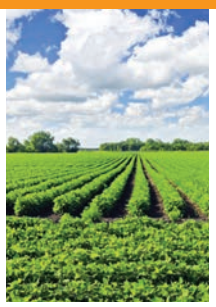
ADVANCED ENERGY 2012

THE PREMIER NEW YORK STATE PARTNERSHIP OF ENERGY CONFERENCES

CONFERENCE PROGRAM

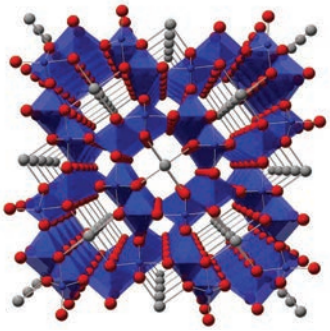





JACOB K. JAVITS CONVENTION CENTER
NEW YORK, OCTOBER 30-31, 2012

ADVANCED ENERGY™
RESEARCH AND TECHNOLOGY CENTER

WELCOME TO ADVANCED ENERGY 2012



We are pleased to welcome you to both the 2012 edition of our annual Advanced Energy Conference and the inauguration of The New York State Partnership of Energy Conferences. Indeed, **Advanced Energy 2012** is a watershed event that brings together 19 individual energy conferences from throughout New York State to create what we believe to be the most complete and far-reaching event of its kind in the nation. It also underscores the importance of advanced energy research, development and implementation to New York State, its economy, and its leadership. Its significance was demonstrated earlier this year when Governor Andrew M. Cuomo introduced the New York Energy Highway as a public-private initiative aimed at developing innovative concepts for upgrading and modernizing the State's energy system.

In his own right, New York City Mayor Michael R. Bloomberg is a vocal advocate for environmental and clean energy issues, and has been active in establishing programs focused on sustainable development in New York City and other major cities throughout the United States. We are proud that he has agreed to be a keynote speaker and participate in welcoming you to this landmark conference.

Advanced Energy 2012 represents a dramatic growth in scope since 2010, when it was last hosted in New York City. The number of conference tracks has doubled to 14, with over 90 separate sessions, and 351 subject matter experts presenting to more than 2,000 attendees. This growth reflects the natural evolution of energy-related technologies and disciplines fostered by the increasingly critical challenges to be faced by an energy-dependent world. As a statewide partnership of conferences, **Advanced Energy 2012** provides a comprehensive range of content in a venue that is uniquely suited to the inter-disciplinary networking and cross-pollination that can result in tomorrow's breakthrough technologies. **Advanced Energy 2012** is where it all comes together.

We would like to thank our Host Sponsors – NYSERDA, New York Power Authority (NYPA) and Stony Brook University; our Platinum Sponsors – National Grid, Brookhaven National Laboratory, and New York State Smart Grid Consortium; our Gold Sponsors – CA Technologies, The City College of New York, GE Energy, Long Island Power Authority LIPA), Polytechnic Institute of New York University, and SMM Advertising, and our Silver Sponsors – Carter, DeLuca, Farrell & Schmidt, LLP, Deepwater Wind, LLC, IBM, Hydro Quebec and PSE&G, for their support in helping to make this event the success that it is.

It is public and private sponsorship that fuels the Advanced Energy Conference, and we are fortunate that their support has kept pace with our expanding scope and overall growth. We truly appreciate the generous contributions of the many businesses and organizations that provided material resources, knowledge and expertise to ensure that **Advanced Energy 2012** would meet the highest expectations of all those who attend. These sponsors are recognized in this program, and in many other ways throughout the conference. There are several that deserve special attention, and we wish to extend our personal thanks to:

New York Power Authority
Generating more than electricity

nyserda
Energy. Innovation. Solutions

Stony Brook University

nationalgrid

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WELCOME TO ADVANCED ENERGY 2012

One year ago, the Advanced Energy Research & Technology Center moved into its permanent, Platinum LEED facility in the Stony Brook University Research and Development Park. We would be remiss if we did not acknowledge the extraordinary support provided by the government of New York State that made both that state-of-the-art facility and this conference possible. In addition to Governor Andrew M. Cuomo we wish to express our gratitude to the entire Long Island delegation to the New York State Senate, including Temporary President and Senate Majority Leader Dean Skelos and Chairman of the Senate Higher Education Committee Kenneth P. LaValle, for their vision, leadership, and commitment to New York State's energy future.

With our best wishes for effective energy research, and the early and rapid deployment of advanced technologies,

2012 CONFERENCE CO-CHAIRS

MR. ROBERT B. CATELL
Chairman, Advanced Energy Research and Technology Center
Chairman, New York State Smart Grid Consortium

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DR. SAMUEL H. ARONSON
Director, Brookhaven National Laboratory

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ADVANCED ENERGY™
RESEARCH AND TECHNOLOGY CENTER

STATE OF NEW YORK
EXECUTIVE CHAMBER
ALBANY 12224

ANDREW M. CUOMO
GOVERNOR

October 30, 2012

Dear Friends:

It is a pleasure to send greetings to everyone gathered for the 6th Annual Advanced Energy Conference in the Javits Center sponsored by the Advanced Energy Research & Technology Center at Stony Brook University.

The Empire State is among the leaders in the nation with its efforts to develop clean and efficient energy options, renewable energy sources, and sustainable energy programs. This week's conference provides an opportunity to examine a range of topics including energy storage, alternative energy, strategies for efficiency, electric transportation, emerging technologies, and others. I applaud this initiative, which brings together leaders in industry, academics, and government to explore the latest developments that will lead to further progress in the energy industry in New York.

By taking advantage of innovative developments that will lead to wise use of existing resources and more efficient production, we can address future energy needs and environmental concerns, while improving our economy and our world.

Warmest regards and best wishes for a productive conference.

Sincerely,

ANDREW M. CUOMO

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SPECIAL GUEST

Mayor Michael R. Bloomberg
Michael R. Bloomberg was elected the 108th Mayor of the City of New York in 2001. He began his career in 1966 at Salomon Brothers, and after being let go in 1981, he began Bloomberg LP, a start-up financial news and information company that now has more than 15,000 employees around the world.

As Mayor, Bloomberg has cut crime by more than 30 percent, revitalized the waterfront, implemented ambitious public health strategies, including the successful ban on smoking in restaurants and bars, and expanded support for arts and culture. His education reforms have driven graduation rates up by more than 40 percent since 2005.

The Mayor's economic policies have helped New York City avoid the level of job losses that many other cities experienced during the national recession. And since October 2009, New York added as many private sector jobs as the next ten largest U.S. cities combined. Mayor Bloomberg attended Johns Hopkins University and Harvard Business School, and is the father of two daughters, Emma and Georgina.

Dear Friends:

It is a great pleasure to welcome everyone to New York City for the Sixth Annual Advanced Energy Conference.

New York is proud to be a leader among cities building a more sustainable future. We have enacted the most comprehensive green building laws of any city in the country, and energy audits and retrofits are reducing pollution and greenhouse gas emissions across the five boroughs. We also understand that smart energy policies and economic growth are compatible goals, which is why we are happy to applaud the many government agencies, startups, universities, and good corporate citizens represented at this terrific annual conference.

On behalf of all New Yorkers, I offer my best wishes for a productive event and continued success.

Sincerely,

Michael R. Bloomberg
Mayor

A MESSAGE FROM OUR HOST SPONSORS

nyserda
Energy. Innovation. Solutions.

NYSERDA is pleased once again to co-sponsor the Advanced Energy Conference. As the premier energy conference in the Northeast, Advanced Energy gives participants the opportunity to learn from and network with researchers, entrepreneurs, policy makers and practitioners as they discuss virtually all facets of the energy landscape.

Under Governor Cuomo's leadership, New York State has emerged as a national leader in advancing the clean energy economy. The conference presents a wonderful opportunity to showcase New York's and NYSERDA's achievements in clean energy as well as our commitment to continued investment in energy efficiency, renewable energy and new technologies. NYSERDA not only provides financial and technical assistance for clean energy projects, but we also promote public, private and academic partnerships to foster technology growth and innovation to address the State's energy challenges. We look forward to engaging with and learning from conference attendees about new opportunities to advance investments in New York's clean energy economy.

– **Francis J. Murray, Jr.**
President & CEO, New York State Energy Research & Development Authority

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New York Power Authority
Generating more than electricity

The Advanced Energy Conference is an annual opportunity for participants in the energy industry and other interested parties to share information on new pioneering technologies for advancing the use of the latest clean energy products and systems. Governor Cuomo is giving the utmost importance to clean, economical and reliable electricity, while at the same time promoting economic development. This is a winning formula for New York.

– **Gil C. Quiniones**
President & CEO, New York Power Authority

Stony Brook University

As President of Stony Brook University - home of the Advanced Energy Center – I am proud that the best energy researchers in the world are collaborating on our campus to develop state-of-the-art clean and renewable energy technologies. I wish to thank the dedicated team at the Advanced Energy Center for developing this conference and for bringing together record numbers of global energy and government leaders to exchange ideas for energy research and technology deployment. Future generations will look back on this event and your hard work knowing that we took the beginning steps on the path of clean and efficient energy distribution and storage.

– **Samuel L. Stanley Jr., M.D.**
President, Stony Brook University

A MESSAGE FROM OUR PLATINUM SPONSORS

The NYS Smart Grid Consortium is proud to join as a partner in the Advanced Energy Conference 2012 which is rapidly becoming the preeminent discussion of our energy future in the US Northeast.

The NYS Smart Grid Consortium brings together top research and academic institutions, global technology developers, some of our largest and most sophisticated utilities, and NYS agencies committed to energy regulation and innovation. As we invest to modernize the grid with the best available technologies, our future competitiveness is at stake. The Consortium offers a unique forum to support the strategic analysis and decisions required to achieve success.

– **Mr. Robert B. Catell**
Chairman, NYS Smart Grid Consortium

The success of Brookhaven Lab's energy research program is directly tied to our unique scientific facilities, our world-class staff, and our strong relationships with industry, educational institutions, and government and not-for-profit agencies. Each year, the Advanced Energy Conference gives us a one-of-a-kind opportunity to share our advances and develop new partnerships and alliances with those working daily to solve the energy challenges facing our state, region, and nation.

– **Dr. Samuel Aronson**
Director, Brookhaven National Laboratory

National Grid is proud to partner with the Advanced Energy Research and Technology Center to support the Advance Energy 2012 conference. This is an excellent opportunity for universities, research institutions, energy providers and industrial corporations to share best practices on global energy solutions. National Grid has a long track record of providing award-winning, energy efficiency programs throughout our global business, which help customers use less energy and reduce their energy bills. We have a number of programs and initiatives that will provide information that can be applied across the energy industry, including infrastructure upgrades to improve reliability; Home Energy Reports to encourage energy-saving behavior changes; Smart Grid pilots to test the ability of new technologies and reduce customer outages, improve operational efficiency of the grid and fully integrate renewable energy and electric vehicles into the grid; renewable gas projects and solar generating facilities to reduce emissions; and record demand for conversions to clean, natural gas.

– **Ken Daly**
President, National Grid New York

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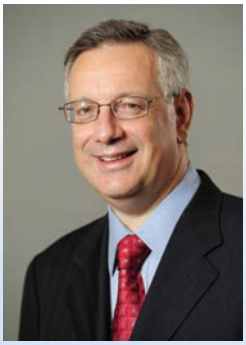

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SPECIAL THANKS

While many hardworking staff and volunteers have crafted and executed this year's Advanced Energy Conference, a few deserve our special thanks for going truly above and beyond. This small group has the vision and forsees the economic benefits of a strong, collaborative and united community of researchers, academics, municipal and utilities partners working in concert with the established and emerging energy companies in the region.

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New York State

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Director of Consumer Services and Events Management
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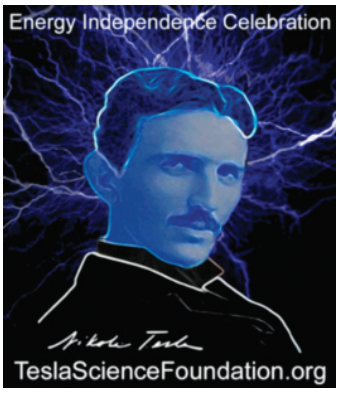
RIC TROTTA
President & Senior Consultant
Trotta Associates

Special thanks extend to the hard work and dedication of the TeslaScienceFoundation.org and to the inventor of our current poly-phase electrical grid – Nikola Tesla. We are pleased to have the National President of this organization providing demonstrations and discussions at our conference this year.



NIKOLA LONCHAR
Founder/President,
Nikola Tesla Inventors Club

2012 CONFERENCE PRESENTERS

ACADEMIC AND RESEARCH INSTITUTIONS

INDUSTRY AND UTILITY PRESENTERS

KEYNOTE SPEAKERS

Dr. Samuel H. Aronson

Aronson earned an A.B. in physics from Columbia University in 1964, and a Ph.D. in physics from Princeton University in 1968. From 1968 to 1977, he held research and academic positions at the University of Chicago's Enrico Fermi Institute for Nuclear Studies and the University of Wisconsin. His research career is focused on experimental elementary particle physics and nuclear physics.

Aronson joined Brookhaven National Laboratory in 1978. He was appointed deputy chair of the Physics Department in 1988. In 1991, Aronson relinquished this position and, as a senior physicist, served as the director of the PHENIX detector project during the construction of the Relativistic Heavy Ion Collider, before becoming chair of Physics in 2001. He became Associate Laboratory Director for Nuclear and Particle Physics in 2005 and Laboratory Director and President of Brookhaven Science Associates in 2006.

Aronson is a Fellow of the American Physical Society and of the American Association for the Advancement of Science. He is a member and past Chair of the DOE National Laboratory Directors Council and has served as a member of the Council's Executive Committee. He has served as a member of the Governor's Industry-Higher Education Task Force and on national review boards in Canada, Sweden and Germany. He currently serves as a board member on the Stony Brook Foundation, the Long Island Association, Accelerate Long Island, the New York State Smart Grid Consortium, the Stony Brook University Advanced Energy Research and Technology Center, the Long Island High Technology Incubator, the Clean Energy Business Incubator Program and the Governor's Regional Economic Development Council for Long Island. In 2012 he was inducted into the Long Island Technology Hall of Fame and named Lab Director of the Year by the Federal Laboratory Consortium. In July 2012 he was elected to serve as vice president of the American Physical Society (APS).

