THE RISE OF NORTH AMERICA: THE FUTURE OF ENERGY

FRIDAY EVENING, JANUARY 29, 2016

5:30 pm – 6:15 pm	Registration and Opening Reception at the Vilar Performing Arts Center
6:15 pm – 6:50 pm	Senator Rob Portman (R/OH) Conversation with: Dan W. Reicher, Executive Director, Steyer-Taylor Center for Energy Policy and Finance, Stanford University
6:50 pm – 7:30 pm	**Opening Keynote Address: "Responding to Cybersecurity Threats to the Power Grid and Other Critical Energy Infrastructure"** General Michael V. Hayden, USAF (Ret.) (Former Director of NSA and Former Director of CIA)

SATURDAY, JANUARY 30, 2016

8:30 am	Public Registration and Continental Breakfast, Vilar Performing Arts Center
9:30 am – 9:35 am	Welcome and Ground Rules, Carl Colby, Executive Director, Vail Global Energy Forum
9:35 am – 9:50 am	**Opening Remarks** by Sally Benson, Director, Stanford University Precourt Institute for Energy; Director, Global Climate & Energy Project, Professor of Energy Resources Engineering
9:50 am – 10:30 am	**"Public Understanding of Science, Energy and the Environment"** Michael Dimock, President, Pew Research Center Moderator: Jeff Ball, Scholar-in-Residence, Steyer-Taylor Center for Energy Policy and Finance, Stanford University In Conversation with: - Michael Dimock, President, Pew Research Center - Colin Robertson, Columnist, The Globe and Mail (Toronto) - Duncan Wood, Director, Mexico Institute, Wilson Center
10:30 am – 11:05 am	**"Global Energy Outlook and North American Developments"** Peter Trelenberg, Manager of Environmental Policy and Planning, ExxonMobil Corp.
11:05 am – 11:20 am	BREAK

SATURDAY, JANUARY 30, 2016 - Continued

11:20 am – 11:50 pm **"Geopolitical Chaos and the Implications for Global Energy Supply and Demand"**
Moderator: Tom Petrie, Chairman, Petrie Partners
Panelists: General Michael Hayden, USAF (Ret.), Former Director, NSA and CIA

11:50 pm – 12:10 pm **"Shale Oil at Below $40.00 a Barrel"**
John Christmann, President and CEO, Apache Corporation

12:10 pm – 1:30 pm LUNCH

1:30 pm – 2:10 pm **"Innovative Technologies and Efficiencies in the Upstream Energy Sector"**
Moderator: Mark Zoback, Professor of Geophysics and Director of the Natural Gas Initiative, Stanford University
Panelists:
- Barton Brookman, President and CEO, PDC Energy
- Susan Cunningham, EVP, Exploration, Noble Energy
- Brad Holly, SVP, Rocky Mountain Operations, Anadarko
- Doug Suttles, President, & CEO, Encana

2:10 pm – 2:50 pm **"The Age of Natural Gas – Downstream"**
Moderator: Sally Benson, Director, Stanford University Precourt Institute for Energy; Director, Global Climate & Energy Project, Professor of Energy Resources Engineering
Panelists:
- David Carroll, President and CEO, Gas Technology Institute
- Michael Farina, Market Development Director, GE Global Gas to Power
- Tom Jaramillo, Professor, Chemical Engineering, Stanford University

2:50 pm – 3:30 pm Student Research Video Presentation by Stanford University
"Energy Efficiency Shaping the US Energy System"
Presentation: James Sweeney, Director of the Precourt Energy Efficiency Center, Professor of Management Science & Engineering, Stanford University
Fireside Chat: Michael McQuade, CTO, United Technologies

3:30 pm – 3:45 pm BREAK

3:45 pm – 4:25 pm Student Research Video Presentation by Stanford University
"Clean Energy and Power" A Global Overview of Clean Power
Presentation and Moderator:
Richard Kauffman, Chairman of Energy and Finance, Office of New York Governor Andrew M. Cuomo
Fireside Chat:
- Ahmad Chatila, President, CEO, SunEdison
- David Crane, Former CEO, NRG
- Fred Krupp, President, Environmental Defense Fund

