and are waiting for regulatory approval, but we are happy with the data we have seen so far in the weekly assessment piece. And the robustness of the underlying data is sufficient for us to launch the product.

So hopefully, Dr. Parsons, that answers the bulk of your question.

CHAIRPERSON WIGGINS: Thank you, Derek.

Abigail, I don’t see any other questions or comments from Associate Members. Do you have any?

MS. KNAUFF: I am not seeing any at this time, but if anybody would like to turn their video on if they have a question? Additionally, if there are any Commissioners that have a question or a comment, please also feel free to share now. Commissioner Berkovitz has a question.

COMMISSIONER BERKOVITZ: Yes. Thank you, Abigail. Again, thanks to our panelists here for a really fascinating discussion and at the front edge of new product development.

I am curious because maybe you all mentioned it, but the difference between the EU and the US in terms of where this investment is coming from. I guess could any of the panelists just -- what are your observations on what is the difference between the US and European investors? And is this something that you anticipate in the US will catch on or catch up or are you thinking this is mostly going to be a European market going forward?

MR. HAMILTON: Sorry. It’s Steve Hamilton. Commissioner, I can have a first go at answering that. I think you are right. And I think we, most of us, did mention the divergence, but I don’t expect that that will continue. I think that the EU has been ahead, and it has been ahead because of the regulations that have been written early. And some of that is the requirements on firms to report on their sustainability, which I think is not far from becoming more standardized in the US. So there is a current divergence, but that is only heading one way.

MR. SAMMANN: Yes. It’s Derek here. I would agree. I think that we weren’t surprised to see the early adoption coming from the European and almost exclusively asset managers. And I think that the expectation and the requirements under which many of the covenants of their investment fit make that a requirement in the US.

I think of these as sequential, not parallel. I think as the European customers sort of plumb the path and create more demand, I do think that over time standardization is going to be critical. I think lots of folks are vying to become the standard or an alignment around standards. And that is becoming part of a problem for broad-based derivatives to be built on the back of these. Listen, we’ve got, five million contracts a day trading our equities complex. Five hundred of those are ESG futures. We’ve got eight million contracts open interest in equities. And we have, less than 5,000 in our ESG contract. So there’s no question that over time, that will be another mission, but we also understand the industry-accepted principles around those are going to matter.

As an aside, I spent a lot of time talking to investors and analysts that cover us. And, increasingly, when we talk to investors and analysts, it’s as much about the, “Hey, how are your products doing? How are your businesses doing?" But, also, they want to hear about how we as a firm as an investment in and of itself is satisfying many of the ESG criteria. We have spent a lot of time talking about what we're doing with our diversity/inclusion, what we're doing with our sustainable efforts, what we're doing with our sustainable sourcing initiatives. So we are seeing this expanded. That primarily used to be European analysts' conversation. That is increasingly now part of our regular dialogue with the US investors as well, not from the using CME product side but invested in CME as a public company. So I think that pre-messages what to expect over time, but, again, I think standardization is going to get us there. I think Europe is ahead, but I do think the US is following but not on its own parallel track.

CHAIRPERSON WIGGINS: Megan, did you have a comment?

MS. MORGAN: I mean, no. I echo the same. It's the same. It's pretty much the same message. I mean, the one comment that when I talk to my colleagues internally, including, the height of our regulatory efforts, it’s very interesting because usually Europe follows US regulation when it comes to our -- especially when it comes to our market. And this is for the first time where we feel like the EU is in the pole position to set the standardization. Yes. And that is really being driven by the way the investors are investing their money, especially with, like I said, the Scandinavians. They just have a very robust process in which they define ESG, the E, the S, and the G. And they have been thinking about this. I mean, this is hitting our radars in the past couple of years. This is not a new phenomenon for them. They have been investing in this way for almost a decade.

COMMISSIONER BERKOVITZ: Thank you. Thanks.

CHAIRPERSON WIGGINS: Okay. I think we need to ask for any comments from the EEMAC Members. And I understand that we have one question. Is that correct, Abigail?

MS. KNAUFF: We actually have one question from Paul Cicio, who is an Associate Member. We are slightly out of order, but we have been having some technical difficulties.

CHAIRPERSON WIGGINS: Okay.

MS. KNAUFF: I just want to open it up and ask if Paul is able to speak if he could speak now. If not, I can read his question.