Paul Browning

Paul Browning is the President & CEO of Thermal Products for GE Energy, overseeing the worldwide business plan and execution of GE's Heavy Duty Gas Turbine, Steam Turbine, Generator and Controls, and Gasification product lines. The global Thermal Products team leads the product management function responsible for design, manufacturing, and installation of large scale electricity generating equipment.

Prior to his current position, Paul was most recently with Caterpillar Corp., as managing director, Caterpillar Motoren, based in Kiel, Germany. He was responsible for global business in Caterpillar's Marine & Petroleum Power division.

Previously, Paul was the Vice President, Turbomachinery Products in Caterpillar's Solar Turbines division. Within that division, he worked in commercial, manufacturing, and technical roles.

Paul began his professional career as a research engineer for eight years at the GE Research Center in Niskayuna, NY. This included a role as a program manager for GE Power Systems after receiving his B.S. degree in Metallurgical Engineering and Materials Science from Carnegie Mellon University and an M.S. in Materials Engineering from Renssalaer Polytechnic Institute.

KEYNOTE SPEAKERS

Mr. Robert B. Catell

Mr. Catell was formerly the Chairman and Chief Executive Officer of KeySpan Corporation and KeySpan Energy Delivery, the former Brooklyn Union Gas. His career with Brooklyn Union Gas started in 1958. Following National Grid's acquisition of KeySpan Corporation, Mr. Catell became Chairman of National Grid, U.S. and Deputy Chairman of National Grid plc.

He currently serves as Chairman of the Board of the Advanced Energy Research and Technology Center (AERTC) at Stony Brook University, New York State Smart Grid Consortium, Cristo Rey Brooklyn High School (formerly Lourdes Academy), Futures in Education Endowment Fund, and the New York Energy Policy Institute's Advisory Council (NYEPI).

Mr. Catell serves on the Board of the following governmental organizations:
New York State Energy Research & Development Authority (NYSERDA) and the NYS Economic Development Power Allocation Board (EDPAB).

Mr. Catell serves on the Board of the following not-for-profit organizations:
Brooklyn Community Foundation, City College of New York 21st Century Foundation, Colin Powell Center for Policy Studies, Feinstein Institute for Medical Research, National Grid Foundation, Tomorrow's Hope Foundation, and the New York City Police Foundation.

Mr. Catell serves on the Board of the following business organizations:
First National Bank of New York (FNBNY), KEYERA Energy Management Ltd., Long Island Angel Network (LIAN), Long Island Association (LIA), National Petroleum Council, and the New York Academy of Science (NYAS).

Mr. Catell serves on the Advisory Board for:
Advanced Power North America (APNA), CAI Investments, EC Infosystems, Hudson Clean Energy Fund, Our Energy Policy Foundation, Posillico Inc., SUNY Farmingdale, the President's Advisory Council at Adelphi University, VNG.CO, the Winthrop Hospital Board of Regents, and the NYU Poly Advisory Committee of the New York City Accelerator for a Clean and Renewable Economy (NYC ACRE).

Mr. Catell is a former Chairman of the American Gas Association, Brooklyn Chamber of Commerce, Long Island Association, Partnership for New York City, Inc., U.S. Energy Association (USEA), Business Council of NYS, the Advisory Board of the City College of New York's School of Engineering, and the Downtown Brooklyn Partnership.

Mr. Catell was a board member of: the Brooklyn Public Library Foundation, Edison Electric Institute (EEI), Energy Association of NYS, Long Island Foreign Affairs Forum, the advisory board of Heart-Share for Human Services, and the Brooklyn Law School (Member Emeritus).

Mr. Catell is a member of the Association of Energy Engineers, CUNY Business Leadership Council, National Society of Professional Engineers, NYS Society of Professional Engineers, and the Society of Gas Lighting.

Mr. Catell received both his Bachelor's and Master's degrees in Mechanical Engineering from the City College of New York and is a registered Professional Engineer. He has attended Columbia University's Executive Development Program, and the Advanced Management Program at the Harvard Business School.

KEYNOTE SPEAKERS

Kenneth D. Daly, CFA

Kenneth D. Daly, CFA, is the President of the New York business of National Grid, which distributes electricity and natural gas. Mr. Daly joined the company's predecessors Brooklyn Union/KeySpan in 1988 as a Management Trainee and most recently served as Global Financial Controller, based in London. Mr. Daly graduated from St. Francis College with a BA in English and has earned both an MBA in Finance from St. John's University and an MS in Human Resource Management from Polytechnic University. Mr. Daly has been an adjunct professor at St. Francis College for 20 years and is also a member of their Board of Trustees. He has been the Director of the St. John's University Executive-in-Residence Program since 1992 and is also the past Chairman of the Kingsborough Community College Board of Directors. Mr. Daly is a David Rockefeller 'Fellows' graduate and is active in numerous New York civic organizations.

Dr. Daniel M. Gerstein

Dr. Daniel M. Gerstein has served as the Deputy Under Secretary for Science & Technology in the Department of Homeland Security since August 2011. He is also an Adjunct Professor at American University in Washington, DC at the School of International Service (SIS) where he teaches graduate level courses on biological warfare and the evolution of military thought.

Dr. Gerstein has extensive experience in the security and defense sectors in a variety of positions while serving as a Senior Executive Service (SES) government civilian, in uniform, and in industry. Before joining DHS, he served as the Principal Director for Countering Weapons of Mass Destruction (WMD) within the Office of the Secretary of Defense (Policy). He has served on four different continents participating in homeland security and counterterrorism, peacekeeping, humanitarian assistance, and combat in addition to serving for over a decade in the Pentagon in various high level staff assignments. Following retirement from active duty, Dr. Gerstein joined L-3 Communications as Vice President for Homeland Security Services, leading an organization providing WMD preparedness and response, critical infrastructure security, emergency response capacity, and exercise support to U.S. and international customers.

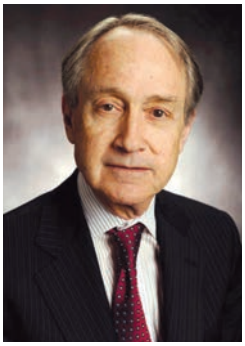
Dr. Gerstein also has extensive experience in international negotiations having served on the Holbrooke Delegation that negotiated the peace settlement in Bosnia, developed and analyzed negotiating positions for the Conventional Armed Forces in Europe (CFE) talks, and developed an initiative to improve cross border communications between Colombia and neighboring Andean Ridge nations. Additionally, Dr. Gerstein led an initiative to develop a comprehensive biosurveillance system for the Department of Defense (2010-2011), served on the leadership team for the Project for National Security Reform (PNSR) which was charged with developing a new national security act to reflect the changing security environment (2007-2008), co-led the Secretary of the Army's Transition Team (2004-2005), and led the Army's most comprehensive restructuring since World War II (2000-2001).

He has been awarded numerous military and civilian awards including an award from the Government of Colombia, the Department of State's Distinguished Service Award, and the U.S. Army Soldiers Medal for heroism. He has published numerous books and articles on national security, biological warfare, and information technology including Bioterror in the 21st Century (Naval Institute Press, October 2009), ICMA Report: Planning for a Pandemic (ICMA Press, Volume 39/Number 3 2007), Securing America's Future: National Strategy in the Information Age (Praeger Security International, September 2005); Leading at the Speed of Light (Potomac Books, November 2006); Assignment Pentagon (Potomac Books, May 2007). He has also served as a fellow at the Council on Foreign Relations and is a current member.

Dr. Gerstein graduated from the United States Military Academy at West Point and has masters degrees from Georgia Institute of Technology in Operations Research, the National Defense University in National Security & Strategic Studies and the Command & General Staff College in National Security Strategy & Policy, and a Doctor of Philosophy degree from George Mason University in Biodefense.

He resides in Alexandria, VA with his wife Kathy. They have two daughters.

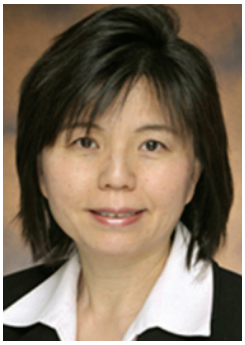
KEYNOTE SPEAKERS



Robert M. Hallman

Robert M. Hallman currently serves as Deputy Secretary for Energy and the Environment to Governor Andrew Cuomo. At the time of his appointment in January 2012, Mr. Hallman was a partner at the law firm of Cahill Gordon & Reindel, LLP in New York City where he oversaw the environmental and energy practice areas, and served as Chair of the Board of the New York League of Conservation Voters. He previously served as Deputy General Counsel of the US Department of Energy, where he was awarded DOE's Exceptional Service Medal. Earlier in his career he served as Deputy Commissioner and General Counsel for the New York State Department of Environmental Conservation as well as Deputy General Counsel of the New York City Environmental Protection Agency.

He is a graduate of Williams College and the University of Virginia Law School.



Dr. Harriet Kung

Dr. Harriet Kung has served as the Associate Director of Science for Basic Energy Sciences (BES) since June 9, 2008. With an annual budget of more than $1.5 billion in 2011, BES is the nation's leading supporter of fundamental research in materials sciences, chemistry, geosciences, and aspects of physical biosciences. BES is also a major supporter of scientific user facilities, including the nation's premier x-ray synchrotron light sources, neutron scattering facilities, electron-beam microcharacterization centers, and nanoscale science research centers. These facilities serve over 13,000 users annually, and they provide the tools for the preparation and examination of materials and the study of their physical and chemical properties and transformations.

During her tenure in BES, Dr. Kung led a number of Basic Research Needs workshops to define scientific research directions for science-to-technology pathways and was instrumental in the success of interagency collaborations, DOE research integration efforts, and international coordination activities. Under her leadership, BES has pursued new funding modalities in advancing the science for the energy research agenda, including the establishment of 46 Energy Frontier Research Centers and the Fuels from Sunlight Energy Innovation Hub. In 2010, BES also successfully completed the world's first x-ray free electron laser user facility—the Linac Coherent Light Source.

Dr. Kung served as the Director of the Materials Sciences and Engineering (MSE) Division in BES from June 2004 to June 2008. Before joining DOE in 2002 as a program manager in MSE, Dr. Kung was a technical staff member and a project leader in the Materials Science and Technology Division at Los Alamos National Laboratory (LANL). Her research group focused on structure-property relationship in nanoscale materials. She also conducted research in high temperature superconductivity in the Superconductivity Technology Center at LANL. She has published approximately 100 refereed papers and has given over 50 invited technical presentations.

Dr. Kung received her Ph.D. in Materials Science and Engineering with a minor in Applied and Engineering Physics from Cornell University. She is the recipient of numerous awards including the DOE Distinguished Postdoctoral Fellowship award, several performance and leadership service awards at Los Alamos, and the Presidential Meritorious Executive Rank Award in 2010.

KEYNOTE SPEAKERS

Francis J. Murray, Jr.

Francis J. Murray, Jr. was appointed President and Chief Executive Officer of the New York State Energy Research and Development Authority (NYSERDA) on January 26, 2009. Prior to his appointment, Mr. Murray served as Senior Advisor at the international environmental consulting firm Ecology and Environment, Inc., where he provided strategic policy and market development guidance on environmental and energy issues to a number of private sector and not-for-profit clients. Mr. Murray also represented the Pace Energy and Climate Center and the Natural Resources Defense Council in the New York Public Service Commission proceeding to establish an energy efficiency portfolio standard program.

From 1996 to 1997, Mr. Murray was policy advisor to the United States Secretary of Energy, assisting in the development of the Clinton Administration's national energy policy. Mr. Murray served from 1992 to 1994 as the New York State Commissioner of Energy and Chairman of the NYSERDA Board of Directors, then a statutory function of the State Energy Commissioner. At that time, he also served as Chairman of the State Energy Planning Board, a multi-agency statutory board charged with the responsibility of developing a comprehensive, integrated energy plan for the State that integrated State energy, environmental and economic development policies.

In 1985, Mr. Murray was appointed Deputy Secretary to the Governor for Energy and the Environment, a position he held until 1992. He served from 1983 to 1985 as Assistant Secretary for Energy and the Environment in the administration of New York State Governor Mario M. Cuomo. He represented New York in numerous national and regional energy and environmental activities, including the Coalition of Northeastern Governors, the National Governors' Association, and the Council of Great Lakes Governors. Mr. Murray began his work on New York State energy issues as legislative counsel and then as an energy and environmental policy advisor to Governor Hugh Carey from 1977 to 1982. He began his career in public service as a legislative assistant to Congressman James V. Stanton (D-Ohio).

Mr. Murray serves on the board of numerous not-for-profit organizations, including the Alliance to Save Energy, the American Council for an Energy-Efficient Economy (ACEEE), the National Association of State Energy Officials, the Northeast Energy Efficiency Partnership, the New York State Smart Grid Consortium (Vice Chair), and the New York Battery and Energy Storage (NY-BEST) Consortium.

Mr. Murray received his Bachelor of Science in Foreign Service cum laude from the Edmund A. Walsh School of Foreign Service at Georgetown University, and his Juris Doctor from Georgetown University Law Center.

KEYNOTE SPEAKERS

Gil C. Quiniones

Gil C. Quiniones is the President and Chief Executive Officer of the New York Power Authority. He joined the Power Authority in October 2007 and was confirmed as the President and CEO in January 2012. The Power Authority, the nation's largest state-owned electric utility, owns and operates 17 power plants and more than 1,400 circuit-miles of transmission lines in various parts of New York State. Its diverse customer base includes government entities, commercial and industrial businesses, not-for-profit organizations, municipal electric systems, and rural electric cooperatives.

Mr. Quiniones is responsible for developing and implementing the Power Authority's strategic vision and mission, and supervises the Power Authority's operations, legal, and financial matters. He also oversees the Power Authority's relationships with elected officials, governmental agencies, other authorities, commissions, and the public.

Mr. Quiniones is a member of the Board of Directors of the Electric Power Research Institute, the electric power industry's international research and development organization, and the Chair of the Board's Committee on Energy Efficiency, Energy Storage, and Smart Grid. He is also active in the affairs of two national public power organizations, serving on the Steering Committee of the Board of the Large Public Power Council (LPPC), as Co-Chair of the LPPC's Government Relations Task Force and as the Power Authority's principal representative to the American Public Power Association. He previously was a member of then-Lieutenant Governor David A. Paterson's Renewable Energy Task Force and Chair of the group's Subcommittee on Distributed Generation.