SATURDAY, JANUARY 30, 2016 – Continued

4:25 pm – 5:05 pm
Student Research Video Presentation by Stanford University
"**Future of the Electricity Grid"**
Presentation: Arun Majumdar, Jay Precourt Professor, Precourt Institute for Energy, Stanford University
Moderator: Dian Grueneich, Senior Research Scholar, Stanford University
Fireside Chat: - Steve Berberich, President, CEO, California Independent Systems Operator
- Commissioner Mike Florio, California Public Utilities Commission

5:05 pm – 5:45 pm
"The Paris Climate Agreement: Implications for North America"
Moderator: Dan W. Reicher, Executive Director, Steyer-Taylor Center for Energy Policy and Finance, Stanford University
Panelists: - Gitane De Silva, Senior Representative to the U.S., Government of Alberta, Canada
- Lourdes Melgar, Ph.D., Deputy Secretary of Energy for Hydrocarbons, Ministry of Energy, Mexico

5:45 pm
Networking Reception, Lower Lobby of the Vilar Performing Arts Center

7:00 pm
Student Networking Dinner at the Beaver Creek Lodge
Beaver Creek Restaurants Open for Dinner

SUNDAY, JANUARY 31, 2016

8:30 am
Continental Breakfast, Vilar Performing Arts

9:30 am – 9:35 am
Welcome Back, Carl Colby, Executive Director, Vail Global Energy Forum

9:35 am – 9:55 am
"Future of Energy"
Fireside Chat: - Arun Majumdar, Co-Director, Precourt Institute for Energy and Jay Precourt Professor, Stanford University
- David Danielson, Assistant Secretary of the Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy

9:55 am – 10:15 am
"Carbon Capture and Storage: Opportunities and Challenges"
Julio Friedmann, Deputy Assistant Secretary for the Office of Fossil Energy, U.S. Department of Energy

10:15 am – 10:55 am
"The Rise of North America: Canada, Mexico, and the U.S.
Moderator: Tom Petrie, Chairman, Petrie Partners
Panelists: - Gitane De Silva, Senior Representative to the U.S., Government of Alberta, Canada
- Michael Keenan, Assoc. Deputy Minister, Natural Resources, Canada
- Lourdes Melgar, Ph.D., Deputy Secretary of Energy for Hydrocarbons, Ministry of Energy, Mexico
- Jeff Pavlovic, Managing Director of Electric Industry Coordination, Ministry of Energy, Mexico

SUNDAY, JANUARY 31, 2015 – Continued

10:55 am – 11:10 am BREAK

11:10 am – 11:30 am **"Consequences of Lifting the Ban on the Export of U.S. Crude Oil"**
Marianne Kah, Chief Economist, ConocoPhillips
Moderator: James Sweeney, Director of the Precourt Energy Efficiency Center, Professor of Management Science and Engineering, Stanford

11:30 am – 12:10 pm Student Research Video Presentation by Stanford University
"Water as a Critical Resource for the Energy Industry"
Moderator: Mark Zoback, Professor of Geophysics and Director of the Natural Gas Initiative, Stanford University
Panel:
- Steven Mueller, Chairman and CEO, Southwestern Energy
- Thomas Stanley, Senior Executive, Engineering, GE Water & Process Technologies
- Becky Tomasek, General Manager, Upstream Water, CH2M

12:10 am – 12:50 pm **"The Revolution in Transportation: Electric Vehicles, Driverless Cars & Ridesharing"**
Moderator: Stefan Heck, Consulting Professor, Precourt Institute for Energy, Stanford University
Panelists:
- Drew Baglino, Director of Engineering, Tesla Motors
- Larry Burns, Consultant to Google X
- Mitch Jackson, VP, Environmental Affairs & Sustainability, FedEx Corp.
- Tim Kentley-Klay, CEO, Zoox

12:50 pm – 1:05 pm **Closing Remarks and Video Interview with the Honorable George P. Shultz**
Arun Majumdar, Co-Director, Precourt Institute for Energy and Jay Precourt Professor, Stanford University