

7th Transatlantic Energy Governance Dialogue

Towards a Nuclear Power Renaissance?
Challenges for Global Energy
Governance

Participants' Booklet

With support from:



European
Commission

— Potsdam, 4 – 5 March 2010

Conference Program

DAY 1

01:00pm **Arrival, Registration and Light Lunch**

02:00pm **Welcome and Introduction**

- *Björn Conrad, Research Associate, Global Public Policy Institute*
- *Peggy Knudson, Director of Development, Foreign Policy Studies Program, Brookings Institution*

02:30pm **PANEL DISCUSSION I**

True benefits or hidden costs - What can really be expected from nuclear energy and its future in the global energy mix?

Global energy needs have changed, as traditional energy supplies are increasingly failing to meet rising global demands and climate change requires a shift towards a low-carbon or no-carbon power sources. As a result, some argue that the role of nuclear energy needs to be reevaluated in this context. From their perspective, nuclear power is a necessary ingredient of an energy mix that ensures security of supply and reduces carbon emissions. And indeed, some countries (including Finland, the UK, China and others) have recently made significant new investments in nuclear power.

This panel will address key questions concerning the true merits and hidden pitfalls of nuclear energy as a clean and reliable power source. It will provide an evaluation of recent developments of the nuclear energy landscape and the key trends of the so-called “nuclear renaissance” that will serve as the basis of further discussions. This stocktaking of the current state of nuclear energy will include the role of involved actors, from industry to governments. The panel will also touch on the various criticisms that put the real benefits of nuclear power in doubt, including scrutinizing the carbon intensity, reliability and market-based viability of nuclear power.

Panelists:

- *Nathan Hultman, Assistant Professor, School of Public Policy, University of Maryland*
- *Urban Rid, Director General, Climate Protection, Environment and Energy, Renewable Energies, International Cooperation, German Federal Ministry for Environment*
- *Wolfgang Dirschauer, Vattenfall Europe AG*

Commentator:

- *Benjamin K. Sovacool, Research Fellow, National University of Singapore*

Moderated by: *Björn Conrad, Research Associate, Global Public Policy Institute (GPPi), Berlin*

Q&A

04:00pm Coffee Break

04:30pm WORKING GROUP SESSION (I)

Assessing the opportunities of the global nuclear energy market

Following the insights presented during the panel discussion, the working groups will delve deeper into the discussion of potential benefits of nuclear power and their limits. Regarding all advantages put forward by proponents of the nuclear renaissance, the true extent of the corresponding benefits is highly disputed. The in-depth assessment and scrutinizing of the merits of nuclear power relating to climate change, energy security and economic profits is the goal of this working group session.

WORKING GROUP A

Carbon accounting – How green is nuclear energy?

Presenting nuclear power as a low-carbon energy source and a potential key instrument for fighting climate change has become one of the most prominent arguments of the proponents of nuclear power. However, some due diligence regarding the real carbon footprint of nuclear energy is certainly needed. The installation of nuclear power infra-structure, in generation as well as waste storage, and the operation of nuclear plants including the mining and transport of uranium feature a range of carbon-intensive activities that cast doubt over the eco-friendliness of nuclear energy. This working group will take a close look at the question of how green nuclear power really is, how it contributes to carbon emission reductions and how it fares in comparison to other energy sources.

Introduction: *Benjamin K. Sovacool, Research Fellow, National University of Singapore*

Commentator: *Paul Meier, Director, Energy Institute at the University of Wisconsin-Madison*

WORKING GROUP B

Bottomless pit? – Assessing the “business case” for nuclear power

In assessing the benefits of nuclear power, one important aspect is the economic reality of nuclear energy as a competitive energy source. Critics point out that the immense costs of infra-structure, illustrated by the massive subsidies required to construct new plants, as well as the enormous risks associated with nuclear power that cannot be effectively account for through existing insurance schemes and therefore necessitate government guarantees, prevent nuclear power from becoming

economically and financially viable in a sustainable manner. This working group will examine the “business case” for nuclear power, approaching the question of how viable nuclear energy is and will be in market terms. The discussion will include key trends that might influence the nuclear business case in the mid-term future, for example the further development of the price of carbon emissions.

Introduction: *Craig Severance, CPA and Editor and Founder of Energy Economy Online*

WORKING GROUP C

Nuclear self-sufficiency – Can nuclear power pave the road towards energy independence?

The central issue of energy security and dependence also plays an important role regarding the assessments of the merits of nuclear power. The prospect of reducing dependency on foreign oil and gas is a tempting argument for the expansion of nuclear energy. On the one hand, this working group will be concerned with exploring the true potential of nuclear energy reduce energy dependencies, especially in the light of uranium supply challenges. On the other hand, the discussion will also take into account the new dependencies that emerge as a result of a potential nuclear renaissance, not only with regards to access to the increasingly scarce resources of uranium, but also concerning technology- and infrastructure-driven dependencies, for example in the case of enrichment facilities.

Introduction: *Antony Froggatt, Senior Research Fellow, Energy, Environment and Resource Governance, Chatham House*

Commentator: *Jessica Jewell, Doctoral Researcher, Central European University*

05:45pm

Break

06:30pm

Dinner

09:00pm

After Dinner Keynote

Topic: Peaceful Use of Nuclear Energy - a Solid Pillar of the Nuclear Non-Proliferation Treaty or a Trojan Horse for Proliferation?

Speaker: *Ambassador Peter Gottwald, Commissioner of the Federal Government for Arms Control and Disarmament, German Federal Foreign Office*

DAY 2

09:00am

PANEL DISCUSSION II

A controllable technology? Assessing the global risks of nuclear power

The special character of nuclear power and the intensity of the debate surrounding the use of nuclear energy is rooted in the enormous dangers that are connected to radioactive material. The possibility of catastrophic events, both through nuclear accidents and the intentional use of nuclear material in weapons, as well as the long-term health implications of radiation pose considerable risks that will have to play a central role in every discussion about the merits and dangers of nuclear power. The panel discussion will focus on the overall questions of the perception, assessment and management of the risks of nuclear energy, key developments over time and outlook into the future.