MR. CICIO: Yes. Can you hear me?

MS. KNAUFF: Yes. Thank you.

MR. CICIO: Yes. All right. I love this panel. Thank you.

My member companies are very diverse manufacturing companies. They are primarily raw material providers, plastics, chemicals, cement, steel, aluminum. And so, you know, they produce the products that are then used in the, let’s say, very top-of-mind environmental products, like wind and solar. Well, with that given, what is the correlation between the ESG indexes and the stock values of manufacturing companies? That’s question number one.

Number two, given the diversity of the manufacturing sector that I just spoke of, it raises the question of, are there fair standards in measuring ESG?

And, then, third, given the diversity of these manufacturing industries, do you have manufacturers, you know, companies on your advisory boards to advise you so that you have good information?

Thank you.

MR. SAMMANN: Maybe I'll take a stab at number two there in terms of the kind of standardized ways in which firms are assessed from an ESG perspective. I think the short answer there is a qualified sort of. This is, there are a lot of folks out there trying to determine that they are the authoritative determiners of ESG compliance. There are some very, very basic ways in which firms are falling under a general ESG score. The way a lot of those scores get captured -- and there's a handful of firms that are out there that are sort of compiling these scores. Largely, they are sort of screen-scraping websites. And they're pulling publicly available information about everything from population of boards and diversity of senior leadership through to employee relations issues through to carbon-neutral footprints and commitments to climate implications.

And I just want to mention that you heard all three of us talk about the lack of standardization but the drive towards standardization. Relative to your second question, though, there is not a standardized way in which there is a definitive scoring system for firms. And, more frustratingly, the ways in which that information is captured and then entered into a scoring system for a firm is very limited at this point.

I think a lot of firms -- I mentioned in my prepared comments earlier that we as a firm put our first ESG scoring report out there just this summer because we had recognized that as analysts are looking at firms and you are trying to clear screens of an investable asset, the ways in which we were making information available that certain screening firms are looking for to calculate a score, if they're not sort of found on your website, you kind of get a zero for them. So it's an evolving engagement with the industry. It's an evolving process of those entities that are scoring those firms and calculating, capturing the data, and then calculating those as a score. So I think you will see a lot more traction along those lines. And I think all public companies right now are determining how it is that scoring entities are gathering that information if they are not speaking directly to those firms and how is it that they can make that information available so that those scores are correctly reflecting what individual firms are doing.

So I've got some insight into that. As I said, I sit on the Executive Committee of our Diversity/Inclusion Council. I also sit on our Steering Committee for our ESG initiatives. Those are things that we have worked with for our entities and consultants out there that are surveying this landscape and explaining to us how this is getting done and how the market has not coalesced around standards at this point, although there is no shortage of desire to do that.

So hopefully that gives you a little bit of perspective on the second question of your three that you posed.

MS. MORGAN: I think, quite quickly, just as a quick comment to your question and concern, one of the ways in which we have started, as I had mentioned, in the first wave of indices is right now where the industry is at. We are making simple, very simple exclusions that the market can agree on. And, still, what we are seeing is that, even though that I would say is the farthest along in agreement, there is still disagreement on things like nuclear power. So when it comes to manufacturing, I mean, that is certainly one area that we just do not see standardized yet. As Derek mentioned as well, there is no standard proxy.

I would say that while we are cognizant of that, when I discussed the next Phase II of our benchmarked design, we are very cognizant that if we just do simple ESG best in class, we would screen out certain industries. And so what we are doing is making sure that the industries are properly weighted, just as they are in the like-for-like benchmark and then doing the methodology with them to take best-in-class company.

MR. HAMILTON: I’m not sure I have anything to add on manufacturing. I’d like to be able to come back on the question and have a conversation with the index provider on that specific subject. I will say that one of the subjects that we often end up talking to to our clients about is sustainability and climate change and why these things are in the news and an issue and that the problem we are trying to address is not difficult through lack of motivation, if you like, but that perhaps the tools of that unsustainability has spread out over -- what are we now? -- nearly 8 billion people, all enjoying 100 percent of the benefits of the actions of plastic bags, fossil fuel-powered carbon homes, but only bearing a tiny fraction of the cost. Right? So individually there is no economic incentive to take action.

