Report on the New York City Bar Association's Program on Opportunities to Raise Public Awareness about Climate Change and the Need for Action

New York City Bar Association

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1) INTRODUCTION

On March 31, 2016, the New York City Bar Association (City Bar) convened a conference intended as a first step in organizing a coordinated effort by metropolitan New York's businesses, religious organizations, NGOs, and other institutions to create and effectively communicate an aligned, common message on the urgent need for action to reduce greenhouse gas (GHG) emissions. More than 120 individuals attended the conference. The participants represented a variety of diverse sectors in the New York City metropolitan area and engaged in a thought-provoking day of discussion and dialogue.[1]

Michael Mahoney, chair of the Environmental Law Committee of the City Bar, opened the conference by introducing (former) City Bar President Debra Raskin, who welcomed the conference attendees and stressed that climate change is a global issue that already has caused significant localized impacts on New Yorkers. Ms. Raskin emphasized that the impacts of climate change, including severe storms like Super Storm Sandy, are disproportionately experienced by society's most vulnerable, therefore underscoring the need for urgent action. Opening remarks were delivered by His Eminence Timothy Cardinal Dolan, Archbishop of New York, who thanked the City Bar for organizing a conference on climate change that included a diverse group of representatives and stressed the urgency for addressing environmental challenges as a global community. The keynote address was given by Professor Jeffrey Sachs, Director of the Earth Institute at Columbia University, who emphasized the crucial need for policy makers to develop a strategic plan to decarbonize the economy, and suggested that the City Bar is uniquely positioned to work with both the New York City and State governments in developing a decarbonization plan.

Following these opening remarks, two panels consisting of representatives from the NYC business, government, institutional and environmental communities convened to describe their efforts to communicate to the public the urgent need for GHG emission reductions, and discuss how to develop an aligned and cohesive message to spur effective action. The attendees then broke into smaller groups for facilitated discussions on developing aligned communication strategies. The facilitators subsequently reported the ideas brought up in those sessions in a final plenary session.

In that final session, the City Bar meeting organizers made a commitment to issue a written report of the conference, and to include in that report a plan of action for pursuing the strategies that were identified over the course of the day. This report meets that commitment by documenting the ideas developed at the conference and providing a roadmap for further action.

[1] This diverse group included representatives from: environmental NGOs including 350.org, NRDC, The Human Impacts Institute, The Climate Reality Project, The Vance Center, The B Team, Pure Earth, and The Climate Museum; religious organizations, including The American Jewish Committee, the Archdiocese of New York, and Fifth Avenue Presbyterian Church; academic institutions including Columbia University, Fordham University, Southern Connecticut State University, Bard College, Yale University, Pace Law School, and NYU Wagner School; health care institutions, including Northwell and NYU Langone; financial institutions, including BNY Mellon and Cornerstone Capital Inc.; local, state and federal government including representatives from NYC, the New York State Attorney General Office, the United States Environmental Protection Agency (USEPA), the Town of Westport, CT; multi-national corporations including Pfizer Inc., Mitsubishi, Johnson & Johnson, and ITT; marketing firms including Fenton Communications and the Burns Group; and a number of law firms, including, Bryan Cave, Sive Paget & Riesel, Simpson Thacher & Bartlett, Beveridge & Diamond, White & Case, and Carter Ledyard & Milburn. In addition, many other entities and concerned citizens of the NYC region were in attendance. A complete list of attendees and the sectors they represent is provided in the Program Materials Section of this report.

A. Conference Sponsors

City Bar Environmental Law Committee
City Bar International Environmental Law Committee
City Bar International Committee on Human Rights
City Bar Energy Committee
City Bar Special Task Force for Climate Change Adaptation Law
City Bar Corporate Law Committee
Sabin Center for Climate Change Law, Columbia University
Leitner Center for International Law and Justice at Fordham University School of Law
Environmental Law Institute

2) EXECUTIVE SUMMARY

The diverse group of attendees acknowledged the consensus among responsible scientists that significant reductions in GHG emissions are needed to avoid a global environmental and public health disaster. The participants also recognized that many state and local governments have acted responsibly to develop climate change mitigation plans, and that major companies, environmental groups, religious organizations, individuals and coalitions have also done admirable work in improving energy efficiency and reducing carbon dioxide emissions.

Many in attendance noted that their optimism and energy had been renewed by the 21st Conference of the Parties in Paris, where governments from over 196 countries agreed that urgent action to address climate change is needed. However, despite the encouraging outcome of the Paris talks, there was a broad consensus among conference participants that GHG emission reduction efforts have thus far fallen short of what are required to avoid the most serious impacts of climate change. There was also broad agreement on some of the reasons for this, including that the general public does not see climate change as an immediate threat, but as an abstract issue that may evolve over time. Attendees noted that the immensity of the problem—including the huge scope of the task of decarbonizing the economy in a matter of decades—has given rise to a sense of powerlessness and fatalism. The conference participants also expressed the sentiment that current climate change messaging is scattered and that organized, focused and aligned messaging is needed to spark effective action.

With these problems in mind, the participants made a number of suggestions on how to "turn fear into action" and promote the sense that people must and are able to achieve the emissions reductions needed to avoid the most catastrophic effects of climate change.

We were advised by conference attendees and speakers to design our next steps to:

- Bring the problem down to scale by structuring initiatives as local efforts to reduce carbon emissions in the metropolitan area.
- Build on current efforts by the City and State to achieve mid- and long-term carbon GHG emission reduction goals.
- Create a sense of community around the effort by promoting ongoing coordination among various sectors and members of the general public.

- Draw on the experience and expertise of the companies and NGOs who have been leaders in the reduction of GHG emissions, so that others may learn from their experience.
- Recognize and celebrate the progress that has been made thus far in New York City and New York State in achieving carbon reductions.
- Find ways to celebrate and incentivize future progress made by individuals, companies, schools, religious organizations, and economic sectors.
- Identify trusted spokespersons for different sectors of society, and develop messages that resonate with the values embraced by those sectors.
- Get the word out—in a sophisticated and professional manner—that the community of New York is mobilizing to do its part to reduce greenhouse gas emissions, and broadcast the compelling reasons that have prompted that mobilization.
- Emphasize the positive, and get the message down to the personal, story-telling level that conference participants believe to be the most effective way to turn words into action.

In light of these suggestions, we will focus our initiatives on the local level, and seek to support, and encourage others to support, the efforts of the City of New York to reduce GHG emissions by 30 percent by 2025 and 80 percent by 2050 (compared to 2005 emissions).

Our support of the City's efforts will be structured around three general activities: (i) providing legal assistance to the City in the development and implementation of its GHG emission reduction initiatives under the OneNYC Plan; (ii) encouraging each of the sectors, entities within those sectors, and individuals to participate in those initiatives and facilitate their participation; and (iii) organizing a multi-pronged public awareness campaign aimed at creating a focused and widely disseminated message that New York's institutions and businesses are coming together to meet the global challenge of climate change. We want to send the message that we can succeed because, collectively, we can achieve the City's targeted GHG emission reductions; and that inaction poses unacceptable risks to our City, our region, and our world, and will impose the greatest harm on the most vulnerable individuals, including the poor, the elderly, and our children. We will seek to design that message with the assistance of New Yorkers with expertise in marketing and advertising, and to broadcast that message by means of traditional and social media, as well as grass roots initiatives.

The particular steps we will take in order to advance the program described above are set forth in Section 6 of this report.

3) SUMMARY OF PLENARY SESSIONS

The key points made by the plenary speakers are summarized in this Section of the report, while their full remarks are included in Section 8 (Program Materials). The common themes emphasized in the general session were:

- There is a need for urgent governmental action to address climate change.
- Despite prodigious efforts by many individuals and groups, public awareness and concern of climate change impacts is low.

- There are many opportunities to significantly raise public awareness and concern through better messaging techniques and the use of more strategic spokespeople.
- There is power in aligned action and messaging delivered to the public and the government.

A. Welcoming Remarks by City Bar President Debra Raskin

Ms. Raskin welcomed the attendees, and reminded them of the integral role that the City Bar has played in the past in bringing together New York's best lawyers and professionals from other sectors to tackle pervasive social issues. She also observed that:

- Climate change is the most important environmental and public health issue of our time – on both a global and local level.
- Climate change has and will continue to affect all New Yorkers if nothing is done: she used Super Storm Sandy as an example.
- This issue is not an environmental issue that can be tackled solely by environmentalists and scientists, but a human one.
- Society's most vulnerable will bear the brunt of the impacts of climate change, which is why those in power must do everything they can to reduce carbon dioxide levels.

B. Opening Remarks by His Eminence Cardinal Timothy Dolan

His Eminence opened the conference through a prerecorded video message and remarked that he had intended to attend in person, but the death of an Archdiocese priest prevented him from doing so. Cardinal Dolan read from Pope Francis's recent Encyclical on Climate Change, *Laudato Si' of The Holy Father Francis: On Care For Our Common Home*, and observed that in the beautiful canticle, *Laudato si, mi Signore* ("Praise be to you, my Lord"), Saint Francis of Assisi reminds us that our common home, the Earth, is like a sister with whom we share our life. The key points of his remarks were that:

- The approach to heeding the Pope's urgent call for a new dialogue on climate change should be a collective one, as environmental challenges have human roots and affect us all.
- The City Bar has commenced an important dialogue, where people from all sectors of society participate in shared ideas in order to coordinate a path forward.
- His Eminence offered support to the City Bar in the effort to raise public awareness.

C. Keynote Address by Professor Jeffrey Sachs

Professor Sachs began his keynote address by emphasizing that time is running out to reduce carbon dioxide to the levels necessary to stabilize temperatures, and noted that it is critically important that attendees take advantage of the City Bar Program as it provides a wonderful opportunity for dialogue. He pointed to three recent climate-related events as reasons for optimism:

- Issuance of *Laudato Si' of The Holy Father Francis: On Care For Our Common Home*.
- The 17 Sustainable Development Goals adopted by the UN General Assembly.
- The Paris Climate Agreement stemming from the December 2015 Conference of the Parties 21st meeting.

While stressing that optimism is key, Professor Sachs emphasized that a great deal of work is urgently required, and made the following points:

- Immediate and concerted efforts are needed because we are almost out of time, and certain experts, including former NASA scientist Dr. James Hansen, believe we are already out of time.
- To stabilize global temperatures at 1.5 degrees Celsius above industrial levels, the global economy needs to decarbonize fully by 2070. Policy makers must develop a plan to achieve that goal very soon.
- The United States must be a leader in this effort to decarbonize, because countries such as China will not move away from coal dependence unless the United States does so.
- The modern world could not have been built without fossil fuels, and therefore there is nothing inherently immoral about them. However, they have been burned too quickly over a short span of time.
- NYC, NYS and the Northeast all have aggressive GHG reduction goals; however no entity has a strategic plan on how to achieve them.
- Engineers need to come up with innovative technological solutions, which will need legal support; permanent solutions require regulatory impetus.
- Lawyers must alert their clients to the urgency of climate change and the need for all sectors of society to work together, as time is running out.
- City Bar members and NYC experts should work together in helping NYC, NYS and the Northeast to develop a plan for economic decarbonization. These plans could be used as examples in the future.

D. Panel 1: Getting the Message Across

Michael Burger, Executive Director of the Sabin Center, Moderator of Panel 1

Mr. Burger introduced the focus of the panel. He noted that talking about climate change is no easy task, as both the causes and solutions are complex technical matters that are global in scale and intergenerational in duration. He observed:

- There are two extremes of current messaging:
    - Apocalyptic, which spurs action through fear, but can be paralyzing as a result of how daunting it is.
    - Sustainable utopian, which can inspire individuals but also promises reward without sacrifice.

He noted that the aim of the panel is to discuss effective communication other than these two extremes.

Bessie Schwarz, Yale Program on Climate Change Communication

Ms. Schwarz provided an overview of the Yale program and its focus of studying how the public responds to climate change, the policies the public supports, and how behaviors can change. She made the following key points:

- In 2008, the year "An Inconvenient Truth" was released, climate change awareness peaked. However, awareness fell dramatically after the economy crashed, environmental journalists were laid off, and climate change issues were politicized.
- Climate change awareness fluctuates greatly because of the following psychological factors:
    - Distant in time – long time frames are difficult to conceptualize.
    - Distant in space – carbon dioxide is an invisible gas and impacts are not always obvious to the public.
    - People are experiential and emotional learners.
    - People are social.
    - People have strong internal motivations.
- Organizations with different values but similar interests can team up in order to gain benefits for both entities. Entities as disparate as the Sierra Club and the Georgia Tea Party have done so successfully.
- It is critical to know your audience in order to effectively communicate on climate change and develop a targeted message for that audience.
- Yale's studies have classified Americans into "Six Americas" which can be used to help deliver a targeted message.
- Attendees should not just build general awareness but should also think about what kind of public awareness will produce the action needed.

Miranda Massie, Founder and Executive Director of the Climate Museum

Ms. Massie began by explaining the Climate Museum's mission and noted that it will use different mediums, including science, history, technology, art and design, to spark climate change dialogue and innovation in the New York community. She raised the key points that:

- The Climate Museum provides a space for people to think about the risks of climate change in an open, truthful way.
- "Collective efficacy" is an important concept in moving the public because of the power that comes through strength in numbers. Many social movements, including Vietnam

War protests and marriage equality activism, have harnessed the power of collective efficacy.

- The Museum can use different approaches to address the complex issue of climate change.
- Museums spur learning because they engage the senses and provide a social experience that facilitates the collective efficacy process.
- Many conference attendees should join the umbrella effort the organizers envision to find ways to engage more of the public.
- Today's conference is an important step in leadership sectors joining forces to catalyze community engagement, and the Museum supports these goals.

Father Samuel Fuller, O.F.M. Cap., St. Anne-St. Augustin Friary

Father Fuller recounted his recent trip to an annual retreat of faith leaders concerned about the environment, and noted the large number of participants who told sobering personal stories concerning climate change. However he stressed that even with all this grief, climate change efforts must proceed with a sense of hope. He made the following key points:

- Personal stories have the capability to move and change people. He used Saint Francis of Assisi's teachings as an example.
- When Mother Earth cries out, so do the poor, because the way we treat our environment is a direct reflection of how we treat marginalized groups.
- Too many of us are caught up in our immediate needs to heed the Pope's call for intergenerational solidarity.
- The Church does not provide solutions, but can provide a space for communication and hope.
- The Pope wants to start a new culture of self-reflection, and the Encyclical details the culture that led to the need for this change.
- Attendees should read the Pope's Encyclical, and use it as part of their efforts to address climate change.

Lisa Benenson, Natural Resources Defense Council (NRDC), Director of Communications

Ms. Benenson provided a brief history of NRDC, noting that it was founded by lawyers and scientists and has had years of success using data and science to gain insights and create change on important environmental issues. She stated that the scientific approach to addressing environmental issues became less successful 10-15 years ago, and detailed the reasons for the change and how NRDC has adapted. She made the following points:

- Special interest groups and politicians discovered the power of influencing the public 10-15 years ago.

- Social media has changed public perception and special interest groups have used it very well. NRDC is now looking for ways to use "disruptive technologies" to change popular opinion.
- NRDC sees the power in using celebrities to deliver messages to the public, and has enlisted Robert Redford and Leonardo DiCaprio to help disseminate its message.
- It is necessary to create the opportunity for people to use social media to discuss environmental issues.
- NRDC must continue to be successful at litigation, building policy and data development and research to support those efforts.

Michael Burger asked each panelist: What are the commonalities in issues and solutions?

- Father Fuller: Get the word out through stories and reading. Talking about the Encyclical is a great first step.
- Lisa Benenson: Climate change should not be political. We need to talk collaboratively about solutions.
- Miranda Massie: We cannot sugarcoat the threat of climate change, but we must focus on solutions and act together to remain hopeful.
- Bessie Schwarz: Hope is crucial. Only 4% of the public thinks we can change; therefore we must use the power of stories and have those stories told by diverse leaders whom the audience trusts.

E. Panel 2: Thoughts on Aligning Actions to Amplify Message

Jeff Gracer, Partner, Sive Paget, Moderator of the Panel

Mr. Gracer opened with the Nelson Mandela quote, "It always seems impossible until it's done." He introduced an idea of a "Fitbit" for personal carbon reduction tracking as a way to generate competition among people on this effort.

Peter Boyd, The B Team, Sr. Advisor & Climate Lead; Exec. Fellow, Yale Center for Business & the Environment; Founder & CEO, Time4Good Group

Mr. Boyd stated that he wanted to detail the environmental trends that have gotten us to this point, and to provide suggestions relative to opportunities. He made the following key points:

- There is a need for urgency – 15 out of the hottest 16 years have occurred since 2001.
- We are entering or are in the "Anthropocene" era where humans are actually the dominant force ecologically on the planet, and the data is compelling:
    - A mega chart from Dr. Johan Rockstrom shows multiple Earth system impact trends that are "hockey stick" shapes because the impacts are so significant and rising in such a short period of time.

    - There have been too many recent ecological losses.
    - 9 key planetary systems are stressed because people consume too much and our culture is not fundamentally sustainable.
- Every country in the world understands the urgency regarding climate change except for one half of the US. Other countries are rapidly increasing technological opportunities based on a McKinsey costs curve, which demonstrates that decarbonizing can be profitable.
- During the Paris talks, there was a focus on net zero emissions, which has now been agreed upon as a target by 196 nations.
- Four main agreements have changed the world coming out of Paris:
    - The agreement itself.
    - The adoption of Intended Nationally Determined Contributions.
    - At least $100 billion in financing to combat climate change.
    - The participation of non-state actors.
- There is a huge amount of potential legal work to do on climate change for non-state entities.
- The rest of the world is currently in a race to see who can address climate change the fastest and most efficiently, regardless of whether or not the US participates.
- We will transition from fossil fuel dependency not because we have run out of fossil fuels, but because the fundamental economic and moral drivers are shifting away from them.
- There is no Planet B.

Nilda Mesa, NYC Mayor's Office of Sustainability

Ms. Mesa described NYC's efforts to address climate change, which are embodied by the City's OneNYC Plan, the motto of which is "Growth, Sustainability, Resiliency and Equity." Ms. Mesa stressed the importance of equity, which this year was added by Mayor de Blasio as a priority to the previous administration's PlaNYC initiative. Ms. Mesa made the following key points:

- Climate change is a significant threat to NYC due to its proximity to the sea and potential for public health impacts.
- NYC has established an aggressive GHG reduction goal of 80% by 2050, which is based on established global needs identified by the Intergovernmental Panel on Climate Change.
- Building emissions comprise 75% of total NYC emissions, so reductions from the real estate sector are a major focus for the City. Initiatives, such as the "NYC Retrofit Accelerator" program (under which free advisory services are made available to owners

seeking to implement water and energy conservation projects in their buildings) will help meet the City's reduction goal.[2]

- The NYC Carbon Challenge is another initiative aimed at reducing GHG emissions from buildings. It is a voluntary leadership program that operates as a peer-to-peer network for academic institutions, hospitals, commercial offices, hotels and multi-family buildings.
- There are currently significant efforts to expand the City's renewable energy profile.
- The City's "Green NYC" program uses positive messaging to educate, motivate and change the behaviors of New Yorkers.
- "Birdie," which can be seen around the City, has been a successful City mascot for communicating with the public on greening alternatives.
- Now is a challenging, but also exciting, time to be alive.

Sally Fisk, Senior Corporate Counsel, Pfizer Inc.

Ms. Fisk began by providing an overview of Pfizer's Climate Change program, which was established 15 years ago by Ms. Fisk's Pfizer colleagues (a number of whom were in attendance). She noted that as a science-based company, Pfizer has long been concerned with climate change impacts on human health. She then delved further into Pfizer's efforts, explaining that the program has three categories: mitigation, adaptation and resiliency, and communication. She stated that she would focus her remarks on mitigation and communication. She noted that:

- Pfizer has established three GHG emissions reduction goals since 2001, with a focus on reductions in operations within Pfizer's "fence line." Energy efficiency and renewable energy projects have both played a role in reductions.
- Pfizer has set a science-backed 3rd generation emission reduction goal based on the IPCC stabilization scenario, which sets global temperatures at 2 degrees Celsius above pre-industrial levels. Obtaining long term commitments in the business world is difficult, as there is a tendency to only think in the short-term; therefore it is essential to set short-term goals with a long-term objective.
- Pfizer's carbon footprint is much larger when factoring in outside suppliers and non-company activities, but this provides the opportunity to influence others outside the company.
- Pfizer's initiatives are not unique. There are many companies who have set their own reduction goals who were present at the conference.
- Pfizer accomplished its last goal by undertaking 1500 energy projects, resulting in approximately 800,000 tons of carbon dioxide reduced at a savings of about

[2] The OneNYC plan is the City's overarching climate framework that includes specific building related energy efficiency plans like *One City: Built to last* (10 year building energy efficiency report) and the *Buildings Technical Working Group Report* (technical analysis on system-specific energy efficiency opportunities in buildings). Please see links to reports below.
http://www.nyc.gov/html/builttolast/assets/downloads/pdf/OneCity.pdf
http://www.nyc.gov/html/gbee/downloads/pdf/TWGreport_2ndEdition_sm.pdf

approximately $80 million a year, and has completed about 3000 energy projects since 2000.

- It is important that a company recognize how climate directly and indirectly affects business, which Pfizer has long done.

Relative to climate communications, Ms. Fisk noted:

- It is important to disseminate the message of climate change, and to respond to that message with action, both inside and outside of an organization. For example, Pfizer maintains social media communications that disseminate the climate change message both inside and outside the company.

David Fenton, Fenton Communications

Mr. Fenton noted that although New York City is the media capital of world, a story or messaging on climate change is only in the media about once a month, which is clearly not often enough as people learn through repetition. He made the following points concerning communications:

- The US has thus far not addressed climate change. Since the world looks to the US as an example, our country has become the primary barrier to implementing real change.
- Progress on mitigation has been made, but not nearly fast enough, primarily because the public is not engaged in the issue.
- The first principle of marketing and communications is to have a simple, repetitive message designed for a specific audience, and detrimentally, the climate change movement has not found one yet.
- A strong push to engage the public has thus far not been made, and this is a reason for optimism, as there is much to be done on the marketing front.
- Marketing techniques that disseminate only negative messages, such as ones that depict NYC underwater, ultimately shut people down and make them inactive. Messaging on climate change impacts need to be combined with solutions so that people see a way out.
- The effort to raise public awareness on climate change needs to be reiterated by well-known spokespeople who are trusted by their audience.
- Certain news sources still indicate that climate change is a hoax; how can we expect conservatives, libertarians, and even moderate republican business leaders to learn the truth about climate change amid such disinformation?
- Targeted advertising can be surprisingly affordable: it only costs $300 to buy one 30-second television ad on Fox for the Washington, DC market.
- One reason we are losing on engaging the public is because lawyers, scientists, etc. aren't built for coming up with communications strategies and believe good data and facts will win the day, and keep pushing from this angle. Therefore something needs to change.
- A goal of 5% reductions over the next 20 years is no match for special interest groups made up of cunning marketing geniuses who went to business school and know how to communicate messages effectively. We need to change our approach.

4) SUMMARY OF FACILITATED BREAK-OUT SESSIONS

After the plenary session, the program attendees were invited to participate in six smaller group discussion sessions that included members from each of the different New York sectors. The sessions were facilitated by members of the City Bar Environmental Law Committee, and each facilitator worked from the same session outline designed by Allen Zerkin of the Wagner School, based on his experience in facilitating discussions on complex topics. The questions posed in those sessions, and the major points made in response to those questions are set forth below. Section 8, the Program Materials, includes a detailed compilation of the discussion and ideas from the six facilitated sessions.

a) Whether there is broad agreement relative to four main climate communication themes raised during the plenary session about current climate change efforts.

The attendees were asked if they agreed with certain important observations concerning the current state of climate change communication, and concurred that they agreed with the following observations:

- We have only been working for a short time to stem the effects of climate change, and our current efforts are not working fast enough.
- Some initiatives are pointing the way toward more collaborative and cross-sector efforts.
- We must understand why people do not make climate change a priority and how to change people's thinking in order to make it a priority, thus spurring political, personal and economic action.
- A unified or coordinated approach could make a critical difference going forward.

b) What are the success stories and opportunities for engaging people to act: what is your organization doing to have an impact?

Many examples of approaches that have been successful in influencing others were identified and all are provided in the Program Materials. A few notable examples are:

- The employment of sustainable practices at the institutional level to engrain environmentally friendly practices into the culture of the organization.
- The use of incremental steps such as refillable water stations, composting, plastic bag elimination and others identified through online tools to integrate sustainability into the institutional culture.
- Using large scale projects, such as solar and wind projects, to help integrate sustainability into the culture of an organization.
- The effectiveness of "gameifying" or competition within an organization or sector band to drive carbon reduction efforts.

The discussion in a number of groups also included references to other campaigns that were successful in increasing public awareness and changing the public's consciousness to

address important social issues. These efforts were thought to be particularly effective when they associated personal stories with the movement. Successful campaigns mentioned included the Marriage Equality movement, the Black Lives Matter movement and anti-smoking campaigns.

c) What are the barriers to taking action?

The attendees were asked for their thoughts on what they believed were barriers to individuals and others taking action on climate change. There was general agreement that a major barrier is the public perception of climate change as an abstract, not immediate threat, and the sense of powerlessness that people feel when confronted with such a vast problem. There was a consensus among the attendees that most people "switch off" when confronted with doom and gloom, negative messaging.