Panelists:

- *Jean-Paul Glatz, Head of Nuclear Chemistry Department, Institute for Transuranium Elements, Joint Research Centre, European Commission*
- *Jean-Pol Poncelet, Senior Vice President, Sustainable Development and Continuous Improvement, AREVA*
- *TBD*

Moderated by: *Stephan Mergenthaler, Research Associate, Global Public Policy Institute (GPPi), Berlin*

Q&A

10:30am

Coffee Break

11:00am

WORKING GROUP SESSION (II)

Playing with fire? - Assessing the risks of nuclear power in the 21st century

Building on the panel discussion, the working groups will provide a more detailed picture on specific risk dimensions of nuclear power. They will cover the issues of nuclear safety and the risk of catastrophic accidents in nuclear power plants, the problem of long-term nuclear waste storage and reprocessing as well as the dimension of nuclear proliferation and military use of nuclear material by state as well as non-state actors.

WORKING GROUP A

A disaster waiting to happen? The variables of reactor risk management

Based on an introduction of the current safety situation of nuclear reactors around the world, this working group will focus on the question of how the risk of catastrophic reactor accidents has to be judged; how the current

risk governance systems on the national and international level works; and how it would need to be changed in order to be able to tackle the challenges of a potential expansion of nuclear power generation. A special focus of this working group will be put on the case of China, where a grand-scale expansion of nuclear energy generation meets a disputed system of national risk governance.

Introduction: *Anthony Hechanova, Associate Executive Director for Sustainable and Clean Energy Programs, Harry Reid Center for Environmental Studies, University of Nevada, Las Vegas*

Commentator: *Chrisoph Pistner, Researcher, Nuclear Engineering & Facility Safety, Öko-Institut e.V.*

WORKING GROUP B

Long-term nuclear waste storage and nuclear reprocessing

The long-term dangers of radiation from nuclear waste is at the very core of assessing the risks of nuclear energy. The procedures of waste storage and waste reprocessing pose a lot of questions yet to be answered. This working group will discuss the technological as well as the political dimension of storage and reprocessing on the national as well as international level. It will also zoom in on the security implication of waste storage regarding the potential theft of fissile material and nuclear terrorism. One focus area will be the empirical record of nuclear reprocessing in Japan and France and the implications for the viability of reprocessing as an option for addressing the challenges of nuclear waste management and proliferation risks at the same time.

Introduction: *Sharon Squassoni, Center for Strategic and International Studies (CSIS)*

Commentator: *Mark Gaffigan, Director, Energy Issues, Natural Resources and Environment Team, U.S. Government Accountability Office*

WORKING GROUP C

Making civilian nuclear technology and material proliferation-proof

The possibility of the usage of nuclear technology and material for non-peaceful purposes in its various forms, from nuclear war to terrorism, has plagued humankind for decades. The prevention of the proliferation of nuclear technology and material has to be one of the most crucial concerns when considering nuclear energy. This working group will discuss the dangers of nuclear proliferation and explore ways of managing this particular risk of nuclear power. A special focus of the discussion will be various existing proposals with the objective to multilateralization of the nuclear fuel cycle. Putting sensitive nuclear fuel cycle activities under exclusive control of the International Atomic Energy Agency (IAEA) is

one possible way to overcome the security dilemma regarding the peaceful use of nuclear energy.

Introduction: *Yuri Yudin, Senior Researcher and Project Manager, United Nations Institute for Disarmament Research (UNIDIR)*

Commentator: *Stephan Mergenthaler and Joel Sandhu, Research Associates, Global Public Policy Institute (GPPi)*

12.15pm **Lunch**

01:45pm **PANEL DISCUSSION III**

A Transatlantic Agenda for Global Nuclear Governance

The opportunities and dangers associated with the use of nuclear energy are increasingly multinational and global in nature and therefore call for mechanisms of global governance. A nuclear program in one country becomes porous to national borders and involves governments, non-governmental organizations and businesses from many countries. The opportunities and challenges of today have moved international cooperation closer, however are multilateral, bilateral and regional agreements equipped for governing the risks and challenges of nuclear energy amidst these new trends and into the future? What are the main impediments to their effectiveness and how will the governance structures need to adapt to the new global environment?

Panelists:

- *Joachim Pfeiffer, Member of German Parliament and Speaker for Political and Economic Affairs, CDU-CSU*
- *R. Andreas Kraemer, Chairman, Ecologic Institute, Washington DC*
- *Helga Flores Trejo, Nonresident Fellow, Foreign Policy, Center on the United States and Europe, the Brookings Institute*

Moderated by *Andreas Goldthau, Associate Professor, CEU and Fellow, GPPi*

Q&A

03:15pm **CONCLUDING DISCUSSION**

Moderated by *Andreas Goldthau, Associate Professor, CEU and Fellow, GPPi*

03:30pm **Farewell**

List of Participants

Mr. Cameron ABADI

Germany correspondent, GlobalPost and freelance Journalist

Mr. Thorsten BENNER

Associate Director, Global Public Policy Institute (GPPi), Berlin

Ms. Ulrike BRÖDERMANN

Zweites Deutsches Fernsehen (ZDF)

Mr. Björn CONRAD

Research Associate, Global Public Policy Institute (GPPi), Berlin

Mr. Wolfgang DIRSCHAUER

Head of Climate Policy, Vattenfall Europe AG

Ms. Helga FLORES TREJO

Nonresident Fellow, Foreign Policy, Center on the United States and Europe, the Brookings Institute

Mr. Antony FROGGATT

Senior Research Fellow, Energy, Environment and Resource Governance, Chatham House

Mr. Johannes GABRIEL

Research Associate, Society and Technology Research Group in Berlin, Daimler AG

Mr. Mark GAFFIGAN

Director, Energy Issues, Natural Resources and Environment Team, U.S. Government Accountability Office

