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POLAND'S NATURAL GAS REVOLUTION: ENERGY, SECURITY AND GEOPOLITICS

WEDNESDAY, OCTOBER 19, 2011

**KELLY INTERNATIONAL CONFERENCE FACILITY
JAMES A. BAKER III HALL, RICE UNIVERSITY**

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About the Conference

In recent years, Poland has served as a major energy importer and as an important transit country for natural gas between Russia and Europe. Currently, Russia supplies nearly a quarter of Western Europe's natural gas needs and approximately 82 percent of Poland's domestic gas consumption. Yet with an estimated 1.4 to 3 trillion cubic meters of potential shale gas resources across the country, Poland can play a significant role in reshaping Europe's energy map. Poland's unconventional reserves offer the country a unique opportunity for business, trade and energy security. The United States, too, has a strong interest regarding the future of Poland's energy industry. Energy trade and investment between the United States and Poland can enhance the already strong economic, political and security relationships that exist between the two nations. As strong allies, the two countries can work together in diversifying and securing Poland's energy future. The conference "Poland's Natural Gas Revolution: Energy, Security and Geopolitics" brings together high-level Polish and U.S. government officials, industry experts, policymakers and academic specialists to address the opportunities for natural gas production, diversification of supply sources, expansion of underground storage capacity and development of necessary infrastructure in Poland. Experts will address the technological, political and regulatory developments that need to be considered as Poland's energy sector faces a new future.

Organizing Partners

Baker Institute Energy Forum

Located in Houston, Texas, the energy capital of the world, the James A. Baker III Institute for Public Policy has created a multifaceted program designed to promote original, forward-looking discussion and research on the energy-related challenges facing our society in the 21st century. The mission of the Energy Forum is to shed light on important trends — both regional and global — that shape the nature of global energy markets and influence the quantity and security of vital supplies needed to fuel world economic growth and prosperity. The choice of the word "forum" is deliberate. It reflects our goal to serve as a focal point for the exchange of ideas on how to improve understanding of the complex political, cultural, religious, economic and social forces that influence open access to energy resources and their equitable distribution.

Embassy of the Republic of Poland

Sponsors

The Baker Institute Energy Forum would like to thank Marathon Oil Corporation and ConocoPhillips for their generous support of this event.



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Wednesday, October 19, 2011

8:00 am Continental Breakfast

Welcoming Remarks

9:00 am **The Honorable Edward P. Djerejian**
Founding Director, James A. Baker III Institute for Public Policy

Introduction

9:15 am **His Excellency Robert Kupiecki**
Ambassador of the Republic of Poland to the United States of America

Keynotes

9:30 am **Her Excellency Beata Stelmach**
Undersecretary of State, Ministry of Foreign Affairs of the Republic of Poland

The Honorable Richard Morningstar
Special Envoy of the United States Secretary of State for Eurasian Energy

10:30 am Coffee Break

10:45 am **The Honorable Christopher Smith**
Deputy Assistant Secretary for Oil and Natural Gas, Office of Fossil Energy, U.S. Department of Energy

Panel I – Unconventional Natural Gas

11:15 am **Pawel Jagosiak**
Deputy Chairman of the Shale Gas Task Team, Polish Oil and Gas Company (PGNiG)

Andrzej J. Kozlowski
Executive Director for Strategy and Project Portfolio Management, PKN ORLEN

Timothy J. Probert
President of Strategy and Corporate Development, Halliburton Company

Moderator

Amy Myers Jaffe
Wallace S. Wilson Fellow in Energy Studies and Director of the Energy Forum,
James A. Baker III Institute for Public Policy

1:00 pm Lunch

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Wednesday, October 19, 2011 (continued)

Panel II – Market Structure, Regulatory Policy and Infrastructure Development

2:15 pm

Annell R. Bay

Senior Vice President for Exploration, Marathon Oil Corporation

Ian Brzezinski

Senior Fellow in the International Security Program, Atlantic Council

The Honorable David Johnson

Deputy Assistant Secretary for Petroleum Reserves, Office of Fossil Energy, U.S. Department of Energy

Jerzy Melaniuk

Chairman of the Management Board, PERN "Przyjaźń"

Pawel Olechnowicz

President of the Board and CEO, Grupa LOTOS

Pat Wood III

Principal, Wood3 Resources; and Board Member, American Council on Renewable Energy

Moderator

Kenneth B. Medlock III, Ph.D.

