Agenda

This event will engage partners to identify priorities for today that set us up to achieve close to net zero emissions by mid-century, building on work that ClimateWorks developed last year to identify philanthropic priorities for decarbonization by mid-century. In the process, we aim to spark new thinking and generate a shared understanding of how to accelerate progress toward 2050 goals across our ecosystem of partners, highlight the connections across programmatic work, and inform current program strategies.

The Hilton hotel is proud to serve locally sourced seafood and locally grown produce. All meals provided by the Hilton will be pescatarian.

Location: Hilton Hotel San Francisco, Financial District

750 Kearny Street, San Francisco, CA 94108

All sessions will be held in the Columbus or Pine room on the 4th floor of the Hilton.

Pre-event activities

June 13, 2018

3:30 pm - 5:00 pm

Optional Salesforce Tower tour

Located in downtown San Francisco, the Salesforce Tower is not only the tallest building in its skyline but also the second-tallest building west of the Mississippi river. The tour will highlight the building's sustainability attributes, which include LEED Core and Shell Pre-Certified Platinum certifications. Space is limited, we will circulate a sign-up list before the event and accommodate on a "first come first serve" hasis

5:00 pm - 8:00 pm

644 Broadway, San Francisco, CA 94133

Welcome dinner and Registration at China Live

Please find walking directions from Hilton hotel to China Live

Day 1

June 14, 2018

8:00 am - 9:00 am 9:00 am - 9:15 am

Pine Room

Columbus Room

Breakfast and Registration Welcome and Introductions

Charlotte Pera, President & CEO, ClimateWorks Foundation

Charlie McElwee, Vice President, Programs, ClimateWorks Foundation Barbara Buchner, Executive Director - Climate Finance Program, Climate Policy Initiative

9:15 am - 10:00 am Columbus Room

Setting the stage

Coffee break

To keep global warming to well below 2 degrees Celsius, we have to achieve close to net zero greenhouse gas emissions as early as 2050—three decades from now, which is daunting. Nevertheless, so much has changed about technology, society, and markets that there is reason to believe that with effective transformations our goal is still achievable. It does mean taking action today to achieve those long-term goals. In this introductory session, we will assess the state of our understanding of what progress needs to be made, where the best opportunities (for philanthropy) are, and how evolving socioeconomic and geopolitical contexts might affect those actions. Surabi Menon, Senior Director, Advisory & Research, ClimateWorks Foundation Niklas Höhne, Partner, NewClimate Institute

Elmar Kriegler, Senior Scientist, Potsdam Institute for Climate Impact Research

Nebojsa Nakicenovic, Deputy Director General, IIASA

10:00 am - 10:30 am

10:30 am - 12:00 pm

Columbus Room

2050 today and mapping the transition

Parallel session 1: Transitioning to 2050 today

It is critical that government, civil society, and private-sector actors collaborate even more closely now to accelerate the transition to achieve our 2050 goals. This session will feature a conversation with experts across the spectrum of actors so that we can break out of our silos, have a candid discussion about the strengths and obstacles for each player, and discuss what we need from each other to accelerate the rate of change toward the mid-century goals. Attendees will leave the session with ideas for a shared approach to setting and realizing 2050 goals, and what new partnerships and collaborations might be important as the world undergoes rapid changes between now and mid-

Surabi Menon, Senior Director, Advisory & Research, ClimateWorks Foundation

Lars Grotewold, Director Centre for Climate Change, Stiftung Mercator

Heather McGeory, Managing Director, We Mean Business

Thomas Hale, Associate Professor, Blavatnik School of Government, University of Oxford Joeri Rogelj, Research Scholar, International Institute for Applied Systems Analysis (IIASA)

2050 today and mapping the transition

Parallel session 2: Vulnerable workers, communities, and a just transition

Climate modeling clearly tells us we need to achieve close to net zero emissions by mid-century. The scale and speed of the transition implied is practically unprecedented in its political complexity and will have very real economic, social, and political impacts. A successful transition will create both winners and losers, both in terms of political power and economic development. This parallel session will explore where and how to leverage opportunities to increase shared prosperity as the energy and land-use sectors decarbonize, as well as discuss the political context and philanthropy's role in pursuing a just transition.