Dr. Clara GARCIA

Associate Professor, Applied Economics, Universidad Complutense de Madrid

Dr. Jean-Paul GLATZ

Head of Nuclear Chemistry Department, Institute for Transuranium Elements, Joint Research Centre, European Commission

Dr. Andreas GOLDTHAU

Associate Professor, Central European University and Fellow, GPPi

Ambassador Peter GOTTWALD

Commissioner of the Federal Government for Arms Control and Disarmament, German Federal Foreign Office

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Mr. Jens HOBOHM

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Climate and Energy Analyst, Vattenfall Europe AG

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Dr. Birgit WETZEL

Journalist

Mr. Yuri YUDIN

Senior Researcher and Project Manager, United Nations Institute for Disarmament Research (UNIDIR)

Participants' Biographies



Mr. Cameron ABADI

Germany correspondent, GlobalPost and freelance Journalist

Cameron Abadi is the Germany correspondent for GlobalPost, as well as a regular contributor to Foreign Policy magazine, Internationale Politik and Die Zeit. He's also been a contributor to numerous other publications, including World Policy Review, the Financial Times Magazine, and Der Spiegel. He has on multiple occasions served as a correspondent in Iran, including during the 2009 presidential election and its aftermath. His writing focuses on European politics and economics; Iranian political culture; and American foreign policy towards the Middle East. He earned his BA at Yale University in 2005; he received his MA from the JFK Institute at the Free University in Berlin, where he studied as a Fox Fellow.



Mr. Thorsten BENNER

Associate Director, Global Public Policy Institute (GPPi), Berlin

Thorsten Benner is Associate Director of the Global Public Policy Institute (GPPi), Berlin. His areas of expertise include international organizations (focusing on the United Nations), global security governance, EU foreign policy and EU-US relations as well as corporate social responsibility and the public-private interface in global governance. Prior to co-founding the Global Public Policy Institute in 2003, he worked with the German Council on Foreign Relations (DGAP), Berlin; the UN Development Program (UNDP), New York; McKinsey & Company, Berlin and the Global Public Policy Project, Washington D. C.

He studied political science, history and sociology at the University of Siegen (Germany), the University of York (UK) and the University of California at Berkeley. From 2001-2003 he was a McCloy Scholar at the Kennedy School of Government, Harvard University where he received a Master in Public Administration (MPA). He received scholarships from the Friedrich Ebert Foundation, the German Academic Exchange Service (DAAD) and the German National Academic Foundation.

Ms. Ulrike BRÖDERMANN

Zweites Deutsches Fernsehen (ZDF)



Mr. Björn CONRAD

Research Associate, Global Public Policy Institute (GPPi), Berlin

Björn Conrad is a Research Associate with the Global Public Policy Institute (GPPi) in Berlin and a PhD candidate at the University of Trier. His research focuses on China's foreign and climate change policy, China's role in global governance and EU-China relations. He also developed a special interest in the political and economic

implications of the Beijing 2008 Olympics and has authored several publications on the topic. His work experience includes teaching fellowships at Harvard University and the University of Trier as well as internships with the German Foreign Office in Berlin and the UN Secretariat in New York. He was also a visiting associate with the Boston Consulting Group's Berlin office. Furthermore, he is engaged in various projects furthering Asian-European exchange within the framework of the Asia Europe Foundation Network.

Björn received an M. A. in Political Science, Chinese Studies and Economics from the University of Trier and a Master in Public Policy from the Kennedy School of Government at Harvard University. He also received a certificate of Chinese language and culture studies from Peking University where he spent the academic year 2002/2003. He obtained scholarships from the German National Merit Foundation (Studienstiftung des Deutschen Volkes), the Fulbright Commission, the Asia Europe Foundation and the German Academic Exchange Service (DAAD).



Mr. Wolfgang DIRSCHAUER

Head of Climate Policy, Vattenfall Europe AG

Wolfgang Dirschauer is Head of Climate Policy at Vattenfall Europe AG. Before joining Vattenfall Europe, Mr Dirschauer worked as Senior Advisor on Energy and Environmental Affairs for the Social Democratic Party in Parliament. He studied Political Science, Modern History and English Literature and holds an M.A. in Political Science from the University of Bonn.



Ms. Helga FLORES TREJO

Nonresident Fellow, Foreign Policy, Center on the United States and Europe, the Brookings Institute

Helga Flores Trejo is a nonresident fellow at Brookings and heads strategic communications for sectors at the Inter American Development Bank's Washington headquarters where she coordinates external relations. Flores Trejo is an expert in German and U.S. foreign policy, European Union affairs, the Balkans and immigration issues.



Mr. Antony FROGGATT

Senior Research Fellow, Energy, Environment and Resource Governance, Chatham House

Antony Froggatt is a Senior Research Fellow at Chatham House where he specializes in issues relating to climate change, EU energy policy and nuclear power. For over 20 years he has worked extensively on EU energy policy for NGOs and think tanks and as a consultant to European Governments, the European Commission and Parliament and commercial bodies. At Chatham House he has co-authored reports on the synergies and conflicts between energy and climate security policies and low carbon development in China.



Mr. Johannes GABRIEL

Research Associate, Society and Technology Research Group in Berlin, Daimler AG

Johannes Gabriel is a Research Associate with the Society and Technology Research Group in Berlin, the Daimler AG's future watch department, and a PhD candidate for International Relations and Foreign Policy at the University of Trier.

His research interests focus on aspects of future studies and strategic foresight. His empirical research focuses on China's political, economical and societal transitions. He is also engaged in research on international order, globalization, and international financial markets. He authored several publications in the leading in-house report for strategic foresight and co-authored several research articles, amongst others for the German Council on Foreign Relations' Yearbook. His work experience includes strategic conversation through conception and moderation activities in national and international workshops. He also has experience as research assistant and in lecturing activities at the University of Trier.

Johannes received an M.A. in Political Science and Economics as well as a certificate of Modern Chinese Language from the University of Trier. For his master thesis he received a distinction from the University's Association of Political Science Alumni.