Before joining the Power Authority staff in October 2007 as Executive Vice President of Energy Marketing and Corporate Affairs, Mr. Quiniones served for more than four years as Senior Vice President of Energy and Telecommunications for the New York City Economic Development Corporation. In that capacity, he was the city's chief consultant on energy policy issues and established and led Mayor Michael R. Bloomberg's Energy Policy Task Force, a public-private group that developed a comprehensive strategy for meeting New York City's future energy needs. He also led the development of the energy chapter of PlaNYC 2030, the city's long-term sustainability plan. In addition, he served as Co-Chair of the New York City Telecommunications Task Force and of the city's Telecommunications Policy Advisory Group.

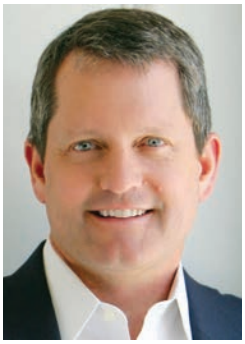
Previous to his positions in New York City government, Mr. Quiniones worked for Con Edison's regulated and unregulated businesses for 16 years and was one of four co-founders of Con Edison Solutions, the utility's unregulated energy services company.

Mr. Quiniones received a Bachelor of Science degree in mechanical engineering from De La Salle University in Manila and has completed graduate courses in engineering management and technology management at the Stevens Institute of Technology in Hoboken, N.J. He has also participated in executive education programs at the Columbia University Business School.

David Sandalow

As Under Secretary of Energy (Acting), David Sandalow helps oversee the Department's renewable energy, energy efficiency, fossil energy, nuclear energy and electricity delivery programs. As Assistant Secretary for Policy & International Affairs, he helps coordinate policy and manage international activities at the Department. Prior to being confirmed as Assistant Secretary, Mr. Sandalow was Energy & Environment Scholar and a Senior Fellow in the Foreign Policy Studies Program of the Brookings Institution, as well as Energy & Climate Change Working Group Chair at the Clinton Global Initiative. He is the author of *Freedom from Oil* (McGraw-Hill, 2008) and editor of *Plug-In Electric Vehicles: What Role for Washington?* (Brookings Press, 2009). Mr. Sandalow has written widely on energy and environmental policy, including op-eds in the *New York Times, Washington Post, Financial Times* and other publications. Previously, he served as Assistant Secretary of State for Oceans, Environment & Science, a Senior Director on the National Security Council staff, an Associate Director on the staff of the White House Council on Environmental Quality and Executive Vice President, World Wildlife Fund - U.S. Mr. Sandalow is a graduate of the University of Michigan Law School (JD) and Yale College (BA Philosophy).

KEYNOTE SPEAKERS



Allan Schurr

Allan Schurr is responsible for IBM's market strategy, business development, and policy management for the global electric, gas, and water industries. IBM's solutions in these markets include offerings in customer engagement, grid operations, work & asset management, and power generation that integrate IBM's hardware, software, and service offerings. In addition, Schurr leads IBM's utility initiatives for emerging solutions targeting energy in a Smarter Planet. In this role, Schurr is working with utility companies to accelerate energy system modernization and the integration of renewable energy sources and distributed energy assets like plug-in vehicles.

Schurr has authored several papers on new utility customer engagement models and the emerging participatory network. He is a recognized industry speaker and has testified before the US Congress regarding the benefits of smart grid technology and impediments to its development. He serves on the National Renewable Energy Lab Energy Systems Integration Technology Review Panel and holds two patents for residential demand response and plug-in hybrid vehicle grid integration.

Schurr formerly held management and executive positions at Pacific Gas and Electric, PG&E Energy Services, Silicon Energy, and Itron. He received a bachelor degree in mechanical engineering from the University of California Davis and a master degree in business administration from St. Mary's College in California. He is a registered engineer in the State of California.

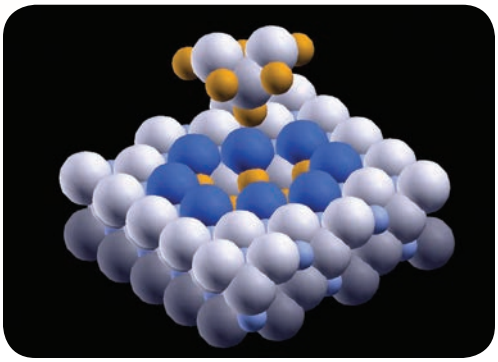
Dr. Yacov Shamash

Dr. Shamash is Vice President for Economic Development and the Dean of the College of Engineering and Applied Sciences at Stony Brook University. As Vice President, Dr. Shamash supervises the University's three incubators, two New York State Centers for Advanced Technology, the Center of Excellence in Wireless and Information Technology (CEWIT), the Advanced Energy Research and Technology Center (AERTC), the Small Business Development Center, and the workforce development programs of the Center for Emerging Technologies. The College of Engineering and Applied Sciences has more than 2,000 undergraduate and 1,300 graduate students. During his tenure, College research expenditures have increased six fold to $30M per year. In 1994 he helped establish the highly successful state-wide SPIR (Strategic Partnership for Industrial Resurgence) program. During the past ten years, working through the SPIR program, the College has partnered with more than 395 companies to assist them with more than 2,127 projects.

Prior to joining SUNY Stony Brook in 1992, Dr. Shamash served as the Director of the School of Electrical Engineering and Computer Science at Washington State University when he established the National Science Foundation Industry/University Center for the Design of Analog/Digital Integrated Circuits.

He is a member of the Board of Directors of Keytronic Corp., American Medical Alert Corp., and Applied DNA, Inc. He is also a member of the Long Island Software & Technology Network (LISTnet) and the Long Island Angel Network.

Dr. Shamash has also held faculty positions at Florida Atlantic University, the University of Pennsylvania and Tel Aviv University. He received his undergraduate and graduate degrees from Imperial College of Science and Technology in London, England. He has authored more than 130 publications and is a Fellow of the IEEE.



KEYNOTE SPEAKERS

Samuel L. Stanley Jr., MD

On July 1, 2009, Samuel L. Stanley Jr., M.D., became the fifth president of Stony Brook University, taking the helm of one of the nation's most prestigious research institutions and one of just 62 members of the invitation-only Association of American Universities.

Before coming to Stony Brook Dr. Stanley served as Vice Chancellor for Research at Washington University in Saint Louis where he created multiple initiatives to aid faculty in obtaining extramural support, reducing their time in compliance issues, and improving their interactions with technology transfer. A highly distinguished biomedical researcher, Dr. Stanley was one of the nation's highest recipients of support from the National Institutes of Health (NIH) for his research focusing on enhanced defense against emerging infectious diseases.

Since becoming President of Stony Brook University, Dr. Stanley has been focused on obtaining the resources necessary to enable Stony Brook to attain the next level of excellence. He was a champion of the SUNY2020 legislation which will help Stony Brook hire more than 240 new faculty over the next five years. As the most effective fundraiser in the University's history, Dr. Stanley has already quadrupled the number of endowed professorships at the University since his arrival. He has presided over key faculty recruitments in the area of energy and serves on Governor Cuomo's Long Island Regional Economic Development Council, working to improve Long Island's economy, with a special emphasis on supporting projects related to the smart grid, energy storage and renewable energy.

Dr. Stanley currently is the Chairman of the National Science Advisory Board for Biosecurity, serves on the NIH NIAID Advisory Council, serves on the National Security for Higher Education Advisory Board, and is Vice-Chair of Brookhaven Science Associates, which manages Brookhaven National Laboratory.

Dr. Daniel Yergin

Dr. Daniel Yergin is a highly respected authority on energy, international politics and economics. He is Vice Chairman of IHS and Founder of IHS Cambridge Energy Research Associates (IHS CERA), one of the world's leading consulting and research firms in its field. He received the Pulitzer Prize for *The Prize: The Epic Quest for Oil, Money and Power*. Dr. Yergin is also the author of the new international bestseller *The Quest: Energy, Security and the Remaking of the Modern World*, which has been described by *The Economist* as "masterly". He authored the highly acclaimed book *Commanding Heights: the Battle for the World Economy* which chronicles the world's political and economic destiny since World War II. Dr. Yergin plays a leadership role in the global energy industry. He chaired the US Department of Energy's task force on strategic energy research and development. He is a director of the Board of the United States Energy Association, and a member of the US Secretary of Energy Advisory Board (SEAB) and the US National Petroleum Council. As a member of SEAB, he served on the committee that reported to the Secretary and the President on the environmental questions around shale gas. He is the only foreign member of the Russian Academy of Oil and Gas. He is a member of Singapore's International Energy Advisory Board and on the board of the Energy Initiative at the Massachusetts Institute of Technology. Dr. Yergin received his BA from Yale University, and his Ph.D. from Cambridge University, where he was a Marshall Scholar.

KEYNOTE SPEAKERS

Chancellor Nancy Zimpher

Chancellor Zimpher began her work at SUNY with a statewide tour of SUNY's 64 campuses, which became the first phase of a systemwide strategic planning process. This plan, called The Power of SUNY, was launched in April 2010, with the central goal of harnessing SUNY's potential to drive economic revitalization and create a better future for every community across New York.

As The Power of SUNY is put into action, Chancellor Zimpher is leading a diverse set of new initiatives at SUNY in several key areas, including research and innovation, energy, health care, global affairs, and the education pipeline. She has also been a vocal advocate for groundbreaking legislative reforms that ensure SUNY can continue to provide broad access to higher education in an environment of declining state support, while maximizing its impact as an engine of economic development.

Dr. Zimpher currently serves as chair of the Board of Governors of the New York Academy of Sciences and of CEOs for Cities; is vice chair of the NCAA Collegiate Model Enforcement sub-committee, and is a member of the Business-Higher Education Forum. From 2005 to 2011, Dr. Zimpher chaired the national Coalition of Urban Serving Universities.

Prior to coming to SUNY, Dr. Zimpher served as President of the University of Cincinnati, Chancellor of the University of Wisconsin-Milwaukee, and Executive Dean of the Professional Colleges and Dean of the College of Education at The Ohio State University. She has authored or co-authored numerous books, monographs, and academic journal articles on teacher education, urban education, academic leadership, and school/university partnerships.

Chancellor Zimpher holds a bachelor's degree in English Education and Speech, a master's degree in English Literature, and a Ph.D. in Teacher Education and Higher Education Administration, all from The Ohio State University.

In June 2009 Nancy Zimpher became the 12th Chancellor of the State University of New York. With more than 467,000 students, SUNY is the nation's largest comprehensive system of higher education.

Nikola Tesla memorial located at Niagara Falls

SESSION CHAIRPERSONS

DR. DENNIS ASSANIS
Stony Brook University
Alternative Fuels for Heavy Vehicles: Natural Gas and Biodiesel

JOHN WILLIAMS
NYSERDA
Planning and Policy in Practice: NYS Energy Initiatives

PAUL DECOTIS
Long Island Power Authority
The Utility of the Future: Distributed or not?

DAN KOLUNDZIC
Nanos Research
Energy Policy Challenges in the Canada-New York Region

DR. DOON GIBBS
Brookhaven National Laboratory
Brookhaven National Laboratory User Facilities
United States Department of Energy User Facilities

DR. LAURA PULLUM
Oak Ridge National Laboratory
Government Initiatives & Strategic Directions

DR. ROGER SCHMIDT
IBM
Smart Data Centers Design

DAN MASCOLA
Vigilent, Inc.
Greening Data Centers

DR. XIAOHUI CUI
Oak Ridge National Laboratory
Security & Education
Green Data Centers

MATT FRONK
NY-BEST
Storage Requirements for Electric Drive Vehicles

CHAIRMAN GARRY BROWN
New York State Public Service Commission
Grid Scale Energy Storage I

DR. RAJSHEKAR DASGUPTA
Electrovaya
Grid Scale Energy Storage II

MICHAEL STOSSER
Day Pitney
Energy Storage Policy

DR. ALI NOURAI
DNV KEMA Energy & Sustainability
Community Energy Storage

DR. ESTHER TAKEUCHI
Stony Brook University
Technology Advancements in Energy Storage

DR. SATHYA MOTUPALLY
UTC Power
Fuel Cell Advancements

DR. CHRIS PYKE
United States Green Building Council
Retrofit Revoltion: Energy Efficiency & Occupant Well-Being

GREG HALE
National Resources Defense Council
Transformational policies to accelerate retrofits

RICK COOK
Cook & Fox Architects
From Rust to Platinum in the Salt City

SESSION CHAIRPERSONS

CATHY HILL
CooperHill and Skidmore College
Revolutionizing retrofit financing

TIMOTHY BANACH
Pace Energy and Climate Center
Combining heat & power for retrofit excellence

SILDA WALL SPITZER
New World Capital
Investing in innovations for retrofits

DR. H. EZZAT KHALIFA
Syracuse University
Innovations for Revolutionary Retrofits

DR. STEVEN KOONIN
NYU Center for Urban Science and Progress
From Data to Urban Informatics

DR. CLAUDIO SILVA
NYU Center for Urban Science and Progress
Visualization of NYC Transportation Data

MICAH KOTCH
NYC ACRE
Towards the Next Quadrennial Technology Review

DR. CONSTANTINE KONTOKOSTA
NYU Center for Urban Science and Progress
Urban Building Energy Data Analytics

LAWRENCE J. WALDMAN
EisnerAmper
Business Innovation – The Long Island Region

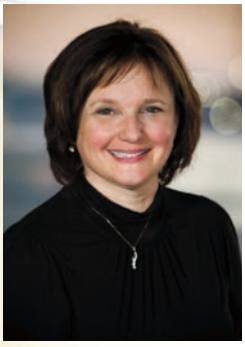
MICHAEL FALTISCHEK
Ruskin Moscou Faltischek
Business Innovation – Buffalo

RAY FARRELL
Carter, DeLuca, Farrell & Schmidt LLP
Business Innovation – Syracuse

JIM MERCER
CA Technologies
Business Innovation – Rochester

DAVID GILFORD
New York City Economic Development Corporation
Promoting Entrepreneurship in New York City

DR. WALTER COPAN
Brookhaven National Laboratory
Creating Successful Clean Energy Companies



BETH HOLST
United States Green Building Council
Career Pathways & The Expanding Role of LEED

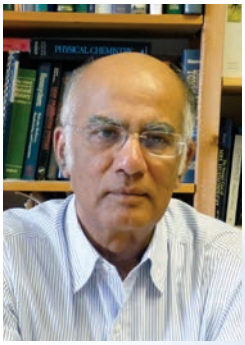
REBECCA STERLING
NYSERDA
Certification & Accreditations in the Clean Energy Economy

PATRICIA MALONE
Advanced Energy Training Institute
Training for Commercial Buildings

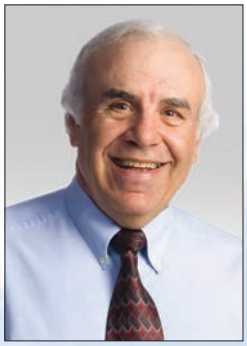
DR. LYNN STILES
The Richard Stockton College of New Jersey
Utility/Campus-Scale Geothermal

DR. VIJAY MODI
The Earth Institute at Columbia University
Urban Geothermal System Applications

SESSION CHAIRPERSONS



DR. ARJUN MAKHIJANI
Institute for Energy and Environmental Research
Paths to a Carbon-Free Economy



DR. ANTHONY INGRAFFEA
Cornell University
Choices: Natural Gas or Renewables?