And that has been known in economics since the tragedy of the commons, which was based on an old British economist whose name I regularly forget. So before this call, I made sure I looked him up, William Lloyd. He hypothetically looked at the effects of grazing on common land in Britain, where cattle owners were able to graze on that land incentivized to add one more animals without incurring additional costs until resources were depleted. That generally became known as the tragedy of commons more than a century later with another article, in ’68. ESG looked to provide some information to help solve some of those issues using, regulatory and economic incentives for companies and providing vast economic incentives to investors. But I think the short summary of that rather long answer is that it is very new. We're right at the start of trying to measure the inputs here. And I think we have a long way to go.

CHAIRPERSON WIGGINS: Abigail, do we have any questions pending from Members or anyone else?

MS. KNAUFF: I don't see any questions from any Members. I am not sure if we have any questions from the Commissioners.

CHAIRPERSON WIGGINS: Commissioners, does anyone have a question or a comment?

(No response.)

CHAIRPERSON WIGGINS: Seeing none, I think we are ready to move to the third panel. Is that right, Abigail?

MS. KNAUFF: Yes. Thank you.

CHAIRPERSON WIGGINS: Okay. Thank you.

Our third and final panel today will provide a staff update from the Risk Surveillance Branch within the Division of Clearing and Risk on initial margin performance in the energy markets between Q1 and Q3 of 2020. We will hear from Sayee Srinivasan, the Deputy

Director of the Risk Surveillance Branch in DCR; and John Paul Rothenberg, a Risk Analyst in the Risk Surveillance Branch of DCR as well.

Sayee?

MR. SRINIVASAN: Thank you. Let me start by thanking Commissioner Berkovitz for inviting us to present at today's EEMAC meeting. Joining me at the meeting presentation will be John Paul Rothenberg. He goes by JP. He works with us and the team. I would also like to thank Abigail for all of the hard work in helping us prepare for this presentation.

So before we get started, I just wanted to sort of provide some context. A couple of months ago at the MRAC meeting, our staff had presented some high-level macro analysis of the IM and the margin flows that we had observed in the trading system in March and April. In today's presentation, J. and I will sort of walk you guys through the margin performance of key energy benchmark contracts.

If we can go to the next slide? The standard disclaimer, the views presented by JP and me today are those of the staff and of our views and not those of the

Commission or the Division of Clearing and Risk, and so on.

The Commission receives pretty granular data on margins and position information and account level of customer clients. And we take a lot of care to ensure that the information we disclose is consistent with Section 8 of the statute and we are not disclosing positions or transactions of market participants, so just wanted to highlight that.

Next slide, please. So this might be the first time, at least from my recollection, that the team here is presenting to the EEMAC. So I apologize for spending a couple of minutes sharing with folks as to what do we do. So this is the Risk Surveillance Branch. We serve in the Division of Clearing and Risk. We call ourselves the quants in the Division of Clearing and Risk. And we can sort of break up our core function into three different buckets. The first one is margin model oversight. As we all know, in the cleared derivative space, if you cannot post margin, then you cannot transact. So margin, initial margin, of course, is the first line of defense. And we have a dedicated team which looks at CCPs' margin models, changes that they make to the models, and also on an ongoing basis doing analysis of the performance of margin models. And JP sits on that team.

The second function that we perform is what I call the daily risk surveillance. As I said earlier, end-of-day, every day, we get position and margin information from all of the CCPs for futures and swaps. And we have a dedicated team which does quantitative analysis. We have started looking for vulnerabilities at a product level, account level, and across futures and swaps and across all of the different asset classes.

And, finally, this is a more recent development over the past three or four years and focuses on stress testing, supervisory stress testing. To date, we have published three staff-level reports on supervisory stress tests done by CFTC staff. We are typically looking for systemic issues within CCPs, do CCPs have enough prefunded resources to absorb extreme, and in some cases even implausible, shocks.

In addition to these macro-type and systemic-type issues, we are also interested in assessing for what are the abilities of the account level or the product level. And we have developed a suite of stress testing capabilities that we use on an intra-day basis.

So that is a quick overview of what we do. And, with that, I will turn it to JP.

MR. ROTHENBERG: Thank you, Sayee. Hello, everyone. So I am JP. And I work with Sayee on the Surveillance Branch. And I want to thank everyone for contributing their time and expertise to this meeting. It has been a really fascinating conversation to hear how industries are responding with new policies and products to what we are experiencing.