Casey Cronin, Strategist, Advisory & Research, ClimateWorks Foundation Ajay Gambhir, Senior Research Fellow, Grantham Institute, Imperial College London Jiang Lin, Staff Scientist/Professor, Lawrence Berkeley National Laboratory/UC Berkeley

Samantha Smith, Director, ITUC - Just Transition Centre Rohit Chandra, Doctoral Student, Harvard Kennedy School

Trevor Houser, Partner, Rhodium Group

10:30 am - 12:00 pm

Pine Room

Jose Carmona, Program Director, California Campaigns, Energy Foundation Betony Jones, Principal, BetonyJones.com

12:00 pm - 1:00 pm Cloud Room on the 1st floor of

the Hilton hotel

Lunch

1:00 pm - 1:30 pm

Columbus Room

Achieving near net zero emissions by 2050

Summary of key themes from morning sessions, framing the goal.

Jan Mazurek, Program Director, Clean Power, ClimateWorks Foundation

Barbara Buchner, Executive Director - Climate Finance Program, Climate Policy Initiative

1:30 pm - 4:30 pm

1:30 pm - 4:30 pm

Columbus Room

Emit less, remove more

Parallel session 1: Deep decarbonization: electrification across end-uses

To meet long-term climate goals, it will be necessary to significantly reduce or eliminate fossil-carbon-based energy in nearly all end-use applications for transport, buildings, and industry. Electricity provides the opportunity to displace oil, gas, and coal while also providing new opportunities to integrate increasing fractions of renewable generation and improve the efficiency of utility infrastructure. This parallel session will explore the why, how, and what of end-use electrification,

including the role of philanthropy in shaping the path to 2050.

Anthony Eggert, Program Director, Transportation, ClimateWorks Foundation

Nancy Ryan, Partner, Energy and Environmental Economics, Inc.

Doug Arent, Deputy Associate Lab Director, Scientific Computing and Energy Analysis, NREL Tom Wilson, Principal Technical Executive, Electric Power Research Institute (EPRI) Devra Wang, Director, Climate and Clean Energy Program, Heising-Simons Foundation Huiming Gong, Program Director, Transportation, Energy Foundation China Deepak Gupta, Head – Power Sector Program, Shakti Sustainable Energy Foundation

Pine Room

Emit less, remove more

Parallel session 2: Carbon dioxide removal: carbon sinks and sustainability

We have made terrific progress deploying wind and solar technologies. But to stay well below Paris commitments, we have to peak and dramatically mitigate emissions, and we have to remove gigatonnes of carbon dioxide. Removal is not geoengineering, and it is not just bioenergy with carbon capture—a modeling artifact. In order to achieve gigatonne-scale removal by mid-century, we need support today in the development of a vast array of removal approaches, ranging from restorative agriculture to direct air capture. During this interactive session, participants will discuss the state of natural and technological removal approaches, how advocacy and policy levers can accelerate the deployment, and what cutting-edge companies are doing to store carbon in a way that reduces fertilizer and water use while sustainably growing grains.

Jan Mazurek, Program Director, Clean Power, ClimateWorks Foundation

Katharine Mach, Senior Research Scientist, Stanford Woods Institute for the Environment

Betsy Taylor, President, Breakthrough Strategies & Solutions Jennifer Wilcox, Professor, Colorado School of Mines

Sean Thomas McCoy, Energy Analyst, Lawrence Livermore National Laboratory Roger Aines, Energy Program Chief Scientist, Lawrence Livermore National Laboratory

Julio Friedmann, CEO, Carbon Wrangler

Amanda Staudt, Director, Board on Atmospheric Sciences and Climate, National Academies of

Sciences, Engineering, and Medicine

James Mulligan, Associate, World Resources Institute

Seema Paul, Managing Director, India Program, The Nature Conservancy, India

Dan Zarin, Director of Programs , Climate and Land Use Alliance

Catha Groot, Principal, Radicle Impact

4:30 pm - 5:00 pm Special address by California Air Resources Board Chair Mary D. Nichols, followed by a summary of the day's key themes