Mr. Mark GAFFIGAN

Director, Energy Issues, Natural Resources and Environment Team, U.S. Government Accountability Office

Mark Gaffigan is currently serving as Director for the United States Government Accountability Office's (GAO) Natural Resources and Environment team based in Washington, DC. The GAO is an independent, nonpartisan agency that works for Congress and the American people by evaluating and auditing the programs and expenditures of the US government. His current responsibilities include leadership of GAO's work on energy related issues.

Mr. Gaffigan began his career with GAO in 1987 and has worked on a variety of reviews of federal programs with an emphasis on budget and program reviews of the US Department of Energy and Nuclear Regulatory Commission. Related to nuclear waste, Mr. Gaffigan recently led GAO's November 2009 report, Nuclear Waste Management: Key Attributes, Challenges, and Costs of the Yucca Mountain Repository and Two Potential Alternatives (GAO 10-48, available at www.gao.gov) Mr. Gaffigan earned a BA in Economics and a MA in Public Administration from the University of Illinois. He is also a Certified Public Accountant in the state of Maryland where he resides with his family.



Dr. Clara GARCIA

Associate Professor, Applied Economics, Universidad Complutense de Madrid

Dr. Clara Garcia is Associate Professor of Applied Economics at the Universidad Complutense de Madrid since 2005. Her research interests and activities include: China's energy system; Chinese energy policies, with a special focus in the strategy for the supply of foreign hydrocarbons, as well as in regulations for the promotion of renewable energy; Chinese energy security and climate change; China's role in international climate change negotiations; and China's contemporary economy and development. Dr. Garcia has conducted research in various institutions including Universidad Complutense, Madrid; University of California, Berkeley; Chinese Academy of Social Sciences, Beijing; and University of Massachusetts, Amherst. She has participated in international symposiums in various Spanish cities; Brussels, Belgium; Vienna, Austria; Salzburg, Austria; and Kuala Lumpur, Malaysia; among others. Dr. Garcia has authored various publications regarding China, energy security, and climate change, with titles including: *China's Oil Strategy Abroad: Goals, Instruments, and Viability*; *China's Energy Transition: Features and Drivers*; and *Strategic Dilemmas of the Chinese Energy Transition*. She is currently working on a paper entitled *Grid-Connected Renewable Energy in China: Policies and Institutions in a Socialist Market Economy*.



Dr. Jean-Paul GLATZ

Head of Nuclear Chemistry Department, Institute for Transuranium Elements, Joint Research Centre, European Commission

Dr. Jean-Paul Glatz has worked since 1981 at the European Commission's Joint Research Centre (JRC), Institute for Transuranium Elements (ITU), Karlsruhe, in various research fields. From 1998-2008 he was Head of the "Hot Cells" department at ITU responsible for all post irradiation examination work on irradiated fuel and other highly active materials. The main projects are related to the safety of nuclear fuel, spent fuel characterization in view of storage and partitioning and transmutation (P&T). Since 2007 he has been Head of the "Nuclear Chemistry" department, responsible for projects on chemical characterization of irradiated fuel and other highly radioactive materials. The corresponding projects include reprocessing studies, the behavior of spent nuclear fuel under repository conditions, and the behavior of radio-nuclides in the environment and the use of short-lived alpha-nuclides for cancer therapy.

He earned his Ph.D. in Analytical Chemistry and Radiochemistry.



Dr. Andreas GOLDTHAU

Associate Professor, Central European University and Fellow, Global Public Policy Institute

Andreas Goldthau is an Associate Professor with the Department of Public Policy at Central European University, Hungary, where he also heads the Energy Security Program at CEU's newly created Center for Environment and Security.

Previously, Andreas worked as a Transatlantic PostDoc Fellow in International Relations and Security with the Paul Nitze School of Advanced International Studies (SAIS), Johns Hopkins University, the RAND Corporation and the German Institute for International and Security Affairs (SWP); as a Research Fellow with the Institute for East European Studies at the Free University of Berlin; as a Fulbright Senior Scholar with the Elliott School of International Affairs, George Washington University; and as a Robert Bosch Visiting Lecturer with Tyumen State University in Russia. Andreas holds a joint graduate degree in Political Science from the Institut d'Etudes Politiques de Paris and Free University Berlin, a State Certificate in Russian language from Lomonossov University, Moscow, and a PhD from Free University Berlin. His current academic interests focus on energy security and on global governance issues related to oil and gas.



Ambassador Peter GOTTWALD

Commissioner of the Federal Government for Arms Control and Disarmament, German Federal Foreign Office

Since 31 July 2008 Peter Gottwald has been the Commissioner of the Federal Government for Arms Control and Disarmament. He was the Permanent/Resident Representative of the Federal Republic of Germany to the United Nations and to the other International Organizations, Vienna, from July 2006. He was Deputy Chief of Mission of the German Embassy in Washington from July 2003 until

July 2006.

Mr. Gottwald was a fellow at the Weatherhead Center for International Affairs of Harvard University 2002/2003. At the Foreign Office in Berlin he was as director for North America from 1998 to 2002. At the Foreign Office, he also served as a deputy spokesman for former Foreign Minister Hans-Dietrich Genscher and as deputy director in the arms control and disarmament division.

Overseas, Mr. Gottwald served in London from 1993 to 1998, first on secondment to the British Foreign and Commonwealth Office, policy planning staff, and then as head of the press and public information department of the German Embassy. Additional foreign assignments include the political department of the German Embassy in Washington, where he worked on political/military affairs and arms control issues from 1987 to 1990; head of the press department of the German Embassy in Helsinki; and work with the German UNESCO delegation in Paris.

Mr. Gottwald joined the German Foreign Service in 1977. Prior to his career there, he worked as head of the United Nations Development Program (UNDP) regional office in Kaduna, northern Nigeria, 1974-76.

Mr. Gottwald was educated at the universities of Mannheim, Frankfurt, and Konstanz (degree in social sciences / public administration) and holds an M.A. in international relations from Syracuse University. Mr. Gottwald was born in Frankfurt, Germany, in 1948.