So for this presentation, I will focus on a somewhat dryer topic of initial margins and how they perform for energy products in 2020. And I will start by briefing touching on what IM is and how it fits into CCP risk management. And then I will show the energy sector size and composition in the futures and options markets and how energies performed on a product level earlier this year. And, finally, I will finish with some observations.

Next slide, please. So risk management is a core offering of central counterparties. And much of their risk management efforts actually focus on monitoring creditworthiness and preemptively sizing credit exposures to prevent and minimize defaults, but in case of default, initial margin, seen as the blue part in this left chart, is the largest and most visible pool of capital and often represents 90 percent of prefunded resources that we see in this stylized example.

Now, while IM is the largest pool, it is only the first line of capital that kicks in in the event of an actual default. First, we see that a counterparty to IM, seen in green on the right chart, is designed to cover most of the risk that a CCP faces in reestablishing a market-neutral exposure post-default, but this is sufficient only most of the time. The remaining tail of default risk is covered by the defaulter’s guarantee fund contribution, the CCP skin-in-the-game, and the remaining members’ guarantee funds, in that order. If that is still not enough, CCPs have the power of assessment on their members for even more capital depending on the number of defaulting participants.

Next slide, please. So while we will be looking at IM at a product level, I want to stress that it is actually collected on a portfolio level. And for a given portfolio, we can use a histogram to kind of conceptualize the distribution of profit and loss. Here we see that most of the P&L is green, which indicates that it is covered by an IM, but the larger and rarer losses, as shown in the left tail, is orange. So if we rotate this chart, instead, the orange point faces down, and zoom in a bit, we can see more details about what IMs should cover.

Next slide. Next slide, please. There we go. So here, again, we're looking at kind of a rotation of the last chart. And the vertical y-axis is the hypothetical loss of a portfolio, where the x-axis represents the potential likelihood of that loss going from 5 times per year event to a 1-in-50-year event. And this is a Student's T for anybody that's interested. So the red line is the size of the loss while the light green area is the portion of that loss that is covered by initial margin. So IM is typically designed to cover

99 percent of portfolio moves, and the cost and impact of reestablishing a market-neutral position for the CCP after a default. As such, it covers most of the credit exposure most of the time. And on this chart, that is all the area to the left of the black line associated with 99 percent of P&L.

Next turn, please. So, by design, some of those potential losses are actually not covered by IMs because it would be capital-inefficient. Now, to the right of that center black line, we see the worst 1 percent of moves. For daily margins we expect to see these losses about two to three times per year. It is important to stress that this is only a statistical expectation. So even exceeding this number of breaches occasionally is not necessarily a concern. Further, larger diversified accounts tend to actually breach less than the products that make up on those accounts due to conservative diversification assumptions.

Now, so while IM covers the large portion of these losses, as represented by the green shading, we still expect losses over initial margin, as represented by the orange shading, to be covered by other capital that we mentioned earlier, such as the guarantee fund, and throttled by credit limits.

Further, the guarantee fund is actually sized to handle the simultaneous default of two clearing members with major mark-to-market losses at a minimum. So, to summarize, IM is designed to cover most of the losses most of the time, but some breaches are still expected and aren’t covered by other capital.

The next slide, please. Now we are going to move into the specifics of the energy market. We are looking at a highly aggregated estimate of how much market risk a contract represents for the first half of 2020 across major CCPs. It is important to note that this is a combination of all CCPs.

So in cleared futures and options, we see that energy markets is the red area on the left chart, make up about a quarter of the risk-weighted open interest among major CCPs. Then, digging into energy exposure with the right chart, we see that WTI and Brent crude contracts represent about 30 percent of the energy space while the main natural gas contracts represent about 10 percent. The remaining risk is usually made up of various tangential crude, distillates, and natural gas contracts.

So next slide, please. So here we are actually going to start digging into the performance of an individual risk factor starting with ICE's Brent contract. We are looking at a rolling front-month exposure, with the bars representing the P&L of a single contract. The bars are colored red when a breach occurs. So here we are counting two breaches for long exposure in the first half of 2020. Dates associated with those breaches are also highlighted in red. I consider long exposure a different risk factor from short exposure. So we actually see breaches for the shorts.