Charlie McElwee, Vice President, Programs, ClimateWorks Foundation

Mary Nichols, Chair, California Air Resources Board

Barbara Buchner, Executive Director - Climate Finance Program, Climate Policy Initiative

White space: further discussion of breakout topics Optional: tour of BYD electric bus, outfront of the Hilton Hotel

6:00 pm - 9:00 pm Pier 1 1/2, the Embarcadero, San Francisco CA 94111

Columbus Room

Dinner and Conversation at La Mar SF, Sponsored by the Hewlett Foundation

Please find walking directions from Hilton hotel to La Mar or it is a short uber ride from the hotel.

Jonathan Pershing, Program Director, Environment, William & Flora Hewlett Foundation Monica Araya, Founder and Director, Costa Rica Limpia Adrián Fernández, Executive Director, Iniciativa Climatica de Mexico Ana Toni, Executive Director, Instituto Clima e Sociedade

Day 2

June 15, 2018

5:00 pm - 6:00 pm

7:30 am - 9:00 am Pine Room **Rr**

Breakfast

8:00 am - 9:00 am

Columbus Room

2018 IPCC 1.5°C Special report: Action needed — What, why and when?

The forthcoming special report from the IPCC to be released in October this year features pathways consistent with limiting warming to 1.5 degrees Celsius above pre-industrial levels, impacts, risks, and vulnerabilities associated with 1.5 degrees Celsius global warming. The transformations needed to achieve the 1.5 degrees Celsius target with sustainable development needs and equity, while achievable, can be very challenging to implement. This special session will cover highlights from peerreviewed papers that are part of the special report. Our panelists will cover pathways to 1.5 degrees Celsius, mitigation options including technical solutions, behavior and consumption related choices, carbon removal needs, and achieving mitigation in the context of sustainable development goals. Elmar Kriegler, Senior Scientist, Potsdam Institute for Climate Impact Research

Detlef Van Vuuren, Senior Researcher, Department of Climate, Air and Energy, PBL Netherlands **Environmental Assessment Agency**

Ajay Mathur, Director General, The Energy and Resources Institute (TERI)

Bert Metz, Fellow, European Climate Foundation

Michael White, Senior Editor, Nature

9:00 am - 10:00 am

10:00 am - 12:30 pm

Columbus Room

Columbus Room

Messaging 2050

Taking a 2050 view could be seen as an excuse for delaying action, which is the opposite of the intention. Only with a longer time perspective can we tackle deep decarbonization rather than incremental change. This is where the discussion of ambition is put to the test. This session will identify approaches that bridge the need to peak emissions by 2020 and achieve deep decarbonization by 2050. How do we create convincing messages on the necessary transformation in light of the stubborn pace of change in policy and politics?

Jason Anderson, Program Director, International Engagement and Non-CO2 Initiatives, ClimateWorks Foundation

Ajay Mathur, Director General, The Energy and Resources Institute (TERI)

Monica Araya, Founder and Director, Costa Rica Limpia Erica Hope, Senior Associate, European Climate Foundation

Working smarter and making it personal

Parallel session 1: Tipping the scales: identifying global tipping points for policy and technology adoption

Several of the key technical and policy solutions to address climate have the potential to reach nearterm tipping-points, when market forces can drive rapid global adoption and scaling. For example, policy support in key markets can drive electric vehicle market growth, which decreases cost through learning-by-doing, economies-of-scale, and maturing supply chains. This hastens the day when electric vehicles will outcompete combustion vehicles and can scale to the broader global market. Using tipping points can also apply to policy adoption (e.g., expanding renewable portfolio standards, carbon pricing, etc.), finance, and more. This parallel session will explore how to better identify, understand, and apply these concepts to philanthropic strategies.