James A. Baker, III, and Susan G. Baker Fellow in Energy and Resource Economics,
James A. Baker III Institute for Public Policy

5:00 pm

Reception

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Participant Biographies

Annell R. Bay is senior vice president for exploration for Marathon Oil Corporation. She joined Marathon in June 2008. Immediately before joining Marathon, Bay was vice president for Americas exploration at Shell Exploration and Production Company since 2004. Prior to Shell, she held the positions of vice president for worldwide exploration in Houston, Texas, and vice president for North America exploration in Denver, Colo., for Kerr-McGee Corporation. Bay has also worked at Oryx Energy Company, where her responsibilities included serving as manager for international exploration. She began her career in 1980 as an exploration geologist for Shell Oil Company in New Orleans, La. Bay serves as a board member of the National Ocean Industries Association, a trustee of the American Geological Institute Foundation, an advisory council member of the Jackson School of Geosciences' Geology Foundation at The University of Texas at Austin (UT), and an advisory committee member of the Bureau of Economic Geology at UT. She is a member of the American Association of Petroleum Geologists, the Houston Geological Society and on the advisory committee board of the Womens Global Leadership Conference. Bay holds a bachelor's degree in geology from Trinity University in San Antonio, Texas, and a master's degree in geology from UT.

Ian Brzezinski is a senior fellow in the International Security Program of the Atlantic Council, where he also serves on the Strategic Advisers Group. He brings to the council more than two decades of experience in U.S. national security matters, having served in senior policy positions for the U.S. Department of Defense and the U.S. Congress. Brzezinski served as deputy assistant secretary of defense for Europe and NATO policy from 2001 to 2005. He also served as a volunteer in Ukraine from 1993 to 1994, where he advised the Ukrainian National Security Council, Foreign Ministry, Defense Ministry and Parliament. Prior to that, he served as a member of the Policy Planning Staff in the U.S. Department of Defense, a consultant to the Center for Naval Analysis and a support analyst/information assistant at the National Security Council. Brzezinski worked for five years as a principal at Booz Allen Hamilton Inc., providing policy and technical support to U.S. combatant commands and foreign clients. Today, he leads the Brzezinski Group, which provides strategic insight and advice to government and commercial clients. For his public service, Brzezinski has been awarded the Department of Defense Medal for Distinguished Public Service; the Order of the Lithuanian Grand Duke Gediminas; the Latvian Ministry of Defense Award; the Romanian Medal for National Service, Order of Commander; and the Order of Merit, Officer Class, from the Republic of Poland.

The Honorable Edward P. Djerejian served in the U.S. Foreign Service for eight presidents, from John F. Kennedy to William J. Clinton (1962–1994). Prior to his nomination by President Clinton as U.S. ambassador to Israel (1993–1994), he was assistant secretary of state for Near Eastern affairs in both the George H.W. Bush and Clinton administrations (1991–1993). He was the U.S. ambassador to the Syrian Arab Republic (1988–1991). He also served as special assistant to President Ronald Reagan and deputy press secretary for foreign affairs in the White House (1985–1986). After his retirement from government service in 1994, Djerejian became the founding director of the James A. Baker III Institute for Public Policy at Rice University. His book "Danger and Opportunity: An American Ambassador's Journey Through the Middle East" was published by Simon & Schuster Threshold Editions in September 2008. He has been awarded the Presidential Distinguished Service Award, the Department of State's Distinguished Honor Award and numerous other honors, including the Ellis Island Medal of Honor and the Anti-Defamation League's Moral Statesman Award. He is also a recipient of the Association of Rice Alumni's Gold Medal, the group's most prestigious award, for his service to Rice University. In 2011, Djerejian was elected a fellow of the American Academy of Arts and Sciences, and named to the board of trustees of the Carnegie Corporation of New York.