Mr. Benjamin GÖRLACH

Senior Fellow, Ecologic Institute, Berlin

Benjamin Görlach is an environmental economist and Senior Fellow with the Ecologic Institute, Berlin. The main foci of his work are the evaluation of environmental policy instruments, particularly in economic terms, and the economic valuation of environmental goods and services.

Benjamin Görlach was previously with the German Emissions Trading Authority (DEHSt) at the Federal Environment Agency from 2007 until 2008. His work in the economics and statistics sections included evaluations of the European emissions trading scheme and its implementation in Germany, as well as economic analyses to support the further development and refinement of the scheme. He was involved in deriving a benchmark-based system for free allocation of allowances and analyses of the competitiveness effects of emissions trading in Germany (“carbon leakage”).

From October 2002 to July 2007, Benjamin Görlach worked as an environmental economist with Ecologic. During this time, main areas of his work were the economic valuation of environmental goods and services, and the use of such estimates for policy-making. He was involved in several projects that have assessed costs and benefits of environmental policies. Further foci of his work were the economic aspects of the European Water Framework Directive. In addition, he worked in the field of policy evaluation and integration of environmental objectives into other policy areas.

He holds a Master’s degree in International Economic Studies from the University of Maastricht.



Dr. Anthony HECHANOVA

Associate Executive Director for Sustainable and Clean Energy Programs, Harry Reid Center for Environmental Studies, University of Nevada, Las Vegas

Anthony Hechanova is the Associate Executive Director for Sustainable and Clean Energy Programs at the University of Nevada, Las Vegas Harry Reid Center for Environmental Studies. He joined UNLV as a research professor in 1995 and was tasked to develop the university’s nuclear research programs in 2001 when he founded the UNLV Transmutation Research Program under the auspices of the U.S. Department of Energy that later was instrumental in establishing two new academic programs that started Fall term 2004: a Ph.D. program in Radiochemistry and

a Masters of Science program in Materials and Nuclear Engineering. In November, 2008, Dr. Hechanova's purview broadened to renewable energy programs at UNLV including new initiatives in geothermal and solar power. He has co-authored 12 refereed journal articles and over 30 conference papers dealing with nuclear energy systems. Dr. Hechanova is a popular seminar speaker giving about 70 invited lectures across the U.S. and globe. He will serve as the General Chair of the upcoming American Nuclear Society Joint Topical Meeting 2010 in Las Vegas, Nevada, U.S. He received an M.S. and Ph.D. in Nuclear Engineering from the Massachusetts Institute of Technology; and, a B.S. and M.S. in Mechanical Engineering from the University of California, Davis.



Mr. Jens HOB OHM

Head, Energy Industry Department, Prognos AG

Jens Hobohm, industrial engineer, has been with Prognos AG, Berlin office, since 1995. Currently, he is head of the energy industry department. Prognos AG is a research-based consulting company with its head office in Basel, Switzerland. In the past, Prognos has compiled numerous long-term energy studies for the German and Swiss governments. At Prognos, Jens Hobohm is responsible for energy and water utilities and provides basic studies and expert opinions on future energy and water demand and supply, economic and ecological evaluations of power plants, and long-term price forecasts for the various fuels. In 2009, Mr. Hobohm carried out a study on the long-term perspectives of nuclear energy worldwide. In 2008, he was a Research Fellow at the Stiftung Wissenschaft und Politik (SWP, German Institute of International and Security Affairs) responsible for "Global issues of energy politics and security of supply". At SWP he predominantly carried out research on oil and gas markets.



Mr. Wade HOXTELL

Research Associate, Global Public Policy Institute (GPPi), Berlin

Wade Hoxtell is a Research Associate with the Global Public Policy Institute (GPPi), Berlin. His research interests include global energy governance, climate governance, public-private partnerships and corporate social responsibility. He is the coordinator of GPPi's Global Energy Governance program and organizes the "Transatlantic Energy Governance Dialogues" conference series. He is also editor of the UN-Business Focal Point, a tool GPPi produces together with the UN Global Compact which focuses on public private partnerships and works as a consultant to a number of United Nations agencies, including the UN Global Compact Office, UNICEF and the ILO, on partnerships and sustainability issues. Before joining the Global Public Policy Institute in May 2006, he was a project assistant with the Aspen Institute Berlin. From 2003-2004 he worked as a legislative aide in the Wisconsin State Senate.



Dr. Nathan HULTMAN

Assistant Professor, School of Public Policy, University of Maryland
Nathan Hultman is Assistant Professor, School of Public Policy, University of Maryland; Associate Director, Joint Global Change Research Institute, Pacific Northwest National Laboratory and a non-resident fellow in the Global Economy and Development Program at the Brookings Institutions. He specializes in international climate policy, carbon markets, and their relation to low-carbon energy investment decisions. He received his Ph.D. in Energy &

Resources from the University of California, Berkeley.



Ms. Jessica JEWELL

Doctoral Researcher, Central European University

Jessica Jewell is a doctoral researcher at Central European University in the Department of Environmental Sciences and Policy where she focuses on evaluating national energy security conditions and strategies. She recently completed a study which evaluated the national capacities, imperatives, and uncertainties in implementing new national nuclear energy programs. In addition, she is a Contributing Author to the Global Energy Assessment (Energy Security) where she is helping to develop a framework to evaluate national energy security from a systems perspective. She was also recently a working group participant in the Planet in 2050 Project (Energy & Technology group). Jessica graduated from the Erasmus Mundus Masters in Environmental Sciences Policy and Management (MESPOM) with honors and earned her Bachelor's degree in Geology from Brown University. Prior to her current work in energy policy she worked as a geologist at a geotechnical and environmental engineering firm.