Other barriers to taking action that were raised by attendees included the following:

- Many aspects of climate change mitigation, such as the costs of decarbonization and climate change adaptation are unknown to or poorly understood by the public.
- The public views renewable energy solutions as more costly than fossil fuels, and as a result believes that climate mitigation will have a negative impact on the economy.
- Our current culture is skeptical of science, which is reflected in the media and politicians not taking the climate change issue seriously.

d) What messaging might overcome barriers?

The attendees were asked for their thoughts on types of messaging that could overcome the barriers identified in the previous section. They identified the following as potential solutions:

<u>Craft the message to be personal, near-term and actionable</u>

There was general agreement that climate communications need to focus on the following:

- Demonstrating how climate change is already impacting day-to-day life.
- Emphasizing that climate change is a collective threat that will impact family and friends.
- Underscoring the urgency of addressing climate change.
- Establishing direct connections between climate change and impacts, while addressing what can be done to combat it.

<u>Break down climate change in terms of actions and impacts</u>

There was also general agreement that climate communications should break down actions and impacts into smaller, more actionable elements, providing the following examples:

- Demonstrate how relatively small actions, taken together, may have larger collective impacts.

- Split up impacts into smaller issues, such as food and water security.
- Communicate in terms of incremental steps; for example, demonstrate that to achieve 80% GHG reductions by 2050, individuals would only have to reduce their output by 2-3% per year.

Use technology and innovation in climate change communications

There was a consensus among the attendees that individuals "tune in" to positive messaging, and that messaging on innovative solutions can lead to changes in behaviors and attitudes. Some examples provided were:

- Communicate that as a world leader and technologically advanced country the US should be a leader on climate change.
- Emphasize the economic benefits of energy efficiency in order to catalyze change.
- Push the technology sector to be a leader in communicating to the public the need to move from a fossil-fuel based economy to one driven by clean renewable energy and smart, energy efficient homes, vehicles and personal devices.
- Increase communication on how advancing technology and innovation has solved many complex issues in the past and has the potential to solve climate change.

e) Are there Coordinated Strategies That Might Allow Us to Have the Greatest Impact?

The attendees were asked to brainstorm on the actions that can be taken to have the greatest impact in increasing public awareness of climate change. The following are some ideas identified in the group sessions:

Focus on local efforts and impacts

- New York City efforts, because of the City's global importance, provide an incredible opportunity to influence beyond the City's borders.
- New York City enterprises and institutions already involved in climate change mitigation efforts provide a great opportunity to connect different leaders, sectors, industries and organizations in order to disseminate a positive, relatable, fresh message on climate change.

Work to encourage more alignment within and across sectors

- Hold more conferences like the March 31st City Bar Climate Program to connect different types of people across different sectors.
- Encourage cooperation and collaboration in and outside of various companies and sectors.

- Reach out to educate others within or outside communities and organizations on climate change and what can be done to combat it.
- Partner with institutions beyond those that are currently active in climate change mitigation efforts. Reach out to conservative groups and sports teams popular with climate change skeptics. Emphasize the fact that in New York climate change has never been a partisan issue, but has been one where Republicans and Democrats have worked together to devise and implement strategies to address it.

Develop aligned messaging and identify potential spokespeople

A number of attendees mentioned that it is critical to enlist communications professionals to develop clear, positive messaging that focuses on hope and solutions to catalyze action. These were their ideas:

- Shift from a science-based to people-based marketing campaign.
- Employ relentless advertising tailored towards specific targets.
- Publicize energy use, and conservation achievements of businesses, corporations and prominent individuals. "Shining a spotlight" on sustainable actions by individuals and organizations fosters accountability and ownership for achievements.
- Develop a strategy to utilize different outlets, such as morning and talk shows, viral videos, and social media, to raise public awareness.
- Engage influential public figures to speak out and change popular opinion.
- Create a common brand with specific goals and an articulated common ground. Find creative ways to address skepticism, political agendas and manipulation of sound science.

Use the City Bar's network of lawyers to assist in implementing change

- Cultivate climate change leaders and encourage broader action within sectors and organizations.
- Integrate awareness of climate change at the institutional level.
- Encourage lawyers to collaborate with peers and take advantage of their unique position to influence change at the state and city levels.
- Offer assistance where it is needed to make a difference.
- Work with local, state and federal government agencies to create legislative change.

Create networks and identify common interests

- Create a sense of urgency rooted in reality and collect and report the following about:
    - Sector-by-sector success stories.
    - Available economic incentives.
    - Financial benefits of action.

5) SUMMARY OF POINTS OF GENERAL CONSENSUS

This section of the report summarizes areas of general consensus from both the plenary and facilitated sessions.

The important efforts by many groups and individuals needs to continue

- There has been significant work and efforts by many groups to help in the effort to mitigate climate change and to bring public awareness to its impacts, and this is critically important work that needs to continue.

There is an urgent need to do more

- Mitigation efforts are thus far falling short in achieving the significant and timely GHG emission reductions needed to avoid the most serious impacts of climate change.
- Certain interest groups that are against climate action have been effective at delivering their message, confusing the public; this misinformation campaign is a key reason why there is low public concern.

There are many barriers hindering effective communication about climate change

- The climate change issue is viewed by the general public as an abstract, complicated problem, which results in its being viewed as a far-off issue and has led to a sense of powerlessness among those confronting the problem.
- People are generally reluctant to take action when provided with negative messaging.
- The messages addressing climate change have been varied, in both their content and success.
- People do not have an accurate perception of the costs of addressing climate change, as there is a perception that everything will cost more. This needs to be rectified.

There are ways to communicate climate change effectively

- Conference participants believe that the most effective way to turn words into action is to emphasize the positive and personalize the message.
- Stories are powerful if delivered by a trusted spokesperson, and if the message connects with people's values.
- People look to a variety of different individuals as leaders. Such individuals could serve as effective spokespeople.
- There is a need for simple, repetitive messaging to the public, which needs to coalesce around a positive and unifying theme.
- There may be an opportunity to tap into the millions of people that have shown strong support for populist movements.

Work at the local level on efforts to raise public awareness on climate change

- Thousands of New Yorkers have been or will be negatively impacted by the environmental impacts of climate change. These direct impacts could provide a nexus for people to fight the special interest groups that have stalled climate change progress.
- As the media and financial capital of the world, NYC offers a unique opportunity to disseminate effective climate change messaging.
- NYC has established itself as a climate change leader through its OneNYC Plan and its predecessor PlaNYC.

A unified/coordinated approach could make a critical difference

- The City Bar and other lawyers and professions have an opportunity to provide direct support to the City in developing its strategic plan to achieve the goals, and in supporting any new legislation that will be needed to remove barriers to the implementation of certain initiatives.
- Peer-to-peer organization is effective in sharing ideas, and in creating competition within the peer group to do more. Efforts by the New York City government, such as the NYC Carbon Challenge program, have established a network between the City's leading universities, hospitals, commercial offices, multifamily buildings, and hotels who have all committed to reduce their greenhouse gas emissions by 30% or more over the course of ten years.

There appears to be an opportunity to connect and coordinate sectors, and to leverage the efforts of the individuals and institutions in NYC that are working on climate change efforts through a "Leaderless Umbrella" group, and through social media platforms. The possible use of an identity symbol and strategic hashtags may help connect individuals in a manner similar to other social movements, such as Black Lives Matter, and the Marriage Equality Movement.

6) PROPOSED NEXT STEPS

Considering the information provided and the views expressed at the March 31 conference, the City Bar will take the following specific steps to organize a broad-based climate initiative in and around the City of New York:

1. We will arrange one or more meetings with the Mayor's Office of Sustainability to discuss how we can support the development and implementation of the City's carbon emission reduction initiatives. We expect these meetings will identify opportunities to support the city in achieving their reduction goals, and ways City Bar members can help the city achieve those goals.
2. We may also meet with State agencies involved in climate change mitigation to learn from their experience and offer to assist in their effort in the metropolitan area
3. We will draw on the expertise of several New York City Bar Association Committees in providing assistance to the City and State. As a first step in enlisting the assistance of those committees, members of the Environmental Law Committee will attend meetings

of each relevant committee (including, among others, the Communications and Media Law Committee, the Corporation Law Committee, the Energy Committee, the Transportation Committee and the Land Use and Zoning Committee) to provide information to them on the climate crisis, the City's carbon emission reduction program, and our effort to provide assistance to the City and State. Thereafter, we will call upon the expertise of interested members of the relevant committees as needed to help the City in the development and implementation of its carbon reduction initiatives.

4. Recognizing the role that the City Bar Association can play as an "honest broker" we will convene an initial meeting among representatives of the Mayor's Office of Sustainability and stakeholders from the business, NGO, religious and academic sectors to discuss how we might help in efforts to mobilize sector members to participate in the City's programs to reduce carbon emissions. Thereafter, we may facilitate periodic meetings among the City, NGOs and representatives of individual sectors to discuss how:

    a. The corporate/business sector, including firms in the goods production and manufacturing, real estate and construction areas, might assist in achieving the City goals by reducing carbon emissions from their activities.

    b. The public transit agencies, taxi industry and automobile manufacturers might assist in the effort to electrify the vehicle fleet and otherwise reduce carbon emissions from transportation.

    c. The academic/religious sectors might assist in getting the message across to congregants and students on the need to reduce carbon emissions and the City's initiatives, and on how they can participate in those initiatives.

    d. The technology sector, including firms that are developing software applications aimed at advancing energy efficiency and/or individual energy consumption awareness, and firms that develop or market products that use energy more efficiently or use renewable energy, might assist to provide the residential, commercial and industrial sectors with better choices to reduce carbon footprints.

5. We will seek to promote a spirit of collective enthusiasm around New York City's mobilization to achieve the 80 by 50 goal. As a first step we will convene a series of discussions with individuals and firms having expertise in communications and marketing with the aim of developing:

    a. A common brand and simple catchphrase for the carbon reduction mobilization effort in New York City.

    b. A common message to communicate effectively why the New York City community has come together to achieve the needed carbon reductions.

    c. A strategy for broadcasting that message. The strategy will include the use of traditional and social media, as well as possible grass roots campaigns.

We expect that our ongoing efforts will be refined and adjusted as a result of our initial meetings with the Mayor's office, relevant State agencies, and relevant committees of the New York City Bar Association.

7) ACKNOWLEDGMENTS

The concept for this Program on Opportunities to Raise Public Awareness about Climate Change and the Need for Action originated from current and former members of the Environmental Law Committee of the City Bar. Special thanks to members Kevin Healy, Jeff Gracer and Sally Fisk for their passion, creativity and commitment to this effort.

The program was co-sponsored by the following committees of the City Bar:

- International Environmental Law Committee; Gail Suchman, Chair
- International Committee on Human Rights; Anil Kalhan, Chair
- Energy Committee; Daniel Rosenblum, Chair
- Special Task Force for Climate Change Adaptation Law; Stephen Kass, Chair
- Corporate Law Committee, David Silk, Chair

The following organizations co-sponsored the program.

- Sabin Center for Climate Change Law, Columbia University; Michael Gerrard, Director
- Leitner Center for International Law and Justice at Fordham University School of Law; Elisabeth Wickeri Executive Director
- Environmental Law Institute; Scott Fulton, President

Special thanks to Michael Gerrard and Michael Burger of the Sabin Center for Climate Change Law for providing input on the program and help in identifying program speakers.

We greatly appreciate the time taken by His Eminence Timothy Cardinal Dolan to video record opening program remarks and by Debra Raskin for her welcoming remarks.

The program's success would not have been possible without the thoughtful remarks of the keynote speaker, Professor Jeffrey Sachs, and the insightful remarks from all of the expert panelists and moderators.

The program's success was also due to the design of the facilitated breakout sessions by Allen Zerkin and the efforts of the facilitators.

We appreciate the support given by the City Bar including that of Debra Raskin, Bret Parker, Maria Cilenti, Mary Margulis-Ohnuma, Helen Herman, Linda Kemble, Anilsa Paredes, Eric Friedman, Catherine Favorite and the many other City Bar staff members that supported the program.

We appreciate the support of Betty Ann Lofaso of Pfizer and the following ELC members that assisted in program logistics: Clara Beitin; Lena Golze Desmond; Karen Meara; Margo Feingold; Richard A. Horsch; Matthew R. Jokajtys; Alex Iliff; Seth Kerschner; Laura Mulry; and, Elana Roffman.

We also appreciate greatly the support in drafting this report provided by Kiki Torpey (Sive Paget Summer Intern), Gabriela Falla (Pfizer Summer Intern) and Olivia Greenspan (Fordham University Summer Intern).

Finally, the program would not have been possible without the participation of the event attendees who provided us with numerous great ideas for raising public awareness about climate change.

8) PROGRAM MATERIALS

A. Program Agenda
B. Speakers' Biographies
C. Program Attendees and Affiliation
D. Transcribed Remarks
E. Full Compilation of Ideas from the Facilitated Breakout Sessions
F. Links to Conference Materials and Podcasts on Social Media Platforms

8(a) PROGRAM MATERIALS

A. Program Agenda

Opportunities to Raise Public Awareness about Climate Change and the Need for Action
March 31, 2016
The New York City Bar Association, 42 West 44th Street, Manhattan, NY

Welcome: Debra Raskin, President of the City Bar (11:00 am) Great Hall

Opening Remarks: His Eminence Timothy Cardinal Dolan, Archbishop of New York (11:05 – 11:20 am)

Program Overview: Michael Mahoney, Chair, Environmental Law Committee

Keynote: Professor Jeffrey Sachs, Director of the Earth Institute at Columbia University, will discuss the compelling business case for prompt and comprehensive action to address climate change. (11:25 –11:55 am)

Moderated Panels: ***Ongoing Efforts to Raise Public Awareness and Drive Action*** *Great Hall*

Panel 1: Getting the Message Across —(11:55 am –12:55 pm) —Moderator: Michael Burger, Executive Director of Sabin Center for Climate Change Law at Columbia University

Networking Lunch: (1:00 -1:30 pm) Great Hall

Panel 2: Thoughts on Aligning Actions to Amplify Message —(1:30 –2:30 pm) —Moderator: Jeff Gracer, Sive, Paget & Riesel

- The B Team ——Peter Boyd, Sr. Advisor & Climate Lead; Exec. Fellow, Yale Center for Business & the Environment; Founder & CEO, Time4Good Group
- OneNYC ——Nilda Mesa, Director, NYC Mayor's Office of Sustainability
- Corporate Perspective ——Sally Fisk, City Bar-Environmental Law Committee Member, Senior Corporate Counsel, Pfizer Inc.
- Fenton Communications – David Fenton, Founder and CEO
- Overview of Break-out Session Objectives ——Kevin Healy, Bryan Cave

BREAK AND MOVE TO BREAK-OUT ROOMS: (2:30 –2:45 pm)

Working Sessions: Where there is a will, there is a way: Brainstorming ideas to better align and amplify existing initiatives and communications on the need for more public concern (*multiple break-outs sessions with approximately 10–15 people per room with broad sector representation*) (2:45 –4:15 pm) Facilitated by:

- Allen Zerkin—The Wagner School , NYU
- Environmental Law Committee Members —Adam Stolorow (Sive, Paget & Riesel), John Paul (Beveridge & Diamond), Eric Schaaf (US EPA), Amy Turner (Turner Legal),

Louise Kruger (Simpson Thacher & Bartlett), Elizabeth Rogak (Port Authority of NY & NJ)

BREAK AND MOVE TO GREAT HALL: (4:15 –4:30 pm)

Wrap Up Plenary Session: *Summary of Working Sessions and Next Steps, including City Bar Program Report and Action Plan*; Kevin Healy, Bryan Cave (4:30 –5:00 pm) *Great Hall*

Reception (5 –6:30 pm) *Second floor – Reception Area*

8(b) PROGRAM MATERIALS

B. Speaker and Facilitator Biographies

New York City Bar Association: Opportunities to Raise Public Awareness about Climate Change and the Need for Action

Speakers:

Lisa Benenson

Lisa Benenson is Chief Communications Officer for the Natural Resources Defense Council. Leading a team of 60 people spanning all of NRDC's offices worldwide, she leads digital strategies and fundraising initiatives, brand and marketing, communications, public relations, and research. Ms. Benenson joined NRDC in October 2013. She had most recently served at the U.S. Fund for UNICEF, where she was Senior Vice President, Marketing and Communications. Prior to her role at UNICEF, Ms. Benenson was a consulting editor at Newsweek and The Daily Beast. She was the founding editor of Hallmark Magazine, and also led Working Mother and Working Woman. At Hallmark, she played a key role in shaping business strategies to leverage the Hallmark brand and developed and supervised the magazine's digital and social media operations. At Working Mother, she created the "Take Your Kids to Vote" campaign, a joint initiative with the Council for Excellence in Government.

Earlier in her journalism career, Ms. Benenson worked for Newsday, where she was a reporter and served as the Assistant National Editor, and for The Denver Post, where she held positions including Metro Editor and Sunday Editor. Ms. Benenson has appeared on NBC's Today Show and was a contributor for the Weekend Today Show. She has also appeared on NBC Nightly News, the CBS Evening News, Oprah, Good Morning America, The Fox Report and other national broadcast programs. Ms. Benenson is married and the mother of two.

Peter Boyd

Peter Boyd recently set up his own business, Time4Good, which has included advising The B Team on their 'Net-Zero by 2050' initiative leading up to COP21 in Paris, as well as advising selected high-growth companies on strategy, marketing, climate change solutions and entrepreneurial opportunity. In parallel to Time4Good, he is Executive Fellow at Yale University's Center for Business and the Environment. Prior to Time4Good, Mr. Boyd was launch director and COO of the Carbon War Room, while his private sector experience includes more than 10 years with the Virgin Group (including time as CEO of Virgin Mobile South Africa) and McKinsey & Co. He graduated BA Hons. from Oxford University reading Philosophy, Politics & Economics.

In his hometown of Westport, CT, Mr. Boyd is a member of the board of trustees at Earthplace and serves on the town's Green Task Force.

Michael Burger

Michael Burger is the Executive Director of the Sabin Center for Climate Change Law at Columbia Law School. Mr. Burger leads a dynamic team that is at the forefront of domestic and

international efforts to reduce greenhouse gas emissions and promote climate change adaptation through pollution control, resource management, land use planning and green finance. In addition to collaborating with local and national environmental groups and government representatives, Mr. Burger has charted a strategic course to leverage working relationships with international organizations, including the United Nations Environment Program, the United Nations Development Program and the International Red Cross to advance climate action globally. Mr. Burger is a widely published scholar, a frequent speaker at conferences and symposiums and a regular source for media outlets. He has taught at Columbia Law School, NYU Law School, and Roger Williams School of Law, and has led short courses on climate change and human rights in the Hague and Grand Cayman. He is also a co-founder and member of the Environmental Law Collaborative. Michael is a graduate of Columbia Law School and Brown University. He also holds a Master of Fine Arts degree from the Creative Writing program at NYU.

David Fenton

David Fenton is the Chairman of Fenton. He founded the agency in 1982 to create communications campaigns for the environment, public health and human rights. Mr. Fenton also leads the agency's Clean Energy and Climate practice, while contributing to other NGO, foundation, government and corporate responsibility clients. The National Journal called Mr. Fenton "the Robin Hood of public relations," while PR Week named him "one of the 100 most influential P.R. people." Some of his best-known campaigns include aiding the rise of MoveOn.org, stimulating the rise of organic food sales, a decade representing Nelson Mandela and the African National Congress, saving swordfish from extinction with a coalition of top chefs, running Yoko Ono's campaign that successfully stopped fracking in New York State, working with Al Gore and the United Nations on climate change, public health campaigns against tobacco and toxic chemicals, helping to found Business for Social Responsibility and many others.

Mr. Fenton has worked with governments and international NGOs in Africa, Israel, Europe, Japan, Latin America and the Caribbean. He is a member of the Council of Foreign Relations and serves on the Board of EcoAmerica and the Chairman's Council of Conservation International. He has helped incubate and launch a series of non-profit organizations, including the pro-peace, pro-Israel group J Street, Climate Nexus, the Death Penalty Information Center, the Central America and the Southern Africa media projects, Environmental Media Services (which later became Resource Media) and the American Freedom Campaign against the abuse of executive power. Mr. Fenton started his career as a photojournalist in the late 1960s – his book "Shots: An American Photographer's Journal," was published in 2005. He was formerly Director of Public Relations at Rolling Stone magazine and Co-Producer of the No-Nukes concerts in 1979 at Madison Square Garden with Bruce Springsteen, Bonnie Raitt, James Taylor, Jackson Browne and other artists. He is a native of Manhattan where he lives with his wife and two teenage boys.

Sally Fisk

Sally R. K. Fisk is a senior attorney in Pfizer Inc.'s Environmental Law Group. Ms. Fisk is lead counsel and a strategic advisor for the company's Environmental Sustainability program,

including climate change and voluntary and mandatory environmental sustainability disclosures. She provides legal counsel and enforcement defense on complex environmental, health and safety regulatory, permitting, compliance and transactional matters to manufacturing, logistics, research and commercial facilities worldwide. Ms. Fisk is also proud to serve as lead attorney for the company's donation to the International Trachoma Initiative as well as other product donation programs.

Ms. Fisk is an active member of the Westport, Connecticut Green Task Force, which provides sustainability support and helps advance the Town's vision of NetZero by 2050. Ms. Fisk also serves on the Environmental Law Committee of the New York City Bar Association.

Prior to joining Pfizer, Ms. Fisk was an associate in the environmental and land use practice group of a Connecticut law firm where she represented businesses, municipalities and individuals on environmental, health and safety regulatory, transactional, land use and remediation matters. Ms. Fisk received her JD from American University, Washington College of Law and her BA in Environmental Studies from Connecticut College.

Father Samuel Fuller

Father Samuel Fuller, OFM Cap., was born and raised in Connecticut. After working as a welder, boat builder and sculptor, he joined the Capuchin Franciscans in 2000. He completed his studies in Boston at Weston Jesuit School of Theology in 2007 and a year later was ordained a Catholic priest. He served as the associate pastor of St Pius X Church, Middletown, CT for seven years. Inspired by Franciscan spirituality, he became involved with environmental work through Franciscan Action Network (FAN) and was instrumental in organizing the Interreligious Eco—Justice Environmental Network's (IREJN) Riverfront Earth Day and Hartford Earth Festival/CT Climate March in Hartford, CT. He currently resides at the Capuchin friary of St Anne-St Augustin in Manchester, NH and gives workshops and presentations while ministering with the Secular Franciscans. He continues to work with FAN, serves on the board of IREJN and is involved with the opposition to the proposed New Hampshire natural gas pipeline.

Jeff Gracer

Jeff Gracer is a partner at Sive, Paget and Riesel. Jeff has a vibrant domestic and international environmental law practice. In addition to his domestic practice, which includes representing a large multi-national enterprise in the largest Superfund matter in the U.S., Mr. Gracer regularly represents non-U.S. companies with respect to U.S. environmental matters. When environmental issues arise for clients domiciled outside of the U.S., Mr. Gracer is called upon to provide strategic advice based both on the US experience and his extensive international business experience. His clients have included companies from Argentina, Brazil, Canada, China, Germany, India, Russia, and the UK. Mr. Gracer is also retained on a regular basis by international law firms that do not have U.S. environmental practices. In comments reported by Chambers, Mr. Gracer is highly regarded as "an excellent lawyer who communicates well and listens to the client."

Mr. Gracer's extensive experience includes hazardous substance and toxic tort litigation, environmental permitting and approvals, resolution of federal, state and local regulatory enforcement matters, environmental impact assessments, historic preservation reviews, contaminated site remediation, brownfield redevelopment, and environmental insurance

coverage. His clients include public and privately-held companies, governmental and non-profit development agencies, real estate developers, financial institutions and private equity funds.

Mr. Gracer is the founder of the Environmental Program at the Vance Center for International Justice at the New York City Bar Association, which focuses on providing pro bono advice on environmental issues around the world. Mr. Gracer received his undergraduate degree from Columbia College and his JD from Columbia Law School.

Kevin Healy

Kevin Healy is a Partner at Bryan Cave, where he is a member of the Environmental and the Real Estate Client Service Groups. He was a member of the firm's Executive Committee from 2002 to 2005. Mr. Healy has practiced environmental and land use law for 41 years. Twelve of those years were devoted to public service. Among other positions, he served as General Counsel to the New York City Department of Environmental Protection, and in that capacity was one of New York's two lead negotiators in a multi-state dispute over the City's diversions from the Delaware River Basin during times of drought. The "Good Faith Agreement" that emerged from those negotiations, which established a drought diversion regime modifying a protocol established under a 1954 U.S. Supreme Court decree, remains in effect today. Around the same time, Mr. Healy also settled a dispute between the City and State of New York regarding the level of releases required from the New York City reservoirs to maintain a viable trout fishery in the tributaries of the Delaware River. Mr. Healy served as Special Master in USA and State of New York v. County of Westchester, 89 Civ. 5274, (S.D.N.Y.), in which capacity he oversaw compliance with the provisions of a federal court order requiring the cessation by the County of the practice of ocean dumping. He also has served as a member of the panel of mediators for the U.S. District Court, Eastern District of New York and has mediated the resolution of multi-party CERCLA actions.