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Participant Biographies (*continued*)

Amy Myers Jaffe is the Wallace S. Wilson Fellow in Energy Studies and director of the Energy Forum at the Baker Institute, as well as associate director of the Rice Energy Program. Jaffe's research focuses on oil geopolitics, strategic energy policy including energy science policy, and energy economics. Jaffe was formerly senior editor and Middle East analyst for Petroleum Intelligence Weekly. She is widely published and served as co-editor of "Energy in the Caspian Region: Present and Future" (Palgrave, 2002) and "Natural Gas and Geopolitics: From 1970 to 2040" (Cambridge University Press, 2006), and as co-author of "Oil, Dollars, Debt and Crises: The Global Curse of Black Gold" with Mahmoud A. El-Gamal (Cambridge University Press, 2010). Jaffe also contributed to Foreign Policy's "21 Solutions to Save the World" (May/June 2007). She served as a member of the reconstruction and economy working group of the Baker/Hamilton Iraq Study Group, as project director for the Baker Institute/Council on Foreign Relations Task Force on Strategic Energy Policy, and as a principal adviser to USAID's project on "Options for Developing a Long Term Sustainable Iraqi Oil Industry." She currently serves as a strategic adviser to the American Automobile Association (AAA) of the United States and is a member of the Council on Foreign Relations. Jaffe was among the Key Women in Energy–Americas honorees in the Pathfinders/Trailblazers category (2004), the honoree for Esquire's annual 100 Best and Brightest in the contribution to society category (2005), Elle magazine's Women for the Environment (2006), and was named to Who's Who in America (2008). Jaffe is a Princeton University graduate with a degree in Arabic studies.

Pawel Jagosiak is the deputy chairman of the Shale Gas Task Team of the Polish Oil and Gas Company (PGNiG), where he has worked since 1993. As part of the Shale Gas Task Team, he coordinates exploration for shale gas on all PGNiG's licenses and negotiates joint operations with many foreign companies in Poland and in North America. Previously, Jagosiak served as chairman of the Operating Committee, responsible for PGNiG's operations in Denmark. In 2001, Jagosiak was appointed regional manager for the Polish Lowlands and Lublin Basin. His main task was to explore the Zechstein and Rotliegendes oil and gas fields in West Central Poland. After this exploration resulted in commercial discoveries, he was appointed chief adviser to the exploration director of PGNiG. In this position, he was involved in many negotiations, including PGNiG's first big acquisition of Norwegian Sea production assets. He also was involved in negotiating oil contracts in Iran, Libya, Denmark, Azerbaijan, Tunisia and Algeria. Prior to this, Jagosiak served as an economic analyses investments team leader, implementing geological risk analyses into the company. He graduated from the University of Warsaw, where he studied geology and the sedimentology of the Rotliegendes.

The Honorable David Johnson is the deputy assistant secretary for the Office of Petroleum Reserves in the U.S. Department of Energy (DOE) Office of Fossil Energy. He is responsible for the management and direction of the Strategic Petroleum Reserve, the Northeast Home Heating Oil Reserve and the Naval Petroleum and Oil Shale Reserves programs. Johnson has been with the DOE and the Strategic Petroleum Reserve program since 1979. He was the director of planning and engineering for more than 20 years and was instrumental in the establishment of development plans and configurations for the current U.S. stockpiling system, the establishment of the Northeast Home Heating Oil Reserve, the development of plans and designs for the expansion of the reserve to 1 billion barrels, and initiating a cost-savings program to commercialize the oil reserve's distribution facilities. Johnson has been active with other international stockpiling organizations, participating in the Annual Coordinating Meeting of Entity Stockholders and the International Benchmarking Study Group. Prior to his career with the DOE, He was employed for seven years with the U.S. Department of the Navy in Washington, D.C., and five years with the National Aeronautics and Space Administration in Cleveland, Ohio. Johnson has a Bachelor of Science from Western Illinois University and a Master of Business Administration from Southern Illinois University.