DR. TIMOTHY VOLK
SUNY College of Environmental Science & Forestry
Energy Feedstocks

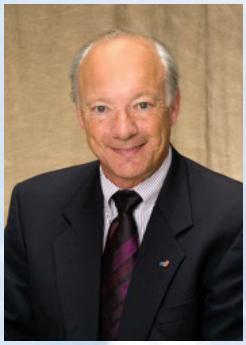
RAYMOND ALBRECHT
Biomass Thermal Energy Council
Solid Biomass Energy – Residential

DR. ELLEN BURKHARD
NYSERDA
Solid Biomass Energy – Commercial

STEPHEN HOYT
NYSERDA
Biogas

DR SURESH BABU
Brookhaven National Laboratory
Thermochemical Conversion to Fuels

STEVEN CAPUTO
New York City
Alternative Liquid Fuels



DR. ANDREW POLLARD
Queen's University
Bio Energy & Products in the Canada-New York Region

PATRICIA HOFFMAN
United States Department of Energy
Regional Smart Grid Challenges & Opportunities

MICHAEL HERVEY
Long Island Power Authority
Smart Grid in T&D: Report on DOE Funded Projects

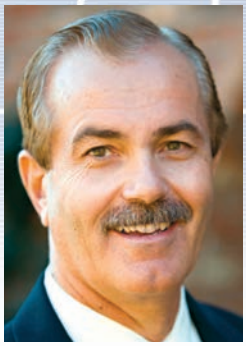
AUDREY ZIBELMAN
Viridity
The Role of the Customer & Smart Grid

DR. ROB JOHNSON
Stony Brook University
Energy Cybersecurity I

EDWARD REINFURT
Empire State Development
Energy Cybersecurity II

DR. GERALD STOKES
Brookhaven National Laboratory
Regional Smart Grid Collaborations & Initiatives
Unconventional Oil and Gas: Opportunity or risk?
Nuclear Power: A low carbon option for the future?

DR. JIM MISEWICH
Brookhaven National Laboratory
State of the Art & Future Smart Grid



JOSEPH TARIO
NYSERDA
Advanced Technologies for Commercial Fleets I

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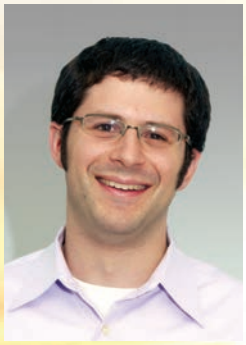
JOHN BOESEL
CALSTART
Advanced Technologies for Commercial Fleets II

RICHARD DRAKE
NYSERDA
EV Infrastructure

ANDREW BATA
Metropolitan Transportation Authority
Urban Transportation Systems



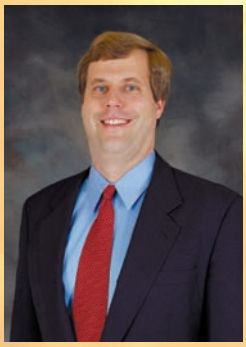
ADAM RUDER
NYSERDA
Transportation Demand Management (TDM)

PAUL BEYER
New York State Department of State
Transportation Land Use (TLU)

DR. ROBERT KARLICEK
RPI Smart Lighting Center
Emerging Lighting Technologies

DR. SATYEN MUKHERJEE
Philips Research
Innovative Lighting Solutions & Services

DR. MARIANA FEGUEIRO
Rensselaer Polytechnic Institute
Lighting and Health



DR. FRANK FELDER
Rutgers University
Challenges for Renewables Integration

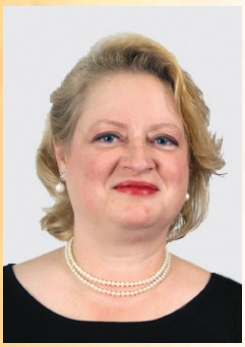
CHET LYONS
DNV KEMA Energy & Sustainability
Grid Integration: Role of Storage

ROBERT LOFARO
Brookhaven National Laboratory
Systems Performance & Impact on Electricity Infrastructure

DR. ANTULIO TARAZONA
EcherKon Technologies
Advanced Photovoltaics

GARY COHEN
RadTech
UV/EB Curing Enables Advanced Energy Products

DR. DANIEL WALCZYK
Rensselaer Polytechnic Institute
Green Composites Manufacturing - A View From Upstate NY



MIRIAM PYE
NYSERDA
Innovations in Manufacturing of Clean Tech

WILSON RICKERSON
Meister Consultants Group
Smart. Hot. Water.

DR. MARK DRISCOLL
SUNY College of Environmental Science & Forestry
UV/EB Curing - NYS Activities and Opportunities

ANTHONY BEREJKA
Ionicorp
Fiber Reinforced Composites: Energy Savings in Downstate NY

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CHRIS GARVIN
Terrapin Bright Green
Biomimetic Approaches to Advanced Manufacturing

WENDY MACPHERSON
NYSERDA
Energy Efficiency in Industry: Case Studies

MR. ROBERT B. CATELL
Advanced Energy Center NYS Smart Grid Consortium
Role of Natural Gas in U.S. Energy Future

JOHN LARSON
IHS Global Insight
Opportunities for Natural Gas

WILLIAM FREEMAN
Chesapeake Energy
A Path Forward with NGVs

RICHARD KESSEL
Energy Consultant
OnShore/OffShore Wind 2.0

DR. MARK GLAUSER
Syracuse University
Canada/NY Region Wind Energy Research & Facilities

TRIA CASE
CUNY
SMART NY- Setting precedence with NYC's Rooftop Challenge

DR. SEAN AHEARN
CUNY Hunter
Tackling Soft BOS Costs with Smarter IT

DAVID BUCKNER
Solar Energy Systems, LLC
We Can Do it Here – NYC Case Studies

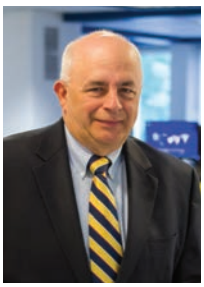
2012 POSTER SESSION JUDGES

DR. KURT H. BECKER
NYU·poly
POLYTECHNIC INSTITUTE OF NEW YORK UNIVERSITY

DR. LEV SVIRIDOV
CUNY ENERGY INSTITUTE

DR. MATTHEW EISAMAN
BROOKHAVEN NATIONAL LABORATORY

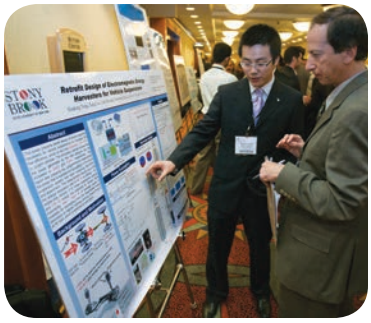
DR. MOHAMAD ZOGHI
Farmingdale State College
State University of New York



PROFESSOR JOHN EFF, JR.
NYIT
New York Institute of Technology

LIST OF CATEGORIES:

- **Undergraduate College student** (judged session)
  1st Place – Cash Prize
  2nd Place – Cash Prize
  3rd Place – Cash Prize
- **Graduate College Student** (judged session)
  1st Place – Cash Prize
  2nd Place – Cash Prize
  3rd place – Cash Prize
- **Industry/Academic Representative**



BROOKHAVEN NATIONAL LABORATORY

BROOKHAVEN NATIONAL LABORATORY

ADVANCED ENERGY™
RESEARCH AND TECHNOLOGY CENTER

DAY 1

	TRACK A Energy Policy (DAY 1)	TRACK B Research, Technology & Commercialization (DAY 1)
CONTINENTAL BREAKFAST 7:00AM - 9:15AM **PANEL DISCUSSION** 8:05AM - 9:15AM	**Welcome** – Dr. Yacov Shamash, Stony Brook University **The New York Energy Industry Summit** – Robert Hallman, New York State Governor's Office Gil Quiniones, New York Power Authority Frank Murray, NYSERDA	
BREAK 9:15AM - 9:30AM		
SESSION I 9:30AM - 10:45AM	• **Unconventional Oil and Gas: Opportunity or risk?** **CHAIRPERSON** Dr. Gerald Stokes, Brookhaven National Laboratory John Alloca, National Grid Dr. Steven Hamburg, Environmental Defense Fund	• **Brookhaven National Laboratory User Facilities** **CHAIRPERSON** Dr. Doon Gibbs, Brookhaven National Laboratory Dr. Steven Dierker, Brookhaven National Laboratory Dr. Emilio Mendez, Brookhaven National Laboratory Dr. Michael McGuigan, Brookhaven National Laboratory
LUNCH 11:30AM - 2:00PM	Mr. Robert B. Catell, Advanced Energy Center & NYS Smart Grid Consortium Gil Quiniones, New York Power Authority Undersecretary (acting) David Sandalow, United States Department of Energy Allan Schurr, IBM Global Energy & Utilities Industry Dr. Daniel Gerstein, United States Department of Homeland Security	
BREAK 2:00AM - 3:30PM		
SESSION II 2:30PM - 3:45PM	• **Nuclear Power: A low carbon option for the future?** **CHAIRPERSON** Dr. Gerald Stokes, Brookhaven National Laboratory Robert Coward, MPR Associates Dr. Thomas Cochran, National Resources Defense Council	• **United States Department of Energy User Facilities** **CHAIRPERSON** Dr. Doon Gibbs, Brookhaven National Laboratory Dr. G. Brian Stephenson, Argonne National Laboratory Dr. Sean Smith, Oak Ridge National Laboratory Dr. Roger Falcone, Lawrence Berkeley National Laboratory
BREAK 3:45PM - 4:15PM		
SESSION III 4:15PM - 5:30PM	• **The Utility of the Future: Distributed or not?** **CHAIRPERSON** Paul DeCotis, Long Island Power Authority Robert Kendall, Navigant Consulting William Zarakas, The Brattle Group	**NOT SCHEDULED**

RECEPTION/EXHIBITS/POSTER SESSION 5:30PM - 7:30PM

TRACK C	TRACK D	TRACK E
Energy Storage **(DAY 1)**	**Advanced Building: Revolutionizing Retrofits** **(DAY 1)**	**(DAY 1)**
Welcome – Dr. Yacov Shamash, Stony Brook University **The New York Energy Industry Summit** – Robert Hallman, New York State Governor's Office Gil Quiniones, New York Power Authority Frank Murray, NYSERDA		
BREAK 9:15AM - 9:30AM		
• Storage Requirements for Electric Drive Vehicles **CHAIRPERSON** Matt Fronk, NY-BEST Justin Zhou, G4 Jaycie Chitwood, Toyota Tim Wells, BAE Systems Dr. Amy Marschilok, Stony Brook University	**• Retrofit Revoltion: Energy Efficiency & Occupant Well-Being** **CHAIRPERSON** Dr. Chris Pyke, United States Green Building Council William Browning, Terrapin Bright Green Lane Burt, United States Green Building Council	**NOT SCHEDULED**
Mr. Robert B. Catell, Advanced Energy Center & NYS Smart Grid Consortium Gil Quiniones, New York Power Authority Undersecretary (acting) David Sandalow, United States Department of Energy Allan Schurr, IBM Global Energy & Utilities Industry Dr. Daniel Gerstein, United States Department of Homeland Security		
BREAK 2:00AM - 3:30PM		
• Grid Scale Energy Storage I **CHAIRPERSON** Chrmn. Garry Brown, New York State Public Service Commission John Zahurancik, AES Energy Storage Sander Jacobs, GE Energy Storage Dr. Alan Gotcher, Xtreme Power	**• Transformational Policies to Accelerate Retrofits** **CHAIRPERSON** Greg Hale, National Resources Defense Council Arah Schuur, United States Department of Energy Janet Joseph, NYSERDA	**NOT SCHEDULED**
BREAK 3:45PM - 4:15PM		
• Grid Scale Energy Storage II **CHAIRPERSON** Dr. Rajshekar DasGupta, Electrovaya Roger Lin, A123 Dr. Eric McFarland, Urban Electric Power Inc. Bikram Chatterji, Triple Point Energy	**• From Rust to Platinum in the Salt City** **CHAIRPERSON** Richard Cook, Cook + Fox Architects Peter King, King & King Architects Tom Fernandez, The Woodbine Group	**NOT SCHEDULED**
RECEPTION/EXHIBITS/POSTER SESSION 5:30PM - 7:30PM		