Now, the gray line in the background is the price path and shows the kind of general down trend in Brent returns. An important note here is that this is the price path of a rolling strategy and not the price level of the contract, which would be different due to the rolling conventions.

Next slide, please. So here we simply layer on initial margin as gold lines in the top chart and can see that ICE steadily increased margins as 2020 evolved. We also include open interest and the days until expiration, the bottom to give us additional information about the rolling exposure and some sense of the dollar importance of a breach and how it related to expiration. So for this chart, we see that the front-month breaches did have significant open interest associated with them.

Next chart. Okay. So, finally, we add a P&L histogram to the left of the chart, in light blue, to give us some context going back to the beginning of 2018. So this suggests that margins were not very tight relative to history as we see only a few ticks outside the starting margin levels.

So 2020 has been a busy year in general and for energy, in particular. We started with heightened trade tensions between China and a bull market that was one of the longest seen in history. And that was less than a year ago even though it seemed like forever.

Then COVID started traveling around the globe and eventually spurred lockdowns and some of the most severe economic contraction that we’ve ever seen. Now, during this, oil-producing countries could not agree on production quotas, which then triggered a price war between Saudi Arabia and Russia for a time. So in this chart, we see that Brent, which is a benchmark for cash-settled European crude oil, responds to the Saudi-Russian oil spat price war with the largest down move. And that was over twice any move seen since 2018.

Now, ICE responded by gradually raising margins and fully covered some of the subsequent March moves. Now, margin for the front-month Brent contract ended up about 40 percent higher by the end of May than where it started in 2020.

Next slide, please. So WTI experienced the same global macro factors as Brent. And we see the same large breaches that we saw in Brent. This was followed by two large whipsaw moves that breach as March expiry approach for WTI. Then we see a major breach on 4/20, the day before expiration in April.

Now, CME was,anticipating some issues and raised margin by 1,000 going into settlement, but the move was still 7 times what margin was at the time. Now, this April move was unique to the expiring contract. And no other contract along the curve breached. Since the contract was expiring, open interest was low at around 14,000 contracts. And there was no option risk as those that had settled a few days earlier. This meant that the clearing systems' exposure to the move was actually pretty limited. So in the first half of 2020, we count about 5 breaches for the long exposure and 1 breach for short exposure.

Next slide, please. So next we will take a look at ICE's Henry Hub natural gas contract. The histogram at the top left tells us that natural gas experienced some very, very fat tails with multiple points outside of margin at the beginning of the year. Now, further analysis shows that, actually, much of this is due to seasonality. We can even see that margin for natural gas lowered from earlier in the year as the model price ended typically lower spring volatility. We see one breach for the shorts on April 20th that is corresponding to the WTI settlement and another breach on May 6, so slight differences in IM.

So let's move on to the next chart. So here we take, actually, a look at the CME's Henry Hub contract, which is a sister contract to ICE's. Note, this is actually four times the size and is physically settled from ICE’s contract.

Now, the contracts move in lockstep but with slight differences in IM due to the discretion of the CCPs. So here we see two breaches for the shorts and one breach for the long but nothing concerning.

The next slide, please. So finally at a product level, we take a look at Gasoil, which is an ICE Europe contract. And we see that the histogram on the left shows that margins were fairly conservative relative to history of only one tick outside the initial margins at the start of Feb. The Gasoil contract experienced three breaches for front month, long exposure, each day correlating with a large down move in Brent and WTI, but margins for the product were relatively stable. And there’s really nothing concerning that we saw for such a dramatic event in the general and energy markets.

If we move on to the next slide, we are going to start taking a look at all of those products in aggregate. So here we are looking at the relative change of margin levels across all the products we looked at. So margins for all products are indexed to one on January 1, 2020. So a print of two would mean that margins doubled for that product. In oil, we see the green WTI line rise the most and peaking at over three times what margins started at at the beginning of the year. The Brent contract, in blue, peaked at about 1.5 times what margins were at the beginning of the year. So by August, crude margins were off their highs but still up about one and a half times than what margins started for for 2020, but it has since actually come down to about 1.2 times what they started for in 2020.

Now, while the WTI contract started with margins about 22 percent lower than the Brent contract, WTI briefly had margins 60 percent higher than Brent as the May expiry approached. And, while related, WTI and Brent are significantly different products with different contract designs that resulted in different narratives for 2020.