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Participant Biographies (continued)

Andrzej J. Kozłowski has served as executive director for strategy and project portfolio management at PKN ORLEN since 2009. He is also a member of supervisory board of Unipetrol and chairman of supervisory board of ORLEN Upstream. Prior to his career at PKN ORLEN, Kozłowski was involved in the telecommunications, new technologies and media sectors. He started his professional career in 1998, initially gaining experience as a consultant at American Management Systems (now CGI) and Avantis Consulting Group. He participated in numerous consulting projects in Portugal, Germany, the United States and Poland. From 2001 to 2005 and 2006 to 2009, he worked for Telekomunikacja Polska Group, where he was responsible for managing strategic projects for the management board, both in the parent company and in its subsidiaries. Afterwards, he was employed as a director of strategy, project management and regulatory relations at TP Emittel. His focus was on developing the firm's strategy, cooperation with external organizations and partners, and key strategic initiatives. Between 2005 and 2006, Kozłowski worked as a project director at Prokom Software. He is one of the founders of The Society of Practical Knowledge Management. Kozłowski graduated from the WSB National–Louis University in Nowy Sącz with a B.A. in management and marketing. He also holds an MBA in corporate strategy and industrial policy from the Maastricht School of Management. He has completed several international and domestic management trainings, including courses in project management, situational leadership and situational team leadership.

His Excellency Robert Kupiecki is the ambassador of the Republic of Poland to the United States. At present, he is one of the key players in the process associated with the possible installation of the elements of the U.S. anti-missile shield facilities in Poland. He participated and led Polish delegations participating in the work of various international organizations, including NATO, the Organization for Security and Co-operation in Europe, the UN and other forums dealing with the disarmament, armament control and nonproliferation issues associated with weapons of mass destruction. He is a recognized expert in the field of security policy. He is also the author and co-author of many books and articles on modern history and international relations. Previously, Kupiecki served as director of the Security Policy Department. In the 1990s, he was one of the pillars of the Poland's accession to NATO. Kupiecki also worked as junior lecturer at the Historical Institute of the Polish Academy of Sciences. Among his awards and honors are the Officer's Cross of Merit of the Republic of Lithuania, Gold and Silver Medals "For the Services for the Country's Defense," and the Silver Medal of the Ministry of Foreign Affairs of the Republic of Slovakia. Kupiecki obtained a master's degree with distinction from the University of Warsaw Department of History. He holds a Ph.D. in political science and specializes in international relations. He is also a graduate of the National School of Public Administration and the Geneva Centre for Security Policy.

Kenneth B. Medlock III, Ph.D., is the James A. Baker, III, and Susan G. Baker Fellow in Energy and Resource Economics at the Baker Institute and an adjunct professor and lecturer in the Department of Economics at Rice University. Currently, Medlock heads the Baker Institute Energy Forum's natural gas program and is a principal in the development of the Rice World Natural Gas Trade Model, which assesses the future of international natural gas trade. He also teaches energy economics courses and supervises students in the energy field. Medlock studies natural gas markets, gasoline markets, energy commodity price relationships, transportation, modeling national oil company behavior, economic development and energy demand, forecasting energy demand, and energy use and the environment. Medlock is a council member of the International Association for Energy Economics (IAEE), and a member of United States Association for Energy Economics (USAEE), The American Economic Association and the Association of Environmental and Resource Economists. In 2001, he won (with Ron Soligo) the IAEE Award for Best Paper of the Year in the Energy Journal. In 2011, he was given the USAEE's Senior Fellow Award. Medlock also served as an adviser to the U.S. Department

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Participant Biographies (*continued*)

of Energy and the California Energy Commission in their respective energy modeling efforts. He was the lead modeler of the Modeling Subgroup of the 2003 National Petroleum Council (NPC) study of long-term natural gas markets in North America, and is involved in the ongoing NPC study “North American Resource Development.” Medlock received his Ph.D. in economics from Rice and held the MD Anderson Fellowship at the Baker Institute from 2000 to 2001.