Anthony Eggert, Program Director, Transportation, ClimateWorks Foundation

Jules Kortenhorst, Chief Executive Officer, Rocky Mountain Institute

Janea Scott, Commissioner, California Energy Commission

Dan Adler, Vice President for Policy, Energy Foundation

Jae Edmonds, Chief Scientist, Joint Global Change Research Institute Ron Benioff, Manager, Multilateral and State Department Programs, National Renewable Energy

10:00 am - 12:30 pm

Working smarter and making it personal

Parallel session 2: Using behavioral insights to inform strategy

Behavioral insights are increasingly used to improve our lives by guiding us to better choices. Having a deeper understanding of their application can help us achieve deep decarbonization goals. This session will look at case studies on the application of behavioral insights to help us understand how philanthropic strategies may incorporate them in shaping relevant policies in transport (modal shift, automation), land use (food choices), and energy use (efficiency). We will solicit ideas on the application of behavioral insights in these areas. At the end of the day, awards will be offered for the best ideas that have the potential to be developed into a project.

Surabi Menon, Senior Director, Advisory & Research, ClimateWorks Foundation

Kate Power, Program Manager, KR Foundation

Horacio Trujillo, Adviser, Metanoia Fund

Lewis Akenji, Director for Sustainable Consumption & Production, Institute for Global Environmental Strategies Detlef Van Vuuren, Senior Researcher, Department of Climate, Air and Energy, PBL Netherlands

Environmental Assessment Agency

12:30 pm - 1:30 pm

1:30 pm - 4:00 pm

Cloud Room on the 1st floor of

the Hilton hotel

Pine Room

Lunch

Innovation deployment and megatrends

Parallel session 1: Deep decarbonization: financing the rapid deployment of innovations after R&D

There is broad consensus that deep decarbonization requires R&D for zero-carbon and carbonnegative technologies in the energy sector and beyond. But, even more pressing, these technologies must deploy at gigatonne scale. Even for commercially proven technologies, the path to market maturity and cheap financing is not assured. Solar PV, battery storage, and other now familiar technologies with established markets are still descending steep cost curves. To meet the pace and scale necessary to achieve 2050 decarbonization, these technologies and other new market entrants must continue to rapidly descend these curves. This session will explore the roles and mechanis public and private financing to accelerate deployment of innovation on the last (and sometimes overlooked) "D" in RD&D. We'll look to participants to provide fresh thinking on sources, directions, and structures of financing, and how they might be better be marshaled to accelerate innovation

Pine Room

Marilyn Waite, Program Officer, Environment, Hewlett Foundation Alicia Seiger, Lecturer, Managing Director, Sustainable Finance Initiative, Stanford Jessica Brown, Associate Director, Climate Policy Initiative
Andrew Hughes, Director, Capital Markets and Corporate Strategy, Generate Capital Kevin Mo, Managing Director, Paulson Institute Rebecca Dell, Energy Expert and Advisor to the Hewlett Foundation, Hewlett Foundation Rob Glen, Western US Market Leader, Bloomberg New Energy Finance 1:30 pm - 4:00 pm Columbus Room Innovation deployment and megatrends Parallel session 2: Megatrends: automation, artificial intelligence, and inequity Cutting-edge technologies—including advances in automation, artificial intelligence, and machine learning—are expected to affect future economic systems, employment, and even social cohesiveness. While the future is uncertain, we can expect that we will begin to see further changes in the political economy. This parallel session will use breakout groups to crowd-source perspectives and creative thinking to home in on the implications of these megatrends for a robust, durable, philanthropic climate investment portfolio. Casey Cronin, Strategist, Advisory & Research, ClimateWorks Foundation Dr. Arunabha Ghosh, CEO, Council on Energy, Environment & Water Horacio Trujillo, Adviser, Metanoia Fund Amy Luers, Executive Director, Future Earth Mathew Lawrence, Senior Research Fellow, IPPR Catherine Witherspoon, Senior Advisor, ClimateWorks Foundation 4:00 pm - 4:30 pm Columbus Room Wrap up and moving forward Charlie McElwee, Vice President, Programs, ClimateWorks Foundation 4:30 pm - 5:30 pm Cloud Room on the 1st floor of Reception and awards the Hilton hotel

deployment toward full decarbonization by mid-century.

Ilmi Granoff, Program Director, Sustainable Finance, ClimateWorks Foundation