Symposium on Realizing the Value of Nuclear Energy

March 26 & 27, 2018
Massachusetts Institute of Technology
Cambridge, MA

Conference statement: There is substantial evidence that a marked increase in nuclear energy -- as many as 2-3,000 nuclear reactors, up from 450 today -- will be needed to meet growing world energy needs and address environmental challenges. Yet this imperative is not understood or accepted, and is in some cases affirmatively rejected, by many decision-makers, as well as elements of civil society and media. This symposium brings together nuclear experts, government officials, public opinion and communication experts, and representatives of civil society, from around the world to refine the case for nuclear energy in the 21st century, and identify strategies for making that case effectively to relevant publics. All sessions in the symposium will be interactive, and the symposium will aim to produce concrete action plans to ensure success in this endeavor.

Auspices: CANES Chairman: Jacopo Buongiorno, Organizers: Michael Golay, Kirsty Gogan, Armond Cohen

Format: Nine sessions, each session with presenters and complementary papers, and discussion (Chatham House rule), Rapporteur’s report, Video of public portions of sessions

Products: video + electronic copy of Keynote and Complementary papers and Rapporteur’s report.

Note: All names shown in italics are of persons invited but not yet committed to participate in the symposium.

Day 1

07:45 – 8:30 Registration

08.30 – 08:45 Opening remarks and welcome
Speaker - Michael Golay, MIT

08.45 – 09.15 Session 1: The urgency of nuclear energy in the 21st Century
Energy to power global development; geopolitical leadership; energy diversity and security; clean air and climate change mitigation
Speaker – Jacopo Buongiorno, MIT

09.15 – 10:30 Session 2: State of the Industry: Looking in the mirror
Nuclear technology has demonstrated high value in the past and continues to have great potential to provide energy for the industrializing world and complement renewables as a climate solution. But apart from China- and Russia-led efforts, there is no significant global build. Costs, commercial risk, and
time to market are key barriers – not just public opinion ranging from indifference to hostility. What is the vision for the industry that leads to a significant change in this situation by 2030? Can we have a successful communications strategy until we have a very different and therefore relevant industry? Will new nuclear only be viable when built or purchased by States, or is there a path to commercial viability for nuclear energy in liberalizing markets?

Speaker - David Mohler, former CTO Duke Energy, Ret.
Respondent: Nick Irvin, Southern Company

Nuclear energy expansion and proliferation risks
Speaker: Ken Luongo, Partnership for Global Security

Break 10:30 - 10:45

10:45 – 12:00 Session 3: Nuclear in the climate debate where do we stand?

*The climate debate:* There are powerful arguments that nuclear is essential to squaring global energy growth with environmental quality including climate. What are the key arguments, challenges to those arguments and how is the debate playing out?

Speaker - Jesse Jenkins, MIT (*grid*);
Charles Forsberg, MIT (*electricity, including fossil fuel substitutes*)

12:00– 1:15 Lunch: Guests relocate to designated location on campus
Speaker: Spencer Weart, “The History of Nuclear Fear”

1:15 – 2:30 Session 4: Nuclear power in the developing world: prospects and obstacles

What nuclear capacity is projected in national energy plans and INDCs of the developing world, and global studies? How realistic are these projections, and what are the technical and institutional barriers? Are the public acceptance issues materially different from in the West?

*Developing world nuclear projections*
Speaker - Karl Hausker (World Resources Institute)

*Asia case studies*
- Southeast Asia: Public opinion and communication channels:
  Speaker: Shirley Ho (University of Singapore)
- India – prospects and politics
  Speaker - Anshu Bharawadj, Center for the Study of Science, Technology and Policy (India)

2:30 – 4:00 Session 5: Historical Background and Approach to Nuclear Communications

To what extent is the main obstacle economic project risk, doubt of in the need for nuclear? And does this differ by OECD vs non-OECD? How can either point be addressed? To what extent is nuclear a proxy for a larger anxiety and debate about technology, trust in government? What would communications for and about a “new” and relevant nuclear industry describe?

*Historical and Social Context*

Opening Speaker - Ted Nordhaus, Breakthrough Institute, Nuclear power and the environmental movement
The risk debate:
Speaker - Malcolm Grimston, Imperial College, London

The Science of Science Communication, and Cultural Cognition: Climate Change and Nuclear
Speaker - Dan Kahan, Yale University

Break 4:00 – 4:30

4:30 – 5:45 Session 6: Key communication strategic issues
Lessons from an analogous area: GMOs
Speaker - Mark Lynas, Cornell Alliance for Science

Transitions & Importance of Values Alignment
Speaker – Doug Bessette, Michigan State University

5:45- 6:00 Closing Remarks
Speaker - Jacopo Buongiorno, MIT

6:00 Guests to relocate to Samberg Conference Center, Chang Building, 50 Memorial Drive

6.15 Cocktail Reception and Dinner: Celebration of Michael Golay’s work
Speaker: Michael Golay: Climate change mitigation as an engineering problem

Day 2

08.30 – 09:00 Opening talk: Lady Barbara Judge: Nuclear Communications: International Experiences

09:00 – 10:30 Session 7: Risk, Communication, Trust, Credibility: Recap on the key lessons from Day
1 and some further observations

Public Understanding of Risk: Richard Clegg, Lloyd’s Register Foundation

Nuclear energy expansion and the nonproliferation
Speaker – Ken Luongo, Partnership for Global Security

Some recent US elite opinion interviews, polling and messaging pointers
Speakers – Kirsty Gogan, Energy for Humanity and John Norris, SKDK Knickerbocker
10:30 – 11:45 Session 8: What does elements of success look like? How do we create them? 
Kirsty Gogan
- Changing the nuclear message
- Becoming a routine participant in nuclear discussions
- Building coalitions
- Creating a communications toolkit

11:45 – 1:00 Lunch 
Guests relocate to designated location on campus
Speaker - Bob Armstrong, Director, MIT Energy Initiative

1:00 – 2:30 Session 9: Summary Panel: What does this all amount to? Where should things be headed? Does this group want to continue to work together and if so, how? 
Armond Cohen, Lord Deben, Laura Herman, Barbara Judge
Speakers: Breakout group leaders
Open discussion

2:30 Closing Remarks
Speaker TBD

2:45 Adjourn