Jerzy Melaniuk is the chairman of the board of PERN “Przyjaźń” S.A, where he was appointed a member in December 2008. He supervises the Maintenance Office, Investment Office, Throughput Office of Crude Oil and Fuels, and Safety and Prevention Office. He is also chairman of the supervisory board of CDRIA Pipeline Services Ltd. Prior to working for PERN, Melaniuk was a scientific worker at the Gdańsk University of Technology and an attorney at Wayss & Freytag Ingenieurbau AG in Hamburg and Colcrete-von Essen GmbH & Co. KG in Rastede. Previously, he was director of the subsidiary of Metalcoop Handels GmbH and chairman of the board of Metalcoop Polska, as well as a proxy of Najder Engineering. He has also worked abroad at Uppsala University in Sweden; Mayfair Shipping Limited, London; and Metalcoop GmbH Duesseldorf. Melaniuk graduated from the Gdańsk University of Technology and the Postgraduate School of University Teachers of Gdańsk University of Technology, and has completed numerous professional training courses.

The Honorable Richard L. Morningstar is the special envoy for the U.S. secretary of state for Eurasian energy. Appointed by U.S. Secretary of State Hillary Clinton, he was sworn in on April 6, 2009. Prior to his appointment, Morningstar lectured at Harvard University’s Kennedy School of Government and Stanford Law School; he has also taught at Brown University and Boston College Law School. Since October 2001, he has served as a senior director with Stonebridge International LLC, an international strategy firm. Morningstar has served as U.S. ambassador to the European Union, special adviser to the president and secretary of state for Caspian Basin energy diplomacy, ambassador and special adviser to the president and secretary of state on assistance for the new independent states of the Former Soviet Union, and senior vice president of the Overseas Private Investment Corporation. He is the author of numerous articles on foreign policy, including “The FSC Challenge,” “The Three-Dimensional Practice of Law in the International Arena,” “Unilateralism, Multilateralism and the National Interest” (co-authored with Coit Blacker), “The Baku-Tbilisi-Ceyhan Pipeline: A Retrospective and a Look at the Future” and “The Great Game: An Opportunity for Transatlantic Cooperation.”

Paweł Olechnowicz was named president and CEO of Grupa LOTOS in March 2002. His strong leadership and managerial skills transformed the small refinery into one of Europe’s most dynamic oil companies. Olechnowicz started his professional career working for Zamech in 1977. From 1990 to 1996, he was the CEO of ABB Zamech Ltd. and later was named vice president for Central and Eastern Europe at the world ABB headquarters in Zurich. From 1999 to 2000, he served as the vice president and deputy CEO of Grupa Kety. Before taking up his current post at Grupa LOTOS, he ran Paweł Olechnowicz Consulting. In 2009, Olechnowicz was elected president of the prestigious Polish Higher Education-Business Forum. Most recently, was named the chairman of board of directors of Central European Energy Partners. Olechnowicz graduated from AGH University of Science and Technology in Kraków; completed a postgraduate course in organization, economics and industrial management at Gdańsk University of Technology; received an MBA from INSEAD, Fontainebleau; and has attended many specialized courses in management in Poland and abroad.

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Participant Biographies (continued)

Timothy J. Probert has been president of strategy and corporate development at Halliburton Company since January 2011, where he also served as president of global business lines and corporate development from January 2010 to January 2011. Previously, Probert served as senior vice president of drilling and evaluation, digital solutions, of Halliburton Energy Services Inc. from May 2006 to December 2007. He also has served Halliburton Company as president of the Drilling and Evaluation Division, president of corporate development, executive vice president of strategy and corporate development, and vice president of drilling and formation evaluation. Probert also served as president and CEO of ION Geophysical (formerly Input Output Inc.). He spent 27 years with various operating units of Baker Hughes Inc., a leading provider of drilling formation, evaluation, completion and production products and services to the worldwide oil and gas industry, and served as president of Baker Hughes' INTEQ division, one of the leading providers of technical solutions to the drilling and production sectors of the energy industry. He has been a director of El Paso Corporation since December 2009, and served as a director of ION Geophysical from 2000 to 2003. He is a member of the corporate advisory board of the American Association of Petroleum Geologists.