Mr. Healy represents parties in regulatory and permitting matters under the Clean Air Act, the National Environmental Policy Act, the State Environmental Quality Review Act, the Clean Water Act and numerous other federal, state and city environmental statutory programs; provides counsel on the environmental aspects of real estate developments; and participates in environmental audits of industrial operations and environmental impact reviews. He represents a wide range of clients, including industrial and commercial corporations, major New York utilities, railroads, public authorities and municipalities. Mr. Healy is principally responsible for the environmental impact review and associated permitting issues for a number of major projects in New York City, including the conversion of the Farley Post Office Building into a new Penn Station, the connection of the Long Island Railroad to Grand Central Terminal and the construction of a Second Avenue subway in Manhattan. He has also represented a utility seeking the governmental approvals needed to site a major electric and steam generating facility in Manhattan and the same utility in the environmental review conducted by the New York Public Service Commission in connection with the retirement and sale of a major power plant and associated properties in Manhattan.

Mr. Healy served on Governor Pataki's Climate Change Task Force and chaired the emissions trading subcommittee of that group. He co-chairs the Global Climate Change subcommittee of the Environmental Law Section of the New York State Bar Association, served as member of the New York State Bar Association Task Force on Global Warming and has lectured and written extensively on the subject of climate change over the last several years.

Michael Mahoney

Michael Mahoney joined Pfizer in 1988. He is currently Vice President and Assistant General Counsel and Pfizer's Chief Environment, Health, and Safety (EHS) Compliance Counsel. Prior to this, from 2007 until 2014, Michael was the Chief EHS Counsel for the Company and led a group of five EHS attorneys. From 2009-2010, Michael also led Pfizer's Environmental Sustainability Program. In his current position, he is responsible for EHS compliance oversight and support to Pfizer operations globally. Michael is a member of Pfizer's Environmental Sustainability Steering Council and, in that role, provides strategic advice on the program's direction and objectives. He was responsible for launching Pfizer's Energy and Climate Change Program in 2000 and has continued to be involved in its development. Prior to joining Pfizer's Legal Division, Michael worked as an environmental engineer in the company's Global Engineering Group and led a number of important technical programs and projects.

He is the current Chair of the Environmental Law Committee of the NYC Bar Association. He also served two terms as chair of PhRMA's Air Work Group and successfully led PhRMA's legal challenge of USEPA's rules for the control of hazardous air pollutants from pharmaceutical manufacturing operations. Michael earned his J.D. from Fordham University. He also has an M.S. in environmental engineering and a B.S. in biology, both from Manhattan College.

Miranda Massie

Miranda Massie is the founding director of The Climate Museum, an initiative to create a museum dedicated to climate change and solutions in New York City. Previously, she served as General Counsel, Legal Director, and Interim Executive Director of New York Lawyers for the Public Interest (NYLPI). Before her time at NYLPI, she was a civil rights impact litigator, in which role she won professional honors including Fletcher Foundation and WEB Dubois Institute Fellowships. She holds degrees from New York, Yale, and Cornell Universities, and has served as a Wasserstein Public Interest Fellow at Harvard Law School and a Mentor-in—Residence at Yale Law School. Her board service has included the executive and finance committees of the Center for Popular Democracy and the governance committee of a large Head Start organization serving the children of migrant farmworkers. Miranda is a past resident of Paris and Mexico City, and currently lives in New York City.

Nilda Mesa

Nilda Mesa is Director of the NYC Mayor's Office of Sustainability. Prior to joining the de Blasio administration, Ms. Mesa worked at Columbia University in several roles, including as the Assistant Vice President of Environmental Stewardship, Adjunct Professor at the School of International and Public Affairs, and as the Associate Dean of Administrative Affairs at the Graduate School of Journalism. Previously, Ms. Mesa served in the Clinton Administration in key environmental policy roles at the White House Council on Environmental Quality, the U.S. Air Force, and at the U.S. Environmental Protection Agency as Counsel to the NAFTA Taskforce where she led U.S. legal negotiations with Canada and Mexico and implemented legislation related to trade and the environment. Mesa began her career at the California Attorney

General's Office enforcing toxic waste and natural resources laws. She is a graduate of Harvard Law School and Northwestern University. She was born in Cuba, and has lived in Harlem since 2001.

Professor Jeffrey Sachs

Jeffrey D. Sachs is the Director of The Earth Institute, Quetelet Professor of Sustainable Development, and Professor of Health Policy and Management at Columbia University. He is Special Advisor to United Nations Secretary-General Ban Ki-moon on the Millennium Development Goals (MDG), having held the same position under former UN Secretary-General Kofi Annan. He is Director of the UN Sustainable Development Solutions Network. He is co-founder and Chief Strategist of Millennium Promise Alliance, and is director of the Millennium Villages Project. Sachs is also one of the Secretary-General's MDG Advocates, and a Commissioner of the ITU/UNESCO Broadband Commission for Development. He has authored three New York Times bestsellers in the past seven years: *The End of Poverty* (2005), *Common Wealth: Economics for a Crowded Planet* (2008), and *The Price of Civilization* (2011). His most recent books are *To Move the World: JFK's Quest for Peace* (2013) and *The Age of Sustainable Development* (2015).

Professor Sachs is widely considered to be one of the world's leading experts on economic development and the fight against poverty. His work on ending poverty, promoting economic growth, fighting hunger and disease, and promoting sustainable environmental practices, has taken him to more than 125 countries with more than 90 percent of the world's population. For more than a quarter century he has advised dozens of heads of state and governments on economic strategy, in the Americas, Europe, Asia, Africa, and the Middle East.

Professor Sachs is the recipient of many awards and honors, including membership in the Institute of Medicine, the American Academy of Arts and Sciences, Harvard Society of Fellows, and the Fellows of the World Econometric Society. He has received more than 20 honorary degrees, and many awards and honors around the world. Professor Sachs is also a frequent contributor to major publications such as the Financial Times of London, the International Herald Tribune, Scientific American, and Time magazine.

Prior to joining Columbia, Professor Sachs spent over twenty years at Harvard University, most recently as Director of the Center for International Development and the Galen L. Stone Professor of International Trade. A native of Detroit, Michigan, Sachs received his B.A., M.A., and Ph.D. degrees at Harvard.

Bessie Schwarz

Bessie Schwarz manages media and outreach analysis for Yale Project for Climate Change Communications ("YPCCC"). She comes to YPCCC with extensive experience designing, running and winning national and local grassroots campaigns, as the Field Director for Environment Colorado and as the Federal Field Coordinator with Environment America. In these capacities, Ms. Schwarz has overseen the generation of dozens of press conferences and hundreds of press stories and has helped design the national and state field strategies for both of these organizations. Since 2009, she has also directed several record-breaking citizen outreach offices across the country, raising grassroots funds and building public support for clean water, clean energy and preservation. Ms. Schwarz received her BA from Carleton College where she

studied Philosophy and Environmental Studies. After graduating, she joined Green Corps, the field school for environmental organizing, and was awarded the Sarah Forslund Scholarship. Ms. Schwarz developed her love of the environment while visiting the Rocky Mountains growing up.

Facilitators:

Louise Kruger

Louise Kruger is an Associate in the Corporate Department and Environmental Practice of Simpson Thacher & Bartlett LLP. Louise focuses on environmental aspects of transactions including acquisitions, divestitures, loans, securities offerings, and bankruptcies and restructurings, for a wide range of clients. Prior to joining Simpson Thacher & Bartlett LLP in 2014, Louise was a lawyer at Ashurst Australia where she practiced in the Energy and Resources Group and advised clients on compliance with Australia's carbon price mechanism. Louise was seconded to the North Australian Aboriginal Justice Agency in regional Australia for 7 months in 2013 as a pro bono civil solicitor where she worked on a variety of matters involving police complaints, compensations claims, discrimination and human rights violations, adult guardianship and consumer issues. Louise graduated from the Queensland University of Technology in Australia in 2010 with first class honors.

John Paul

John Paul is a principal in the New York office of Beveridge & Diamond PC. His practice focuses on regulatory compliance, permitting, and administrative law, as well as counseling clients on energy, environmental quality review, and land use matters. He assists clients with obtaining and complying with permits governing energy facility siting, air, storm and waste water, solid waste, and wetlands development, and with compliance issues regarding the management, transport, and disposal of hazardous materials. He also advises a wide range of clients on site contamination, remediation, and brownfields development matters. John is a graduate of Pace Law School. Before entering law school, John served in the U.S. Peace Corps in the Republic of Moldova, where he was an Associate Professor of English at the Moldovan state university.

Elizabeth Rogak*

Elizabeth Rogak, a graduate of Touro College, Jacob D. Fuchsberg Law Center has practiced in the areas of environmental and land-use counseling, permitting, enforcement and litigation for over fifteen years. Prior to joining the Port Authority of New York & New Jersey (Port Authority) as Environmental Counsel in 2009, Ms. Rogak spent eight years as an Agency Attorney with the New York City Department of Environmental Protection (NYCDEP), representing the NYCDEP in complex environmental matters. Currently, Ms. Rogak is a member of the Port Authority Law Department's Regulatory Compliance Group, and provides legal counsel on environmental matters and policy issues affecting a multitude of Port Authority facilities located in New York and New Jersey.

Eric Schaaf*

Eric Schaaf has served as the Regional Counsel for EPA, Region 2 since May 2005. In March 1997, he was named Deputy Regional Counsel and prior to that, he served for over 10 years as Chief of the New York/Caribbean Superfund Branch where he was responsible for all legal aspects of the Superfund program in New York, Puerto Rico and the Virgin Islands. Eric has served on or chaired numerous Region 2 or national workgroups on topics related to various legal counseling and enforcement issues. A graduate of Fordham University School of Law, Eric taught an introductory Environmental Law course at Fordham for several years as a member of the Adjunct Faculty. Before coming to EPA, Eric was an associate at the law firm of Cahill Gordon & Reindel in New York where he participated in both general litigation and corporate practice.

Adam Stolorow

Adam Stolorow is an associate with Sive, Paget & Riesel, P.C., where his practice focuses on environmental, land use, municipal, and condominium law. In addition to litigation in these areas of law, his work includes the environmental review and permitting of a number of public and private development projects. Prior to joining Sive, Paget & Riesel in 2011, Adam served as an Assistant Corporation Counsel in the Environmental Law Division of the New York City Law Department, as an aide to then-U.S. Senator Barack Obama, and as a communications officer in the United States Army Signal Corps. Adam is a graduate of New York University School of Law and Brown University.

Amy E. Turner

Amy E. Turner is the founder and principal attorney of Turner Legal PLLC. Her practice focuses on environmental law, public space and urban design, and general corporate and nonprofit legal advice. Amy also advises clients on sustainability, resiliency, B Corp status and all things "green." From 2008 to 2016, Amy worked as an environmental and corporate associate at Davis Polk & Wardwell LLP and Milbank, Tweed, Hadley & McCloy LLP in New York. She graduated from Middlebury College and Harvard Law School, where she was an editor of the *Harvard Environmental Law Review*.

Allen Zerkin

Allen J. Zerkin is an Adjunct Associate Professor at New York University's Wagner Graduate School of Public Service, teaching negotiation, mediation and consensus building. Mr. Zerkin specializes in the design and facilitation of stakeholder involvement processes, policy roundtables, and consensus building processes on public issues. Mr. Zerkin is listed on the U.S. Institute of Environmental Conflict Resolution's National Roster of Dispute Resolution Professionals. He earned his law degree at Yale Law School. The following are among his numerous high-profile projects:

- Designing and facilitating the Pocantico Roundtable for Consensus on Brownfields in New York State in 1998-1999, a process that generated model legislation that a broad-

based political coalition subsequently used to secure the passage of state brownfields legislation.

- Conceiving and facilitating the Upstate-Downstate Water Quality Partnership, an unofficial back-channel for communication between New York City-based environmental and civic organizations and public officials and leading citizens from the Catskills region, a process that laid the groundwork for Gov. George Pataki's decision to convene the mediation that ultimately resolved the New York City watershed controversy in 1995.
- Conceiving, organizing and facilitating two highly influential forums on recycling policy in New York City (2002 and 2007) each of which led to major political and policy breakthroughs.

*Elizabeth Rogak and Eric Schaaf participated in their individual capacities; any views they expressed where theirs alone and do not represent the views of the Port Authority or EPA, respectively.

8(c) PROGRAM MATERIALS

C. Program Attendees and Affiliation

Last	First	Title	Company	Sector
Almonte	Anna	Founder & CEO	Energy Ally	Energy Solutions
Amelio	Paul	Co-Founder/Chairman	N2 Global Solutions	Energy Solutions
Armstrong	Winifred			
Bartolini	Jessica	Director of Operations	Inclusionary Housing Program	Government
Beitin	Clara	General Attorney	U.S. EPA	Government
Bell Ader	Pippa	Vice Chair	Westport Green Task Force	Government
Benenson	Lisa	Communications Director	NRDC	NGO
Berg	David	Environmental Engineer	Environmental Consultant	Consulting
Berlin	Ken	CEO	The Climate Reality Project	NGO
Bowdery	Clea	Lawyer	The Vance Center	NGO
Boyd	Peter	Founder & CEO	Time 4 Good	NGO
Brodock	Keith	Senior Managing Engineer	Integral Consulting Inc.	Consulting
Brumm	James E.	President	Glastonbury Commons, Ltd.	Manufacturing
Burger	Michael	Executive Director	Sabin Center for Climate Change	Academic
Burke	Brian	Business Development Associate	Roux Associates, Inc.	Consulting Environmental
Buxbaum	Diane		Sierra Club	NGO
Cahill	John P.	Counsel	Chadbourne & Parke LLP	Law Firm
Carroll	Thomas	CIO	New York Mellon Bank	Finance
Calhoun	Camilla			
Coronel	Betamia	US Reinvestment Coordinator	350.org	NGO
Crough	Maureen	Counsel	Sidley and Austin	Legal
D'Aco	Vincent	Principal	Quantum Consulting	Consulting
Davis	Richard	Environmental Lead	Pfizer Inc	Manufacturing
Dempsey	Louis F.	Managing Partner	Sustainable Energy Resource Partners, LLC	Energy Solutions
Dularidze, Esq.	Irina	Attorney	Weitz & Luxenburg	Legal
Eisen	Paul	Principal	Roux Associates	Consulting
Fadil	Adeeb	Senior Counsel	Simpson Thacher & Bartlett	Legal
Falla	Gabriela	Student	Boston University	Student
Feingold	Margo	Senior Attorney	Social Security Administration	Legal

Last	First	Title	Company	Sector
Fenton	David	CEO and Founder	Fenton Communications	Marketing
Fierstein	Jenna L.	Pro Bono Law Clerk	Earth Justice	Legal
Fisk	Sally	Attorney	Pfizer Inc	Manufacturing
Fuller	Richard	Founder	Pure Earth	NGO
Fuller	Samuel.	Father	St Anne-St Augustin Friary	Religious
Galizzi	Paolo	Director of the Sustainable Development Legal Initiative (SDLI)	Leitner Center, Fordham Law School	Academic
Gershon	Andrew	Assistant Attorney General	NYS Attorney General's Office	Government
Ghilain, Esq.	Katherine	Associate	Sive Paget & Riesel	Legal
Girardi-Schoen	Elizabeth C.	VP, Global Environment and Sustainability	Teva Pharmaceuticals	Manufacturing
Goodman, MD	Anna			
Goodstein	Eban	Director	Bard Center for Environmental Policy	Academic
Gracer	Jeff	Principal	Sive Paget & Riesel	Legal
Gutierrez	Juan G.	Regional ENERGY STAR Coordinator	U.S. EPA Region 2	Government
Hagell	Suzanne	Climate Policy Analyst	NYS DEC, Office of Climate Change	Government
Harris, Esq.	Nicole Leigh			Legal
Harvey	Steve	Principal	Steve Harvey Law	Legal
Healy	Kevin	Partner	Bryan Cave	Legal
Healy	Will	Student	Julliard School of Music	Student
Herz	Roger J.		Time/To Improve Municipal Efficiency	
Horowitz	Alan	VP of EHS	Astra Zeneca	Manufacturing
Horsch, Esq.	Richard A.	Partner of Counsel	White and Case	Legal
Huhn	William (Bo)	Chief EHS Attorney (Retired)	Pfizer (Retired)	Manufacturing
Hum	Carl	Senior Vice President	Real Estate Board of NY	Real Estate
Huminski	Suzanne	Sustainability Coordinator	Southern CT State University	Academic
Iliff	Alex	Associate	Dorsey & Whitney	Legal
Jokajtys	Matt	Attorney	Periconi Law	Legal
Kass	Stephen	Senior Environmental Counsel	Carter Ledyard & Milburn	Legal
Kath	Susan	Director, Environmental Programs	The Vance Center	NGO
Katz	David	CFO	N2 Global Solutions	Energy Solutions
Kennedy	Kit	Director	NRDC	NGO
Kerry	John	President	John Kerry Energy Solutions	Energy Solutions

Last	First	Title	Company	Sector
Kerschner, Esq.	Seth	Counsel	White & Case	Legal
Kettenmann	Sarah	Associate	Beveridge & Diamond	Legal
Kilb	Karl	CEO	N2 Global Solutions	Energy Solutions
Kline	Maureen	Director of Public Affairs & Sustainability	Pirelli Tire North America	Manufacturing
Krainin	Daniel M.	Principal	Beveridge & Diamond	Legal
Kruger	Louise	Attorney	Simpson Thacher & Bartlett	Legal
Kushnir	Yochanan	Lamont Research Professor	Lamont-Doherty Earth Observatory	Academic
Kwasniewski	Jaime		Legal Services	Legal
LaBonty, Esq.	Andrea	Attorney		Legal
Lechenet	Amanda	Manager, Corporate Sustainability Strategy	COACH	Manufacturing
Mahoney	Michael	Attorney	Pfizer Inc	Manufacturing
Mahoney	Chris	EPIC Analyst	NYU Langone Medical Center	Hospital and Health Care
Mahoney	Alyssa	Data Analyst	New York University	Hospital and Health Care
Mahoney	Taryn	Interactive Creative Director	A&E Networks	Entertainment
Marraccino	Jen	Senior Director of Development	Pure Earth	NGO
Massie	Miranda	Founder and CEO	The Climate Museum	NGO
Matic	Jelena	Environmental Engineer	AKRF, Inc.	Consulting
McCarroll, Esq.	Jean M.			Legal
Meara	Karen		Carter Ledyard & Milburn	Legal
Mesa	Nilda	Director, Mayor's Office of Sustainability	New York City	Government
Miller	Scott	Chief EHS Attorney	Sims Recycling	Manufacturing
Mintzer	Karen	Regional Counsel	NYSDEC	Regulatory Agency
Moore	Chris	Principal	Orrick, Herrington & Sutcliffe LLP	Legal
Mullins	Debora		ATT	Manufacturing Communications
Mulry, Esq.	Laura	Associate	White & Case	Legal
Nehila	John F.		NYS DEC	Government
Newman	Karen	Senior Consultant	Innovation and Development Alliances Cluster Bureau for External Relations and Advocacy UN Development Programme	Consulting
Nielson	Irene	Climate Change Coordinator	EPA	Government
Ong	Kimberly	Staff Attorney	NRDC	NGO
Pagano	Yolanda	Director, Sustainable	OBG	Consulting

Last	First	Title	Company	Sector
		Strategies & Solutions		
Paul	John	Principal	Beveridge & Diamond	Legal
Platt	David	Head of EHS	UTC	Manufacturing
Raskin	Debra	President	New York City Bar Association	Legal
Richardson	Michael	VP EHS Retired	Pfizer	Manufacturing
Richardson	Jed	Energy Program Lead	Johnson & Johnson	Manufacturing
Roffman	Elana	Assistant Attorney	The Legal Aid Society	Legal
Roffman	Florence	AJC Representative	American Jewish Committee	Religious
Rogak	Elizabeth	Attorney	Port Authority of NY & NJ	Government
Rosen	Bruce			
Rousakis	John	Attorney	O'Melveny & Myers LLP	Legal
Roux	Paul	Founder	Roux Consulting	Consulting
Ryan	Kevin	Attorney	Private Firm	Legal
Ryan	Megan			
Sachs	Jeffrey	Director	The Earth Institute at Columbia University	Academic
Schaaf	Eric	Regional Lead Attorney	USEPA	Government
Schwarz	Bessie	Communications Strategist	Yale University	Academic
Siegel	Joseph	Senior Attorney	USEPA	Government
Siegfried	Heidi	Health Policy Director	Center for Independence of Disabled	NGO
Smith	Peter R.	Managing Director	Pataki Cahill Group	Consulting
Socoloff	Robert	Director	American Jewish Committee	Religious
Stolorow	Adam	Associate	Sive Paget & Riesel	Legal
Strugatz	Joshua		Northwell	Health System
Swartout	Robin	Strategy Manager	Urban Green Council	NGO
Tigre	Maria	Environmental Law Fellow	The Vance Center	NGO
Turner	Amy	Attorney	Turner Legal	Legal
Vanderziel	Sabastian	Research Analyst	Cornerstone Capital Inc	Finance
Vos	Phil		Bright Power	Energy Solutions
Washburn	Peter	Policy Advisor	NYS Attorney General's Office	Government
Weber	Rev. Randy	Associate Pastor for Administration	Fifth Avenue Presbyterian Church	Religious
Weydig	Christine	Deputy Director	Port Authority of NY & NJ	Government
Wilday	James	Partner,	Burns Group	Advertising
Zerkin	Allen	Professor	NYU Wagner School	Academic

Last	First	Title	Company	Sector
Zilberberg	David A.	Attorney	Davis Polk	Legal

8(d) PROGRAM MATERIALS

D. Transcribed Remarks

March 31, 2016—New York City Bar Association--Opportunities to Raise Public Awareness of Climate Change and the Need for Action

Note: The following represents an effort to transcribe the remarks of the program speakers from a recording of the sessions and may include transcription errors. The recorded remarks can be found here: http://www.nycbar.org/media-listing/media/detail/opportunities-to-raise-public-awareness-about-climate-change-and-the-need-for-action

Debra L. Raskin:

Good morning everyone and welcome to The City Bar Association, we are delighted to have you here this morning. My name is Debra Raskin and I am president of this wonderful organization that has a history of bringing together the best lawyers in the New York metropolitan area, together with other professionals to work on important legal and social issues affecting our city. And there could hardly be a more important issue than the one you are discussing today. I am so pleased to be able to open today's program on Opportunities to Raise Awareness about Climate Change. It's not only the most significant environmental issue facing the world community today, but it's an issue very specifically affecting New York City through more intense storms, like Superstorm Sandy and through longer heat waves and other aspects of environmental change that are happening right under our noses. Climate change though is not merely an environmental issue that can be left to environmentalists or scientists, but it's a human issue that affects every New Yorker in every way of life. And these environmental and public health effects will disproportionately have a negative impact on the poor, the young, on our older population, on folks with disabilities—the most vulnerable among us, which is why we have to fight so hard on these issues.

I remain optimistic because this conference has convened experts from all sectors of the New York community to look for more opportunities to raise public awareness on these critical issues. This is so important because the public must be armed with information to help support our efforts in New York and in our nation's capital, Washington D.C., to fight against and to mitigate the effects of climate change. As you can see, His Eminence Timothy Cardinal Dolan will not be able to be with us today as planned because of an unexpected and sad death of an archdiocese priest. He sends his regrets and wishes for a successful conference—and in a high tech feat we are going to have him presented by video by somebody that is more technologically savvy than I am.

His Eminence Timothy Cardinal Dolan (via prerecorded video):

Morning, everybody. I'm Cardinal Timothy Dolan. I sincerely regret that I am unable to be with you this morning as I had previously planned. Thanks for the invitation but, sadly one of my priests at the Archdiocese has passed away and you will understand one of my sacred duties is to celebrate his funeral mass, so please know that I am very much with you in spirit today. Thanks so much for your concern for the environment; you will not be surprised that I am

looking at Pope Francis. As usual, he put it best in his latest newest teaching about the environment. Can I just read a quote from the encyclical?

> "*LAUDATO SI', mi' Signore" – "Praise be to you, my Lord*." In the words of this beautiful canticle, Saint Francis of Assisi reminds us that our common home, the Earth, is like a sister with whom we share our life and a beautiful mother who opens her arms to embrace us. "Praise be to you, my Lord, through our Sister, Mother Earth, who sustains and governs us, and who produces various fruit with colored flowers and herbs."

What do you think? With these words, The Holy Father opened his recent beautiful encyclical letter that stressed how we should take proper care of all of God's good creation. Good teacher that he is, Pope Francis showed how the Catholic Church has always stressed the need to respect the gifts that God has entrusted to us as stewards— particularly, the care of the planet, our home away from home if you will. As the book of Genesis, the first in the Bible, tells us—after his work of creation, God looked around and saw that it was so good. Now, what does the Holy Father ask? Well, as he wrote, "I urgently appeal then for a new dialogue about how we are shaping the future of our planet." That's what the Pope says, that we need a conversation which includes everybody, since the environmental challenge we are undergoing, and its human roots, concern and affect us all. You're doing that today; being involved in this dialogue is what you're all about. Thank you, New York City Bar Association, for convening this gathering, and I am pleased to learn that you have brought together people from all sectors of New York City society to participate to share ideas and to help coordinate a path forward. Boy, oh boy, know my prayerful support for your efforts today. I wish I could be with you, God bless you.

Debra L. Raskin:

Wow, pretty nice to have a blessing for our congregation—that was terrific! It's now my pleasure to turn the program over to Michael Mahoney, the chair of the Environmental Law Committee here at the City Bar, who has worked so hard in putting together this wonderful program. He is going to give you an overview of what you will be seeing today and also introduce our distinguished keynote speaker, Professor Jeffery Sachs of The Earth Institute at Columbia.

