

Confirming Hard Truths

John Donnelly, JPT Editor • jdonnelly@spe.org



A month ago, participants in US National Petroleum Council (NPC) study titled *Facing the Hard Truths About Energy* reconvened to evaluate the report a year after its release. The original report looked out to 2030 and asked three basic questions: What is the future of oil and natural gas supply? Can additional supplies be brought online and at a reasonable price to meet future demand without jeopardizing economic growth? And, What supply- and demand-side policies should be pursued to ensure economic stability? Although the NPC report put special emphasis on the US, the report and its conclusions addressed the global energy picture.

Response to the original report was great. It was translated into seven languages and more than 8,000 copies were distributed, in addition to 1.5 million downloads of the study from the NPC's website. Participants in the study included former SPE Presidents Bill Cobb, DeAnn Craig, and Steve Holditch; retired ExxonMobil Chief Executive Officer (CEO) Lee Raymond; Cambridge Energy Research Associates Chair Daniel Yergin; Schlumberger CEO Andrew Gould; Baker Hughes CEO Chad Deaton; former Chevron Chief Technology Officer Don Paul; ExxonMobil Upstream Research President Stephen Cassiani; Ryder Scott Chairman Emeritus Ron Harrell, and many other industry experts and SPE members.

The council concluded that the events of the past year—including volatile oil and natural gas prices, additional geopolitical uncertainty, and the impact of energy prices on economies—has only reinforced the study's original findings, which included:

- Energy demand will grow significantly, requiring increases in efficiency and expansion of energy sources.
- There are increasing risks to the expansion of conventional oil and gas supply.
- Significant additions of unconventional liquids supply to the energy mix are expected.
- E&P expenses have risen dramatically.
- Pressure on the cost and availability of project resources is hurting the ability to expand production capability.
- Pressures to address the issues of carbon emissions and energy security are increasing.

The study agreed with an International Energy Agency conclusion that fossil fuels will continue to supply a substantial portion of energy demand to 2030, perhaps as high as 80%. Rising population and growing economic activity in non-Organization for Economic Cooperation and Development countries will drive increased global energy demand as the demand share of G8 countries decreases. This growing demand, along with a natural production decline, states the need for significant new production capacity, including both conventional and unconventional resources. And even though investment in production capacity has increased markedly during this recent period of high oil prices, new threats have emerged to increasing supply, not to mention the long lead times required to develop upstream projects. Increasing global unconventional supplies will not be easy, the updated evaluation of the report concludes, because of the need for major investment, technology advancements, and potentially large carbon-management infrastructure.

JPT

JPT is always eager to hear from its readers. If you have any comments or suggestions, please contact me at jdonnelly@spe.org or by phone at +1.713.779.9595 ext. 616.

- Ed May**, Senior Reservoir Engineer, Schlumberger, Chairperson
- Syed Ali**, Consultant, Schlumberger
- Baojun Bai**, Assistant Professor of Petroleum Engineering, University of Missouri-Rolla
- David Baker**, Senior Research Engineer, ExxonMobil
- David Barnett**, Vice President Engineering, Wild Well Control
- Russell Borgman**, Operations Excellence Coordinator, ConocoPhillips
- Simon Chipperfield**, Team Leader Central and Amadeus Gas Exploitation Development, Santos Ltd.
- Torsten Clemens**, Senior Reservoir Engineering Adviser, OMV Exploration and Production
- Greg Conran**, Drilling Advisor, Schlumberger
- Martin V. Crick**, Senior Reservoir Engineer, Schlumberger
- Jose C. Cunha**, Senior Technical Consultant, Petrobras America
- Ivor R. Ellul**, Chief Executive Officer, Knowledge Reservoir, LLC
- Sam Gomersall**, Director, CO2DeepStore
- Harvey Goodman**, Research Consultant, Chevron
- Manuel Gonzalez**, Senior Engineering Advisor, Chevron
- Charles Hager**, President/Independent Consultant, NSI Technologies
- Damir Horvat**, Senior Manager, Drilling and Completions Engineering, Arrow Energy
- Jean-Louis Jousseume**, Head of Geographical Areas—Americas, Europe, and CIS, Total
- Martin C. Kennedy**, Chief Petrophysicist, Woodside Energy Ltd.
- Anthony R. Kovscek**, Associate Professor, Stanford University
- Gregory Kubala**, Project Manager, Schlumberger
- Robert MacAndrew**, Chief Executive Officer, Aberdeen Drilling Management Ltd.
- Colin J. Mason**, Senior Drilling Engineer, BP plc
- Stephane Menand**, Research Engineer, Paris School of Mines
- Graham Mensa-Wilmot**, Drilling Engineering Advisor, Chevron International E&P
- John Misselbrook**, Director Global Coiled Tubing, BJ Services Company
- Stephen O. Norris**, Senior Staff Reservoir Engineer, J-W Operating Company
- Karen Olson**, Completion Team Leader, BP plc
- Bobby Poe Jr.**, Engineering Advisor, Schlumberger
- Dean C. Rietz**, Managing Senior Vice President, Ryder Scott Company
- Jacques Salies**, Well Engineering Manager, Petrobras America Inc.
- Paul D. Scott**, Principal Engineer – Fluids, ConocoPhillips
- Stuart L. Scott**, Artificial Lift Consultant, Shell EP
- Brian Skeels**, Emerging Technologies Manager, FMC Technologies
- Jay Stratton**, Vice President Operations, Golden Energy LLC
- Claude P. Valenchon**, Vice President – Technology Development, Saipem SA
- John Veil**, Manager – Water Policy Program, Argonne National Laboratory
- John M. Vitucci**, Senior Project Manager, Doris Inc.
- Scott Wilson**, Vice President, Ryder Scott Company



Your way. Today.

Use the applications you want.

Access the data you need.

Optimize the workflows you create.

R5000, the industry's most comprehensive release of E&P software, provides you unprecedented levels of openness and integration.

R5000 : Open for Innovation. Today.

www.halliburton.com/decisionspace

Landmark

HALLIBURTON