Ms. Peggy KNUDSON

Director of Development, Foreign Policy Studies Program, Brookings Institution

Peggy Knudson is Director of Development for the Foreign Policy Studies Program at the Brookings Institution (www.brookings.edu), in Washington, D.C. Before joining Brookings, she was Associate Senior Editor at *The Chronicle of Philanthropy*, a bi-weekly newspaper about nonprofit organizations and charitable giving. From 1997 to 2001, she was Executive Director of Women In International Security, a global network of professionals seeking to increase the influence of women in foreign and defense affairs. Ms. Knudson has spent much of her professional and academic career abroad. From 1992 – 1996, she was a marketing manager at the German Privatization Agency (*Treuhandanstalt*), in Berlin; before that she opened and directed for two years the Berlin Office of the German Marshall Fund of the United States (GMF), a U.S. foundation supported by the German government that seeks to promote U.S.-European exchange. Prior to that she was a Program Associate at GMF's headquarters, in Washington, D.C.

From 1984-1985, Ms. Knudson taught English at the Technical University of Dresden, in East Germany, to adult professionals in the field of science. In 1996, she volunteered as a third grade teacher at a private elementary school in Ibadan, Nigeria.

She has an M.A. in European Studies and Economics from Johns Hopkins University School of Advanced International Studies (Bologna, Italy, and Washington, D.C.), and a B.A. in English and Journalism from the University of North Dakota (Grand Forks). She is originally from Bottineau, North Dakota.



Mr. R. Andreas KRAEMER

Chairman, Ecologic Institute, Washington DC

Active in sustainable development, environment policy, climate and energy policies for over 20 years, R. Andreas Kraemer has been Director of Ecologic Institute since its foundation in 1995. In April 2008, he became chairman of the Ecologic Institute in Washington DC - Ecologic's newly incorporated presence.

Since 1993 he is also a Visiting Assistant Professor at Duke University, lecturing on European integration and environmental policy in the Duke in Berlin Program. Andreas is Co-Chairman of the advisory board of OekoWorld, setting criteria for global investment for a group of ethical and 'green' investment funds or mutual trusts, and of Oekom Research, a rating agency specializing in corporate and governmental or 'sovereign' debtors' ethics and sustainability. He also serves on the Boards of the Bellagio Forum for Sustainable Development and the French-Alsatian NGO Solidarité Eau Europe, and is a coordinator of the British German Environment Forum. He is also a board member of Oekom Verlag, a publishing house dedicated to sustainable development, based in Munich, Germany.

Previous to the founding of Ecologic, Andreas worked for a range of policy institutes: Science Center Berlin (WZB), the Institut für ökologische Wirtschaftsforschung (IÖW) and the Research Unit Environmental Policy of the Free University of Berlin (FFU). From 1991 to its closure in 1995, he was Senior Fellow at the Bonn office of the Institute for European Environmental Policy (IEEP).

R. Andreas Kraemer worked in the petrochemical industry before studying environmental engineering and sciences at Institute fuer Technischen Umweltschutz of the Technische Universität Berlin and the Université de Paris Diderot.



Ms. Lara LÁZARO TOUZA

Analyst, Real Instituto Elcano

Lara Lázaro Touza is an analyst at Real Instituto Elcano. Her career has developed both in the private sector and in academia. She was appointed Fellow at the London School of Economics where she lectured and taught both at undergraduate and at postgraduate level. She has been guest lecturer at Universidad Complutense de Madrid, ICADE, Escuela de Administración de Empresas and Colegio Universitario Cardenal Cisneros. She has also lectured on climate change for FNAC's

employees and managers.

Her research interests include environmental economics, environmental politics and policies with a special focus on stated preference techniques, sustainability criteria and environmental crises management. She has published various articles on valuation and management of oil spills, policies to manage global environmental resources, climate change and environmental impact assessment. She has presented her research at national and international conferences at Universidad de Santiago de Compostela and at the UK Network of Environmental Economists Conference at the Royal Society in London.

She holds an MSc in Environmental Assessment and Evaluation from the London School of Economics and a BSc in Economics from Universidad Autónoma de Madrid. She is PhD candidate at the London School of Economics from which she has received various scholarships for her research.

Mr. Brian MARRS

Climate and Energy Analyst, Vattenfall Europe AG

Brian is an energy market specialist with project experience in the United States Europe, the Middle East, and Asia. While a consultant at Perrin Quarles Associates, Inc., Brian contributed to the development of SO₂, NO_x, and GHG emissions trading systems authorized under the U.S. Clean Air Act and within the UNFCCC framework. As a 2008-2009 Robert Bosch Foundation Fellow, Brian developed wind power feed-in tariff models at the German Energy Agency and examined policy instruments for renewable energy integration into power markets. At Vattenfall Europe, he constructs policy risk analysis for energy infrastructure investments encompassing carbon capture & storage (CCS) and renewable energy systems. Brian is also currently serving as a U.S. energy market specialist for the German National Committee of the World Energy Council for the publication of *Energie für Deutschland 2010*.

Ms. Jean MASON-RUSCH

Economic Specialist, US Embassy, Berlin



Mr. Paul MEIER

Director, Energy Institute, University of Wisconsin-Madison

Paul Meier has been working with industry, government, and public interest groups on energy and environmental issues since 1995. As the Director of the Energy Institute at UW-Madison, he coordinates interdisciplinary research, educational, and outreach activities across several campus centers and departments. His own research examines energy systems and the impact of policy on investment decisions and air emissions. As part of the Great Lakes Bioenergy Research Center, Meier evaluates cellulosic biofuel production pathways with the goal of minimizing greenhouse gas emissions. Meier received his Ph.D. from the Nelson Institute for

Environmental Studies at UW-Madison in 2002, where he used life-cycle assessment to examine how climate change policy will impact U.S. electric power generation.

He received an M.S. in Environmental Systems Engineering from Clemson University and a B.S. in Civil Engineering from Purdue University.



Mr. Stephan MERGENTHALER

Research Associate, Global Public Policy Institute (GPPI), Berlin

Stephan Mergenthaler is a Research Associate with the Global Public Policy Institute, Berlin. He is also a PhD Candidate in International Politics at the Berlin Graduate School of Social Sciences, Humboldt University Berlin. His research focuses on global security governance, in particular governance of nuclear non-proliferation and peace operations, as well as China's policies in these fields and EU-China relations.