Michael Mahoney:

Thank you, Debra, for the great support you have provided to this program and for your excellent remarks. And how nice of his Eminence Cardinal Dolan for taking the time to prepare and deliver such motivating and insightful opening comments. Thank you!

As Debra said, my name is Michael Mahoney and I am the chair of the Environmental Law Committee of City Bar Association. I feel honored to welcome you to this conference and privileged to be with all of you today. This room is filled with so many distinguished individuals who have done incredible work to help raise public awareness on this important issue.

Today's event is not only for you to listen and learn about what different groups are doing to raise public awareness, it is really aimed at obtaining your ideas on potential opportunities to greatly accelerate this effort.

Pope Francis stated in his encyclical that everyone should have a voice in the needed dialogue on climate change, because climate change is impacting all of us. I come to this conference believing that there is power in many of us joining together to work on this challenge— and optimistic because of the incredible talent and passion in this room.

We know we are stronger when we come together on a tough challenge, as we did after Superstorm Sandy——and I know we can come together to significantly raise the public's consciousness on the threat that climate change poses.

I am very honored to welcome and introduce Professor Jeffrey Sachs, our key note speaker. Professor Sachs is the Director of the Earth Institute and Professor of Health Policy and Management at Columbia University. And he is a Special Advisor to the United Nations Secretary-General. Professor Sachs is widely considered to be one of the world's leading experts on sustainable economic development. His work on fighting hunger and disease and promoting economic growth has taken him to more than 125 countries.

He has written three New York Times bestsellers in the past seven years related to his work. His biography detailing his accomplishments is provided as part of the program materials. Importantly, Professor Sachs will provide us with his perspective on why it is urgent for the world community to work together to quickly de-carbonize the economy.

Professor Sachs has had a distinguished career and we are very fortunate to have him here with us today. Following Professor Sachs' remarks, we will have two panel discussions—

The first panel will review ongoing efforts to raise public awareness with 4 leading experts that are doing great work in this area. We are privileged to have Michael Burger, the Executive Director of the Sabin Center for Climate Change Law at Columbia University, moderate this panel.

Our second panel will focus on ideas for aligning actions to amplify the message that climate change action is urgently needed. We have 4 experts on this panel who have given this a lot of thought. We are very fortunate to have this panel moderated by Jeff Gracer, a partner at Sive Paget and Riesel. Jeff has been a leader in finding creative ways to bring more public awareness to this issue.

After the two panel discussions, we will have 6 concurrent break-out sessions that will give all of you an opportunity to provide your perspectives and ideas on raising public awareness. I want to recognize Allen Zerkin of the Wagner School for spending a significant amount of his personal time to help us structure this part of the program –he gave us great advice and I think the sessions will be highly productive.

After the breakout sessions, we come back to the Great Hall where Kevin Healy, a Partner at Bryan Cave, will moderate a session with our breakout facilitators to summarize the key ideas discussed during these sessions. Kevin is a recognized expert in developing innovative approaches to mitigate climate change and helped develop the concept for the Regional GHG Initiative.

I encourage you to look at the bios of all of our speakers and moderators—these are all individuals that are recognized experts in the field of climate change mitigation and communications. Before turning the program over to Professor Sachs, I would like to thank the other sponsors of this program. They are:

The five different New York City Bar Association Committees listed in the program materials, the Sabin Center for Climate Change Law at Columbia University, The Environmental Law Institute and the Leitner Center for International Human Rights at Fordham Law School.

I would also like to recognize the many members of the Environmental Law Committee and the professionals at the City Bar who helped in developing and organizing this important program.

We hope you enjoy the program. Again, welcome Professor Sachs.

Professor Sachs:

Good Morning and, Debby, thank you so much for having me here in this august setting and Michael for organizing this. I think there are three Michaels I want to thank at the start—two of my colleagues, Michael Gerard, who heads the Sabin Center at Columbia University, and as our guru on environmental law, Michael Mahoney for putting this together, and Michael Burger, who is the executive director of the Sabin Center.

This is a wonderful opportunity and I want to suggest that we roll up our sleeves and get to work because time is short and there are some very, very practical things to do. We are in the follow up of three really big events last year that give us an important impetus.

One we just heard from Cardinal Dolan was the encyclical, Laudato Si, which was a momentous encyclical and was received by people all over the world as a powerful, eloquent call for action. The Pope says in the encyclical that we need a common plan for our common home. It's really a marvelous document: the chapter on the ecological threats could be assigned to a good graduate course in climatology and in ecology, followed by a theological chapter, followed by an epistemological chapter about knowledge and the need for an integrated vision, it's followed by a call to action.

Pope Francis made that call to action on September 25th as well, when he came to address the world leaders at the UN General Assembly in a session in which the world leaders adopted the second of these pillars for us: the Sustainable Development Goals. I urge everybody, when you have a moment, google sustainable development goals; find the 17 goals that were adopted for global action, including STG 13, which is to stop human induced climate change, and learn the 17 goals and then propound them to everybody—your spouses, your children, your parents, my students and everybody else, because these are the commitments that the world has made to itself for the next 15 years of global cooperation.

The third big event and immediately important for us was the Paris Climate Agreement reached on December 12th. That was COP 21, so called, the 21st meeting of the 196 signatories of the UN Framework Convention on Climate Change. That fact is sobering. It took 21 meetings from the first one in Berlin, to the third one in Kyoto which produced the Kyoto Protocol never implemented, never adopted by the US. COP 15 in Copenhagen which was another aborted

attempt at a global agreement. And then, finally, last year COP 21—in which, for the first time since the 1992 signing of The UN Framework Convention on Climate Change, we have a globally agreed framework for implementing it. That's why we have to roll up our sleeves right now.

I am not going to spend almost any time on the dangers. I will encapsulate the dangers by saying two things: read Pope Francis' encyclical and stop reading The Wall Street Journal Editorial page—or read it for entertainment, or read it to make you mad, or I read it for aerobic exercise in the morning because I climb the walls after I read it. It's a page of virulent lies, anti-science, completely reprehensible because it has tried to take attention away from the urgency of this issue through absolute manufactured anti-scientific obfuscations.

Now, I'll tell you what I really think. What I really think is we're almost out of time; and, according to my lead climate guru, Dr. James Hansen—who I regard as the world's leading climate scientist—we've run out of time, because while the Paris Climate Agreement set a standard to remain well below 2 degrees C global warming and aiming to achieve 1.5 degrees Celsius. That's the formal agreement: well below 2 degrees C aiming to achieve 1.5 degrees C. We're on a course of 3, 4, 5 degree Celsius warming. We are already beyond half way to the limit that was set. We are likely to exceed it—except, if we really roll up our sleeves starting this morning with this group—and the dangers are profound. To summarize one danger for us and for much of the world—

Now wait, let me take one moment digression: what does it mean 2 degrees C? That means the Earth's average temperature relative to the preindustrial temperature—which itself means roughly the years 1800 to 1850. So, we have already warmed by 1 degree Celsius relative to that preindustrial average, and the aim is to stay below, now it's well below 2 degrees Celsius warming.

The Earth has not hit 2 degrees C for a long time, specifically since the last interglacial period 130,000 years ago—which was called the Eemian period. The problem is that the last time Earth was 2 degrees C warmer than this preindustrial baseline, the sea level was—and hold your chairs—five meters higher than now. I hope you all have apartments above the third floor and you have boats to get into your apartment because Manhattan, of course, would be destroyed by this kind of sea level rise. There was a story in The New York Times just, I think it was yesterday, about the latest publication in *Nature*, showing how the Antarctic ice sheet on the most current modeling could add at least a meter by the end of the century—and Dr. Hansen thinks possibly much more than that, because the dynamics of the ways that these ice sheets break up is so complex and nonlinear that we don't actually have any precision on the time stamp of this sea level rise which comes from the destruction of the ice sheets. But I can also tell you this is just one of many, many calamities associated with global warming, and even with the non-warming part of CO2 emissions which include ocean acidification.

So, I am an economist who lives among scientists every day at the Earth Institute, and I don't know what you would think of colleagues who come up to you every day to say, "it's worse that we thought!" But that's been my life for the last 15 years, and that's what I'm trying to convey to you—and it is remarkable how corrupt our politics are in this country, because the Republican Party is not as stupid as it sounds and not as anti-scientific; it is just completely in the hands of the hydrocarbon sector. And why people, even hydrocarbon executives, are ready to

sacrifice their children and their grandchildren—I cannot understand for the life of me. But, that's where we are.

Now, what would it mean to stay below or well below 2 degrees C? The answer is actually pretty easy, although I could make it a semester long answer or I can make it a 3 volume answer; but I'm going to give you a five minute answer. The five minute answer is we need to decarbonize the energy system.

Our energy system was built on coal, oil and gas. The whole modern world was built on coal, oil and gas. I give an hour long payment praise to coal about the industrial revolution because I am a development economist. Without the steam engine of Mr. Watt there was no modern world, so there is nothing immoral about fossil fuels, per say. It's just that about 50 years after James Watt developed the steam engine, which was around the year of our Declaration of Independence 1776, the scientists started to notice that our atmosphere acted like a blanket; and by the 1840s they started to understand that that blanket operated through what came to be called greenhouse gases; and in the 1850s to 1890s they started to realize that carbon dioxide was one of those gases. It just means that because it's got 3 atoms, when it's hit by photons of a certain wave length, it vibrates and it absorbs heat. It is a quantum physical reality. It is not in doubt of any sort at all, at all! And, in 1896, a Swedish Nobel laureate, Arrhenius, made by paper and pencil an accurate calculation of what the doubling of carbon dioxide in the atmosphere would mean—he's a great genius. But he got it, he nailed it! What he didn't nail was, he said that it would take 750 years to happen—because he was a better chemist than an economist or a fortune teller, so he didn't see the rise of China, so he didn't see the rise of the 20th century economy.

But we are on a time path to double CO2 within 150 years by midcentury, and that's putting us on a trajectory of 3 degrees C warming or more. And because of uncertainties that are both intrinsic to nature—the nonlinearities of the natural system, and uncertainties that are part of our lack of scientific knowledge in the way that these models are constructed because of basically insufficient computing power to be able to make the full model of the real Earth—there is uncertainty about the sensitivity of climate to carbon, so we could be on a 6 degree C trajectory. We could be on a little bit less than 3 degrees, but we are on an extraordinarily dangerous course; and it is, in my view, profoundly unethical to deny that—profoundly unethical.

The United States was the leading emitter, historically. Now we were overtaken in 15 years by China—maybe not a full 15 years, but probably around a decade, China became the largest emitter now. It's twice our emissions in absolute terms, half our emissions in per capita terms. If China doesn't fix its coal dependence, the world is going to be wrecked. China is not going to fix its coal dependence unless the United States does so. The two finally walked through the door together last year in Paris. That was a lot of excellent diplomacy of President Obama, who worked for 2 years with President Xi Jinping so that they could take the step together through the door in Paris—that was the real breakthrough of Paris, getting the U.S. and China aligned for the first time. That's a lot of global emissions. And the European Union was never a problem, because they're greener and they're more vulnerable so they have always been pressing—so the three big blocks agreed.

So, if decarbonization is the issue, what does that mean? It means, for the first time in history, we have to consciously—through directed public policy at a global scale—transform the fundamental part of the world economy within a half century. Nothing like this has ever been

done or attempted before. And it's natural that we like fossil fuels—they are plentiful, they are inexpensive, they made the modern world. The only difficulty is, now, they can wreck the modern world. So, we have to make this change. That's not great if you're Peabody Coal, that's not great if you're Exxon Mobil, it's not great if you're Saudi Arabia—but it's the reality of our planet, it is just quantum mechanics, actually, of how carbon dioxide vibrates when it absorbs infrared radiation.

Now, doing this decarbonization is hard—not only because of vested interests, but because the lead time on the energy infrastructure is itself between 20 and 50 years. Every power plant we build now, short of some kind of utter disaster, is going to be around midcentury and beyond. So, we require a forward-looking action that stretches out over 30 or 40 years. Wall Street, unfortunately, has a time span of nanoseconds right now; traders, not planners, not long term industrial financiers. Our politicians have a time span at the length of a sound bite on a morning show. But, we have a problem that requires concerted action stretched out over 40 or 50 years.

We have to reintroduce a term that's almost an evil term in the American lexicon—planning. We actually have to plan! We have to plan locally, we have to plan regionally, we have to plan globally. I'll tell you a secret; there is no energy plan in this country. It's not a well-kept secret. Why is there no energy plan? My students have made many energy plans better than the Department of Energy. Why? For only one reason—the politicians are terrified of the lobbyists. Not that they can't do it—we had a Nobel laureate, Secretary of Energy Steven Chu. He could write a nice energy plan, if he were asked to. Instead, he was asked to stay indoors so that no reporter would ever see him, because The White House was terrified that people like that speak the truth, and that's how crazy our country is—that we squandered a Nobel laureate Department of Energy Secretary, rather than asking him to help write an energy plan that was consistent with decarbonization.

In the Paris Agreement, there are two time horizons to keep in mind—and then I'm going to give the homework assignment. But, it is our homework assignment, by the way—and you are, as the leading lawyers not only of this city but, by definition, of the world, I would say, with a major opportunity and responsibility to get this done— there are two time horizons in the Paris Agreement.

One time horizon is what's called the INDC's or the NDC's—Intended Nationally Determined Contributions, now becoming NDC's, Nationally Determined Contributions—which are the bottom-up commitments of the 196 signatories to the convention on what they plan to do by the year 2030. The United States made an INDC, you can find it online. China made an NDC and so forth. These are not wonderfully sophisticated documents, unfortunately—but they say, roughly, that the United States will reduce, by 25-27%, greenhouse gas emissions by the year 2025, based on the Clean Power Plan and some other things. That is the US INDC.

The second time horizon is one that I pushed for, hard, in the negotiations, and was able to help to get secure because it wasn't part of the negotiations going in—and it is Article 4, paragraph 19, of the Paris Climate Agreement, which calls for Long Term Low Greenhouse Gas Emission Development Strategies, so it's a mouthful. We call them LEDS—Low Emissions Development Strategies, for midcentury. So, I fought pretty hard and with colleagues in the French government which was the presidency of the meeting to get in a 2050 time stamp. Why?

Because 2030 doesn't really tell us very much. We need to decarbonize the energy system to get down to 0 by around 2070, not to make small adjustments to 2030. If you stop with the time horizon just of 2030, you miss the point. It's not hard to make small adjustments by 2030: you go from coal to gas, you have better mileage, you implement The Clean Power Plan and, voila, you're down 25%. But, then you are locked into gas. Gas is not a transition energy, it's a dead end to decarbonization. This whole fracking thing is just another of America's gold rushes, a boom and a bust that makes no sense for the longer term. Yes, it's cleaner than coal, but absolutely impossible from the point of view of staying below 2 degrees C—because we need to not lower carbon, but to decarbonize.

There is a concept that I won't be able to dwell on called the Carbon Budget. which is how much cumulative CO2 is left in space in the atmosphere, as it were, before we exceed the 2 degrees C threshold. The rough answer is, about 900 billion tons of CO2 emission would give us, still, a 2/3 chance of staying below 2 degrees C. But, we are emitting 40 billion per year right now, so it's roughly 25 years left at the current rate. What the logic is—because once you put it up, it stays up—you have to get down to 0 to stop the increase in concentration of CO2, which is that blanket of warming. So, we have to end the emissions by around 2070—that means we don't settle for better mileage efficiency of internal combustion engines, we need electric vehicles—period. So, the good news is that we all drive Teslas, or their equivalents. We cannot have furnaces and boilers in our buildings in New York City; we need heat pumps and electrical heating—period.

We need to decarbonize—how do you decarbonize? Basically three ways: energy efficiency, so you don't have to use so much energy; and in New York City, that means number one, more insulation and better shells for the buildings, so it's a building standards issue. Number two is zero carbon electricity. What are those options? Wind, solar, nuclear, hydropower, or carbon capture and sequestration—that's it, basically. Tidal could do a little bit, perhaps, but all options, they are all minor. Geothermal is another one—they play a role, and I'm not even meaning to say big or small right now. I am saying there is a list, and it's like a Chinese menu: you choose from column A, column B, column C, whatever you want, but you have to have 0 carbon to the energy. And, the third is for site emissions or point emissions, like vehicles or buildings—electrify. So we have to, basically, not only give up coal, but also give up the internal combustion engine. That is fine, by the way, because electric vehicles are better than internal combustion engine vehicles for a lot of reasons; but because, mainly, they get to be a lot smarter in a lot of other ways as well. We have an issue of improving the technical functioning of batteries, the specs of batteries—mainly, the kilowatt hours per kilogram functionality—but that's on its way also. And for buildings, as I mentioned, heat pumps rather than gas.

Now, New York City is in a very good position to reach zero because our city could be run entirely by electricity. We have no heavy industry that we have to grapple with, we have no mining sector, we have no steal industry, and we have no heavy petrochemical industry. We could run everything in New York on electricity: the transport, the buildings, the appliances, and that's what decarbonization would mean.

Where would the zero carbon energy come from for New York? We have that policy choice. What are we going to do with the nuclear power? That's a debate. Bringing hydro from Quebec. I went over to James Bay last week to have a look at hydro Quebec's potential for bringing more hydropower down to the US Northeast. The potential is huge. It's building high voltage direct current lines to bring the power down, but that's an option. We've got a

tremendous amount of wind potential both on shore and off-shore. There is at least some solar distributed potential—we're not the right place for large scale solar, but we can do something. The right place for large scale solar is the Mojave Desert, where we can have a tremendous solar industry and then with high voltage direct current lines that efficiently bring that solar to population centers of the United States.

We need to plan what we are going to do. Interestingly, New York City has taken on the goal of 80% reduction of emissions of CO2 by 2050. That's a good plan because that is the right trajectory for the 2 degree C limit. But, you'll be interested to know, also, there is no such plan for New York City. There is a goal—but the plan has never been formulated. Mayor de Blasio invited me, and perhaps many others in this room, to participate in that planning exercise, which I'm doing right now. It's the first time it's been done. NYSERDA, at the state level, has a similar commitment. There is no plan; in fact there is no strategy beyond 2030.

Interestingly, if we really want to get this done, we may still have to talk to other states as well, because regional approaches are vital for this. We have transition lines; we pull in our power from sources outside the city or the state. There is no regional plan. If we really want to be smart, we need a bi-national regional plan that combines Eastern Canada and the Northeast United States as a system—and there is a wonderful complementarity of hydro power and wind power, because they work very well together in a complimentary way, especially when the wind is not blowing—you can fill in the missing amounts by releasing more hydro power from the reservoirs. You can actually pump up water back into the reservoirs when you have excess wind, and so they are very complimentary. Norway and Denmark are working that way to get to 0 carbon.

So, my suggested homework assignment is that we, the New York City Bar and the New York City experts, work together with the city government, the state government and the region—mainly New England, New York, New Jersey, Pennsylvania—to make a true comprehensive decarbonization strategy. And we analyze this, and we look at the legal and regulatory underpinnings of this. It's not right to just jump to "we need a carbon price." That is what most economists would stand up and tell you at the podium—I think that it's a silly start. Much more we need to decide what we are going to do with nuclear energy. What are we going to do with reliance on hydropower? How do we feel about offshore wind? How are we going to adjust infrastructure, building codes? Then, you can talk about particular instruments, of what Con Ed or others need to do in order, under the law, to be able to implement such a trajectory. But, that's how I would do it—not some magic price that leads you, scratching your head, to, "well, what about Indian Point?" But, rather, take on, directly, how are we going to get down to zero.

The last point I would make is that this exercise has to be done everywhere in the world. Yikes! The capacity to do that doesn't exist right now almost anywhere, and we are running out of time. So, if we take this stuff seriously, we need to innovate like crazy. One of the things I'm sponsoring for COP 22 in Morocco is, for the first time ever at these COPs, what we are calling a Solutions Conference. So, for 21 of these meetings, it's been diplomats. I like diplomats, I work at the UN, they're very nice, they don't shoot each other—it's really a very civilized profession. But, we need actual energy experts, engineers in another room from the 196 countries that say, "we've got to get to work!" And so we need to innovate, we need to move, we need legal expertise, profoundly—because this, as in everything in this country, becomes legal and regulatory issues. I urge you also, the lawyers, the practicing lawyers in the room—be sure that

your clients know that this is real, that this is no joke, that time has run out, no games, no playing around, no delays. Because, even if we do everything right, we barely have the time to do it right. Thank you very much.

Q&A:

Adeeb Fadil, Simpson Thatcher:

Near the end of your remarks, I think I heard you say that putting a price on carbon is silly. Would you consider that to apply to a well-designed cap and trade program?

Sachs:

I didn't mean to say that, or didn't mean to be heard that way. What I meant to say is, starting with that—and, with the economists, they want to leave it at that—I think, is the wrong way to go. What we need most of all, for this region, is a vision of how to get to zero carbon. We need to take some political decisions. Which of the nuclear plants are going to stay, which will close? We need to take some economic calculations, and also some political decisions of what the relations with Canada will be in this regard.

Once you have some kind of vision, there can be certain uncertainties. Also, we don't know which three or four technologies may win in the end. You don't want to bet on just one. But, you know, it is down to a small number—and the regulatory and liability and citing and land use issues have been resolved in a different way to say that we will allow for some offshore wind or not, or we'll allow for right of ways for a new transition line. Because without those—no answer. But, once you have that, putting a price on carbon may make perfect sense, especially if the regulations compel the state utility regulators to have the "minimum price for customer," for example. Rather than rewriting that law, minimum price, including a carbon price, may be the simplest answer for the regulatory implementation of the vision.

So, I am not against a carbon price—there's a lot of reason for it, [but] it's quite insufficient substantially and politically. Politically, it is insufficient, because the message to the public is, "we're raising your electricity prices, thank you—we don't know what's going to happen but we are going to raise your electricity prices," [and] they say, "no, thank you." Unless we are able to say, here is the direction of change: we're going to close down this nuclear power, we're going to tap into larger hydropower, we're going to electric vehicles and do the following, then the public will say, "I get that, I support that, that makes sense. I understand why we need to do that, now I understand where we are going and how it can work!" In that context, saying—from a regulatory point of view—putting in the social cost of carbon into the calculations of the state regulators, into the power plant choice, may make perfect sense.

So, I view this as, basically, a need for us to get much more clarity, place by place, in the world—of how to get out of the mess that we're in, and then view issues like cap and trade or carbon pricing as tools, not as solutions. They are part of the tool kit to implement a direction. When you come to, "which tools would I use if I were doing the surgical operation," I'd go with the carbon price, rather than a cap and trade system in general; and the reason is that a cap and trade system is administratively, bureaucratically and politically hugely complex relative to a carbon tax. So, I would go with a simpler system, which is trivial to collect and can be collected

way upstream, rather than thousands and thousands of units' verification, permit trading and so forth that characterizes an emissions permit system.

Rich Davis, Pfizer:

I had a question for you about the impact on the people who work in the energy sector. So, I have this debate pretty regularly, and I know you mentioned talking to your family about this issue. My daughter is an environmental scientist, I am the environmental lead for Pfizer and my son is a superintendent at a Peabody coal mine, he is a mining engineer. So, we have a very interesting Easter and Thanksgiving discussion. We all recognize the science is real, but I see through my son the impact, potentially, on tens of thousands of energy sector workers who, through this transition, will be impacted. Simply put, if you're a coal miner in Kentucky, Illinois or West Virginia, this is very real, very immediate—it's not just investors and company owners, but it's a very immediate impact to them. So, how do you put the economy of moving these workers to somewhere else into this mix? It's not just the end, it's the upfront work as well.

Sachs:

Not to minimize your Thanksgiving family meal discussions, which I'm sure are interesting. This is not primarily a jobs issue, and the reason is the quantities involved. The last time I looked, the total employment in the coal industry was 87,000 and the number of coal miners was 32,000. That's in an economy of 160 million labor force where the fluctuations and the rounding are much more than this month to month. This is just not a jobs issue.

I am perfectly happy, because this is a standard part of the tool kit of any adjustment process—to help communities that are displaced. But, the cost of doing that is miniscule compared to the damage of saying we're going to keep coal for the sake of keeping coal jobs. So, I think the answer is that many people—always, by the way, every politician—want me to say, on the friendly side of this issue, how many great jobs are going to be created installing solar panels in the green economy and so forth. I find it also just the same uninteresting approach. This is not a jobs issue. This is an issue about the safety of the planet Earth, and the number of jobs on the green side or the brown side are small compared to the stakes involved.

Interestingly, the politicians also tell me, "I don't care how many it is, just show me it is more than the losses on the other side so I can say it's a job winner." That is a politician's job—what I can tell you as an economist is that this is not the frontline issue, at all. But, in most countries other than the United States, most high income countries, there is a culture of adjustment assistance and policies of adjustment assistance. We are a very tough country—we, basically, 30 or 40 years ago, stopped helping each other. So, policies to help Appalachia or other places where coal industries are going under, we don't believe in that stuff in this country; and I think that's a shame, because it would take very small amounts to be very helpful on retraining, relocating and doing other things.

Steve Harvey, Philadelphia:

Would you please comment on the Clean Power Plan as a policy tool to begin the process of what you're talking here about?