The Honorable Christopher Smith is deputy assistant secretary for oil and natural gas in the Office of Fossil Energy of the U.S. Department of Energy (DOE). In this position, Smith is responsible for administering domestic and international oil and gas programs, including research and development, policy analysis, and natural gas import and export licensing. The Oil and Natural Gas Office leads the DOE's liquefied natural gas (LNG) program, which involves safety analysis and other technical issues. Prior to his DOE appointment in October 2009, Smith served in managerial and analytical positions of increasing responsibility in the private sector. Most recently, he spent 11 years with two major international oil companies, focused primarily on upstream business development and LNG trading, including three years negotiating production and transportation agreements in Bogotá, Colombia. Smith began his career as an officer in the U.S. Army and served tours in Korea and Hawaii. He subsequently worked for Citibank and JPMorgan in New York City and London in the area of emerging markets and currency derivatives. Smith holds a bachelor's degree in engineering management from the United States Military Academy, West Point, and an MBA from the University of Cambridge.

Her Excellency Beata Stelmach is the undersecretary of state at the Ministry of Foreign Affairs of the Republic of Poland. From 2008 to 2011, she served as partner and vice president of MCI Management SA, a PE/VC management company listed on the Warsaw Stock Exchange. Prior to that, Stelmach was a member of the management board of Intrum Justitia Association of Investment Funds from 2005 to 2007, and she was a board member of Prokom Software SA, the biggest Polish software house at that time, from 2001 to 2005. From 2000 to 2001, she was president of the management board of the Warsaw Commodity Board of Trade. In 1999, she participated in the introduction of Pekao/Alliance PTE SA — a newly created pension fund to the Polish market. As a consultant of The World Bank, she participated in programs for the development of the capital markets in the Ukraine (1996) and in Russia (1997). Stelmach started her career in 1991 just after the economic transformation in Poland had started. She was employed in the Enforcement Department of the Polish Securities and Exchange Commission (SEC), and later concurrently as the commission's secretariat director and spokesperson. During this time, she was responsible for working with the forum of International Organization of Securities Commissions (IOSCO), where she was chairing the working group in charge of the enforcement and exchange of information. She also participated in the negotiations on accession of Poland to the Organisation for Economic Co-operation and Development and the EU.

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Participant Biographies (continued)

Pat Wood III, principal at Wood3 Resources and an energy infrastructure developer based in Houston, Texas, is the past chairman of the Federal Energy Regulatory Commission and of the Public Utility Commission of Texas. In his regulatory career in the natural gas, transportation, telecommunications and electric power industries, Wood was a forceful advocate for replacing government-centered energy regulation with a more competitive model. He is currently leading an effort with Sharyland Utilities to develop power transmission in the Texas Panhandle using new generation resources. He also serves as a strategic adviser to Natural Gas Partners, a private equity firm, and is an independent director for four infrastructure companies: SunPower Corp., a solar technology company; Quanta Services, a utility infrastructure contractor; Xtreme Power Solutions, a utility-scale storage provider; and Range Fuels, an advanced biofuel manufacturer. He is a member of the National Petroleum Council and is on the board of the American Council on Renewable Energy. Until December 2007, Wood led the North American Advisory Board of Airtricity, an international wind energy firm. Under Gov. George W. Bush, Wood chaired the Public Utility Commission of Texas, which led successful efforts to introduce competition and deregulation to the wholesale and retail electric power industries. Wood holds a degree from Texas A&M University in civil engineering and a law degree from Harvard Law School.