So much of the margin patterns, then, we see in natural gas are seasonal, which is why we see it actually decreasing in 2020. The margin performance for the two ICE and CME natural gas products are fairly similar. And they end the sample period down to about 20 percent from where they started. So, in general, margins rose, sometimes significantly, during the crisis but have largely retraced from their highs.

The next chart, please. So, finally, we will take a look at the characteristics of the margin breaches we saw in aggregate for these energy products. The top chart shows the P&L is a multiple of the margin. So a mark around 1x means that margin is barely breached. Please note that this is on a log scale. The size of the circle then gives us a relative sense for how much margin is allocated to that product at the time of the breach. So a larger circle is a larger product of open interest times initial margin.

The bottom charts stack the amount of dollars each breach represents for the day, with the largest on the bottom. So WTI is green, and Brent is blue, appear to dominate the dollar impacts.

Now, important note is that this is not actually any dollar lost that a clearing member or customer or CCP actually faced. It is just an estimate.

So it becomes obvious, then, that the March 9th event, with the large bar on the bottom chart, with the most impactful from a systematic perspective and is shared largely by Brent is blue and WTI is green. Above the large bar, we see that Brent had more margin dedicated to it at the time of the breach than WTI, but WTI had a greater breach as a percent of margin.

Now, jumping over to the April 20th event, we see that there is a small circle at the top of the chart at around seven times for that WTI breach. Now, looking at the associated bar, we see a significant dollar impact but not something systemic like what we saw in March 9th.

So, moving on to the last slide, so this brief survey, then, showed us that multiple product levels breach occurred during 2020, but that is to be expected when a crisis unfolds. The histograms suggest that margin was not at cyclical lows, and we saw few breaches stretching back to 2018. Additionally, while not shown, margins were generally above what near-term volatility and applied volatility would suggest.

So in crude, we definitely saw an increase in margins, but this is to be expected when you layer an oil price war on top of the global pandemic. And for the other products, we actually saw the other front month margin decrease, but, again, this was largely due to seasonality. So, in general, IM for the major products performed adequately.

And we would like to open it up to any questions. Thank you.

MS. KNAUFF: Hi. This is Abigail. Are there any questions from the Associate Members?

MR. COTA: Hi. This is Sean Cota from NEFI. Will we be getting a copy of these slide decks or is that possible?

MS. KNAUFF: The slide decks will be posted to the EEMAC public website, and I can send a copy to all of the Members, Associate Members, and guest panelists participating today.

MR. COTA: Thank you so much.

CHAIRPERSON WIGGINS: Abigail, any other questions from Associate Members?

MS. KNAUFF: I’m not see any from Associate Members.

CHAIRPERSON WIGGINS: If there are none from Associate Members, let's move on to EEMAC Members. Are there any questions from EEMAC Members?

MS. KNAUFF: Yes. We have a question from Demetri Karousos at Nodal Exchange.

CHAIRPERSON WIGGINS: Okay. Demetri?

MR. KAROUSOS: Hi, everyone. Good afternoon. Hi, JP. Hi, Sayee. Good to see you. I noted that the analysis in the presentation focused on natural gas and crude oil. I was just wondering if you had also had a chance to look at power markets. I know from my perspective that they were not under nearly any kind of the same stress that, of course, crude went through this spring but just wanted to ask if you had also looked at that as well.

MR. ROTHENBERG: Yes. We do actively monitor electrical markets. And, as you said, there just wasn't the same level of stress in those markets that we saw in crude, in particular. The energy markets are fascinating in that way, where even though you have highly, highly related products, they're just really idiosyncratic. So it's something that we keep an eye on and is further being kind of included in that daily systematic surveillance. And it was, interesting this year, but the other products kind of really stole the show as far as concern.

CHAIRPERSON WIGGINS: Thank you. Any other questions from EEMAC Members?

MS. KNAUFF: I'm not seeing any questions from the other EEMAC Members. We do have a question from Commissioner Berkovitz.

CHAIRPERSON WIGGINS: Go ahead, Commissioner.

COMMISSIONER BERKOVITZ: Thank you. Thank you, JP and thank you, Sayee. Could you explain to what extent the breaches -- is it the breach? Is it the volatility of that day; and when the volatility changes or when there is a breach, just the process in terms of what is incumbent upon the exchange at that point with respect to margin? Is there an automatic requirement or is it discretionary?