Sachs:

The basic idea of the Clean Power Plan, of course, is to stop new coal fired power plants—that is the underlying purpose. It's absolutely correct—there is no place for coal in a 2 degree C world, there just is no place for coal. The one tiny exception to that would be large scale deployment of carbon capture and sequestration technology. I don't think it makes sense compared to the alternatives for coal. So, my view is that the basic idea of the clean power plan is on the right track, and President Obama made the calculation because he is absolutely, this was focus grouped to that, you can be sure.

Why did he do this? He broke with the Democratic Party tradition of backing the coal industry because, up until a certain point, the coal miners were an important constituency of the Democratic Party. But the numbers dwindled so much that, finally, it was not even interesting in terms of votes, even though we have more than 20 states that produce coal. He felt that, from a vote point of view, which is his currency of value, that this was a safe bet. If this were dangerous in terms of jobs, he would not have done it—and if it was dangerous politically, he would not have done it. But he calculated that the numbers of jobs at stake were small, so he went after coal. He wasn't brave enough to go after gas because we are in the middle of this fun boom of fracking, and they did not want to take on the hydrocarbon sector straight on.

So, it's a mish mash, and it's not a plan that is a long-term plan—it's a way around obstacles, something that the EPA could do by itself when you can't vote anything through Congress, and when you have half your own party that has some hydrocarbon money and donations and role in the states. So, this is basically a weighted average of lobbying pressures, plus a true commitment of the President to do something—but it does not add up to a national strategy, that's for sure. It does not add up to a national strategy, because he is a politician with a short time horizon. I credit him for how far he got on this issue, I don't want to leave a bad impression by any means, because he has been out-front on this and he did a very good job with China. He is on the right side of this issue for sure—but this is maneuvering, not really the serious kind of direction.

The serious kind of direction would say: we're going to have a scenario for the United States for 2050 and, by the way, as we make this transformation, the U.S. is going to be the technological leader in the world in smart grids, in the internet of things, in electric vehicles, in cutting edge batteries, in nano-solar power. That's really our vocation—and that they don't say, and that's the shame of it, because this is great stuff for the United States, in one sense. Of course, it's hard, everybody will have to adjust, but there is no place on the planet that is better prepared than the United States. We have more renewable energy of all kinds, as we have more of everything in this continent, and we have more technology by far than the rest of the world—and, yet, we are stumbling behind, and doing not so much more than closing coal fire power plants rather than taking it on boldly. Again, it's all politics. You have a Republican Party that is willing, to a person, to deny the most obvious, pressing truths that the planet faces. I think that's coming to an end though, I really do think it's coming to an end.

Panel 1: Getting the Message Across

Michael Burger:

Good Morning, everybody. My name is Michael Burger. I'm the Executive Director of the Sabin Center for Climate Change Law at Columbia Law School. It is a pleasure for me to be

here to moderate this panel this morning. Talking about climate change is no easy task; both the causes of the climate change problem and the solutions to that problem are enormously complex as a technical matter. They are global in their scope and in their scale; they are intergenerational in their duration, all of which pose very particular types of problems to talking effectively about climate change.

There are two sorts of intuitive and well-established approaches to environmental rhetoric that we've seen and that we continue to see in climate change communications, but they are extreme and they move in opposite directions. On the one hand we have the environmental apocalyptic, and climate change lends itself very easily to this kind of discourse—like floods, droughts, heat waves, pestilence—the sorts of things that can really create a scenario. And it's a matter of climate projections, and it's a matter of science, that if we look at our worst case scenarios, or something like our current trajectory, that's where we'll wind up. So, on the one hand, talking about the climate apocalypse can scare people into action, but it can also freeze people and paralyze them. On the other side of the spectrum, moving in the opposite direction, is the sustainable utopia—a sort of vision of the world in which economic development, ecological preservation and social equity all are combined together and result in a sort of ideal arrangement of society. This is a highly inspiring vision, and it's one that can inspire people to take action in pursuit of it. It can also too easily fall into the trap of promising a world full of rich rewards without having to make any concrete sacrifices.

Now, those are the two polar extremes of climate communications. What we are fortunate to have on the panel today are, really, four different story lines from people who are actively engaged in figuring out how to talk about this stuff effectively in the field.

So, we have Bessie Schwarz who will start off; and then we have a number of different speakers from the non-profit sector, from the environmental advocacy sector and from the religious world. So, we will start off with Bessie Schwarz. Bessie is a communication strategist for the Yale Program for Climate Change Communication, where she manages media and outreach analysis. She came to the Yale program from the world of national and local grassroots environmental campaigns, having served as the field director for Environment Colorado and the Federal Field Coordinator with Environment America. In these capacities, she oversaw the generations of dozens of press conferences and hundreds of press stories, and helped design the national and state field strategies for both of these organizations. I think she is here to tell us today about the immensely important work that is going on at the Yale Program. Thanks, Bessie.

Bessie Schwarz:

Well, thanks Mike, and it's really a pleasure to be here on this panel at such a forward thinking event. I love lawyers, a lot of my family members are lawyers, and I actually wrote a 7th grade essay about how I wanted to be a lawyer; but, as you know now, I am not, in fact, a lawyer. At the Yale Program on Climate Communication, we study how the public responds to the issue of climate change—what they understand, what they misunderstand, how they perceive the risks, the policies that they support or oppose, and the behaviors they take at home, at the work place, on the road, at the ballot box and even at the grocery store. What we really want to understand is, why? What are the social and psychological factors that lead one group of people to engage on this issue, another to completely ignore it, and some people to aggressively oppose the kind of progress that we're here to talk about today?

So, what I'm going to go over now is just a brief understanding of how to understand the science of public opinion polling, how to pull out insights from it for your work and then, specifically, how to harness it for raising public opinion awareness here in New York. So, to do that, I'm going to briefly go over climate change psychology, talk about the state of public opinion today, mostly in the US, and then go over just two tools for customizing these insights for your work—the Global Warming Six Americas and the Yale climate opinion maps.

I'll do a brief dive into public opinion in New York specifically. So, what better place to start than to see how many people in this country actually think the planet is warming? Well, 97% of scientists have been convinced of this for a long time; belief amongst the general public has fluctuated quite a bit. So, you can see on the left most of this graph, it's a little blurry at the bottom, that's late November of 2008—that's the high water mark, and then it dips in our polling, and pretty much everyone else's, immediately after that; and the next point is about a little more than a year later.

So, think for a second what was going on in late '08, "Inconvenient Truth" had been out for awhile, landmark IPCC report and what had happened a little more than a year later than that. Since the economic recession—this is some cold weather, this is a major layoff in environmental journalists. But, the thing we point to most and what we detect strongly about this is the politicization of the issue—climate change getting wrapped up in the cultural wars. This trend, this up and down, is followed by a lot of other important questions or factors around climate change belief and understanding. Is it caused by humans? Are people concerned about it?

So, what's going on with our psychological relationship with this issue that it fluctuates so much? We recently did a review of the behavioral sciences to try and distill the insights around this cognitive relationship, and we found a couple of major things. First of all, we have a hard time as humans to understand the future. I agree, it's essential to think about 30, 50 year timelines but, that is actually pretty difficult for us—not just politically but, actually, psychologically. So, climate change is seen as distant, distant in time and distant in space. Now, this is a major thing happening somewhere in the sky, because of invisible gases with complex dynamics; and the impacts are big, but there is a lot of uncertainty, and they're happening over enormous time scales.

This is how we've tried to communicate that message—lots of smart people, lots of good information. Maybe this smart person in particular, a highly publicized figure or with this traditional emblem of the climate changes issue. Very few people have direct experience of polar bears. This is how people experience climate change; this is the aftermath of Hurricane Sandy. Climate change impacts people's lives, it threatens their livelihood and things they care about. People experience climate change through extreme weather, through hunger, through immigration, through threats to public health.

We also experience the solutions in very emotional ways as well, and this is an important way for us to communicate and think about this challenge we're facing. The third major thing is that people are social. We are inextricable and very much influenced by the various identities, tribes, and groups that we're a part of. This is one major reason why the effect of the culture wars has been so great on belief and understanding with climate change. Therefore, the people who are the best, in many ways, messengers of the issue are your friends, family and people

you're close to within those very identity groups. And yet, as many of you have probably guessed, not many people are talking about this with their friends and family. They are also not hearing it very much in the media—this is up-ticking a little bit on the media front, we think we are going to see that in our next polls coming out.

Then finally, humans have strong internal motivations. We want to do good; we want to help others underlying this. But, the way these internal motivations are expressed through values is very different and diverse, and it's critical that we align our communications and other work with these underlying values that people have. I think quite a bit about the Green Tea Party, you guys may know this story, in Georgia the Sierra Club and the local Tea Party teamed up in order to push back against Georgia Power, twice, and twice winning on residential solar. They were doing it for very different reasons—the Sierra Club, for environmental protection; the Tea Party, bucking the social norm of their group because of a deeper underlying value around economic freedom. You know, if we don't resonate with these deeper values that people have, we may continue to see progress on belief, and maybe understanding, or even concern. But, we are never going to rise on the priority list that the general public has.

So, what does this mean for communication, how do we boil this down? To play into these various ways that people think about or understand this issue, it is critical to use stories, stories that are backed up by data. But, those stories should activate values, make the stories personal and then provide a clear path—a path for solving this problem as a society, like Professor Sachs just did, and then for people as individuals, what they can do. In order to do this, you have to know your audience and pick the right messenger—one that is trusted by the audience of the community you're talking to, to speak to them, and has legitimacy to be delivering that information. Then help folks to understand that climate change is happening, it's happening now, it's happening to things they care about, it's local and there is hope. We can and will solve this challenge.

So, how do we communicate about climate change? People ask us this fairly often and the answer is, I don't know. I can't tell you because it depends—it depends on who you are, it depends on who you're talking to, what you're trying to do, the various narratives currently swirling around. What I can do is provide some understanding on how to customize these insights and the data for your audience.

So, the first tool that we have is the Six Americas. Not all Americans think alike around climate change and this is our segmentation of the general American public when it comes to this issue. On the left most side we found the Alarmed— a group of people who care deeply about climate change (many of them may be in this room) [and are] highly motivated to do something about it. On the other end, the Dismissive think it is absolutely not happening and strongly oppose any action around it. In the middle of these two extremes, extremes who have often dominated the climate conversation, is 75% of the country—people who know what is happening but don't know why they should care, are on the fence, are disengaged, or just don't know and have very little information about it. Then there is the Doubtful, who are predisposed to think it's not happening but are not very solid or stuck in those positions. Each of these groups within America need different things and it's essential to start the conversation in different places. You don't want to come to somebody who is alarmed and just hammer in the information about why

this is happening. We want to, primarily, have a conversation about what we can do as a world, as a community, and what they can do to get involved.

Another tool is the Yale Climate Opinion map. Every number that I have shown thus far looks like this: this number is from about two years ago, but it shows the amount of people that think humans are warming the planet. So, it's one number to represent a little less than 300 million people. But, we know that people feel very differently about this issue here in the city we're standing in than in rural Mississippi. So, this is actually what the US thinks about when it thinks about climate change—is it human caused? This is from some modeling we did to downscale public opinion to the state congressional district on county levels, and we have some other geographies. What does New York think? New York is consistently 6 to 10 points higher than the national average on key questions around climate change—is it happening? Is it human caused? Are you worried about it? Is it going to affect you? Do scientists agree that this is a major problem? But, as you might have guessed New York also has a lot of diversity in it and it's key to understand these differences. This is our anthropogenic climate change. Take a look at this; is this confirming the instincts that you have about your state? Are you seeing some things you didn't think were happening? It should look fairly familiar, but I encourage you to question what you know and look for exceptions here, because in those exceptions lie rare opportunities. Places that you thought would be higher that we're going to need to go in and bolster public awareness, places that have surprisingly high belief—where we could find new opportunities to work in different places.

This is by congressional district by the same question, and this is the policy handle equivalent for the Clean Power Plan—very, very high support in New York, second or third highest overall for the state. So, are there places that you noticed on the map that there were fairly low belief that humans are warming the planet that are actually very supportive of setting strict limits on coal fire power plants. I was just looking at Livingston County, which has the lowest level of belief in New York in terms of whether or not climate change is human-caused and is in the mid-60s around support for the Clean Power Plan. So there is lots of other stuff to explore, everything I pretty much showed today is all up on our website, and all of the maps and much more, and the data behind it, are available in an interactive web map online. I am always excited to talk about how to apply public opinion for more effective campaigning, or whatever the work may be that you are doing, so I am very happy to talk. But, I think it is critical, and I would just encourage us during this event to think not just about building public awareness, but what kind of public awareness, and what we are doing with this public awareness, so we can turn it into the kind of change that we want to see. So with that, thank you very much for having me.

Michael Burger:

Thank you so much, Bessie. Next we're going to hear from Miranda Massie. Miranda is the founder and executive director of The Climate Museum here in New York City. Prior to launching the Climate Museum, she most recently served as general counsel and legal director for the New York Lawyers for the Public Interest. Prior to that, she was an attorney and a civil rights attorney at Scheff and Washington for 11 years. She has received numerous fellowships and many, many awards for her advocacy, activism and community service. Please join me in welcoming Miranda.

Miranda Massie

Hello everyone, it's a great privilege to be here with you, to be on this panel. As I've mentioned to Bessie previously, we talk about the work done at the Yale Climate Communications Center all of the time, and you'll hear me say a little bit about that in a moment. To be here with the NRDC represented, one of the champion organizations in our city, in our country and in the world entire, for human health in the face of this threat and for the health of all living organisms; and we are also enormous admirers of The Earth Institute and the Sabin Center, in particular, and of the absolutely game-changing role that the Catholic Church and Pope Francis have played in general and, in particular, in the last year. We've recently revisited a one pager we had to write about a year ago, and it was as if we were looking at a document about Yugoslavia written in 1913 from the perspective of 1920. There has been a sea change, and we believe that a great deal of that is owed to the leadership of Pope Francis. Then, finally, to thank the other Mike whose brainchild this event is, it's an incredible gathering and it's so consonant with the goals of the museum that I'm going to start by reading our mission, which is not something that I ordinarily do.

That is, to use the sciences, art and design to inspire dialogue and innovation that address the challenges of climate change, moving solutions to the center of our shared public life and catalyzing broad community engagements. I believe that this conference today is a first step toward major leadership sectors both inside the New York City Bar and without it, coming together to start to work together to catalyze that broad community engagement in the communities that we're already part of and the communities to which we can provide leadership on this issue.

Let me start by saying something that I normally talk about that I won't talk about and that's our institutional development process. We're at the end of the very beginning, is where I'll leave that. We are recognized in the eyes of the law and the IRS, but just at the very beginning of raising funds to support our first major public proofs of concept and exhibits and conferences, events like this and so on. I am very pleased to discuss this further with anybody who is interested as a side conversation. Today, what I think is most interesting is the mission that we share with this group of people and with Mike's vision for this event, and that is the mission of building a broader climate public.

So, while we want everyone in this room to come to the museum, and we're very happy to give you free memberships—we're really interested in that second segmentation group that Bessie just identified that hovers at around 30% over the last several years. Those are people who are prepared to be engaged with climate, but who are not yet engaged. Our mission is to build out the climate public in the United States and beyond by giving people in that segment of American opinion on climate, a hub—that's not to abuse a term that can clinically be very helpful—a safe space for thinking about climate, for looking at the risks in a truthful way and open way and for also being given reason to have rational hope.

Most of all, and I'm going to use a very clunky academic term here, and it's "collective efficacy." It's clunky, but it's very helpful, because it wraps up two fundamental things about how we operate as social beings, as humans as mammals—and those two things are the feeling that we can all have of strength in numbers. We're all feeling it right now in this room, and the

feeling that we've all had on multiple occasions, some of them with great outcomes and some of them with embarrassing outcomes of a self-fulfilling prophecy about our own capacity and behavior. So, the idea of collective efficacy is those two thing wrapped together. It is, essentially, in its positive form, the self-fulfilling prophecy that's brought massive changes to systems that seemed very complex to some people, distant and impossible to change.

Think of the first students engaging in coffee shop sit-ins to desegregate public spaces in the American south in the early 1960s. Think of the first activist for marriage equality. I'm sure I don't need to inform the people in this room that those systems that were starting to be challenged and changed, the solutions that were being sought and acted on in those situations were being imagined and enacted in the face of regimes. In our case here today, that would be the regime of ongoing systems that are committed to ongoing environmental and human catastrophe—where we sit today. They are starting to change, but as we heard from Professor Sachs and from Mike, they are not changing quickly enough. That's a very big thing to change. Segregation was a very big thing to change. Marriage inequality was a very big thing to change. It was deeply entrenched in people's structures of thinking and feeling, and we changed it and that is collective efficacy.

At the museum, we want to be a hub—not just the hub, because we want to join the suite of incredible efforts that are already underway and represented in a powerful manner in this room, a hub for our species' transition to a clean energy economy and culture. It's the most profoundly challenging of all the systems we've had to change, this is the most profoundly challenging one and it's the most profoundly challenging transition that we'll ever have to make as a species. We're going to do that by providing a number of different ways in, so within that 30% of the US and broader public, there are some people who are most moved by art, some people who are most moved by the history of the science and the scientists, some people who are most moved by being able to brainstorm with each other on a digital and interactive table about the tech innovations and breakthroughs they would like to see in, let's say, the development of the range of different kinds of automobiles and other vehicles that can transport us and help us do our business in a clean way.

People live emotionally in different places, we have different commitments, and we care about different things. One of the virtues of a museum is that it can provide a range of different ways into this issue. Another virtue is that it can help simplify and concretize the complex and memorable ways. One of the fields that we've been doing a lot of research in is, as you would expect, museology—there is quite good literature on the impact of museums on learning, and cognition and memory, including in complex terrains, which is, in part, because we can engage more of our nervous system than many of us in this room are accustomed to using, in our daily work, as we analyze the fine print on a regulation. We're still using touch in some way and it's still multisensory, inevitably, but a museum can engage all of the senses.

Most importantly, a museum is a social experience, so it can build collective efficacy; and the ability of museums to build a sense of collective efficacy is also, itself, born out in a number of studies that have shown that, to very interesting degrees, people behave and think in more pro-social ways after they've been to museums. So, our ethical judgments are more nuanced, we engage in more dialogue in laboratory settings in pre and post testing and we think

in a broader context, and that's because of the experience of a museum. Museums don't have a special claim on that, but it is a profoundly social experience to go to a museum.

So, our exciting challenge at the Climate Museum is to bring together those insights and to help serve as a clearing house for the incredibly important work being done by multitudinous organizations, including those represented in this room, to provide a way for people to come together and think about solutions—recognizing, again, the hard truths, but thinking about how we can imagine, together, rationally, a path forward out of this tremendous challenge that, in the course of developing a world of marvels that we have around us, we have created for ourselves.

I am very hopeful that many people in this room will join the umbrella effort that Mike, through this event, as well as other organizers, through this event, are initiating, and there are many excellent organizations appealing to you today to join their particular fights as well. I would add the Climate Museum to that list. We would be delighted to hear your comments and questions and to engage with you as we start to build this institution for and by the people of this city and the US as a whole. Thank you.

Michael Burger:

Wonderful! Thank you so much Miranda. So next we are going to hear from Father Samuel Fuller, who currently resides as the Capuchin Friary of St. Anne St. Augustine in Manchester, New Hampshire, where he gives workshops and presentations while ministering with the secular Franciscans. He joined the Franciscans in 2000 after working as a welder, a boat builder and a sculptor, and completed his studies in Boston at the Westin Jesuit School of Theology in 2007. A year later he was ordained as a Catholic Priest and served as the associate pastor of St. Pious X Church in Middletown, Connecticut for 7 years. There he became involved with environmental work through the Franciscan action network, and was instrumental in organizing the interreligious ecojustice environmental network, Riverfront Earth Day, The Hartford Earth Festival and Connecticut Climate March. He continues to work with these organizations, and I ask you to join me in welcoming him here to talk to us today.

Father Samuel Fuller:

Great, thank you so much! Well, just last night, coming out from New Hampshire, I stopped off at an annual retreat of faith leaders involved with environment in Framingham. So, we were about 30 of us, and it's quite moving—I could just stay for the dinner, but it's more than sobering what is going on with climate change. Actually, most people were talking about their own stories almost in the verge of tears, sense of grief. But yet, we know we move forward and there is also a sense of hope.

It's a wonderful time to be a Franciscan; I always tell people—God bless Pope Francis. He has been incredible at offering a great example of Franciscan spirituality. Of course, people have issues with the encyclical, [it] was a threshold moment. I wanted to take a step back a bit to Assisi, the public square where, long behold, the father of St. Francis dragged his son through the streets enraged, as a cloth merchant, that his son was now selling his cloth to support his own endeavors trying to restore a little chapel of San Damiano. The father was enraged and was bringing him to the public square before the bishop, thinking that he would give his son a

comeuppance. And there the town was gathered upon the public square. The family was well known in Assisi, and the father explained his case to the bishop; and St. Francis (or Little Francesco—actually then was a young man, maybe 22 or so) took off his clothes and stripped naked in the public square. He folded them up very carefully and gave them back to his birthfather and said: from now on I have but one father, the father in heaven. This was the culmination of his conversion experience that had been ongoing already. But this was a key moment for him. From that, the bishop embraced him with his own vestment, symbolizing being praised by the church, and gave Francesco some burlap to wear—and off he went.

Well, I say all this because it is a personal story, where hearts are moved and the dynamic, which can also be so polarizing, has changed. One becomes aware of the possible and, indeed, how people can change. To pursue just a bit more about St. Francis, one of the key moments in his life was embracing the leper. This actually was so profound in his life that, on his death bed, in writing his testament, he cited this particular instant and he says what was formally bitter was now sweet through the grace of God. That is to say, in growing up he would run away from lepers, turned off by their visual image, by their smell and their disease—God knows what. But, now, through his own conversion, he decided to embrace the leper and discover the face of Christ—not only that, but also God's love.

What was so momentous about that was, where he has previously experienced God's love before the crosses of San Damiano and being commissioned to rebuild my house or my church, he now was able to go outward and discover that same love in the outcast—in the homeless, the forlorn or what have you—in this case, the leper. So, he saw his ministry as being out there and discovering the face of God in those who are on the fringe, the outcast—in this case, the immigrants, refugees, homeless, what have you.

What is even more moving is that, from there, he was able to even expand his awareness of God's love in creation. You have to think, well, in terms of a bull's eye, maybe, the target icon—the center, and then three concentric circles expanding, one upon the other: first, discovering God's love before the cross; then discovering God's love in the leper, one's brother and sister; and then in Creation. These three, I say, circles, because there is a sort of dance between them—it's not a hierarchy. There is a profound interplay, because this brings us to the key point of integral ecology, which is the fundamental principle of the encyclical.

That is, the same way we relate to the environment is expressed in how we relate to each other, they go hand in hand. This is why Pope Francis is so very clear, Mother Earth cries out and so do the poor, because how we relate to our environment is reflected in how we relate to those on the fringe. There is no better example than Flint, Michigan, where a report was very clear just issued last week that it was a result of environmental injustice—that is, the poor who suffer the most. Not only that, but it's the principle of solidarity. This is what we have to arrive at, that we are not just trying here to concoct a solution—we're going to have to move together in solidarity, embracing the very people who are affected. This goes on to the whole idea of the common good—our economy serves the 1%, we're involved in a self-defeating paradigm here, because we have to include everyone. How moving it was for Pope Francis not only to cite the canticle but also to subtitle it "Care For Our Common Home."

What the basic gift of St. Francis, particularly, has expressed in the canticle—God Bless Cardinal Dolan for citing the canticle—what's particularly moving about that, is that it's only up until in the 8th stanza that St. Francis mentions human relationships. This actually was after the first part was already composed. We have to be clear that St. Francis wasn't inspired in walking in the meadows and hugging trees and being caught up in the rapture of nature and going back home and composing his canticle. Actually, this happened in the final 2 years of his life. He was in great pain; his eyes were in great pain—the sense of sunlight was painful for him. So he's under the care of, actually, poor Claire for a while. He was on a dirt floor covered with mice, he was in despair and so he cried out to God. What he heard from God is that "would you care to be engaged here or rather be prepared for the greater glory that awaits you." With that, St. Francis woke up as in a moment of grace, and was able to compose the canticle. It was a summation of all of his life. But what was even more telling: only about maybe 6 months later, once he learned of the dispute between the bishop and the mayor of Assisi, did he then compose the 8th stanza talking about the need for pardon.

The insight about all of this is that St. Francis regarded creation as an incredible dance of God's love, in which we were privileged guests. That we, as human beings, were not on the top, and nature isn't to feed your own desires or needs. But, if we take the stance of being a privileged guest, and how we relate to creation is totally different; and we become not only privileged guests, but we want to invite others into that, particularly the outcasts. So this whole idea of integral ecology, I come back to that again and again, that this is a sense of solidarity not only with humanity but also all of creation, it goes hand in hand.

Pope Francis takes it even further and talks about intergenerational solidarity. He asks the question: what type of planet do you want to leave our children? This is a fundamental question, are we just caught up in our own needs? The idea is that we do want a plan; we want to plan for future generations. There is the Indian tradition that we plan for the 7th generation. So, this sense of solidarity and interconnectedness goes quite deep and provides the basis of the encyclical. We have to realize the role of faith here, and Pope Francis is very clear that the church of faith is not to provide solutions, but provides the space for conversation, for people to come in where they don't [have] expertise and to be able to communicate in dialogue. Not only that, but also to provide a sense of hope, to bring out the best of our human values that are not simply caught up in this rat race for the latest tweet, what have you. But that we are human beings with profound value and dignity; this is the role of faith, as particularly we heard Cardinal Dolan.