DAY 1 CONTINUES ON NEXT PAGE

TRACK F	TRACK G	TRACK H
Energy Entrepreneur & Start-ups Funding (DAY 1)	**Clean Energy Workforce Training & Certification (DAY 1)**	**BioEnergy (DAY 1)**
BREAKFAST 7AM - 9:15AM **PANEL DISCUSSION** 8:05AM - 9:15AM	**Welcome** – Dr. Yacov Shamash, Stony Brook University **The New York Energy Industry Summit** – Robert Hallman, New York State Governor's Office Gil Quiniones, New York Power Authority Frank Murray, NYSERDA	
BREAK 8:45AM - 9:00AM		
SESSION I 9:30AM - 10:45AM	**• Business Innovation – The Long Island Region** **CHAIRPERSON** Lawrence J. Waldman, EisnerAmper Paul Schwartz, ThermoLift Rudy Holesek, Priority Cool Young Lee, SubSea Benjamin Emley, WATT Fuel Cell	**• Career Pathways & The Expanding Role of LEED** **CHAIRPERSON** Beth Holst, United States Green Building Council Neil Rosen, North Shore LIJ Pamela Mendez, WSP Flack & Kurtz	**• Energy Feedstocks** **CHAIRPERSON** Dr. Timothy Volk, SUNY College of Environmental Science & Forestry Dan Conable, Cato Analytics Matt McArdle, Mesa Reduction Engineering and Processing, Inc.
BREAK 10:45AM - 11:30AM		
LUNCH 11:30AM - 2PM	Mr. Robert B. Catell, Advanced Energy Center & NYS Smart Grid Consortium Gil Quiniones, New York Power Authority Undersecretary (acting) David Sandalow, United States Department of Energy Allan Schurr, IBM Global Energy & Utilities Industry Dr. Daniel Gerstein, United States Department of Homeland Security	
BREAK 2:00PM - 2:30PM		
SESSION II 2:30PM - 3:45PM	**• Business Innovation – Buffalo** **CHAIRPERSON** Michael Faltischek, Ruskin Moscou Faltischek Dr. Charles Akers, Isolation Sciences Dr. Vladimir Mitin, Optoelectronic Nanodevices Rob Anstey, Graphene Devices Dr. Sarbajit Banerjee, University at Buffalo	**• Certification & Accreditations in the Clean Energy Economy** **CHAIRPERSON** Rebecca Sterling, NYSERDA Joe Sarubbi, Interstate Renewable Energy Council Pat Fox, Interstate Renewable Energy Council Larry Zarker, Building Performance Institute Richard Lawrence, North American Board of Certified Energy Practitioners	**• Solid Biomass Energy – Residential** **CHAIRPERSON** Raymond Albrecht, Biomass Thermal Energy Council Nathan Russell, NYSERDA Dr. Dan Loughlin, United States Environmental Protection Agency Christopher Brown, Brookhaven National Laboratory
BREAK 3:45PM - 4:15PM		
SESSION III 4:15PM - 5:30PM	**• Business Innovation – Syracuse** **CHAIRPERSON** Ray Farrell, Carter, DeLuca, Farrell & Schmidt LLP Crista Shopis, SynairCo Nathan Ball, NOHMs Technologies Dr. Shreefal Mehta, Paper Battery Company Michael Gibbons, Cortland Research	**• Training for Commercial Buildings** **CHAIRPERSON** Patricia Malone, Advanced Energy Training Institute Lia Webster, PECI Michael Bobker, CUNY Baruch Paul Meyer, WSP Flack & Kurtz Don MacDonald, ULDQS	**• Solid Biomass Energy – Commercial** **CHAIRPERSON** Dr. Ellen Burkhard, NYSERDA Michael Kelleher, SUNY College of Environmental Science & Forestry Robert Braun, Genesys Engineering
RECEPTION/EXHIBITS/POSTER SESSION 5:30PM - 7:30PM		

TRACK I	TRACK J	TRACK K
Smart Grid Technology & Energy CyberSecurity (DAY 1)	**Advanced Transportation (DAY 1)**	**Advanced Lighting (DAY 1)**
Welcome – Dr. Yacov Shamash, Stony Brook University **The New York Energy Industry Summit** – Robert Hallman, New York State Governor's Office; Gil Quiniones, New York Power Authority; Frank Murray, NYSERDA		
BREAK 8:45AM - 9:00AM		
• Regional Smart Grid Challenges & Opportunities **CHAIRPERSON** Patricia Hoffman, United States Department of Energy Frank Murray, NYSERDA Stuart Nachmias, Con Edison James Gallagher, New York Independent System Operator	**• Advanced Technologies for Commercial Fleets I** **CHAIRPERSON** Joseph Tario, NYSERDA Nick Cohn, TomTom Steve Sprouffske, Kapsch TrafficCom Inc. Richard McDonough, New York State Department of Transportation	**• Emerging Lighting Technologies** **CHAIRPERSON** Dr. Robert Karlicek, Smart Lighting Engineering Research Center, Rensselaer Polytechnic Institute Dr. Hany Elgala, Boston University Tom Hamilton, Ketra Joseph Adiletta, Digital Lumens
BREAK 10:45AM - 11:30AM		
Mr. Robert B. Catell, Advanced Energy Center & NYS Smart Grid Consortium Gil Quiniones, New York Power Authority Undersecretary (acting) David Sandalow, United States Department of Energy Allan Schurr, IBM Global Energy & Utilities Industry Dr. Daniel Gerstein, United States Department of Homeland Security		
BREAK 2:00PM - 2:30PM		
• Smart Grid in T&D: Report on DOE Funded Projects **CHAIRPERSON** Michael Hervey, Long Island Power Authority Tom Magee, Con Edison Kathleen Dalpe, New York Independent System Operator Rob Rowe, National Grid	**• Alternative Fuels for Heavy Vehicles: Natural Gas and Biodiesel** **CHAIRPERSON** Dr. Dennis Assanis, Stony Brook University Paul Kerkhoven, NGVAmerica Steven Levy, Sprague Operating Resources LLC Rocco DiRico, New York City Department of Sanitation	**• Innovative Lighting Solutions & Services** **CHAIRPERSON** Dr. Satyen Mukherjee, Philips Research Dr. Francis Rubinstein, Lawrence Berkeley National Laboratory Dr. Jennifer Veitch, National Research Council of Canada Deborah Burnett, Benya Burnett Consultancy
BREAK 3:45PM - 4:15PM		
• The Role of the Customer & Smart Grid **CHAIRPERSON** Audrey Zibelman, Viridity Dr. Matthew Enstice, Buffalo Niagara Medical Campus Edward White, National Grid	**• Advanced Technologies for Commercial Fleets II** **CHAIRPERSON** John Boesel, CALSTART Tom Brotherton, CALSTART Gino Porter, PepsiCo Joe Ambrosio, EMD	**• Lighting and Health** **CHAIRPERSON** Dr. Mariana Figueiro, Rensselaer Polytechnic Institute Dr. Mark Rea, Rensselaer Polytechnic Institute Dr. Usha Satish, SUNY Upstate Medical University Mary Beth Gotti, General Electric Lighting Institute
RECEPTION/EXHIBITS/POSTER SESSION 5:30PM - 7:30PM		

DAY 1 CONTINUES ON NEXT PAGE

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TIERF

	TRACK L	TRACK M	TRACK N
	Advanced Manufacturing Technologies for Clean Energy Products (DAY 1)	**(DAY 1)**	**Wind (DAY 1)**
BREAKFAST 7AM - 9:15AM **PANEL DISCUSSION** 8:05AM - 9:15AM	**Welcome** – Dr. Yacov Shamash, Stony Brook University **The New York Energy Industry Summit** – Robert Hallman, New York State Governor's Office Gil Quiniones, New York Power Authority Frank Murray, NYSERDA		
BREAK 8:45AM - 9:00AM			
SESSION I 9:30AM - 10:45AM	• **UV/EB Curing Enables Advanced Energy Products** **CHAIRPERSON** Gary Cohen, RadTech Dr. Mike Idacavage, Esstech Inc. Dr. Mark Tilley, MT Global Partners	**NOT SCHEDULED**	**NOT SCHEDULED**
BREAK 10:45AM - 11:30AM			
LUNCH 11:30AM - 2PM	Mr. Robert B. Catell, Advanced Energy Center & NYS Smart Grid Consortium Gil Quiniones, New York Power Authority Undersecretary (acting) David Sandalow, United States Department of Energy Allan Schurr, IBM Global Energy & Utilities Industry Dr. Daniel Gerstein, United States Department of Homeland Security		
BREAK 2:00PM - 2:30PM			
SESSION II 2:30PM - 3:45PM	• **Green Composites Manufacturing – A View From Upstate NY** **CHAIRPERSON** Dr. Daniel Walczyk, Rensselaer Polytechnic Institute Zachary August, Automated Dynamics Gavin McIntyre, Ecovative Design, LLC Dr. Ronald Bucinell, Union College	**NOT SCHEDULED**	• **OnShore/OffShore Wind 2.0** **CHAIRPERSON** Richard Kessel, Energy Consultant Arthur Kaliski, MilWind William Moore, Deepwater Wind Bruce Bailey, AWS Truepower Dr. Kiruba Haran, GE Global Research
BREAK 3:45PM - 4:15PM			
SESSION III 4:15PM - 5:30PM	• **Innovations in Manufacturing of Clean Tech** **CHAIRPERSON** Miriam Pye, NYSERDA Dr. Leo Showalter, Crystal IS Dr. Joseph Penga, Free Form Fibers	**NOT SCHEDULED**	• **Canada/NY Region Wind Energy Research & Facilities** **CHAIRPERSON** Dr. Mark Glauser, Syracuse University Dr. Horia Hangan, University of Western Ontario Dr. Kenneth Visser, Clarkson University Dr. David Johnson, University of Waterloo

RECEPTION/EXHIBITS/POSTER SESSION 5:30PM - 7:30PM

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ADVANCED ENERGY™ RESEARCH AND TECHNOLOGY CENTER

DAY 2

	TRACK A	TRACK B
	Energy Policy (DAY 2)	**Green Data Centers (DAY 2)**
BREAKFAST 7:00AM - 8:45AM **KEYNOTES** 7:45AM - 8:45AM	Dr. Samuel Aronson, Brookhaven National Laboratory Dr. Harriet Kung, United States Department of Energy Ken Daly, National Grid	
SESSION IV 9:00AM - 10:15AM	**NOT SCHEDULED**	• **Advanced Data Centers & Strategic Directions** **CHAIRPERSON** Dr. Laura Pullum, Oak Ridge National Laboratory Robert Huang, The Cadmus Group/EPA Jeff Burke, OptiCool Technologies
BREAK 10:15AM - 10:45AM		
SESSION V 10:45AM - 12:00PM	• **Planning and Policy in Practice: NY's Energy Initiatives** **CHAIRPERSON** John Williams, NYSERDA Jill Anderson, New York Power Authority Sarah Osgood, NYSERDA	• **Smart Data Centers Design** **CHAIRPERSON** Dr. Roger Schmidt, IBM Brad Thrash, GE Dr. H. Ezzat Khalifa, Syracuse University Jack Glass, Citigroup
BREAK 12:00PM - 12:25PM		
LUNCH 12:25 PM - 1:55 PM	President Samuel Stanley, Stony Brook University Chancellor Nancy Zimpher, SUNY Mayor Michael Bloomberg, City of New York Paul Browning, GE Energy Dr. Daniel Yergin, IHS Cambridge Energy Research Associates	
BREAK 1:55PM - 2:15PM		
SESSION VI 2:15PM - 3:30 PM	• **Energy Policy Challenges in the Canada-New York Region** **CHAIRPERSON** Dan Kolundzic, Nanos Research Edward Arlitt, Independent Electricity System Operator Susan Marlin, Queen's University Dr. Stephen Bird, Clarkson University	• **Greening Data Centers** **CHAIRPERSON** Dan Mascola, Vigilent, Inc. Dr. Nicole Peill-Moelter, Akami Technologies William Amann, M&E Engineers Jim Mercer, CA Technologies
BREAK 3:30PM - 3:45PM		
SESSION VII 3:45PM - 5:00 PM	**NOT SCHEDULED**	• **Security & Education in Green Data Centers** **CHAIRPERSON** Dr. Xiaohui Cui, Oak Ridge National Laboratory Dr. Ziqian Dong, New York Institute of Technology Dr. Roberto Rojas-Cessa, New Jersey Institute of Technology

DAY 2 CONTINUES ON NEXT PAGE

	TRACK C	TRACK D	TRACK E
	Energy Storage (DAY 2)	**Advanced Building: Revolutionizing Retrofits (DAY 2)**	**Informatics in Urban Energy Systems (DAY 2)**
BREAKFAST 7:00AM - 8:45AM **KEYNOTES** 7:45AM - 8:45AM	Dr. Samuel Aronson, Brookhaven National Laboratory Dr. Harriet Kung, United States Department of Energy Ken Daly, National Grid		
SESSION IV 9:00AM - 10:15 AM	• **Energy Storage Policy** **CHAIRPERSON** Michael Stosser, Day Pitney Commissioner John Norris, Federal Energy Regulatory Commission Shaun Johnson, New York Independent System Operator Dr. William Acker, NY-BEST	• **Revolutionizing Retrofit Financing** **CHAIRPERSON** Catherine Hill, CooperHill Sidney Davidson, Utilities Conservation Company Thomas Polich, Monolith Solar Associates	• **From Data to Urban Informatics** **CHAIRPERSON** Dr. Steven Koonin, NYU Center for Urban Science and Progress
BREAK 10:15AM - 10:45AM			
SESSION V 10:45AM - 12:00 PM	• **Community Energy Storage** **CHAIRPERSON** Dr. Ali Nourai, DNV KEMA Energy & Sustainability Brad Roberts, S&C Electric Dr. Glenn Skutt, PowerHub Systems	• **Combining Heat & Power for Retrofit Excellence** **CHAIRPERSON** Timothy Banach, Pace Energy and Climate Center Gearoid Foley, Integrated CHP Systems Corp Joseph Camean, van Zelm Engineers	• **Visualization of NYC Transportation Data** **CHAIRPERSON** Dr. Claudio Silva, NYU Center for Urban Science and Progress Dr. Carlos Scheidegger, AT&T
BREAK 12:00PM - 12:25PM			
LUNCH 12:25PM - 1:55PM	President Samuel Stanley, Stony Brook University Chancellor Nancy Zimpher, SUNY Mayor Michael Bloomberg, City of New York Paul Browning, GE Energy Dr. Daniel Yergin, IHS Cambridge Energy Research Associates		
BREAK 1:55PM - 2:15PM			
SESSION VI 2:15PM - 3:30 PM	• **Technology Advancements in Energy Storage** **CHAIRPERSON** Dr. Esther Takeuchi, Stony Brook University Chad Hall, Ioxus Larry Thomas, Primet Precision Materials Dr. Stanley Whittingham, Binghamton University	• **Investing in Innovations for Retrofits** **CHAIRPERSON** Silda Wall Spitzer, NewWorld Capital Group Louis Schick, NewWorld Capital Group Curtis Ravenel, Bloomberg Steven Wacaster, Pegasus	• **Towards the Next Quadrennial Technology Review** **CHAIRPERSON** Micah Kotch, NYC ACRE Riggs Kubiak, Honest Buildings Jayanth Eranki, InfoSys Joe O'Connor, Cisco Systems
BREAK 3:30PM - 3:45PM			
SESSION VII 3:45PM - 5:00 PM	• **Fuel Cell Advancements** **CHAIRPERSON** Dr. Sathya Motupally, UTC Power Arkady Malakhov, Solid Cell Andy Marsh, Plug Power Dr. Doreen Edwards, Alfred University	• **Innovations for Revolutionary Retrofits** **CHAIRPERSON** Dr. H. Ezzat Khalifa, Syracuse University Steve Slayzak, Coolerado Corp. William Shultes, NuClimate Tony Abate, Atmos Air Solutions	• **Urban Building Energy Data Analytics** **CHAIRPERSON** Dr. Constantine Kontokosta, NYU Center for Urban Science and Progress Laurie Kerr, New York City's Office of Long Term Planning and Sustainability Anthony Guma, CoStar Group