And then also, if you could maybe explain for the audience and us, our role, what you do at the CFTC, what we're doing real time in this time period and our involvement at that time? In terms of your surveillance, are you just watching? Are you interacting with the exchanges in terms of how we are following this and what our role is? If you could explain both the regulatory requirement with respect to margin and what the exchange must do, how much discretion they have, and then our actual surveillance, and what our role in that is, I think that would be helpful.

MR. ROTHENBERG: I can take the kind of first part of that question. I'll pass the broader part to Sayee.

So when a margin model breaches, there is kind of an immediate notification. And then we kind of look at how that breach corresponds in history. And it is important that we are looking at the margin model from a holistic standpoint. So a breach in a particular product or a particular risk factor is not cause for concern in and of itself, especially since accounts, which is where the regulation really kind of hits home, rarely see the number of breaches that a particular product may experience. And that's largely due to diversification in that margin from multiple products, even though they are slightly offsetting, is typically much higher than the risk that a single product faces.

So when that happens, we take a detailed look at the margin breach and how it kind of filters up to the account level and try, again, to take a very holistic view to whether this breach indicates a problem with the model's covering of a particular type of portfolio or a particular risk factor. But there is a lot of discretion and expertise that goes into risk management. So it's not something that there is a bright line for action.

Now, from the broader perspective, I will pass it on to Sayee for what RSB does.

(Pause.)

MR. ROTHENBERG: I think you need to unmute.

MR. SRINIVASAN: Sorry. Yes.

So thank you, Commissioner, for the question. So the margin models are very model-driven. And increasingly, there's less of human intervention in those models. And from our perspective, we actually have a whole suite of tools where intra-day we are tracking activity in the market. So, we don't need to wait to hear from the clearinghouse that a breach has occurred. We could give them alerts that we have pulled where we can sort of see these things building up.

And we have sort of a mix of different tools at our disposal. Once again, as JP was saying, we sort of take a very risk-based approach to it. We might be on the phone with the clearinghouse, during the day inquiring about what is happening during March and April, during all of the interesting days that JP was highlighting, we were on the phone with the clearinghouses and deciding how they are managing things.

We have account-level information we received from clearing firms and from the CCPs. So we have watch lists as we are tracking vulnerable accounts. We speak to the CCPs. We speak to the clearing members because the clearing members, once again, are much closer to the clients. And if we need be, we can also all go and speak to the client. So our first call is typically to the clearinghouse. And then we sort of speak to the clearing members. And in some of these things, we work pretty closely with our colleagues in the Division of

Clearing and Risk so that it is sort of a joint approach to monitoring the markets.

I hope that is helpful. And I can sort of elaborate some more on what we do.

COMMISSIONER BERKOVITZ: That's very helpful, Sayee. And I would just say to the people who are tuned in and watching, the Members and Associate Members and the public, during this whole period, we were getting, the Commission was getting, daily briefings by our staff on these market developments. And I was pretty impressed with our real-time capabilities. And, Sayee, we had discussions during this period about what was going on. And, really, seeing the plumbing in action firsthand during a period of extreme volatility really gave me a lot of confidence that our systems have really been upgraded and that we have this capability. And I just want to make sure to give the public some understanding and appreciation of the capabilities and the monitoring that we have.

And what we saw today was retrospective as to what has happened over the past six months, but we have been compiling that picture and staying on top of it throughout the period and the dialogue with the clearinghouses the whole time. So I think it is very, very helpful. And I appreciate the presentation where we could take the six-month look back and see it in perspective. But we actually had the view of this day-by-day, which was helpful.

So thank you. I appreciate that and all the work you have done in your team, you and JP and the whole team, during this period. It's been a pretty intense time.

MR. SRINIVASAN: Thank you.

CHAIRPERSON WIGGINS: Abigail, do any other Commissioners have questions or comments?

MS. KNAUFF: I'm not seeing any at this time.

CHAIRPERSON WIGGINS: Okay. Well, with that, we thank everyone for participating. And thanks to all of the Members, the Associate Members, and the guest panelists for the thoughtful participation and thoughtful comments today. We look forward to the ongoing work of the EEMAC and our next meeting, on a date still to be determined, in Spring of 2021.

And I will turn it over to Abigail for closing remarks. Abigail?

MS. KNAUFF: Thank you. Thank you, Dena.