So, what Pope Francis is trying to do is establish a whole new culture, and with that he has to undercut our own assumptions in terms of power, in terms of progress, in terms of our economy and who we are as people. It is telling that in such a moving encyclical that purportedly deals with climate change, climate change is only mentioned 4 out of the 246 paragraphs. What he is trying to do is address the culture which has led us to climate change—it's poetic, it's eloquent, it's moving, and it's rooted in St. Francis. I would encourage people not only to read it, but to use it as part of your conversation in addressing this pressing issue of climate change. Thank you.

Michael Burger:

Thank you, Sam. So our final panelist today is Lisa Benenson, who is the Chief Communications Officer at The Natural Resources Defense Council, where she leads digital strategies and fundraising initiatives, brand and marketing, communications, public relations and research. As everyone in this room probably knows, NRDC is one of the nation's most visible and effective environmental groups, combining the political clout of its robust membership base with a technical expertise and litigation skills of its teams of scientists, lawyers and other professionals. Lisa joined NRDC in October 2013. She previously served as the senior vice president of marketing and communications of The US Fund for UNICEF, as a consultant editor at Newsweek and the Daily Beast, and as an editor and reporter at other newspapers and magazines including The Denver Post and Newsday. Lisa, thank you.

Lisa Benenson:

Thanks very much for having me here; it's an honor to be here with all of you and intimidating to follow the rest of my panel. Nonetheless, I know you all probably know something about NRDC. For those of you who don't, very briefly, we were founded by a merry band of lawyers in 1970 led by the inimitable and irrepressible John Adams—who I always think of as the Johnny Appleseed of the environmental movement. This group of fellows had a really simple idea. They believed that we all have a right to the natural world's essential elements: to clean air, to clean water, to the wild—that those things should belong to all of us. They believed that those things shouldn't be undermined by special interests, that the public interests protected them—and they set out to do that.

For about 10 years, they didn't lose a lawsuit—that's always amazing when I think back on that. Then in the years following that, something started to happen, some dark tide began to rise. We didn't know exactly what it was then, but public attitude began to change—I think it goes back further than 2008. We started electing people who didn't believe in climate change, we started electing people who didn't believe in science. We started hearing from people in the academic universe who didn't believe in science. It became its own field of study, and against that, NRDC didn't win as many cases and struggled. A number of years ago, it began to look at this and say, "what else can we do," because at the same time we were watching what Dr. Sachs pointed to this morning—that change was coming, and it was coming more quickly than we thought, and that we had to act more quickly than perhaps we had in the past. So, we had this recognition that we needed to change and we needed to look at the tools that we have. What are our tools, what do we do?

So, we're a nation of lawyers—although I am not one, and in fact my colleague, Kit Kennedy, is sitting in the back of the room, you should trap her if you want to know anything about energy efficiency and a vast array of other things—she's terrific. But, we looked at those tools and said, all right, here are the things we know how to do well. Our tools are data and science, we understand how to use research, how to use a data driven understanding of problems and how to use those things to come out of that and help us produce insights. We take those insights and those insights help us look at policy, our second tool. What kind of policies can we change? How can we build something like the Clean Air Act or the Clean Water Act or the Clean Power Plan? That is our traditional law and policy work, so we're using data and research and then engaging in policy change and in litigation to create the change we need. We understood how to create solutions and blueprints for change, that's part in parcel of the work NRDC does.

But, what were we missing? Well, we were missing public engagement. We had a membership program and had some sense as to how to activate people. We certainly understood how to activate government and industry, but we were just beginning to do that. And then came along disruptive technologies, a whole other way of looking at the universe of how we impact people—sometime in the last 10 or 15 years, and we have politicians who discovered this quite brilliantly. Power began to shift, and it began to shift, from a story in a newspaper getting an editorial on the back page of The New York Times, into the hands of people—of somebody with a Twitter account, of somebody with a Facebook page, somebody with an Instagram. A President could sit down Between Two Ferns and get a million people to sign up for healthcare; he didn't need an Op-Ed on the back page of The New York Times, he didn't need a story on the front page of The New York Times—although he got it, once he sat down Between Two Ferns.

So, organizations like ours started to look at this shift in the power structure and try to understand how can we attach ourselves to those disruptive technologies, how can we add this to our toolkit, because some of the tools we've been using—they're as powerful as they ever were, but the need is too great and it is changing too quickly, and we have to do something now. The power of doing something now is in the power of getting people to talk, I think that was in your study, Bessie—these numbers of people who are actually talking about stuff.

Whenever I'm asked what kind of good can I do to help out the universe, and what can I do to change this, I say—talk about it! Talk about it, talk about it, talk about it! Put it on your Facebook page, put it on your twitter, insist on having the conversation. We are up against opponents who have been having the conversation and we've stood politely by and we can't stand politely by anymore.

So, what is NRDC doing to change this? Well, yesterday—and I hope you'll all rush out after this and go to NRDC.org—we launched a new website that we've been working on for quite a while. Our website is a tool and tells us a lot about ourselves internally; it also tells people about what we're doing. We used to have a website that really just talked about our expert work and that's where we focused. Well, our expert work is still on that website and you can find it, but you also have a path in and tools to use that will help you talk about it, that will help you learn about it, that will take you ever deeper.

And then, in particular, over the last year we engaged in a process leading up to the Paris Climate talks that became incredibly effective. We have access to some wonderful celebrity supporters who have been with us for many years, Robert Redford, who has been part of our partners and who has been on our board, I think, almost since our birth. I believe he came out in about 1973. So, we had the opportunity in June to bring Mr. Redford to the UN, where he spoke to the assembled 180 or some climate ministers. He was fantastic, they were thrilled, he was trailed everywhere as we walked around the UN. We got a huge amount of press out of that, globally. He did radio interviews afterwards; he did press interviews—we haven't gotten that much press on something in a very long time, and certainly not on the arcane things that we were talking about in front of those climate ministers.

Then, we knew Paris was coming and we sat down with another one of our celebrity partners, Leo DiCaprio and his foundation, and they said, we want to do something to get everybody talking about this in the same way, at the same time. What could we do? So, we

suggested, well let's create opportunities for people to have these conversations in the same way. What do people want to do on social media? They want to share something. They're not going to make their own thing to share, but if they see something that they like, they see something that represents them, they will take that thing and use it. So, we talked to our friends at the UN and we worked with DiCaprio's foundation and we looked at those global goals and we said: you know what, out of those global goals, 17 of them have climate at the heart of them. That is why they are called Sustainable Development Goals; and so we went through every single one of those goals, and we explained why poverty is an environmental issue. Children are an environmental issue, there is nothing that we're doing in those global goals that is not an environmental issue; and we had some of our experts write up background as to here is why this thing is an environmental issue.

We created simple, visually appealing shareables, and then we did this really radical thing that nonprofits never want to do. We didn't insist on branding it NRDC. We did them ourselves within our pages of NRDC, but then we handed them to everybody else and said: Paris is coming, let's talk about it, let's get people thinking about it, you can put your own brand on it—here it is, free! So, those tiles and that campaign were shared in the run up to Paris by all the UN agencies, by the Secretary General's Office, by our colleagues at Sierra Club, 350, Eco America, and a variety of other NGO colleagues. And they had some impact; people were thinking about these things and talking about them. I would like to think that we had some impact on people being able to say "sustainable development goal" out loud and have some sense of what they were talking about.

Then, when we got to Paris, we took that and we amplified it. We brought Mr. Redford, he spoke at UNESCO, he spoke with Bloomberg panels, he did an enormous amount of press for us and using the same themes—we carried those through and again, shared as much as we could with colleagues coming out of Paris. We got something like 15,000 news stories out of our work in Paris. People were talking about it; people were paying attention to a Climate Conference in a faraway city, in Paris, and they were talking about what happened there; and I think it permeated into our culture in a way that probably few of our other Climate Conferences had. So, that's our goal—we have to do the things we are doing and we have to be really good at litigation, we have to be really good at building policy, we have to be really good at the data and research that underlie those efforts. But, we also have to talk to people, because that's the thing that's going to help move us and regain the political power we need to make these changes as quickly as we must. Thanks very much.

Michael Burger:

Thank you, Lisa! So, we are now going to have a little time for some Q and A now and I'm going to exercise the moderators' prerogative and sort of get things kicked off here. I think there will be that same microphone availability for those of you who would like to ask questions that follow.

So we've heard a number of wonderful stories representing a broad range of different approaches to climate change communications: from an academic center that is really using social and behavioral sciences to better understand what's working and what's not working; to The Climate Museum of bottom-up innovation and institution building to directly engage the

public through a museum; to the Catholic Church and the path breaking, one of the most important acts of climate communications that the world has seen in the Laudato Si; to NRDC's efforts to sort of mobilize the body politic and the court to act on climate and other environmental issues.

So the question I have is, what do the panelists see as the issues and commonalities that you are seeing in these climate change communications efforts and what are the solutions that you see that are common among the different approaches?

Panel 1 Q&A:

Father Fuller:

Yeah, well, again, God bless Pope Francis—talk about a communicator! It is about getting the story out. I talk to people about Pope Francis all the time. I have to say, I am up in New Hampshire and there are priests there that have said, "I haven't read the encyclical, it's too political!" I look at them and say, it's not about climate change, so even among my own peers it's difficult, but there is great opportunity and it's about talking about it. Saint Francis has incredible other stories, Franciscan sensibility is about stories and the power of story. So, my perspective is to talk about it through personal story.

Lisa Benenson:

I think this notion, and it's an odd thing to say in a political year, but I think this notion of trying to find a path to depoliticizing our work—it shouldn't be a political question; it is and that has been something that came over a long period of time in this country. I think this notion of tying these things back to people's lives. We filmed someone a couple of years ago; we filmed a bunch of ranchers in the Midwest who didn't really like to say the word climate change—it wasn't worthy to say out loud in their communities, but they said "you know the weather has been weird, we've never seen something like this happen year after year." And, I think, having these conversations is an important piece of this and the work that Yale has done on helping us all understand the importance of talking about solutions and giving people hope.

Miranda Massie:

Just one thought, Mike, thank you. I think, to me, the common story comes out in the panel about what's difficult is what you identified in the beginning—it's the hard truths on the one hand and the basis for real hope on the other side. At times there can seem to be an enormous gulf between those two things, and we have to dwell in both of those spaces. We can't candy coat the reality on the one hand, and we can't insult people's intelligence on the other hand. It is very clear intuitively, and the research backs this up, that we have to focus on solutions and so, to me, the common thread of a solution that also emerges from the panel is the idea of people coming together to talk about these issues and to figure out what our priorities are, as Professors Sachs was suggesting—whether it's on the level of national energy policy or on the level of what we decide to do together in this room at the end of the day. But, it's people coming together and recognizing that we are not alone in confronting this and we can't be in order to succeed.

Bessie Schwarz:

I guess I'll just contribute that I agree with pretty much everything folks are saying here. Hope is really crucial, but we know, and this is a little depressing, that only about 4% of Americans say that we can and will address this problem effectively. Many more people think we can but just that we won't. So, these numbers can often provide pretty high bench marks where we have to go from the messages and the major goals that we have right now. But, I think one of the most underlying things I have seen in this panel is that the power of, just, stories and talking to people, connecting with them, in ways that this issue is meaningful to them. If you think about other critical issues like the civil rights movement, the civil rights movement was mentioned, these things resonate deeply with people's values in ways that can underlie the culture wars that this is wrapped up in and have much more resonance and salience going beyond. So, the question really is how you have so many of these personally meaningful conversations, and a lot of the work that NRDC has done and continues to do. But, I think broadening the leaders and the coordinated efforts that we have to inspire these conversations is really critical, because we need to have leaders and organizations that look like the full diversity of the US represents their values, who they are and the backgrounds that they come from, if we're actually going to come together in a collective around this.

Michael Burger:

Wonderful! So I think we have time for a couple of questions.

Steve Kass:

Thank you very much, it's a wonderful panel! I read the encyclical and I have a question that has been troubling me listening to you all, because everyone is in agreement as to what we should do. My question really is for Father Samuel and for Bessie, what I heard expressed is that we're all in this together, you're very hopeful in that sense. But, Bessie says that people pay attention to the here and now and what affects them. So much of the impact that climate change has here and abroad will be for people who are not me and not my family—how do we take what you've learned and message this to get people to reach out for the benefit of others beyond themselves.

Father Fuller:

Well, personally, Bernie Sanders is doing our country incredible justice—I don't care if he's elected or not, that's not the point. He is bringing together a youthful people who are engaged with the issues of here and now in a radical way, they're not just promoting a party line. But, somehow up in New Hampshire we will be tapping into that, I'm involved in the natural gas pipeline opposition and we've reached out to their campaign there just to get people on board. But, it is people, particularly the younger generation, who are particularly most affected and somehow I don't have any concrete plan, but personally there seems to be an inherent structure in the Catholic Church, parishes, I'm working with some Franciscans so I'm giving seven presentations on the encyclical this month up in New Hampshire. So, I don't know, that is one's

personal effort, but I am talking at Riviera University. But the idea is to put yourself out there, I don't have a structural scheme up. I don't know, is that helpful?

Bessie Schwarz:

It's an obstacle no matter what; I think this is a great question. It is certainty much more difficult for us to consider something that is uncertain and in the distant [future] rather when something is hitting us in our faces. But, that doesn't mean that it's impossible. In some ways climate change combines a lot of factors that make it difficult to reach salience and this is why it's so subjective. A lot of people in our field have said that an issue couldn't be more designed to have less salience in the human mind. But, that certainty doesn't mean that it's impossible, and you see a lot of great examples of making it feel meaningful today; and people can have significant and deep concerns or worry over things in the future—and I use the word "concern" and "worry" over "fear" and "be afraid" intentionally—I think that is a theme on this panel as well. Worry and concern can last much longer than fear. You worry about your kid's college fund for a long time, you worry about your parents for something that is going to happen in the far future in a way that inspires lots of clear planning. So, I think it's an obstacle and I think we just need to be strategic about how we do it, and I think a lot of the insights from this panel about making it meaningful and personal are helpful.

Panel 2: Thoughts on Aligning Actions to Amplify Message

Jeff Gracer: Thoughts on Aligning Actions to Amplify a Message

Hi everybody, I'm Jeff Gracer and I'm going to be moderating this second panel: Thoughts on Aligning Actions to Amplify a Message. There is a famous quote from Nelson Mandela that I love: "it's always impossible until it's done." So, we heard about avoiding gloom and doom and rolling up our sleeves and getting to work, and this panel will include observations about how to do that both in government and the private sector, as well as how to message the efficacy of actions to address climate change. Just to give an example that other people will not be speaking about, maybe we should have a Fitbit for carbon reduction efforts, that we can have on an app and aggregate and get some healthy competition amongst our friends. There are many, many different ways that we can point the way towards making this happen and the focus here is on New York City but also more broadly, global efforts.

Our first speaker will be Peter Boyd, who is a senior advisor and climate lead for the B Team, an international NGO formed by Richard Branson and other business leaders to catalyze positive business practices. The rest of people's bios are in the packet, so I won't go on at length, but Peter is also CEO and founder of The Time for Good Group and is an executive fellow at the Yale Center for Business and the Environment. So, we'll start with Peter and then we'll go from there.

Peter Boyd

Hi, good afternoon, everyone—can you hear me ok? Great, excellent! We want to get on to the discussion, it's been a diverse range of speakers and lots to go through; so, I am going to speak fast in a strange accent and hopefully that's ok. As it says on my title here as well, the

business opportunity in a post-Paris world, I am very versed to talk about or I am keen and enthusiastic about, the legal bits in brackets—so treat me as a non-expert enthusiastic outsider.

In ten minutes then, I want to cover three things, the context and trends that have got us here—we've had such a great speech earlier from Dr. Sachs and that can be even quicker but really that's sort of the pre-2015 story as I see it. Then there is the 2015 story of net 0 and Paris. And then, hopefully, that closes with some thoughts on how you/us in the room can do something differently, which is always important if you take so much time out of your busy day.

In terms of the context, Dr. Sachs has covered this already: 15 out of the hottest 16 years have occurred since 2001. GDP has already hit 1% and is forecasted to take a 3% hit—the problem is that it's almost a 10% hit forecast in the countries and for the people who can least afford it. Interesting as well is this idea around climate, people and poverty around these STG's that we previously mentioned. They are not mutually exclusive sets; 26 million people have been displaced since 2008 per annum out of climate reasons vs. 6 million on pure conflict reasons. But, obviously, those things are not as, to say, mutually exclusive sets and that's up massively on previous years.

For those of you in the room, I imagine this profession has clients at a diverse range of political spectrum. So, as per Dr. Sachs, say that if you don't like the words "climate change" you use the word "anomalies." I do like the Noah's chart of anomalies and temperature anomalies. I had to include February's because if you just see, again, historic, and unprecedented in a bad way, what February has done to those anomalies. Just to reference but just make clearer on a visual chart, what the last 60 years has meant in the context of the last 10,000. Farming was invented four times in different parts of the planet at around the same time 10,000 years ago and you can see why. Because around about that time the temperature didn't vary as much and we could actually settle somewhere.

So, really, what we are talking about here, and there was an age mentioned by Dr. Sachs earlier, this age has been known by many as the Holocene, here where it is conducive for us to live and create societies. But, potentially we're entering a new age, and Dr. Johan Rockstrom and others have coined the word "Anthropocene," where we're entering the age in which humans are actually the dominant force ecologically on the planet. So, we're in danger of basically disturbing that lovely little period there in the red oval. Rather than use up precious time, when lots of you are well versed on this stuff, I just wanted to drop in one mega chart from Dr. Johan Rockstrom. There's a Ted talk on this, so just go there instead. But, it's just showing all the things on the left that we are doing have created these Earth system trends on the right and they are all hockey sticks. As others have said, now is the time for action, and we may be even too late for many of these things. Then, that's the name to Google and go and watch Ted talks at your leisure.

For a business audience I also quite like the concept of the balance sheet as well. There's all these graphs that are effectively P&L's, and you are seeing an annual figure that is either bad or good or whatever it is. But, remember as we do in business, the balance sheet. The balance sheet is equivalent to looking at this coral reef here, and then you have made too many losses over too many years and have had bad performance for too many years, it turns to this. That is the balance sheet effect of our way we run the planet, and it's worth having this in mind, as a

business audience, what we are doing on the planet—both in our annual P&L basis and the cumulative effect on our balance sheet.

I've got lots of P's for you to try and condense all those trends into all the pre-Paris stuff going on. I think the most exciting piece is that we're moving on. Notice the word climate change isn't in there and it doesn't need to be in there. The notion of planetary boundaries—this idea that, no matter what you call it, we are stressing the Earth's systems; and if the Earth were to be an interviewee with scientists interviewing it, these are all the 9 planetary systems that start to get stressed when we do too much to it or consume too much and we're not fundamentally sustainable.

So, that scientific progress on our understanding of what we are doing to the planet is fantastic, and it's only been getting better and better. The other understanding that I think has been getting better is the problems are getting enlarged. We are getting more conversed and working this out as a whole system and, just as Dr. Sachs says, the wind in the US with the hydro in Canada put together, that's a system. Eisenhower's quotes, "if the problem is too big, enlarge it, and if it can't be solved, enlarge it."

The people piece is very interesting. I read the Laudato Si earlier, but the pretense is over in just about every country other than one half of this one; and people care more right in this very city. I mean, who here was in the 300,000+ climate march? Fantastic, this is a good city to be asking this question to—you didn't have to go far. But, what is interesting about that is that was real democracy; and one of the most exciting phrases that I heard was "this is what democracy looks like," and this idea that people care more.

Also, there is this pivot to opportunity. Who here has heard of the McKinsey cost curve? Anyone? Good show of hands! It's, basically, if you wanted to draw an S curve through a table napkin diagram of how to solve climate change—you have the x axis of the tons of CO2 that you need to get rid of (not emit in the world), and the cost to do that is on the x-axis. So, the stuff that saves the world money is on the left and the stuff that costs the world money but gets the tons reduced is on the right. That pivot has actually happened by the same authors over 2015, where now we are gratefully talking about profit. So, the stuff on the left is, we can save carbon and make money at the same time; and the stuff on the right are all the initiatives that cost a bit of money but will get us there to where we need to be. And that's all been happening pre-Paris.

In Paris, net zero. I think the most interesting and most exciting piece—and if I were to sort of add my opinion on this and enter it into to the discussion—the concept of net zero has really blossomed within this last year of 2015. Started in COP 20 in Lima, but the notion, simply, is leaving the campsite as you found it—the concept of net zero. So, whether it is energy, whether it's water or whether it's waste—and it's actually made the final text of COP 21. The definition of net zero now has been agreed now as a target by 196 nations.

So, how has the world changed in Paris? Basically I think that audiences like this, we haven't yet realized the four main pillars that have changed the world coming out of Paris. The first one was the agreement itself. Historic, 196 nations signed up to the 2 degree goal with the aspiration of 1.5. Second, was the INDC—196 national plans coming in and saying this is what we're going to do about it. Third, 100 billion of financing has been agreed to, and that's just the

minimum government stuff. We have recognized that private sectors are going to deliver far more. And fourth, the non-state actors, the idea of cities and companies all jumping in, and all this happened in one agreement.

So then, what does that mean? I've got my two minute warning here to go even faster than the first 8. We've really got to go, I think, from—as the UN did—moonshot to megawatts. The UN, effectively, and all the other 196 nations gave us a vision and destination, but they didn't tell us how to get there. I suppose in a legal audience I'm suggesting we go from a draft MOU to some deals and some contracts. So, net zero can work at a variety of levels, community, campus, company, countries and the world at large—these are just some of the things going on, whether it's my complimentary story to the ones earlier, like the businesses looking at Paris and calling for net zero. Yale is starting a discussion net-zero think project at those four levels and my hometown of Westport is amongst many towns targeting net-zero.

So, what are the opportunities for you? Non-state opportunities—that fourth pillar—I think there is a huge amount for the legal profession. Just take these numbers, 554 and 458—that is the number of companies on the left that have, in the hubris of Paris and the excitement, all pledged to do something. Now, we are sitting here in the quarter one of 2016 and don't know how to do it: whether it's renewable energy at 100%, whether it's reducing their emissions, price on carbon, etcetera. And the cities are the number of municipalities that have done the same thing in the compact of mayors. So, We Mean Business coalition on the left, Compact of Mayors on the right. There is a huge change in tides here which, I think, people in America, we're not as exposed in the media—as was proven by Bessie earlier—to this as much as the rest of the world. But, where is your company going on this? Where are your clients going on this? Where are your deals going on this? Here are just some of the headlines that are showing this tidal shift. Just the quick one here from today I saw on my twitter feed: "The World's Biggest Bank, the Chinese Bank is now Screening Environmental Stress Tests."

So, in closing, the key piece here, I think, is that we're moving from a burden to a race, and that works at the US vs. the rest of the world. The rest of the world doesn't care if the US doesn't do much—yes we do care in a general sense but, really, the rest of the world is pushing its foot on the accelerator. Why have I got a photo like this up here? We've moved away from the Stone Age, not because we ran out of stones—and that's really important—we're going to move from the fossil fuel age, not because we've run out of things to dig—we're going to go there because the fundamental economics and the moral drivers are all heading in the same direction at the same time.

Last piece here is really to say that we've got to do what we can, where we are, with what we have; and for us, I think, in the room—what is your local touchpoint? Is it like our own little Westport Screen task force, which is my connection to Sally and a few others in the room? Is it the corporate industry level? What are you doing as a bar association in your own company? And, globally, what can you do to actually change the world—this is the home of the best and brightest? And, why is that picture there? No one hits that do what we can, where we are, with what we have more clearly than Fiji. In the same week they were hit by Hurricane Winston, they were the first nation in the world to ratify the climate change agreement of Paris. If that doesn't sum of the spirit and highlight what we've got and what we can do. So, with that, there is no Planet B. So thank you very much, and I'm looking forward to this discussion.

Jeff Gracer:

Thank very much, Peter. Our next speaker is Nilda Mesa, who is the director of Mayor de Blasio's Office of Sustainability where she's been instrumental in developing One New York, a long term sustainability plan and for a strong and just New York City. She previously held positions at Columbia and at The White House Council on Environmental Quality and EPA. Nilda will be speaking about what we are doing right here in New York City to advance the ball and how to message those efforts in a way that gets other people on board.

Nilda Mesa:

Good afternoon, thank you, Jeff, and to The Bar Association. I am a recovering Catholic and a lawyer so I feel right at home today. So, I'm going to give you a bit of an overview and a bit of a framework around which we are hanging our efforts here in New York City and give you some examples of things that we are doing. This is not at all comprehensive, but this is just to give you a sense of how we in New York City are approaching this.

Cities are where the rubber hits the road, so those of us on my team and in my office say, "well, we hate to be bored," and we are never bored with what we do. One New York, One NYC—we launched it a year ago Earth Day; we're going to be coming out with a progress report this year, April 22nd. We're built on the fabulous foundation that was laid by the Bloomberg Administration with Plan NYC. The major addition that we added to this was equity to the considerations of growth, sustainability and resiliency. The reason we did this was because we said to ourselves—so 1625, that was when New York City was founded, and 10 years from now it will be the 400th anniversary of the founding of the city. And, what is it that the city needs? Not what can the city government do but, what is it that the city needs in order to be sustainable for the next 100 years and what's the groundwork that we need to lay with that?