His experience includes work with the International Institute for Strategies Studies in London, the American Enterprise Institute for Public Policy Research in Washington DC, the South Asia Human Rights Documentation Center in New Delhi, the German and French Ministries for Foreign Affairs in Berlin and Paris, and the German Mission to the UN in New York. He was a legislative intern with the US House of Representatives Committee on International Relations/European Affairs and the office of Senator Hillary Rodham Clinton. He also worked with a number of NGOs including the Ameson Education and Cultural Exchange Foundation in Ningbo, China and the Fundación Chiriboga in Quito, Ecuador.

Stephan holds an M.Sc. in International Relations from the London School of Economics as well as a Master in International Affairs and Security Studies from the Institut d'Etudes Politiques de Paris (Sciences Po).



Ms. Ani NIGERIAWATI

Second Secretary, Embassy of the Republic of Indonesia, Berlin

Ani Nigriawati joined the Ministry of Foreign Affairs of the Republic of Indonesia in 1998. After graduating from the Ministry of Foreign Affairs' Course for Junior Diplomats (1999), she was assigned to the Directorate for East and Central European Affairs at the Ministry. In 2002, she was sent to the Embassy of the Republic of Indonesia in Canberra as Third Secretary for Information and Protocol/Consular Affairs.

After completing her assignment in Canberra, she was entrusted to serve as the Head of Section for the Secretariat Office of the Special Envoys of the President of Republic of Indonesia at the Ministry of Foreign Affairs of the Republic of Indonesia for one year (2006-2007), before she went to the United Kingdom to participate in the Oxford University Foreign Service Programme.

Returning to the Ministry of Foreign Affairs in 2008, she was Head of Section for Australian Affairs in which she was involved in various bilateral negotiations between Indonesia and Australia and a number of regional/international meetings such as the APEC SOM/FMM/Summit and the New Asian-African Strategic Partnership (NAASP).

In 11 February 2010, she was sent to the Embassy of the Republic of Indonesia in Berlin and is currently in charge with the Economic Section at the Embassy as Second Secretary.

She earned her Masters in International Relations at the University of Indonesia, Jakarta, Indonesia in 2001.



Dr. Joachim PFEIFFER

Member of German Parliament and Speaker for Political and Economic Affairs, CDU-CSU

Dr. Joachim Pfeiffer is a Member of the Bundestag (Lower House of German Parliament) since 2002. He serves as Speaker for Political and Economic Affairs and was previously the Coordinator of Energy Matters for the CDU-CSU fraction. Prior to this, he was Director of Economic Development for the city of Stuttgart.

He obtained his Ph.D from the University of Stuttgart.



Dr. Christoph PISTNER

Researcher, Nuclear Engineering & Facility Safety, Öko-Institut e.V.

Dr. Christoph Pistner is a researcher at Nuclear Engineering & Facility Safety of the Öko-Institut where he focuses on facility safety and system analysis, event evaluation, nuclear guidelines and standards, on-site emergency planning, neutron physics analyses, nuclear non-proliferation and nuclear terrorism, technology assessment, and nanotechnology.

He received his doctorate in physics.



Mr. Jean-Pol PONCELET

Senior Vice President, Sustainable Development and Continuous Improvement, AREVA

Jean-Pol Poncelet is AREVA's Senior Vice President of Sustainable Development and Continuous Improvement since February 2008. He joined AREVA in February 2006 as an Advisor to the CEO, Anne Lauvergeon, as well as Senior Vice President, New Energies Policy. From 2001 to 2005, he was Director of Strategy and External Relations of the European Space Agency (ESA). He was Deputy Prime Minister, Minister of Defence and Minister of Energy in the Belgian Government from 1995 to 1999 and an elected Member of Parliament from 1991 to 2001. Previously, he was the Chairman of the Board of Directors of ONDRAF, the Belgian Nuclear Waste

Agency. His professional career started with BelgoNucleaire, the Belgian nuclear engineering company. He later served as a researcher and a lecturer in renewable energy and environment.

He earned a Master Degree in Nuclear Engineering from the Ecole Polytechnique de Louvain (Belgium).



Dr. Urban RID

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Dr. Urban Rid is Director General, Climate Protection, Renewable Energies and International Cooperation at the German Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU). His career with the BMU started in 1992 when he became responsible for dealing with legislation in the areas of clean air, waste management and soil protection. In 1994, he became head of the unit on environmental policy at the Federal Chancellery (Bundeskanzleramt), a position he held until he changed back to the BMU in 2006.

Urban Rid holds a doctorate in law from the University of Tübingen.

Mr. Helge SANDER

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Mr. Joel SANDU

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Joel Sandhu is a Research Associate with the Global Public Policy Institute, Berlin. His research interests focus on the EU-China relations, India's foreign and security policy, the WTO, global governance and the nuclear non-proliferation regime. Joel supports GPPi's research on the EU-China relations and global governance.

Joel worked in London with Policy Network as a policy officer on their Globalisation and Social Justice research team where he researched the EU's role in economic globalisation. He also wrote various on-line publications on trade issues between the EU and China; Social Inequalities and Dysfunctional Societies; and Global Economic Governance for Policy Network. Prior to this, Joel worked with Sister Cities International US, a non-profit citizen diplomacy network, where he acted as the official translator to the Mexican delegation. He also served as a research specialist in the office of the former Speaker of the US House of Representatives, Jim Wright, on US-Soviet Union Cold War



Dr. Sebastian SCHWARK

Associate Director, Hill & Knowlton Communications GmbH

Dr. Sebastian Schwark is Associate Director at Hill & Knowlton Communications in Berlin. Providing mainly strategic communications consulting services, he advises globally operating companies on corporate communications, and political issues relevant to their respective business goals. He focuses on highly regulated industries such as energy and chemicals. In the past, Dr. Schwark worked on U.S. Senator Max Baucus' staff in Washington D.C. on energy issues, and was a fellow at Columbia University's Institute for the Study of Europe. Dr. Schwark earned a Ph.D. at Georg-August-Universität Göttingen with a thesis on Anti-Americanism in Germany. He speaks English and French in addition to his native German