I now recognize Commissioner Behnam to give his closing remarks.

COMMISSIONER BEHNAM: Thanks, Abigail.

I just want to thank the committee again, these great presentations. Especially this afternoon was very insightful. Thank you, Abigail and Dena, for your organization, the Members for your participation. As we always say, these advisory committees are absolutely critical for us. And especially with all that is going on in the world, in all markets, it has become so much more valuable. And, again, thanks to Commissioner Berkovitz for his leadership, for bringing these issues to the floor and having a really healthy discussion so that we could continue to think about them together.

I hope everyone is doing well. And thanks again. I look forward to future meetings.

MS. KNAUFF: Thank you, Commissioner Behnam.

I now can recognize Commissioner Berkovitz to provide his closing remarks.

COMMISSIONER BERKOVITZ: Thank you, Abigail. I just again want to thank all of the panelists today. This has been a really interesting and important meeting on a topic that is very timely.

As Commissioner Behnam said, every one of these meetings that we have just reinforces my belief in the value of these meetings, the importance. It is always important. I wish we could do it in person, as I said earlier. But the fact that we can’t do it in person, now we have the televideo capability, which is great, but the importance of just the dialogue and keeping the Commission informed. We have been doing a lot of rulemakings this year. And, just talking with Sayee, we have our daily surveillance activities. So we tend to get focused on the near term. And it is really important for us to broaden our perspectives and look at what is going on in the market generally and some of the issues that we don’t necessarily focus on when we are doing a particular rulemaking, so taking a step back, talking to market participants, being informed on what the trends and issues are, and also where the market might be going, new products. This is I think our second meeting where we have talked about new products. We focused on environmental products last year, just really important.

I just want to thank all of the committee Members. The success of the committee depends on the Members and Associate Members. It can't be successful without your participation, your voluntary contributions. Everything that you do on this committee is voluntary. And we are all busy. We are even busier during the pandemic. So folks who have taken the time and given the presentations and participated in the meeting, I really want to express my appreciation because it is really voluntary efforts on your behalf that help us be successful. And I am really proud of our committee and the members and all of the advisory committees.

This is a great tradition we have at the CFTC. And we are talking about diversity and inclusion. One of the great traditions we have at the CFTC is the advisory committees, which are sponsored by individual commissioners. So we have more than five advisory committees I think. We have five commissioners, including the Chairman, who can sponsor advisory committees. And so the diversity that those viewpoints and the diversity the committees bring really help strengthen the Commission overall.

So thank you all again. It is an important topic. I look forward to the continuing discussions on equity, diversity, and inclusion. Significant progress is being made. Significant progress will be needed in the future. It's something that we will need to keep a focus on going forward. And I'm glad to see that such important strides have been made. And it was really interesting to hear about that today.

Of course, I want to thank our Chair of the committee, Dena, for your continued efforts into making these meetings successful; and, of course, Abigail, our Designated Federal Official, who really -- again, I have to tell the committee that Abigail's duties as Designated Federal Official are also all voluntary, not part of her technical job description. So this is above and beyond what she does in the Division of Clearing and Risk. And we're all grateful for that.

There is a tremendous amount of work, as you know, in terms of organizing, getting the dates, getting the paperwork, getting the new Members on. And that was all done in a timely fashion. And those require Commission approval and Federal Register notices and all of that. And so we owe a great debt of gratitude to Abigail for all of that work and Lucy Hynes in my office, too. I want to thank Lucy for all of the work she does in working with Abigail and supporting me and helping my office work with all of the other Commission offices and the committee in making these meetings successful.

So, again, thanks to everybody. And I look forward to our activities next year.

MS. KNAUFF: Thank you, Commissioner Berkovitz.

As an amendment to the roll call earlier in the meeting, I am stating for the record that EEMAC Members Lopa Parikh and Jackie Roberts as well as Associate Members Matt Agen, Susan Bergles, Delia Patterson, and Dr. Richard Sandor have confirmed separately they are in attendance for this meeting.

Thank you to all of the EEMAC Members,

Associate Members, and guest panelists for your participation at today’s meeting. Please stay well and keep an eye out for our survey for dates for the next EEMAC meeting in 2021.

This meeting is now adjourned. Thank you.

(Whereupon, at 12:57 p.m., the meeting was adjourned.)