Historical World Power Generation Mix

Source: Bloomberg NEF, IEA.
The 21st Century Energy Transition from Fossil Fuels to Renewables

Historical world power generation mix vs. NEO 2018 power generation mix

- Coal: 29% fossil fuels by 2050
- Gas
- Oil
- Nuclear
- Wind
- Solar
- Hydro
- Other

Source: Bloomberg NEF, IEA.
“The mix of fuels used in power generation is set to shift materially.” BP Energy Outlook

“The energy transition is unstoppable.” Ben van Beurden, CEO, Royal Dutch Shell
The 21st Century Energy Transition: Drivers of Change

Renewable Energy
The 21st Century Energy Transition: Drivers of Change

Energy Storage
The 21st Century Energy Transition: Drivers of Change

Electric Vehicles
The 21st Century Energy Transition: Drivers of Change

- Renewable Energy
- Energy Storage
- Electric Vehicles
Annual CO$_2$ Emissions

Source: IRENA ReMap, Bruce Usher
CO₂ Concentration

Source: IRENA ReMap, Bruce Usher
Conference Agenda

Investments in the Renewable Energy Transition

David Giordano
Managing Director, Renewable Power Group
BlackRock Alternative Investors

Geoffrey Heal
Donald G. Waite III Professor of Social Enterprise
Columbia Business School

The Impact of China’s Climate Policy on the Energy Transition

David Sandalow
Inaugural Fellow
Center on Global Energy Policy, Columbia University's School of International and Public Affairs

Possible Climate Change Futures: Warming, Impacts, and Uncertainties

Kate Marvel
Associate Research Scientist
NASA GISS

Closing Remarks

Peter deMenocal
Thomas Alva Edison/Con Edison Professor of Earth and Environmental Sciences; and Director, Center for Climate and Life
Lamont-Dobertly Earth Observatory; Dean of Science, Faculty of Arts and Sciences

The Role of Storage in the Energy Transition

Alan West
Samuel Ruben-Peter G. Viele Professor of Electrochemistry; Professor of Chemical Engineering and of Earth and Environmental Engineering; Chair of Chemical Engineering
Columbia University

Coffee break

The Transition to Electric Vehicles

Jieng Ma
Senior Partner
Braemar Energy Ventures

R.A. Farrokhnia '04
Executive Director, Dean's Office
Adjunct Associate Professor of Business, Economics
Columbia Business School