Mr. Craig SEVERANCE

CPA and Editor and Founder of Energy Economy Online

Craig A. Severance, CPA is an author and Editor of EnergyEconomyOnline. His in-depth articles on energy options are regularly carried on major climate and energy websites. Mr. Severance is co-author of *The Economics of Nuclear and Coal Power* (Praeger, 1976), author of "Business Risks and Costs of New Nuclear Power" (web-published by Center for American Progress, Jan 2009), and author of "Business Risks to Utilities as New Nuclear Power Costs Escalate" (*Electricity Journal*, May 2009). As a researcher and author who has challenged the viability of new nuclear power for over 30 years, Mr. Severance has been active in publicly debating the economics of nuclear power. He debated Leslie Kass of the Nuclear Energy Institute in July 2009 before Congressional staffers at an event sponsored by the Foundation for Nuclear Studies, and in September 2009 he and Dr. Arjun Makhijani debated Patrick Moore and CPS Energy Manager Steve Bartley at the San Antonio Clean Technology Forum. Mr. Severance has served as Assistant to the Chairman and to Chief Commerce Counsel, Iowa State Commerce Commission, and as Finance Manager of the Iowa Railway Finance Authority. Mr. Severance is a practicing CPA and energy financial analyst.



Dr. Benjamin K. SOVACOOOL

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Dr. Benjamin K. Sovacool is an Assistant Professor at the Lee Kuan Yew School of Public Policy at the National University of Singapore. He is also a Research Fellow in the Energy Governance Program at the Centre on Asia and Globalization.

Dr. Sovacool has worked as a researcher, professor, and consultant on issues pertaining to energy policy, the environment, and science and technology policy. A frequent contributor to *Electricity Journal* and *Energy Policy*, he has also appeared on the *BBC World News*, *Bloomberg Live!*, and *Channel News Asia* and been

interviewed by *Newsweek International*, *Associated Press*, *United Press International*, and *Nature*. He has served in advisory and research capacities at the U.S. National Science Foundation's Electric Power Networks Efficiency and Security Program, Virginia Tech Consortium on Energy Restructuring, Virginia Center for Coal and Energy Research, New York State Energy Research and Development Authority, Oak Ridge National Laboratory, Semiconductor Materials and Equipment International, U.S. Department of Energy's Climate Change Technology Program, and the International Institute for Applied Systems and Analysis near Vienna, Austria.

Dr. Sovacool has published more than 90 academic articles and presented at 42 international conferences and symposia in the past few years. He is the co-editor of *Energy and American Society: Thirteen Myths* (Springer, 2007) and the author or co-author of *The Dirty Energy Dilemma: What's Blocking Clean Power in the United States* (Praeger, 2008), *Powering the Green Economy: The Feed-In Tariff Handbook* (2009, Earthscan), and *Climate Change and Energy Security: An Overview of Global Technology and Policy Options* (MIT Press, forthcoming 2010).



Ms. Sharon SQUASSONI

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Ms. Squassoni serves as director and senior fellow of the Proliferation Prevention Program at CSIS. Prior to joining CSIS, Ms. Squassoni was a senior associate in the Nuclear Nonproliferation Program at the Carnegie Endowment for International Peace. From 2002-2007, Ms. Squassoni advised Congress as a senior specialist in weapons of mass destruction at the Congressional Research Service, Library of Congress. Before joining CRS, she worked briefly as a reporter in the Washington bureau of *Newsweek* magazine.

Ms. Squassoni also served in the executive branch of government from 1992 to 2001. Her last position was Director of Policy Coordination for the Nonproliferation Bureau at the State Department. She also served as a policy planner for the Political-Military Bureau at State. She began her career in the government as a nuclear safeguards expert in the Arms Control and Disarmament Agency. She is the recipient of various service awards and has published widely. She is a frequent commentator for U.S. and international media outlets.

Ms. Squassoni received her B.A. in political science from the State University of New York at Albany, a Masters in Public Management from the University of Maryland, and a Masters in National Security Strategy from the National War College.

Mr. Michael STROMPEN

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Ms. Marlies UKEN

Zeit Online

Marlies Uken is working as a freelance journalist for several German media outlets such as as ZEIT online, Stern and Mare. She focuses on renewable energy policy and sustainability. From 2001 until 2002 she spent a year at the University of Prague in Czech Republic. After earning a degree in 2005, she did research on environmental topics in China, made possible by a scholarship of IJP (International Journalists' Programme). "Grüne Geschäfte" ("green business") is a blog at ZEIT online where Marlies Uken reports regularly on ways to change the economy towards more sustainable and climate-friendly ways.

She studied macro-economics and politics at Cologne and in 2002 received her degree at the Cologne School of Journalism for Politics and Economy.



Dr. Birgit WETZEL

Journalist

Dr. Birgit Wetzel is a freelance journalist in Germany, writing on topics of Economy and Politics.

Her focus is on Central Asia and Eastern Europe, especially Georgia and the Caspian Sea area where she regularly conducts on-site research concerning energy, fossil energy and renewables.

Dr. Birgit Wetzel received her PhD in Economy and History from the Free University of Berlin after receiving her Master's Degree in Slavistic and Economy. She conducted her studies at the Eastern Europe Institute (Language and Culture), The Kennedy Institute, the Institute for Social and Economic History and the Institute of Economy.



Mr. Yuri YUDIN

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Yury Yudin is a Senior Researcher at UNIDIR and manager of the Multilateral Approaches to the Nuclear Fuel Cycle project. Previously, he was Director of a Russian NGO, the Analytical Centre for Non-proliferation, and Senior Researcher at RFNC-VNIIEF, the Russian Federal Nuclear Centre—All-Russian Research Institute of Experimental Physics.

He graduated from the Moscow Engineering Physics Institute as a nuclear physicist and holds a PhD in nuclear engineering. He has special expertise in nuclear engineering, nuclear non-proliferation and nuclear disarmament.