TRACK F	TRACK G	TRACK H
Energy Entrepreneur & Start-ups Funding (DAY 2)	**Geothermal & Renewables (DAY 2)**	**BioEnergy (DAY 2)**
Dr. Samuel Aronson, Brookhaven National Laboratory Dr. Harriet Kung, United States Department of Energy Ken Daly, National Grid		
• Business Innovation – Rochester **CHAIRPERSON** Jim Mercer, CA Technologies Harry Epstein, Quadrant Management Jennifer Indovina, Tenrehte Ryan McGann, Solar Cool Technologies	**• Utility/Campus-Scale Geothermal** **CHAIRPERSON** Dr. Lynn Stiles, The Richard Stockton College of New Jersey Jeff Urlaub, MEP Associates Paul Boyce, P.W. Grosser Consulting	**• Biogas** **CHAIRPERSON** Stephen Hoyt, NYSERDA Donald Chahbazpour, National Grid Lauren Toretta, CH4 Biogas Anthony Fiore, New York City Department of Environmental Protection Emily Rubenstein, New York City Department of Sanitation
BREAK 10:15AM - 10:45AM		
• Business Innovation – New York City **CHAIRPERSON** Frank Zammataro, Rentricity, Inc. Jonathan McClelland, DG Energy Partners Mei Shibata, ThinkEco David Mahfouda, Weeels	**• Urban Geothermal System Applications** **CHAIRPERSON** Dr. Vijay Modi, The Earth Institute at Columbia University John Rice, AKF Group Engineers John Rhyner, P.W. Grosser Consulting	**• Thermochemical Conversion to Fuels** **CHAIRPERSON** Dr. Suresh Babu, Brookhaven National Laboratory Dr. Helena Chum, National Renewable Energy Laboratory Elliot Levine, United States Department of Energy Dr. Thomas Amidon SUNY College of
BREAK 12:00PM - 12:25PM		
President Samuel Stanley, Stony Brook University Chancellor Nancy Zimpher, SUNY Mayor Michael Bloomberg, City of New York Paul Browning, GE Energy Dr. Daniel Yergin, IHS Cambridge Energy Research Associates		
BREAK 1:55PM - 2:15PM		
• Promoting Entrepreneurship in New York City **CHAIRPERSON** David Gilford, New York City Economic Development Corporation Jeffrey Peterson, NYSERDA Dr. Reed Phillips, Energystics, Ltd Seth Frader-Thompson, EnergyHub	**• Paths to a Carbon-Free Economy** **CHAIRPERSON** Dr. Arjun Makhijani, Institute for Energy and Environmental Research Dr. Georg Maue, Embassy of the Federal Republic of Germany Kristopher Stevens, Ontario Sustainable Energy Association Carol Murphy, Alliance for Clean Energy New York	**• Alternative Liquid Fuels** **CHAIRPERSON** Steven Caputo, New York City Mayor's Office Isabelle Silverman, Environmental Defense Fund Raymond Albrecht, National Biodiesel Board Dr. Steven Fitzpatrick, Biofine LLC
BREAK 3:30PM - 3:45PM		
• Creating Successful Clean Energy Companies **CHAIRPERSON** Dr. Walter Copan, Brookhaven National Laboratory Robert Lahey, Ardour Capital Investments John Freer, GE Global Research	**• Choices: Natural Gas or Renewables?** **CHAIRPERSON** Dr. Anthony Ingraffea, Cornell University Daniel Rozell, Stony Brook University Geoff Keith, Synapse Energy Economics Dr. J. Patrick Looney, Brookhaven National Laboratory	**• Bio Energy & Products in the Canada-New York Region** **CHAIRPERSON** Dr. Andrew Pollard, Queen's University Dr. Jon Pharoah, Queen's University Dr. Jeongmin Ahn, Syracuse University Dr. Heather Coleman, Syracuse University

DAY 2 CONTINUES ON NEXT PAGE

	TRACK I	TRACK J	TRACK K
	Smart Grid Technology & Energy CyberSecurity (DAY 2)	**Advanced Transportation (DAY 2)**	**Northeast Renewable Energy Integration (DAY 2)**
BREAKFAST 7:00AM - 8:45AM **KEYNOTES** 7:45AM - 8:45AM	Dr. Samuel Aronson, Brookhaven National Laboratory Dr. Harriet Kung, United States Department of Energy Ken Daly, National Grid		
SESSION IV 9:00AM - 10:15 AM	• **Energy Cybersecurity I** **CHAIRPERSON** Dr. Rob Johnson, Stony Brook University William Miller, MaCT Swapnil Wadikar, GE Energy Dr. Rae Zimmerman, NYU Wagner School of Public Service	• **EV Infrastructure** **CHAIRPERSON** Richard Drake, NYSERDA Richard Lowenthal, Coulomb Technologies Christine Kirby, Massachussetts Department of Environmental Protection Brian Valenza, Beam Charging LLC	• **Challenges for Renewables Integration** **CHAIRPERSON** Dr. Frank Felder, Rutgers University Marie Schnitzer, AWS Truepower
BREAK 10:15AM - 10:45AM			
SESSION V 10:45AM - 12:00 PM	• **Energy Cybersecurity II** **CHAIRPERSON** Ed Reinfurt, Empire State Development Andy Bochman, IBM Ernie Hayden, Verizon FBI NY Cyber Branch Special Agent, United States Federal Bureau of Investigation	• **Urban Transportation Systems** **CHAIRPERSON** Andrew Bata, Metropolitan Transportation Authority Dr. John Tipaldo, New York City Department of Transportation Collette Ericsson, MTA Bus & New York City Transit Department of Buses Tom Lamb, MTA/New York City Transit Office of Strategic Innovation and Technology	• **Grid Integration: Role of Storage** **CHAIRPERSON** Chester Lyons, DNV KEMA Energy & Sustainability Dr. Xiaoyu Wang, Brookhaven National Laboratory Dr. Kerop Janoyan, Clarkson University
BREAK 12:00PM - 12:25PM			
LUNCH 12:25PM - 1:55PM	President Samuel Stanley, Stony Brook University Chancellor Nancy Zimpher, SUNY Mayor Michael Bloomberg, City of New York Paul Browning, GE Energy Dr. Daniel Yergin, IHS Cambridge Energy Research Associates		
BREAK 1:55PM - 2:15PM			
SESSION VI 2:15PM - 3:30 PM	• **Regional Smart Grid Collaborations & Initiatives** **CHAIRPERSON** Dr. Gerald Stokes, Brookhaven National Laboratory Rebecca Norman, VSE Corp Omar Saad, Hydro Quebec Research Institute (IREQ) Matt Futch, IBM Bruce Fardanesh, New York Power Authority	• **Transportation Demand Management (TDM)** **CHAIRPERSON** Adam Ruder, NYSERDA Jeff Olson, Alta Planning & Design Ellwood Hanrahan, New York State Department of Transportation Deron Lovass, National Resource Defense Council Mark Tornquist, vRide	• **Systems Performance & Impact on Electricity Infrastructure** **CHAIRPERSON** Robert Lofaro, Brookhaven National Laboratory Robert Schaefer, AlsoEnergy Michael Deering, Long Island Power Authority Rick Martin, General Electric
BREAK 3:30PM - 3:45PM			
SESSION VII 3:45PM - 5:00 PM	• **State of the Art & Future Smart Grid** **CHAIRPERSON** Dr. Jim Misewich, Brookhaven National Laboratory Carl Imhoff, Pacific Northwest National Laboratory Dr. Mani Vadari, Modern Grid Solutions Dr. Anjan Bose, Washington State University Dr. Heiko Lehmann, Deutsche Telekom AG	• **Transportation Land Use (TLU)** **CHAIRPERSON** Paul Beyer, New York State Department of State John Nolon, Pace University School of Law Paul Krekeler, New York State Department of Transportation Daniel Hernandez, Jonathan Rose Companies Planning Practice	• **Advanced Photovoltaics** **CHAIRPERSON** Dr. Antulio Tarazona, EcherKon Technologies Glen Finkel, Pureti Dr. Matthew Eisaman, Brookhaven National Laboratory Patrick Thompson, New Energy Technologies

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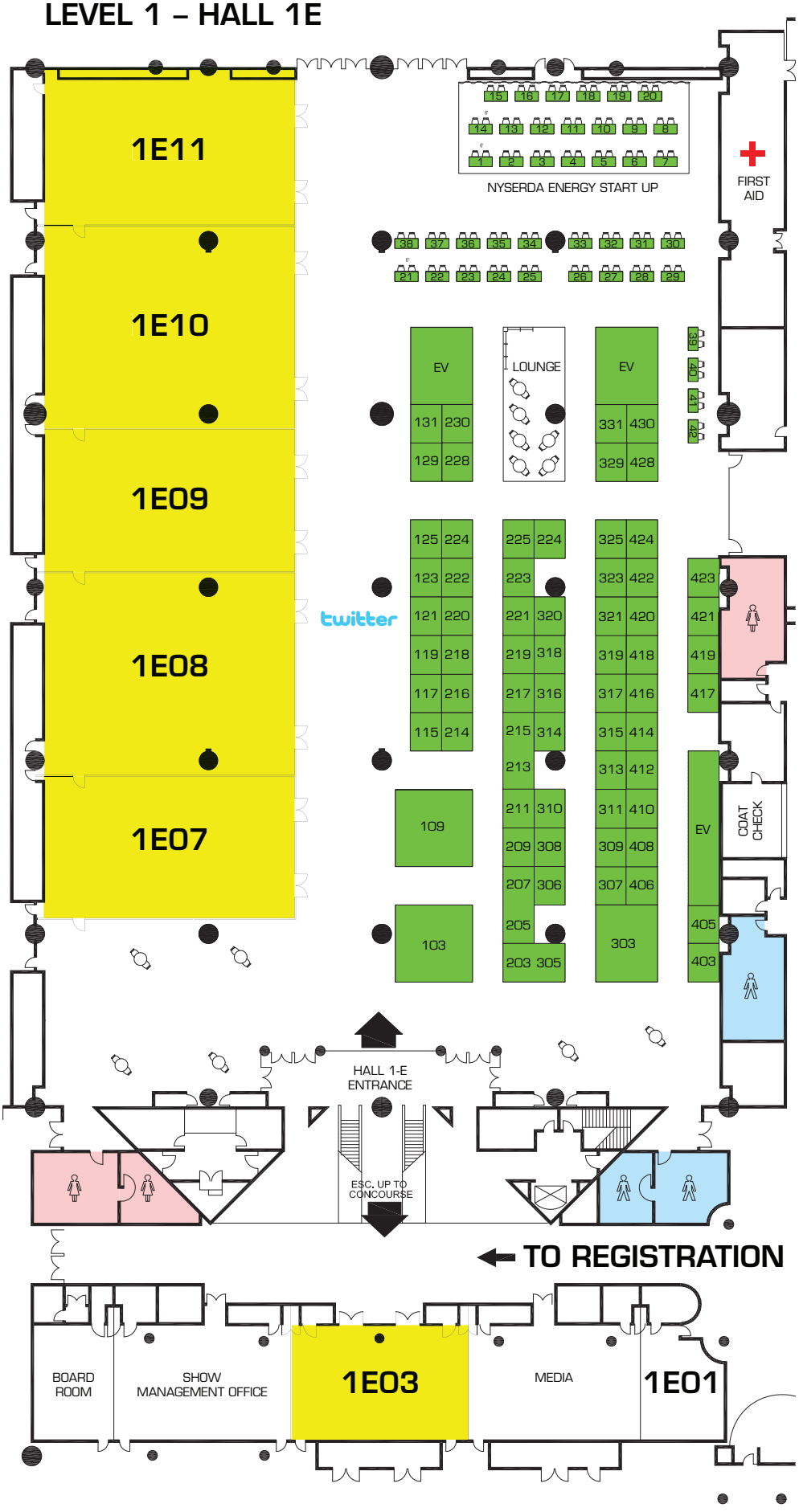
TRACK L	TRACK M	TRACK N
Advanced Manufacturing Technologies for Clean Energy Products (DAY 2)	**Natural Gas: A Critical Resource for Our Energy Future (DAY 2)**	**SMART Tools for Large Scale Solar Deployment (DAY 2)**
Dr. Samuel Aronson, Brookhaven National Laboratory Dr. Harriet Kung, United States Department of Energy Ken Daly, National Grid		
• UV/EB Curing - NYS Activities and Opportunities **CHAIRPERSON** Dr. Mark Driscoll, SUNY College of Environmental Science & Forestry Joseph Bringley, Transparent Materials Daniel Montoney, Rapid Cure Technologies	**• Role of Natural Gas in U.S. Energy Future** **Natural Gas Track Opening Remarks** Peter Robertson - ANGA **CHAIRPERSON** Mr. Robert B. Catell, Advanced Energy Center & NYS Smart Grid Consortium Michael Ruiz, National Grid Russ Young, GE	**• SMART NY- Setting precedence with NYC's Rooftop Challenge** **CHAIRPERSON** Tria Case, CUNY Margarett Jolly, Con Edison John Lee, New York City Department of Buildings Department of Sanitation
BREAK 10:15AM - 10:45AM		
• Fiber Reinforced Composites: Energy Savings in Downstate NY **CHAIRPERSON** Tony Berejka, Ionicorp Dr. Marshall Cleland, IBA Industrial Dan Dispenza, Nordan Composite Technologies	**• Components of a Sustainable Energy Outlook** **CHAIRPERSON** John Larson, IHS Global Insight Dr. Sergej Mahnovski, New York City Mayor's Office Joel Bluestein, ICF International	**• Tackling Soft BOS Costs with Smarter IT** **CHAIRPERSON** Dr. Sean Ahearn, CUNY Hunter Marvin Laster, IBM Darren Hammel, Princeton Power Systems
BREAK 12:00PM - 12:25PM		
President Samuel Stanley, Stony Brook University Chancellor Nancy Zimpher, SUNY Mayor Michael Bloomberg, City of New York Paul Browning, GE Energy Dr. Daniel Yergin, IHS Cambridge Energy Research Associates		
BREAK 1:55PM - 2:15PM		
• Biomimetic Approaches to Advanced Manufacturing **CHAIRPERSON** Chris Garvin, Terrapin Bright Green Dr. Nathaniel Cady, University of Albany, College of Nanoscale Science & Engineering Dr. Magnus Bergkvist, University of Albany, College of Nanoscale Science & Engineering	**• A Path Forward with NGVs** **CHAIRPERSON** William Freeman, Chesapeake Energy Aron Lantz, Larson Design Russell Barnett, Town of Smithtown Paul Kouroupas, VNG.CO	**• We Can Do it Here – NYC Case Studies** **CHAIRPERSON** David Buckner, Solar Energy Systems, LLC Rob Ashmore, AeonSolar Anthony Pereira, altPOWER
BREAK 3:30PM - 3:45PM		
• Energy Efficiency in Industry: Case Studies **CHAIRPERSON** Wendy MacPherson, NYSERDA Peter Serian, Energy & Resource Solutions, Inc. Lucy Neiman, Energy & Resource Solutions, Inc. George Zuniga, Energy & Resource Solutions, Inc.	**NOT SCHEDULED**	**• Smart. Hot. Water.** **CHAIRPERSON** Wilson Rickerson, Meister Consultants Group David Gilford, New York City Economic Development Corporation Richard Klein, Quixotic Systems Alison Kling, CUNY