We took a regional approach, we did a lot of data diving and a lot of research to come up with this; and the day we launched it, the mayor himself said something along the lines of—we can't have a sustainable city without one that people can afford to live in. So, you know, this is my effort to show you kind of how we think of it and show you how, really, this is all interconnected.

I'm going to spend most of my time today talking about the greenhouse gas emissions efforts but, these are two other goals that we have in One NYC within sustainability that relates to our GHG efforts. Just to lay some ground work for you all, so the city's population is at an all-time high, and we are expecting it to reach 9 million by 2040. Some of the interesting things that we found was that, while Manhattan continues to be the largest in many ways, the rate of growth is really fastest in the boroughs outside of Manhattan, with the exception of Staten Island. This has all kinds of implications for things like transportation; job growth is also faster in the boroughs outside of Manhattan and, again, this has implications for things like public transportation and where the jobs are and where growth is likely to be. At the same time, while our economy has never been stronger and there have never been so many jobs, the percentage of population below the poverty threshold is enormous. So, those who are at or near the poverty level throughout New York City, it's 45.1%. Yeah, wow is right! This is a big reason why we included equity in this.

So, climate change 21st century threats—these are the preliminary flood maps that are put out by FEMA, and you can see the difference here in colors between what was predicted before and what FEMA itself is currently predicting. This is from our own research from the New York City Panel on Climate Change which updates its research and its findings every year or so. So, you can see how deep the flood plain is projected to reach—potentially this is the kind of change that we're looking at and we have to plan for as a city.

Now, I bring up air quality in here because, again, tied to the theme that these things are all interconnected, when we're looking at combustion of fossil fuels they also create a class of air pollutants. So, we have some of the highest rates of asthma in the US, and it's interesting because they're concentrated in the low income layers of the city even though the air quality doesn't necessarily correspond to that. So, when we're looking at ameliorating the effects of climate change and greenhouse gas emissions for New York City, that also means improving air quality—and this has a tremendous impact on the future of our residents and their ability to participate in the economy. The largest reason why school children call in sick is because of asthma, and so, if we can look to these co-benefits, then we take care of more than climate.

So, this is a snapshot of what we've got ahead of us. The mayor announced in September 2014 that the city was going to be adopting a goal of reducing greenhouse gases emissions of 80% by 2050. We have interim targets, last September he also signed onto the Under 2 MOU, which is a subnational agreement; and, again, along the lines of cities and states but, particularly, cities is where the rubber meets the road, and so we're not holding back. There is a tremendously effective network of cities and sustainability officers like myself who exchange information.

What we are looking at is that 70% of greenhouse gas emissions in New York City come from buildings and how they are operated. About 22% comes from transportation; and that is much lower than the US—the average in the US is more like 40%. And solid waste makes up about 7%.

New York City only has about 2% of renewables in its entire electric grid, which is a problem. So, one of the efforts that we focus on is: how do we focus on using the power of the city, or the purchasing power, to try and improve that? So, we work a lot with the state, Feds and NGOs on various efforts to improve that. So, here is a bit of a snapshot. This is kind of our initial take on the amounts that we will have to be reducing within these various areas. Just about a year ago, the city set up a buildings technical working group in order to address the buildings emissions with about 50 stakeholders co-chaired by the Real Estate Board of New York and Urban Green Council. We'll be releasing a report of the recommendations from that group, but there are various strategies—some of them, again, with diving into the data and using what it is that we are able to know from the building owners who are required to submit building performance data to us. Some of the things we found are: there are some very big differences in how buildings perform based on their usage, age and so forth. So, this will include some pretty targeted strategies for that.

In general, one of the things that we've discovered tends to work is providing data and transparency as well as education and coaching to people who we want to engage and who we want to have change things. So, we established the retrofit accelerator a couple of months ago to reach out to buildings that are 50,000 square feet and above and, essentially, be the coach and

mentor for them to make it as easy as possible. It builds on the clean heat program, which is another one that achieves co-benefits of reducing air pollution as well as greenhouse gas emissions by having the buildings with boilers.

Here is another one of our programs, this one is entirely voluntary and started with universities. It has had a tremendous impact! You can't underestimate the effects of peer to peer education and peer to peer networks. Having been on the other side of this when I was at Columbia, I can attest to the fact that we would look at NYU and NYU would look at us. We would look at St. John's or Fordham or whoever and say, wait, how did they do that? But, we all learn from each other. So, this peer to peer network is quite effective. Here is a quick graph showing some of the networks. In the city, solar energy has been booming the last few years and we predict that it should continue to boom. This isn't required, but the secret sauce is there.

I just want to close with—we have a public education program that has been going at this for quite a while. Birdie is our mascot, you may see Birdie on the sides of buses and in subways and so forth, and we've done a lot of research on this. Part of why this initiative is effective is because we appeal to New Yorkers as New Yorkers. So, we appeal to them to carry out their civic duty and affect and say, all New Yorkers are doing this! Join the many new Yorkers who are doing this! The messages are very positive, they're not shame-based—unlike some of the messaging that you see coming out of this subject area—and so, as a result, people feel empowered and they feel informed from doing this. So, I feel that in looking at what are effective ways to reach out to people and address the issues that are coming up, I think they need to feel empowered, and I think they need to know what it is they can actually do instead of feeling like they're frustrated and everything is hopeless.

One last thing, I have a 16 year old daughter who is obsessed with the musical Hamilton, not that we've been able to see it, not that I'm going to be able to get tickets until she graduates from college. So, we listen to the music a lot, over and over again. There is a refrain that runs through several songs in there that says something like, "look around, look around, see how lucky we are to be alive right now!" I've been in this field for a really long time and, I have to say, I think that really sums up where we are now. We are at a crossroads. The technology is there that wasn't 3 or 5 years ago. The structures are being built and, while this is very difficult, it's a very exciting time to be in on this field. Thank you.

Jeff Gracer:

Thank you, Nilda, and I know that The City Bar has a long tradition of working with your office and the predecessor office. I think many of us in the room would be willing to help with other industries, other avenues for moving the carbon footprint down. So, we look forward to continuing the conversation.

Our next speaker is Sally Fisk. Sally is the senior environmental attorney in Pfizer's environmental law group and is also lead counsel and strategic advisor for the company's global environmental sustainability program. She is also an active member of the Environmental Law Committee, and Sally will be speaking about Pfizer's efforts to use its market forces both internally and externally to move its carbon footprint down

Sally Fisk:

I wanted to thank you, Jeff, and thanks to Mike and The City Bar for giving me the opportunity to speak with you today. This is an issue that I'm personally passionate about and that I have also been lucky enough to work on at my company. So, I will be providing a bit of an overview of Pfizer's program today, and it's meant to serve as an example. Just one example, there are many companies in this room that are doing extraordinary things on climate change and all of whom can share their learnings with you on this subject. So, as you kind of go forward on these breakout sessions, we wanted you to have a corporate perspective on how one company has been addressing this issue and the steps we've taken on some of the issues we've learned.

So, we are a very large multinational biopharmaceutical company. We are driven by science, we make medicines, we make vaccines and we also make consumer products, some of which you may have heard of, like Advil, Chapstick or Emergen-c. Our climate change and energy program started well over 15 years ago, and it was developed initially by some very visionary environmental lawyers and environmental engineers in our company who were really forward-thinking thought leaders, and some of whom are in this room today. Hopefully you will find some time to speak with them and hopefully I do the program justice in speaking with you about it today.

Pfizer has long recognized the potential impacts that climate change would have, not only on the environment but on human health; and, of course, as a healthcare company that is an issue that is particularly important to us, so I don't need to go into this in great detail because this audience knows well those potential impacts. We have been heartened to see that more and more of the dialogue around climate change focuses not so much always on melting ice caps but on the impacts that any one of us or our families could feel as a result of this issue—whether its increased asthma, increased respiratory diseases like asthma, cardiovascular diseases, prevalence of microbial diseases and vector-borne diseases, where we have all seen it on the news and are all aware of it.

So, Pfizer's climate change program falls into three main categories. I would love to spend all day talking about all of them with you, but we're going to focus on the first pillar which is our mitigation program. Pfizer has had three greenhouse gas reduction goals—we are in our third currently. We also have programs to address resiliency and adaptation and business continuity. We are considering how we might address health impacts. We also have an area of our program that focuses on our policy position, transparency and disclosure, because so much of what we do needs to be communicated to our stakeholders, both internally and externally.

So, let me talk about our mitigation efforts. This is a rough approximation of Pfizer's fence line, or where our facilities are located—it's our bricks and mortar and it's where our first and second generation greenhouse gas reduction goals have focused. Our first generation greenhouse gas reduction goal and our second were both 20% absolute goals. We implemented a lot of energy efficiency projects in order to achieve those goals. We also implemented renewable energy projects. But Pfizer is blessed with a great team of engineers that were able to find terrific efficiencies by doing concrete projects. So, in achieving our second generation goal, for example, we implemented about 1500 projects which realized about 85 million in annualized savings. So, making the business case to the CFO and explaining the program in terms of

financial return wasn't terribly hard. But, of course, as we get deeper into these energy efficiencies, the low hanging fruit, so to speak, gets harder and harder to find and it gets harder and harder to find the reductions.

So, after we achieved our second generation goal we didn't want to stop there, we needed a third greenhouse gas reduction goal—and, in deciding to set that goal, we wanted it to be meaningful, not only to our company but in the broader global contexts. So, we looked at the IPCC stabilization scenarios, we had an EDF fellow who was working with us and who helped us take these complex scenarios and break it down into what it might look like for a company like Pfizer to reduce its greenhouse gas emissions in line with scientific recommendations to achieve at least a 2 degree stabilization; and we determined it would be about a 60 to 80% reduction from a 2000 baseline by 2050 in order to achieve that stabilization. We mapped it out so we said, we know where we have been, we know where we are going and this is just an example of what it could look like if a company was to take a science based approach on setting its target. This was, of course, an important exercise, because it showed us that even though we weren't achieving larger reductions in the earlier years of our goals, we then needed to make smaller reductions to get us to 2050. It started to look a little bit manageable. Well, when you're talking about 2050, which is one of the themes Professor Sachs mentions, one of these long time scales and how, sometimes, it's difficult for individuals, and certainly for companies, to think about 2050. We don't know what our company would even look like in 2050; we hopefully will all be retired by 2050. So, it was harder to think about it in that long time scale, but much easier to put a nearer term goal in place and, of course, easier to get management to buy into a nearer term goal.

And, again, getting back to this idea that we were able to do this through some small projects and some big projects—but, because of our big fence line, and because of our global scale, it ends up being a lot of projects that have a lot of reduction. So, from 2000 to present, we've implemented over 3000 projects—most of those are energy efficiency projects, like changing light bulbs and closing biosafety cabinet hoods. Some of them are larger projects, like wind turbines or solar panels, but they were all sort of manageable in scale and implemented by our facilities. We were able to save over 800,000 tons in CO2.

So, we set our goal and got management to buy into a longer term vision, but with a shorter term actual goal date. We got it approved as a science-based target which, we think, is very significant, because it shows that you can use science to drive internal target setting. We set some other goals—the last one is important, because while we were doing this we recognized that, while this is Pfizer's footprint, this is what our footprint looks like when you add our tier 1 and tier 2 suppliers, and this is what it starts to look like when you add in even more suppliers. So, we have a tremendous reach beyond just our own bricks and mortar; and we set a goal for ourselves to communicate this important issue to our suppliers, and this is just a first step. We have a long way to go. There may be other companies in this room that may be farther along in this process than we are. But, we need to communicate, to those we can influence, the need to also reduce their greenhouse gas emissions; and we would like to communicate to them that they need to do it in a way that is meaningful, which we see as being aligned with scientific recommendations.

So, it's not just Pfizer that has this opportunity. All corporations, institutions and individuals have this opportunity to use our scale, to use our connections, private governance—where it makes sense to help encourage others to take the same step we're taking to reduce our emissions, and that it's possible. It's possible through projects; it's possible by breaking down these long lead times of 2050, 2100, into simple, manageable, single-digit reductions, year by year.

That graph that we're looking on from now to 2050, we're looking at 3% reductions per year. If we can stay on that trajectory, we have hope of perhaps achieving the goals that we need to, hopefully, by 2050. So, this is the message we've been using internally with our management, and it's a message we will be taking to our suppliers.

We, of course, also—this is a communications panel, so—we get our message across externally as well. We have a blog, doesn't everybody, so here is our 365 blog. Leading up to Paris, we talked about our efforts to address climate change, the importance of the issue as a global health issue, and the importance of the Paris negotiations. We have a website, we have a position statement. We've made the link between health and climate change externally. This is done primarily for our stakeholders who are interested in this; I don't know that most of the general public is researching what Pfizer is doing on climate change. I don't know how many of you have ever researched what we are doing on climate change. So, there's got to be a way of communicating more broadly to the public on these important issues. And so, with that, I don't want to use any more time, so I will wrap up. Thank you.

Jeff Gracer:

Thanks very much, Sally. So, that is a great example—saving money and starting with the low hanging fruit, and then working slowly towards the harder task. That is something we can take to our clients—how would you like to save 85 million dollars next year reducing your greenhouse gas emissions?

So, our last speaker is David Fenton, who is chairman and founder of Fenton Communications. He has been called, by the National Journal, the Robin Hood of PR; and he's pioneered the use of PR, social media and advertising techniques for social change. You've heard of MoveOn.org—David was behind a lot of their web-based initiatives. So, it would be interesting to hear David's perspectives on how to message these efforts and how to use communications to get more people on board.

David Fenton:

Thank you. So here we are in New York, the media capital of the world. And as you saw from the Yale data, Americans are only exposed to a story about climate change about once a month. Now, this is a terrible failure of our media. You know, the way people learn things is through repetition. So, if we are only exposing them to this about once a month they are not going to learn, and they certainly are not going to understand how urgent this situation is. This is an emergency and in a sense, Paul Revere has yet to ride to proclaim the emergency.

Look at the figures, the American public, only 46% of them believe that humans are changing the climate. And only about a third of that number thinks it's an urgent problem. Now,

we've been working on this for 30 years—and I think we need to recognize that we need to step up our game, because we can't win with 46%. It's just impossible; and the United States really is the world's primary problem in this, because we set an example for the world. I mean, look, you're in other countries and you look at our Congress, you cannot get 51 United States senators to pass a simple nonbinding resolution that just admits that humans are changing the climate. How pathetic. So, other countries look at this and say, well if these yahoos aren't going to do anything, then why will we? We've made progress, it's true; but, as Bill McKibben likes to point out—we are not making progress commensurate with the physics of the situation, and we need to go faster.

Now, this is a very difficult communications challenge. But the good news is, really, we've hardly tried. So it's difficult. But if we try harder, I think we can do very well and speed up the urgency and cognition that is necessary to get what Lincoln always talked about: which is—without public opinion, without public support you have nothing. And we don't have it yet.

So, why is it hard? Well, you can't see climate change, you can't taste it, you can't smell it. It appears to be off in the distant future, even the President most recently talked about it as affecting the future generations. You know, I have a friend who's a social psychologist, and he has a suggestion for how we should talk about climate change. So, we should put out a story and say, you know, that the CIA has discovered that the North Korean government is pumping a dangerous gas into the atmosphere that is raising global temperatures, sea levels and the price of food! What would people say? Go take those mothers out tomorrow! And you would say, haha it's climate change—different frame of reference, right? Or, a giant asteroid is headed for Earth, it's bigger than the one that wiped out the dinosaurs, and it's going to hit us in 10 years. What would everybody say? Get those rockets up there! And you would say, haha its climate change. So, we are not succeeding, and I think we have to face it. Ok, we've made some progress and people are doing really great things but, if you look at this as a marketer would look at it, what would you see?

So, in communications, your first principle is: have a simple message that you repeat, and everybody says, until you're sick to death of it. Lawyers hate this. And make sure it works for your target audience, and guarantee that simple message is repetitively delivered to your target audiences until it syncs in. Now, you know this guy, Trump—he has a simple message. I like to call it, Make America White Again! Bernie has a simple message, and it's really working for him—the economy should work for everyone, not just the 1%! So, what is our simple message on how humans are changing the climate, that we all use all the time and that we know works? The answer is, we don't have it. What is our simple message for how to solve it?

Another very challenging heart of this issue is that people's nervous systems shut down when they hear that the room you're in right now will be under water by 2100, which it is the trajectory that we're on. People need hope, primarily, in order to even consider the enormity of this.

So, another question you ask as a marketer is—who are our well-known spokespeople who are delivering this message repetitively to your proper target audiences for that spokesperson? Well, if you go out on the streets right now and you interview people and say, "who do you associate with the term 'climate change,'" what is the answer you're going to get?

Al Gore—and he is a hero and has done a lot for this issue, more than anyone. But Al Gore doesn't work for everybody. And Al Gore isn't enough; you can't penetrate a culture and change awareness with only one spokesperson.

Now, there are some fantastic spokespeople out there; there are even some fantastic Republican spokespersons on this issue, believe it or not. But, they are invisible, because we have no coordinated strategic effort to make them well known. These are very simple things, and they're not even that expensive. For example, we have a very difficult problem—you can say the strategic problem for the world is the partisan split on this issue in the United States of America, and most of that comes from the perceptual machinery in Washington D.C. It comes from what you can call the conservative media bubble! I mean look at this, The Wall Street Journal, the nation's largest newspaper by far, still says climate change is a hoax and the Earth hasn't warmed. How embarrassing! Fox news says the same thing—so how do you expect conservatives, libertarians and even moderate Republican business leaders to learn about this, given that repetitive falsehood that Jeff talked about this morning.

But, we're not powerless to do something about this, not powerless at all. I ask people, "how much do you think it costs to buy a 30 second television ad just on Fox News, just in the important media market of Washington D.C.?" Does anybody have a guess—one thirty second ad on Fox News in Washington? The answer is, 300 dollars; and in New York it's probably 1000. Ok, so what's interesting about this is that you wouldn't just buy one 30 second ad (it wouldn't do you much good) unless it was really controversial and got a lot of free media coverage, which you could do. So, the reason that we don't do this as a community, a very well-funded community, the climate movement is wealthy—is not because we can't afford it. It's because this is not a part of our DNA.

You know, lawyers, scientists, academics, policy people, people in the public interest world—essentially, people who come out of the sciences and humanities, we have what you can call an enlightenment fallacy: which is that you present the facts quietly and rationally, and people in power make the right decisions. And I don't know if that was ever true; but, if you've noticed, it's not true now. It doesn't work.

And who are we up against? We are up against evil marketing geniuses who go to business school and who have had to hone their craft in selling, successfully, products and services, including creating artificial demand, who have successfully spread incredible confusion and falsehood. They know cognitive science, they know how the brain works, they would never approach anything without simple messages, guaranteed repetition, multiple spokespeople, etc.

What do we do? We put out papers and reports and have conferences, and it's great and it's important and there are real reductions being made by companies—there are fantastic things going on. But, we have to reduce 5% a year over the next 20 years; see any evidence of that?

So, there are lots of things that we can do and it doesn't really cost that much. So, I would just say, in closing, this is New York City, we can raise the money here to do what's necessary. And our media here, some of you have them as clients, frankly, I think you should be picketing their apartments; it's amazing how irresponsible they're being about this. So, let's do something about it! Thank you very much.

Panel 2 Q&A:

Jeff Gracer:

Thanks very much! I think we have about 5 minutes for questions, does anyone have questions? I think a question was stated about pulling back from the shoreline.

Nilda Mesa:

I'm going to start with the CSOs and so forth, that is actually something we addressed in OneNYC a year ago. If you go to our website NYC.gov/sustainability, you can see how we've approached it in this administration. We will be updating that report with the progress that we've made on the last year on that. We're doing a lot more things, like bioswales and green infrastructure, throughout the city. There is a very big focus on flooding in places like southeast Queens. The building codes have been changed for buildings that are along the shoreline. We also received hundreds of millions of dollars from HUD to construct barriers along the east side of Manhattan, to basically protect the lower east side. There are actually quite a lot of people internally who are working on what it is that we need to do to protect the shoreline.

Jeff Gracer:

The question is: what would David Fenton's one line slogan for the movement be?

David Fenton:

So, I am pleased to report that, after six years of trying, I just got a grant to hire six top creative professionals in New York to figure that out and test it.

Jeff Gracer:

So, stay tuned and congratulations! I'm sure there are many other questions. But in the interest of going to the next phase, which is our internal meetings amongst ourselves to come up with ideas, I wanted to introduce Kevin Healy—and thank the panel members first and foremost for your contributions—and introduce Kevin Healy, who will introduce the next phase of our discussions.

Kevin Healy:

Thank you, Jeff! So, if you think you've had fun so far, the next phase of this session is going to be terrific. You may be wondering why you're sitting in the New York City Bar Association building. You haven't heard a lot about climate change in the law today, and I would like to just talk a little bit about what we're up to. We're hosting this conference primarily because we believe that it's time to get something done on climate change, it's time to stop the nonsense; and we believe, as lawyers, that the best way to do this is on a comprehensive level and on a national level. But, for many of the reasons you've heard today, nothing seems to be

happening in Washington on this. And, we also know that nothing is going to happen on this unless the public demands it and, unfortunately, the silence has been deafening up until now.

We've learned something today about why there hasn't been a lot of progress on climate change. The problem with climate change is quite abstract; it's distant both in terms of time and in terms of place. People are hardwired, psychologically, to worry about what is going to be on the table for dinner tonight; they're not really hardwired to worry about what's going to evolve over the next decades into a crisis. And, most of all, I think people are paralyzed, like we heard this morning, about the immensity of the problem.

But the good work that many of you here in New York have done makes it very clear that we're not powerless. New York's corporations, environmental groups, academic and religious institutions and state and local governments have done enormously wonderful things in the state of New York on climate change. And I want to say something about Republicans. You can say what you want on the national level, with respect to inaction and that sort of thing. But, in the state of New York, think about the regional greenhouse gas initiative. Mike mentioned this morning that I was involved in that. Well, guess who was the driving force behind that—Governor Pataki, a Republican. And guess who is continuing that good work and continuing to do amazing things on clean energy—Andrew Cuomo, a Democrat. In New York City, who started planning One NYC, well it was a Republican—Mayor Bloomberg. So, in New York, climate change is not a political issue.

So, what we're trying to do at the Bar Association is, we're trying to harness the energy that you folks have created, and we're trying to focus that energy into what we hope will be a common and a coordinated message we can rally around. That's what brings us to the next phase of the program, the one where we put you to work. What we're going to ask you to do is to break out into six sessions. Those sessions are going to have facilitators and scribes, and so they are going to be people, as Mike said this morning, who are trained to organize the sessions around a common format. That format is designed to pick your brains. What we need is your ideas. Lawyers are good at certain things—what we can do is, we can listen very well, we can synthesize ideas and, most of all, we can write. What we want to do is to develop a report from the proceedings today, and that report is going to be as good as the work you folks do today over the next hour and a half. So, we are going to break out into six sessions.

8(e) PROGRAM MATERIALS

E. Full Compilation of Ideas from the Facilitated Breakout Sessions

Opportunities to Raise Public Awareness about Climate Change and the Need for Action —Facilitated Breakout Sessions[3]

Part I: Consensus on Key Points

There was general consensus in all six groups on the following four key points:

- what we're doing now is not working fast enough;
- some initiatives point toward more collaborative and cross-sector efforts;
- we need to understand why people don't make climate change a priority;
- a unified/coordinated approach would make a critical difference.

During the discussions, the various facilitation groups identified the following additional points of consensus within the groups:

- We should do more emotional messaging on the issues, but messages to the "other side" must not appear to target or vilify the other side. (at)
- There should be a carrot and stick approach, including carbon taxes, subsidies and other economic incentives/disincentives. In connection with this, we should educate people that the long-term costs of climate-friendly measures are going down. (at)
- There is not enough available information about what is currently being done, and access to this kind of information should be increased; knowing what works is empowering and is more effective than fear. (es) There is a lack of awareness of what individuals can do to contribute to mitigating and adapting to climate change. (lk) There is good data, but the public is not necessarily engaged with the data. Need to familiarize communities with environmental resources that are currently available. (lk)
- The tasks are urgent. (jp)
- Many people/groups are not acting.(jp)
- We must take a unified approach moving forward. (jp)
- At the root of the communication issue is a lack of understanding the seriousness of climate change and lack of scientific basis for explaining it. (jp)
- Celebrities might be a vehicle to use for communication, because people are very skeptical about institutions and science. (jp)
- People disagree regarding over- and understating the seriousness of the threat. (jp)
- We must have a clear message and must communicate clear points for skeptics (jp), although one participant suggested that we should not get hung up on waiting for a unified message and that people will respond when they see things working. (as)

[3] Note: parenthetical attributions are to the six breakout groups, identified with the initials of the facilitation team leaders as follows: Louise Kruger (lk), John Paul (jp), Liz Rogak (lr), Eric Schaaf (es), Adam Stolorow (as),Amy Turner (at)

- Fear needs to be crystalized into action items. (lk)
- We can't just talk about the year 2100. Psychology prevents people from feeling motivated to tackle distant problems. Need to focus on action now. Entities like Pfizer and New York State have good examples of action plans that go by quarter. (lk)
- There needs to be more of an effort to prevent fatalism with regard to climate change. It can quickly become overwhelming, and some people who started out denying climate change is real are now saying it's too late to do anything about it. (lk)
- Strong leadership at the top of organizations and integrating awareness of climate change into the culture of an institution and corporation are key to shifting behavior and practices. (lr)

Part II: Identifying Success Stories and Opportunities—What is your organization doing to have an impact?

