

DOD Future Energy Resources

**Proceedings of Workshops Held at
The National Defense University**

Sponsored by:

**Office of Naval Research
Naval Research Laboratory
National Energy Technology Laboratory
National Defense University**

Workshop Topics and Dates

**Non-Renewable Energies
Biomass, Ocean, Hydrates and Hydrogen**

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Workshop Agenda

DOD Future Energy Issues: Non-Renewable Energy Resources

Topic	Speaker
Welcoming remarks	Timothy Coffey, National Defense University
Energy Crisis: Fact or Fiction?	Albert Bartlett, University of Colorado
Future of Energy: an Economic View	Michael Lynch, M. I. T.
The Politics of War	Edgard H. Habib, Chevron Texaco
Status of Oil Reserves	Kenneth Deffeyes, Princeton University
Future of Energy: Technology Perspective	Richard E. Smalley, Rice University
U.S. National Energy Policy	John Felmy, American Petroleum Institute
Future of Nuclear Power	James Watkins, Former CNO and Secretary of Energy
Energy Reserves: Wall Street perception	Charles Maxwell, Weedon and Company
Panel Discussion	Alan Berman, moderator Edgard H. Habib, Chevron Texaco Robert A. Manning, Department of State Hugh Guthrie, NETL Donald A. Juckett, Department of Energy
Global perspectives and Economic View	Robert A. Manning, Department of State
Global Perspectives for Natural Gas Future	Donald A. Juckett, Department of Energy

Biomass

Opening Remarks on Biomass	Robert Armstrong, NDU
The Economics of Biomass Production	Roger Conway, USDA
International and Domestic Energy Perspectives	David Pimentel, Cornell University
Political Realities of Energy from Biomass	C. Boyden Gray, Wilmer Cutler Pickering LLP
Building Public Support for Biomass	Bill Holmberg, Chair, New Uses Council
Congressional Viewpoint	Congressman Charles W. Stenholm (represented by staff)
Economics of Renewable Energy Sources	Cindy Riley, NREL

Ocean Energy

Introductory Remarks on Ocean Energy	Fred E. Saalfeld, National Defense University
Overview on Thermal Ocean Energy	Robert Nicholson, President, Sea Solar Power, Inc.
Wave and Tidal Energy	George Taylor, President, Ocean Power Technology, Inc.

Methane Hydrates: Abundant in Energy from the Sea

Welcoming Remarks	Admiral Paul Gaffney, President, National Defense
Law of the Sea	John Norton Moore, Professor of Law, Univ. of Virginia
Methane Hydrate Distribution and Exploration	Bill Dillon, Senior Scientist (retired), USGS
Industry Viewpoints on Methane Hydrates	Art Johnson, Chair, Advisory Panel to Assistant Secretary for Fossil Energy, DOE
Industry Perspective on Methane Hydrate	Emrys Jones, Mgr., Joint Industry Projects, Chevron Texaco
International Efforts, Current & Future	Tim Collett, USGS
US Energy Position on Methane Hydrates	Brad Tomer, DOE/NETL
UK/European Involvement on Gas Hydrates	John Rees, British Geological Survey
Indian Efforts on Hydrate Exploration	Vidyadhar Kamath, Reliance Industries Ltd., India
Status on Technology of Hydrates	Bill Dillon/Bhakta B. Rath, NRL

Hydrogen

Welcoming Remarks	Timothy Coffey, NDU
U.S. Transition to Hydrogen Economy	Valri Lightner, DOE
Hydrogen Production	Robert Williams, Princeton University
Challenges and Opportunities for Implementing a Hydrogen Economy	Gregory Keenan, Air Products
Fuel Cells	Wayne Surdoval, NETL

Summary

UK Energy Policy	John Hassard, Imperial College
The basic long-term energy choices	Paul Weisz, Professor Emeritus, University of Pennsylvania
DOD Future Energy Needs	Stuart Funk, Defense Energy Supply Center
Economic Implications of Natural Gas and Future Energies	Matthew Simmons, CEO, Simmons and Company