EXHIBIT HALL & BOOTH ASSIGNMENTS

LEVEL 1 – HALL 1E



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AECOM Energy	418
Advanced Energy Center	219
AES Energy Storage	33
Alfred University*	123
Also Energy LLC	416
American Petroleum Institute	424
Applied Power Systems	310
Ascension Industries, Inc.	314
AtmosAir Solutions/ Clean Air Group	324
BEP – Best Energy Power	316
Binghamton University	32
Brookhaven National Laboratory (BNL)	213/15
CA Technologies	211
CEBIP	22
City College of New York (CCNY)	224
City University of New York (CUNY)	225
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ConEd	214
Corix Utilities	318
Deepwater Wind, LLC	308
EE Solar	31
EisnerAmper LLP	23
Eldor Electric	414
Electrovaya	40
Empower CES, LLC	26
Energy Smart NY	221
Farmingdale State College	220
Fisonic	41
Ford	EV
G4 Synergetics	35
GE Energy	303
GE Energy Systems	117
GEM Energy	315
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SESSION ROOMS

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NYSERDA	109
New York State	
Smart Grid Consortium	209
Polytechnic Institute of	
New York University	216
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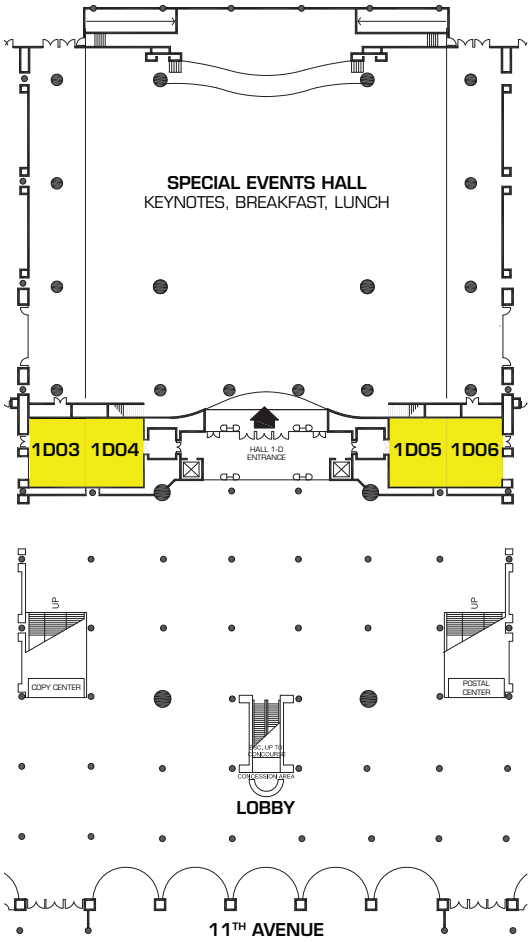
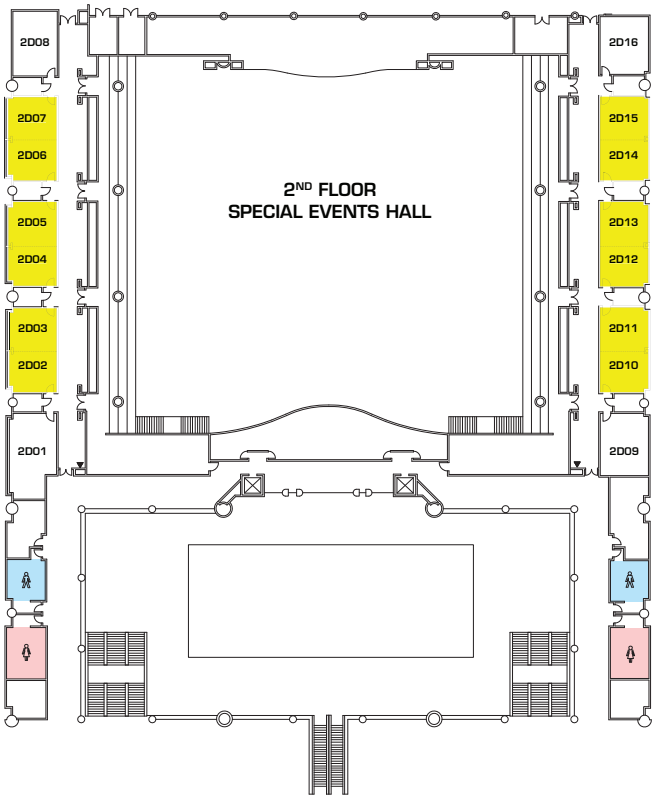
NYSERDA ENERGY START UP

Clean Energy Business Incubator Program (CEBIP)
ThermoLift, Inc.
Watt Fuel Cell Corporation (WATT)
Priority Cool Refrigerants
Subsea Energy, N.A., LLC (SSENA)
Solar Cool Technologies Inc.
DG Energy Partners
Directed Energy, Clean-Tech Incubator & UB Biosciences
Cortland Research LLC
The Paper Battery Company
Synairco
NOHMs Technologies
Tenrehte
ElectroMotive Designs LLC
ThermoAura Inc.
Teleos Solar
MilWind

LEVEL 1



LEVEL 2



NYSERDA
NYSERDA, a public benefit corporation, offers objective information and analysis, innovative programs, technical expertise and funding to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce their reliance on fossil fuels. NYSERDA professionals work to protect our environment and create clean-energy jobs. NYSERDA has been developing partnerships to advance innovative energy solutions in New York since 1975. To learn more about NYSERDA programs and funding opportunities visit www.nyserda.ny.gov.

New York Power Authority (NYPA)
The New York Power Authority (NYPA) is the nation's largest state power organization and one of New York State's leading electricity suppliers. Approximately 80 percent of NYPA's generation comes from hydropower.

NYPA operates 17 generating facilities and more than 1,400 circuit-miles of transmission lines across the state, and uses no taxpayer dollars or state credit in its operations. It is a national leader in demonstrating and promoting the use of energy efficiency, renewables and electric transportation.

In 2012, NYPA announced participation in two major undertakings initiated by Gov. Andrew M. Cuomo. Under the Governor's NY-Sun initiative, NYPA's Solar Market Acceleration Program (Solar MAP) will provide up to $30 million to help reduce solar power costs. NYPA is also helping lead the Governor's New York Energy Highway initiative to upgrade and modernize the state's electric power system.

Discover how the Power Authority is generating more than electricity for New York at www.nypa.gov.

Stony Brook University
Stony Brook University has established itself as one of America's most dynamic public universities, a center of academic excellence and an essential part of the region's economy.

U.S.News & World Report ranks Stony Brook among the top 100 universities in the nation, and the Times Higher Education World University Rankings places us among the top 1 percent of all the universities in the world. A member of the prestigious, invitation-onlyAssociation of American Universities, Stony Brook is one of the 61 leading research institutions in North America and the co-manager of Brookhaven National Laboratory.

Stony Brook's 1,040-acre campus on Long Island's North Shore encompasses not only the main academic areas of the University, but also Stony Brook Medicine, which includes the five health sciences schools,Stony Brook University Hospital, Stony Brook Long Island Children's Hospital, the Long Island State Veterans Home, and our major healthcare centers, programs and clinics.

New York State Smart Grid Consortium
The New York State Smart Grid Consortium, a not-for-profit 501(c)6 corporation, is a unique public/private partnership that promotes broad statewide implementation of an efficient, reliable, and secure modernized grid while enabling customers to reduce cost and energy consumption. As the only such organization of its scale in the United States, the Consortium represents all major contributors across the entire energy value chain, including major utilities, global-scale technology developers, research and academic institutions, and public agencies and policy makers. The Consortium serves as a resource and gathering of New York's thought leaders when it comes to the future of New York's grid.

Brookhaven National Laboratory
The U.S. Department of Energy's Brookhaven National Laboratory conducts research in the physical, biomedical, and environmental sciences, energy technologies, and national security. Brookhaven also builds and operates major scientific facilities available to university, industry and government researchers. Brookhaven is managed by Brookhaven Science Associates, a 50/50 partnership between Stony Brook University and Battelle. Visit us at www.bnl.gov; follow us on Twitter, or like us on Facebook.

National Grid
National Grid (LSE: NG; NYSE:NGG) is an international energy delivery company that connects consumers to energy sources through its networks. In the United States, National Grid delivers electricity to approximately 3.3 million customers in Massachusetts, New York and Rhode Island, and manages the electricity network on Long Island under an agreement with the Long Island Power Authority (LIPA). National Grid owns over 4,000 megawatts of contracted electricity generation that provides power to over one million LIPA customers. It is the largest distributor of natural gas in the northeastern U.S., serving approximately 3.4 million customers in Massachusetts, New York and Rhode Island.

CA Technologies
CA Technologies (NASDAQ: CA) is an IT management software and solutions company with expertise across all IT environments – from mainframe and distributed, to virtual and cloud. Its powerful energy and sustainability management solution, CA ecoSoftware, helps organizations measure, analyze, report, and take action on energy, water, waste, and carbon. CA ecoSoftware helps organizations monitor energy across their enterprise, and more effectively manage their energy and sustainability programs. For more information, visit CA Technologies at www.ca.com.

The City College of New York
Since 1847 The City College of New York has provided low-cost, high-quality education for New Yorkers in a wide variety of disciplines. Over 16,000 students pursue undergraduate and graduate degrees in the College of Liberal Arts and Sciences; The Bernard and Anne Spitzer School of Architecture; The School of Education; The Grove School of Engineering, and The Sophie Davis School of Biomedical Education. For additional information, visit www.ccny.cuny.edu.

GE Energy
GE (www.ge.com) works on things that matter. The best people and the best technologies taking on the toughest challenges. Finding solutions in energy, health and home, transportation and finance. Building, powering, moving and curing the world. Not just imagining. Doing. GE works. In 2011, GE delivered solid results despite the tough economic climate with earnings of $14.8 billion. Industrial cash flow from operating activities for the year remained strong at over $12.1 billion. www.ge.com.

LIPA
The Long Island Power Authority (LIPA) was created in 1998 as a non-profit state authority and Long Island's primary electric service provider. It owns the retail electric transmission and distribution system on Long Island and provides electric service to more than 1.1 million customers in Nassau and Suffolk counties and the Rockaway Peninsula in Queens. LIPA is the 2nd largest municipal electric utility in the nation in terms of electric revenues, 3rd largest in terms of customers served and the 7th largest in terms of electricity delivered. LIPA's mission is to provide highly reliable and economical electric service through our valued workforce with a commitment to superior customer service, accountability and transparency in all of our operations, while being recognized as a leader in the advancement of efficiency and renewable energy.

Polytechnic Institute of New York University
Polytechnic Institute of New York University (formerly Polytechnic University), an affiliate of New York University, is a comprehensive school of engineering, applied sciences, technology and research, and is rooted in a tradition of invention, innovation and entrepreneurship: i2e. Founded in 1854, it is the nation's second-oldest private engineering school. In addition to its main campus in downtown Brooklyn, it offers programs at sites throughout the region and around the globe. For more information, visit www.poly.edu.

SMM Advertising
SMM is the Advanced Energy 2012 official marketing agency. It is a member firm of the American Association of Advertising Agencies and has a 27-year history of serving technology-based clients. The agency has deep roots in the energy industry, as well as electronics, bioscience, healthcare and employee recruitment. SMM has also been recognized by Crain's B-to-B magazine as one of America's top business-to-business advertising agencies since 2003. Visit us at: www.smmadvertising.com

Carter, DeLuca, Farrell & Schmidt, LLP
Carter DeLuca Farrell & Schmidt, LLP, a leader in intellectual property law, provides cost effective services to a large cadre of national and international clients. Throughout the phases of product or brand development, we form a critical part of our client's development teams to provide preparation, prosecution and clearance services to maximize protection while steering clear of freedom-to-operate obstacles. We also provide extensive IP due diligence services and follow on IP asset assimilation and prosecution to maximize our clients' business objectives.