- NRDC: plastic bag ban, composting. (jp)
- Southern CT University: refillable water stations. (jp)
- NYC: commercial windmill and solar park at Sims Metal's Sunset Park facility. (jp)
- Westport Green Task Force: "0 by 2050" works to educate council members; plastic bag ban; encourage children to reach out and communicate that idling cars aggravate asthma.(jp)
- Riverkeeper: mobilizes people to fight for the Hudson River. Getting people to care is the first step, and connecting people to specific things about the river that impact them is the second step. (lk)
- Con Ed: markets energy efficiency, but it's difficult to tell if the average consumer cares. (lk)
- NYS: participates in the Regional Greenhouse Gas Initiative. Proceeds from the initiative are being reinvested into strategic programs. There is also Climate Smart Communities. (lk)
- 1000 Green Supers (building superintendents) is one example of encouraging climate change action from the bottom up. Some environmental justice communities are working on similar projects focused on climate resilience. (lk)
- An investment manager assumes a fiduciary responsibility to investors to be aware of climate change issues. (lk) Another participant discussed examples of how she has engaged major business to find solutions. (lr) Participants who work in the financial or property development sector related how they have made efforts to steer capital and investments towards sustainable industries. Others described the goal as "prioritizing sustainable investment." Another participant noted how she encourages and advises her clients to take a longer term view in investing.(lr)
- Fordham University: sees climate change from a Catholic social justice perspective. "Sustainability" is too political. (lk)
- Catholic Church: influential figures such as Pope Francis are making public statements about climate change which have the potential to increase awareness. (lk)
- One participant noted that his law firm was participating in the ABA-EPA law firm climate challenge organized by SEER and EPA. (lr)
- Yale University: successful efforts to achieve net zero emissions. (lr)

- One participant noted that human rights have been absent in the climate change discussion and suggested that connecting to that messaging could be successful. The participant described her efforts to include human rights language in the preamble of the Paris agreement, noted that it is now being recognized that climate change has a significant impact on indigenous communities, and argued that emphasizing human rights could have a strong impact on people, especially those in the human rights movement. (at) Another participant who worked with developing countries, however, cautioned that talking about human rights with people in the developing world could cause push-back and that the messaging should be carefully tailored in such cases. (at)
- A participant described her organization's involvement in creating and using movie documentaries as an educational tool. She suggested that we should focus on using other types of media outlets. (at)
- A participant described his group's work with communities on Long Island, where they got push-back until they started focusing on the impacts of climate change, such as higher temperatures and more intense droughts. It was suggested by another participant that we should focus on "low-hanging" fruit and open conversations with people who may not believe in climate change but are impacted by it, and frame issues differently with such people, such as focusing on support for clean coal. (at)
- A participant brought up the New York State solarize campaign, which helped specific towns/municipalities host events to promote the installation of solar panels. The participant said these events drew people in as a community and gave an opportunity to raise awareness of related climate change issues. (at) It was noted that there were aspects of community competition at these events, such as measuring which community installed the most solar, that seemed to encourage engagement. Another participant said that he thought "gamifying" could be an effective strategy and talked about national building competitions to reduce energy use. He mentioned two dorms at the University of North Carolina that competed with each other for a pizza party. (at)
- Several participants mentioned that they or others had taken steps to integrate the sustainability message within their organization. (lr) Others noted that they had made efforts to educate others either within or outside their organization on actions that can be taken toward sustainability, including, in particular, steps toward greater energy efficiency. (lr)
- A participant described how her organization has effectively used online tools to measure/benchmark progress towards achieving its sustainability goals. (lr)
- The Bard College Center for Environmental Policy is trying to engage young people who will be around to experience the effects of climate change, and thus have moral authority, to demand action. Education is working well, but the challenge remains of getting students to take action off-campus and fostering conversations with policy makers. (as)

Non-climate change examples:

In addition, this section of the discussion included references to successful public information campaigns directed to issues other than climate change. These efforts were thought to be particularly effective when they associated "faces and stories with the movement." Examples included: anti-smoking; drunk driving; nuclear free zones (which featured community education spearheaded by grassroots activists) (es); the anti-apartheid movement; Black Lives Matter;

fracking in New York State (which led to the ban on fracking and was the result of a collaboration/push from grassroots community activists; Governor Cuomo cited the number of public comments against fracking as a factor in his decision; people could point to actual threats to their watersheds, property, and property value). (es)

In one breakout group, there was recurring reference to the US mobilization for WWII.

Part III. Barriers to Taking Action

- Climate change can be an abstract concept and the threat is not perceived as immediate
- We are hardwired for more immediate needs (es) For example, in developing countries, such as India, issues such as food security and basic living needs are prioritized higher than climate change. A greater consciousness of the environment may develop as countries, such as China, get richer; but, at the same time, there are cross-pressures as people want more cars, refrigerators and other consumer goods that contribute to climate change. (at)
- We feel powerless to address a problem of this magnitude; the problem is too complex. (as) (es)
- We don't understand the cost of de-carbonization and fear it will be too expensive. (es) (at)
- Who acts first and why should I go first/incur the costs? (es)
- A huge impediment has been the lack of energy disclosure laws. New York State has them, but many municipalities do not. We need to get a better sense of what our communities are using and have better planning. There is a lack of information on who the contributors to climate change are which needs to be addressed, and not just in regards to the largest emitters. (at)
- Cultural issues, e.g., culture of consumerism. (es)
- Media and politicians are not taking climate change seriously enough/Political Ideology. (es)

Part IV: Messaging that Might Overcome the Barriers

Climate change is too abstract:

- In addition to the images of the flooding and destruction which accompany extreme weather events, provide concrete information on the cost of rebuilding, including the loss of jobs. Similar information could be provided on the cost of lost crops associated with drought – focus on US crop losses (e.g., California) as well as losses throughout Europe and the rest of the world. Stress the impact on both the availability and the cost of food. (es)
- Identify and publicize other ways in which climate change is now costing people money and jobs and will do so in the future. Stress that the cost of inaction will be far higher than the cost of action, and that waiting to begin only makes it worse. These costs will include higher taxes as governments attempt to respond. (es)

- Make the message personal, including the connection between climate inaction and the welfare of loved ones (e.g., "If you don't care about future generations, stop reading now"). (es)
- Personalize it – share story of specific person. Make it local. Not 400,000 people in Bangladesh, but one person in Louisiana. Tie climate change to local prices: say the price of milk went up by $x this year because of climate change. (as)
- Use facts and concrete examples of current events. A participant from The Climate Mobilization emphasized the need to drop the rhetoric that this is a problem that will affect our children, because it is affecting us now. Tunisia and Syria were caused in part by climate change effects on agriculture. The Department of Defense is taking climate change seriously as a current security threat. (as)
- We need new terminology. People are tired of "global warming" and "climate change." "Power Up" slogan? (as)
- Provide data. (jp)
- Establish direct connections between climate change and impacts. (jp)
- Provide information regarding the health impacts to children. (jp)
- Provide examples of available technology and innovation: solar and wind power; i-Phone; Tesla/Bolt. (jp)
- Focus on the here and now: save money on energy and recognize opportunities for other cost-saving efforts. (jp)
- Consider grandchildren. (jp)
- Legacy for the future; identity today (within geographic locale). (jp)
- Stress the idea that climate change is not some distant problem that needs to be corrected. It's a real problem right now. (lk)
- Make climate change real through examples. (lr)
- Have more organized events to get the message across. (lr)
- Join with other New Yorkers to get the message across. (lr)
- Provide consumers with specific and concrete information on energy efficiency. (lr)
- Provide information concerning concrete benefits of taking action to address climate change. (lr)
- Include Environmental Justice communities in the discussion and empower them to make their own contribution to the effort. The word "sociality" was used in a way to show a social movement/revolution to address a problem which threatens all but impacts those most vulnerable. (lr)
- Advertisements (like the NYC subway platform example from an earlier presenter) can be useful. (lk)
- Harness the "megaphones" (i.e., people that are influential in their own communities). (lk)
- Focus the discussion on "impact," "innovation," the "next economy" and "infrastructure." (lk)
- Analyze successful campaigns in other areas and apply to climate change messaging (e.g., success of "Smokey the Bear" and seatbelt commercials). (lk)
- Messaging needs a compelling but relatable visual picture of climate change. For example, the polar bear visual is not effective. Most people cannot relate. (lk)

- Shift focus from science-based information campaigns to people-based marketing campaigns—focus on human impact of climate change; think more in terms of marketing. How do we sway average citizens and encourage them to care? (lk)
- Don't focus messaging efforts on the small percentage that are outright climate change deniers. (lk)

We are hardwired for more immediate needs:

- Need to concretize the idea that this is happening now. (es)
- Emphasize the collective threat —what is our Pearl Harbor? (as)
- Explain how climate change will affect the person directly. (lr)
- Demonstrate how it is already impacting day-to-day life and the costs of perishables, utilities and available natural resources; i.e., this is an immediate need. (lr)
- Explain what life for the person's children or grandchildren will be like if the problem is not effectively addressed. (lr)
- Create financial incentives for acting in a sustainable manner. (lr)
- Develop and emphasize the use of sustainable technology. (lr)
- Explain that "you can run, but you cannot hide." Use Superstorm Sandy as an example. (lr)
- Mandate action through laws and regulations. (lr)
- Expand on the civic integration of the climate discussion as part of religious organizations and other non-profit or community-based services. (lr)

Messaging

- It's closer than you think. (es)
- Do you care about your children/grandchildren? (es)
- Do you like intense heat; do you want more days over 100°? (es)
- Do you want a white Christmas? (es)
- Do you like to ski? (es)

We feel powerless – the problem is too complex

- Make the message positive– (es)
    - use success story examples and ask people to join in. (es)
    - use facts, i.e., number of solar panels installed in NYC last year. (es)
    - connect to success stories in other movements; e.g., Gandhi (es)
- Subway ads as example of successful marketing. (es)
    - First adverse effect is message (a few different ones), followed by the same punchline in each. (es)
- Show economic benefit to owners/renters. (es)
- Broadcast success stories: what are people doing now to combat climate change? (as)
- Need to find a way to break down the complexity: one participant suggested that the Paris message of 2 degrees C is easy to understand, but there remains the question of what to do to get there? (as)

- The group floated ideas to engage people in their everyday lives: a "Carbon Fitbit" was one idea; working climate change into video games like Sim City was another. (as)
- Talking to people, friends, coworkers can help overcome this issue. (as)
- Personalize and localize the message. It is important to show people how climate change affects them. They may not even realize it. More people may start listening if they realize not taking action now will affect them financially in the future. (lk)
- Focus on other complimentary goals (i.e., asthma, pollution). Make a connection to children (i.e., children's health). (lk)
- Break down the actions that can be taken into small, manageable steps. (lr)
- Illustrate/celebrate progress. (lr)
- Emphasize the personal – what each person can do on a daily basis. (lr)
- Have many voices with tailored messaging (celebrity, civic leaders, teachers) (lr)
- Counteract the "Conservative Media Bubble" – e.g., climate change is real, the science is indisputable, and focus on media markets that have a big bang for the buck (e.g., ads on FOX in D.C. or NYC). (lr)
- Channeling fear into action is important. We don't want people to become fatalistic about what can seem overwhelming. (lk)
- Showing how individual actions aggregate to have big impacts could be helpful for mobilizing action. (lk)
- Engaging the public requires showing them the power of aggregating individual actions. Come at climate change from all angles and use an "all of the above" approach to tackle it, but take care to avoid "lost causes." (lk)
- Disseminate information on what people can do to make a change. People should also be provided more information about how to measure the impacts of their actions so that they can quantify how individual actions add up. (lk)
- Splitting up climate change impacts into smaller issues, like food and water security, could help mobilize action. (lk)
- Utilize "subsidiarity": a Catholic organizing principle that matters ought to be handled by the smallest, lowest or least centralized competent authority. (jp)
- Utilize incremental steps (e.g., 2% reduction per year, as at Pfizer). (jp)
- Call people community heroes and identify community gateway issues. (jp)
- Create local movements. (jp)
- Encourage green construction. (jp)
- Give rewards like money, pins, signs, for team players. (jp)
- People need to think big, but also think about specific and local targets (i.e., closing a nearby coal fired power plant). (lk)

Inadequate understanding of the cost of not de-carbonizing (es)

Messaging

- Pay now or pay more later. (es)
- Climate Change: we are already paying for it. (es)
- Carbon costs us now. (es)
    - Increased health care costs.
    - Damage to crops and increased food costs.

    - Extreme weather-caused injuries and damage to property.
- Climate Change: The cost is Sandy, Irene, disease. (es)
- Climate Change: The longer we wait, the more it will cost. (es)
- Climate Change: We know what to do and we can do it. (es)
- Climate Change: There is a solution. (es)
- Climate Change: We can do this. (es)

Why should I go first?

- This is an opportunity for the US tech sector. (es)
- This is our obligation. (es)
- Messaging
    - Be a leader on climate change; the US should lead. (es)
    - This is our obligation: we had a large part in creating the problem; we should take the lead in fixing it. (es)
    - Great challenges will stimulate innovation. (es)
    - We have the best technology, the most money. (es)
    - Climate Change: We know what to do and we can do it. (es)
    - Visual: Man on the moon: It was possible; so is de-carbonizing. (es)

Lack of energy disclosure laws

- Creating disclosure requirements and getting more information on the impacts of contributors disclosed, not just by private individuals/businesses but also by the government, can be an effective strategy. The following specific suggestions were offered: (at)
    - Create an "Office of Management and Carbon Budget." (at)
    - Long papers are not the way to do this. (at)
    - Simple and direct messages, e.g., buying power from this source destroys the planet (like the Surgeon General's warning). (at)
    - Encourage (force?) prominent figures to disclosure. (at)
    - Grading system, like with restaurants, or private certifications, like with fair trade, could work. (at)
    - New York has an energy consumption disclosure requirement for large buildings which has created a desire for energy-efficient buildings. This shows information can generate an economic incentive. (at)

Cultural issues/media and politicians not taking issue seriously/political ideology

- One participant noted that it is important to stop demonizing half the country, and instead get conservative spokespersons – not necessarily elected officials. Some of the people the group suggested were military generals and country music stars.

Part V: Coordinated Strategies that Might Allow Us to Have the Greatest Impact?

- The Green Tea Party in Georgia is an example of how we can approach different groups with messages about working together based on common interests. (at)
- It would be helpful to put all the information on how we can live a more carbon-neutral lifestyle in one easily accessible place. (at)
- We should collaborate with experts on getting the message out. We should also leverage existing community events that could have friendly audiences, such as music festivals, concerts, Makers Fairs, etc., similar to what has been done with voter registration initiatives. (at)
- How do you make the first approach to the 54% of people who don't believe climate change is a problem? (at)
  - Talk to people close to you. (at)
  - Go to people with a 'listening' approach. (at)
  - Partner with DOD, insurance companies and other organizations/businesses that are already on board and which have credibility with the 54%. (at)
  - Publicize the effects of climate change without talking about climate change itself, such as what the Rainforest Alliance has been doing. (at)
  - Sports teams should take ownership of their animal mascots and raise the awareness of climate change on those animals. (at)
  - Get coverage on morning shows, which are popular with the 54%. (at)
- How to get the message out and make it work: where there are sectors acting in concert, create a network of people and have conferences with build-up prior to an event and follow-up after. (es)
- Have a global series of programs delivering a unified message (on Earth Day?). The programs would be scheduled for the same time in each local time zone. This would lead to programs around the globe, through the course of 24 hours, as that time is reached in various cities; coverage could be similar to that for New Year's Eve; basic message: There is no Plan(et) B. (es)
  - Unified coordinated Earth Day message must lead to something bigger; e.g., legislative/governmental action. (es)
- Other coordinated strategies:
  - Commencement speakers could address climate change at academic institutions (e.g., many colleges could commit to such commencement addresses in one year). (es)
  - Faith based organizations could commit to coordinated climate change-themed sermons. (es)
  - Corporate Climate Change Day. (es)
  - Note that it is not enough to just have an event – we need to also create a mechanism to keep the message alive after the event. (es)
- Help victims of climate change tell their stories in a compelling way to government and the public. (es)
- Calculators could be distributed to households, allowing people to keep track of carbon footprint; have goal of reducing by x. (es)
  - Financial incentives provided by companies (similar to existing corporate incentive programs directed at employees losing weight/exercising, or quitting smoking). (es)
- Peer to peer community messaging. (es)
  - incentivize in some way: taxes, etc. (es)
- Divestiture – Colleges; public pensions. (es)

    - Get info out, re: current practices. (es)
- Invest in solutions (colleges/pensions). (es)
    - University President agreement exists now – can help coordinate our ideas. (es)
- One participant mentioned the importance that viral video could play, with the example of the anti-Obamacare person who became a spokesperson for Obamacare after it saved his life. (as)
- Some advertising ideas harkened back to World War II propaganda: ads, films, cartoons, posters. (as)
- There was discussion about the need for a common brand (one participant mentioned the Black Lives Matter movement, and No Fracking Way), and the need for existing groups to unbrand (similar to the NRDC materials that were produced for the UN that did not have NRDC's logo on them). (as)
- Other ideas included updating the FEMA maps to show future flood levels, creating cross-sector working groups. (as)
- Political action to overturn Congress. (jp)
- While we should undertake coordinated efforts, we shouldn't be afraid to embrace the "chaos" of many disconnected efforts. (jp)
- Find a simple message and deliver it on social media. (jp)
- Corporations and private sector mobilization in light of a lack of political action. (jp)
- Engage intra-sectoral, interfaith organizations. (jp)
- Address lack of funding with different corporations/industries to create targeted message. (jp)
    - Increase communication within and outside of companies by connecting traditional management practices. (jp)
- Engage all different sectors present at working group. (jp)
- Create umbrella organization like Amnesty International (or merely an umbrella label) with broad agreement and articulated common ground. (jp)
- Overcome skepticism. (jp)
- Concrete benefits. (jp)
- Get people excited, not fearful, of carbonless future. (jp)
- Avoid issue but talk about benefits of different type of economy. (jp)
- Quantify status of renewables versus fossil fuels, and communicate counter-messages. (jp)
- Consider ignoring skeptics and focus on the middle/silent majority. (jp)
- The City Bar should confer with Mayor de Blasio and Governor Cuomo to get examples of how local and state government are acting on climate change, and what areas the City and state could use help on. (lk)
- The City Bar should also write letters to influential people and institutions calling on them to join in the messaging efforts. (lk)
- The City Bar should set up an Action Impact Committee. (lk)
- Go out to different conferences (e.g., a local SCUBA conference that was coming up at the time) and staff a booth devoted to climate change issues. (lk)
- The City Bar should find ways to help politicians feel comfortable talking about climate change and taking it seriously. (lk)
- We need to set metrics and then work to achieve them. (lk)

- The legal profession can work with municipalities by, for example, developing model codes for energy efficiency and other sustainability goals. (lr)
- States should work together on a regional basis. RGGI was used as an example. (lr)
- Industries/institutions with common issues should collaborate. (lr)
- Bar associations in different states should collaborate. (lr)
- Conferences – and follow-up conferences—such as this conference should be held. (lr)
- Finally, the group discussed the sectors that should be involved in conferences of this nature and in the conversation generally.(lr)
    - It was agreed that including the religious community in conferences and in the discussion about climate change and its solutions is especially beneficial and is to be encouraged.
    - The environmental justice community.
    - Republicans/conservatives.
    - Representatives of utilities.
    - Entrepreneurs.
    - Economists.
    - Scientists.
    - Artists.
    - Architects. (lr)

More suggestions for effective messaging

- Relentless advertising tailored to specific targets is important. All forms of media and outreach should be used and we should adopt a local grassroots approach, such as some climate activities that have incorporated the strategies used by the NRA. (at) One such strategy is to insert a gun in common children's stories to make guns feel familiar and necessary. (jp)
- There is a subgroup of environmentally conscious evangelicals that are trying to expand their message, and we should work with religious organizations generally to bring their messages out. Interfaith Power is a group that does that. (at)
- First step is accepting there is a problem. Then leverage from a position of trust and make the appropriate ask of people. (lk)
- The idea (from an earlier presentation) for a climate change museum is a great idea and could connect people to the present consequences/effects of climate change. (lk)
- The Department of Defense has identified climate change as a top global security threat. Some have even tied the Syrian civil war to climate change. (lk)
- Knowing an audience is important. To get people to take action on climate change, you need to know what they care about, and show how climate change is going to affect that. (lk)
- Stories about extreme weather, e.g., Hurricane Sandy, have a great deal of impact. (es)
- Many organizations reported that the most positive results come from small-scale, personalized efforts that, admittedly, do not create significant change to climate, but encourage people to feel that they are "making a difference" for the environment. Funding might be an issue for engaging media to communicate climate change. (jp)
- Efforts that may have an impact include:

    - Telling stories people can connect to, and then explaining what can be done differently. (jp)
    - Engaging "tribal leaders" (e.g. military, entertainment, cultural figures) who know their audience to share a common message. (jp)
    - Consider API and energy for future as a success story, because these organizations created a story for the U.S. public that fossil fuels are good. (jp)

- A participant noted the unique opportunities lawyers and law firms have to create synergies between themselves and other disciplines. (lr)
- Another supported creating competition between organizations that share similar issues. An example was university presidents who have formed the American College and University Presidents' Climate Commitment ("ACUPCC") to coordinate actions and share ideas on reducing a university's carbon footprint. (lr)
- A suggestion was made for the Bar Association to take a leading role to sponsor regular lunch programs with some measure of grading to award innovative programs. Peer to peer education with a networking approach was also suggested. For example, a monthly "Bar @ the Bar" sponsored by an organization or firm highlighting what they have implemented and how similar measures could be adopted and then integrated in other organizations. (lr)
- One participant gave examples that suggested the most effective messaging was peer-to-peer messaging. (lr)
- Another participant suggested that "shining a spotlight" on sustainable actions was necessary, especially in a large organization. Its goal would be fostering accountability and ownership for achievements, noting shortcomings of existing patterns of behavior and how, collectively, small changes can create huge impacts. More specifically:
    - The focus could be on an organization's employees' commuting habits, demonstrating where reductions of GHGs have been made and, if behavioral changes are adopted, how additional savings can be made. (lr)
    - It is also a way to demonstrate how each person's actions collectively make a tangible impact. (lr)
    - An example of how surveys and tracking tools are being used to illustrate impacts and green benefits. (lr)
- Another participant, the Executive Director of the Climate Museum Launch Project, noted that an important goal of her project was to get the message out that climate change is real, it is here and that there are specific actions that individuals can take to address the problem. (lr)
- It was suggested that a climate model code could be created by the Sabin Center as part of its climate change work. (lr)

Other thoughts

- A major law firm that sits on the board of NRDC will bring NRDC in to analyze firm's food practices (in cafeteria). (es)
- Presbyterian church will debut fossil fuel divestment this summer; also working on paper, re: precautionary principle. (es)

- University presidents' group outreach, re: commencement speech idea, through the daughter of one of the break-out session participants who is the Sustainability Coordinator of a college. (es)
- One air flight will blow per capita carbon allotment; encourage use of teleconferencing. (es)
- Coops/condo – talk about rooftop solar. (es)
- Use ESCOs to purchase renewable energy. (es)
    - Town-wide renewables. (es)
    - Bulk purchasing. (es)
    - Automatically enrolled – would have to opt out if you don't want to participate. (es)
- It's not about saving the planet – it will still be here; it's about saving the people – "Climate Change: The planet will survive, will we?" (es)
- Individual people don't always see the impacts of their actions on the aggregate. (lk)
- Fatalism is a problem in the face of such an overwhelming problem as climate change. (lk)
- There needs to be a dedicated team to address climate change. (lk)
- A climate change seal or certification for businesses/products could be useful. (lk)
- Story telling is key to get people to care, and caring about something is the first step towards action. (lk)
- Need community to make it an item that spurs political engagement. (lk)
- Look for political common ground to counteract the politicization of climate change – how can this become a bipartisan issue? (lk)
- Government should set up an agency dedicated to divesture from fossil fuels. (lk)
- Each group (professional society/organization) should have a coordinated message; e.g., turn off lights for a period at a particular time. (es)
- Model declaration: our organization will phase out x%/year, or something similar. (es)
- Each program is promoted but is so small/ancillary in comparison to the whole. (es)
    - Need to scale to a meaningful level so people can understand their contribution. (es)
- Financing necessary. (es)
- People must feel direct effect/or know people locally. (es)
- Examples of successful movements. (es)
    - Nuclear-free zones. (es)
        - Community education
        - Push from grassroots activists
    - Anti-apartheid movement. (es)
    - NYS fracking ban. (es)
        - Push from grassroots/community activists.
            - Collaboration of groups.
                - Governor Cuomo cited the number of public comments against fracking as a factor in his decision
                - People could point to actual threats to their watersheds, property, and property value
    - Legislature must be behind the movement or bad laws will be passed. (es)

- Not for profit legal action from groups such as Earthjustice. (es)

8(f) PROGRAM MATERIALS

F. Links to Conference Materials and Social Media Platforms

City Bar Website: Link to Program Materials and Podcasts of the Program
http://www.nycbar.org/media-listing/media/detail/opportunities-to-raise-public-awareness-about-climate-change-and-the-need-for-action

Twitter: Related Climate Change Program Tweets:

#NYCClimate