Deepwater Wind, LLC
Deepwater Wind is the U.S. leader in offshore wind power and transmission projects. Deepwater has proposed to supply Long Island with renewable energy from a 900 MW windfarm located 30 miles east of Montauk via a new transmission system that will also link the island to New England. Deepwater is also preparing to construct in 2013 the first U.S. offshore wind farm, the 30 MW Block Island Wind Farm.

IBM
IBM supports the sustainability business imperative by helping utilities and power consumers add digital intelligence to their grids and facilities. These smart grids and buildings use sensors, meters, digital controls and analytic tools to monitor, control and automate energy management—from power plant to the consuming device.

Hydro Quebec
Hydro-Québec generates, transmits and distributes electricity. Its sole shareholder is the Québec government. It uses mainly renewable generating options, in particular large hydro, and supports the development of other technologies—such as wind energy, biomass and small hydro—through purchases from independent power producers. It also conducts R&D in energy-related fields, including energy efficiency. The company has four divisions:

Hydro-Québec Production
Hydro-Québec Distribution
Hydro-Québec TransÉnergie
Hydro-Québec Équipement et services partagés

PSE&G
Public Service Electric and Gas Company (PSE&G) is one of the largest combined electric and gas companies in the United States and is New Jersey's oldest and largest publicly owned utility. PSE&G serves nearly three quarters of New Jersey's population and is the largest subsidiary of PSEG.

Alfred University's Center for Advanced Ceramic Technology (CACT)
The Center for Advanced Ceramic Technology (CACT) specializes in applied and technical research of engineered materials which are a key component of most technologies for generating, storing, distributing, and utilizing energy. Our energy research includes: Fuel cells, including anode, cathode, electrolyte, and vitreous sealants; Hydrogen storage materials; Photocatalytic materials for hydrogen production: Optical coatings for solar energy devices; Membranes for hydrogen purification and biomedical; Materials for energy storage batteries; High temperature thermoelectric materials. Contact Barry Watkins Tel: (607) 871 2473 Email: watkinsb@alfred.edu Web: cact.alfred.edu

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Con Edison, Inc.
Consolidated Edison, Inc., is one of the nation's largest investor-owned, energy-delivery companies, with approximately $13 billion in annual revenues and $39 billion in assets. It operates two regulated subsidiaries: Con Edison of New York, and Orange and Rockland Utilities, and three competitive energy businesses: Con Edison Solutions, Con Edison Energy, and Con Edison Development.

The City University of New York
As this nation's largest urban university, the City University of New York (CUNY) seeks to play a transformational role in America's sustainable future. Through our Energy Institute, industry partnerships within our NYCleantech Collaborative at CUNY SustainableWorks, our leadership of the NYC Solar America City Partnership and CUNY's commitment to reduce its carbon footprint, we strive to create a more sustainable future.

EisnerAmper LLP
EisnerAmper LLP is a leading full-service accounting and advisory firm and among the largest in the United States. We provide audit, accounting, and tax services, as well as corporate finance, internal audit and risk management, litigation consulting, forensic accounting, and other professional advisory services to a broad range of clients across many industries. We work with high net worth individuals, closely held businesses, middle market and Fortune 500 companies. EisnerAmper provides services to more than 150 public companies and over 1,000 financial services entities. As companies grow, we assist them with a full complement of services to help them reach their goals every step of the way. With offices in New York, New Jersey, Philadelphia, California and the Cayman Islands, and as an independent member of PKF International, EisnerAmper serves clients worldwide.

LIFT
LIFT is a multi-faceted non-profit economic development organization serving New York State as an intermediary between industry, academia and government creating collaborative environments for technology commercialization and manufacturing. LIFT's goal is to strengthen the economy of the State through the advancement of its technology-based industry as the most effective means for regional economic development. LIFT's program includes activities that educate, promote, attract, stimulate, develop, and expand science and technology oriented economic activities.

Ruskin Moscou Faltischek P.C.
The firm has an active Energy practice which includes: development of power plants, electric and gas transmission lines, negotiation of power purchase agreements, site selection and approvals, asset acquisitions, regulatory approvals, zoning, real property tax planning, environmental, financing, incentives and, where necessary, litigation. We bring together these wide-ranging disciplines and provide comprehensive advice and counsel to meet challenges faced by providers of energy resources.

VHB
VHB, an environmental, planning, design, transportation, and land development firm has served the energy industry for 20 years. VHB has the skills and experience to provide public and private clients with comprehensive, integrated solutions that help build energy sources for the future while minimizing impacts to the environment. www.vhb.com

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SVAM
Founded in 1994, SVAM International Inc is a global Information Technology (IT) services provider that delivers value and competitive advantage to our customers by providing technology expertise quickly. Headquartered on Long Island, NY, with multiple offices in the United States and development centers in India and Mexico, SVAM's global network of highly experienced and knowledgeable technology consultants is focused on meeting our customers' needs for the highest quality, most cost effective software solutions and services.

AECOM Energy
With over 100 years of experience in more than 125 countries around the world, AECOM is a global leader in providing full turnkey services for a broad range of markets, including educational and health care facilities, state and local governments, and major utilities and power companies. We have conceived, planned, built and provided ongoing management for energy projects of every type and size, totaling more than 120,000 MW of installed generating capacity, 16,777 miles of transmission lines and $800MM in various applications, including substantial central utilities/districts, energy efficiency and carbon management, and packaged HVAC solutions.

Farmingdale State College
Green then. Green now. A pioneering institution in sustainability and renewable energy since its founding in 1912, Farmingdale State College hosts the Institute for Research and Technology Transfer (IRTT), the Solar Energy Center (SEC), and the Green Building Institute (GBI), which are all involved with energy-related education and research.

Caithness Long Island, LLC
Caithness Long Island, LLC sited, permitted, financed and constructed of one of the cleanest, most energy efficient and water conserving power plants in New York State. The Caithness Long Island Energy Center was brought online in the summer of 2009, and is currently providing Long Island, NY with approximately 350 MW of clean, reliable power.

Long Island High Tech Incubator (LITHF)/Clean Energy Business Incubator Program (CEBIP)
CEBIP, under direction of the Long Island High Tech Incubator (LIHTI), provides mentoring to developers of clean energy technologies to help them establish successful enterprises to bring their technologies to market. CEBIP's goal is to incubate "green" technologies by helping to develop and commercialize them, and to create and sustain growth companies.

AES Energy Storage, LLC
AES Energy Storage develops, owns and operates grid-scale advanced energy storage projects. AES serves power markets, generators and utilities with 76MW of battery based energy storage in operation or construction and over 500MW in development. AES's industry leading projects are bringing the next generation of flexible capacity to the power grid. Visit us at www.aesenergystorage.com

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AtmosAir Solutions/Clean Air Group
AtmosAir's air purification technology allows for significant energy reduction while improving indoor air quality. Our green patented bi-polar ion technology reduces airborne contaminants and odors and also allows buildings to lower outside ventilation rates and reduce HVAC energy costs. These systems can be designed into both new and existing buildings.

Eldor Contracting Corporation
Eldor Contracting Corporation is one of the New York-Tri State region's largest electrical construction and renewable energy companies. Recognized for its effective performance on the most complex, challenging projects, Eldor offers end-to-end services, including: electrical construction, value engineering, procurement, construction and renewable energy solutions.

Japan External Trade Organization (JETRO)
Japan External Trade Organization (JETRO) is a Japanese governmental organization that facilitates international trade and investments between Japan and the world. JETRO helps U.S. companies set up an office in Japan quickly and cost effectively by providing various services. Stop by our section for more information about business opportunities in Japan.

The Valley Group, Inc., a Nexans company
The Valley Group, a Nexans company, is the world leader in providing Dynamic Line Ratings (DLR), a technology whose significance has skyrocketed with the advent of the Smart Grid. Benefits include: improving network reliability; relieving congestion; accelerating integration of wind farm generation into the existing network; and improving grid efficiency. The industry-leading Valley Group has provided DLR systems to over 100 utilities on 5 continents.

UTC Power
UTC Power, a United Technologies Corp. company, provides energy-efficient products and services to the aerospace and building industries. Based in South Windsor, Conn., UTC Power is a proven leader in designing, manufacturing and deploying fuel cells that generate clean and reliable power for buildings, transportation, space and marine applications.

Green Way Solutions, Inc.
"WE SAVE ENERGY, PROTECT THE ENVIRONMENT AND CREATE JOBS"

Priority Cool Refrigerants (PC) are patented blends of drop-in hydrocarbon refrigerants that reduce energy by up to 25%.

Hydromx (HX) is a patented formula used in hydronic heating, cooling and solar systems that can reduce energy up to 35%.

Philips/Lightolier
Philips Electronics: A Health and Well-being company, focused on improving people's lives through meaningful innovations. A world leader in healthcare, lifestyle and lighting, Philips integrates technologies into solutions, based on customer insights and the brand promise of "sense and simplicity".

Advanced Energy Training Institute
The Advanced Energy Training Institute, part of Stony Brook University Corporate Education and Training (CET), is the training division of the Advanced Energy Research and Technology Center. Working with core partners and leaders in the clean energy economy, AETI is establishing a platform for skills, knowledge, and credentials necessary in this evolving area.

Center of Excellence in Wireless and Information Technology (CEWIT)
To best capitalize on the IT revolution, spur economic growth, advance scientific research and develop the technologies of tomorrow, the Center of Excellence in Wireless and Information Technology (CEWIT) was created in 2003. The Center is a next generation research and educational facility whose mission is three-fold: become recognized as a world leader in inter-disciplinary research in the emerging, critical technologies of the information age, address the skilled technology worker shortage, and foster new enterprise development.

SUNY Energy Smart New York Office of Sustainability
Posters and PowerPoint highlighting SUNY energy and sustainability initiatives throughout the system, not only with facilities but also research.

Ascension Industries
Ascension Industries - Your Green Energy Partner for innovative product development, engineering, design and contract manufacturing. ISO 9001:2008

Best Energy Power
Commercial/residential Solar PV installations throughout NY at most affordable/competitive price.
High quality performance/installations, leader in number of installations in Con Ed territory.

Corix Utilities
Corix is a fully integrated provider of utility infrastructure products, services and systems including measurement field services. We focus on delivering flexible and innovative solutions.

GE Energy Systems
GE's Durathon Battery technology is an innovative and advanced industrial battery engineered to meet the growing need for safer, reliable and high-performance energy storage solutions for stationary and motive applications. Delivering value and ingenuity to the Telecommunications, Power Generation, Grid Operation and Energy Management markets.

GEM Energy
GEM Energy optimizes the efficiency of facilities for reduced lifetime operating costs through comprehensive energy services and technologies including integration of power generation, advanced heating/cooling systems, supply-side procurement/management, demand-side load reduction and building controls for commercial, industrial, institutional and mission critical facilities.

IMT Solar
IMT Solar, located near Buffalo, NY, is in the business of selling and supporting quality control, test, and measurement equipment into the renewable energy market across North America.

Leviton Mfg. Co.
Leviton is a leading global manufacturer of lighting and energy management systems. Save energy, meet code compliance, achieve LEED certification with our award-winning products.

RSP Systems
RSP Systems is the exclusive regional Capstone Turbine distributor who helps our clients develop an on-site cogeneration strategy utilizing microturbines.

SATEC Inc.
SATEC is a solutions-oriented global leader of intelligent power measurement instrumentation. SATEC's "Smart & Simple" approach to digital design is revolutionizing the industry. www.satec-global.com

Sentient Science Corporation
Sentient Science's DigitalClone technology was developed with $20M+ and was validated by NASA to reduce physical design, testing, and maintenance expense and time by 50%.

Vision Quest Lighting
Vision Quest Lighting is a Long Island based manufacturer of energy efficient commercial lighting fixtures. These LED fixtures qualify for most utility rebates and offer the highest performance levels. Our product is proudly made in New York, by New Yorkers, for New York.

Wellan
Wellan nonchemical water treatment based on cancelling the waves of rust scale to clean and maintain boilers, CT and biofilms. NonMagnetic, no coils or electricity.

O'Brien & Gere
O'Brien & Gere develops comprehensive energy programs tailored to the unique needs of each client, delivering energy efficient demand and reliable, low cost supply solutions.

Ace Energy, Inc.
Ace Energy specializes in customizable efficiency lighting & controls, building automation, and system integration solutions for commercial & industrial users. Free facility assessments are available.

AlsoEnergy, LLC
AlsoEnergy provides the most comprehensive energy monitoring and financial management software solutions for renewable energy developers, manufacturers and investors.

PowerPHASE
15% more peaking power from your gas turbine plant. Half the cost of peaker GT. 10-40% more efficient. Installed in 6-9 months.

American Petroleum Institute
API is a national trade association that represents all segments of America's technology-driven oil and natural gas industry.

Solaire Generation
Solaire Generation is the market leader for design, fabrication and installation of innovative solar carport structures, and is now offering a Photovoltaic/Electric Vehicle carport kit.

DNVKema
DNV KEMA Energy & Sustainability is a global, leading authority in business and technical consultancy, testing, inspections & certification, risk management, and verification, along the energy value-chain.

Applied Power Systems
U.S. designer and manufacturer of power systems: Inverters, Converters, rectifier assemblies, and power supplies. Air or liquid cooled versions. Drivers for IGBTs, SCRs and MOSFETS

Clean Energy
Clean Energy is the largest provider of natural gas fuel for transportation in North America and a global leader in the expanding natural gas vehicle market.

EmPower CES, LLC
EmPower Solar is a premier solar installation company serving residential and commercial markets. EmPower was the #1 installer in LIPA territory in 2011.

EE Solar
With our committed in-house design EE Solar the leading installation provider can offer your home and business a full turnkey solar panel solution. Our efficient business model allows us to keep our solar roof panel systems competitively priced, while providing our customers with the highest-quality installations. Solar Energy is a key part of our clean energy solution.

jaga Canada Climate Systems, Inc.
Jaga is one of the world's leading specialists in the manufacture of energy-saving hydronic heating and cooling solutions. More information: www.jaga-usa.com.

Jasmine Systems, Inc.
Jasmine Systems enables consumers to save energy and money using HAN technology. Utilities can also implement Demand Response programs and interact one-on-one with consumers.

Suffolk County Community College
Suffolk County Community College is a leader in energy efficiency education, training and certification, including LEED, energy auditing (BPI certification) and solar technology (NABCEP certification).

US Energy Group
US Energy Group's system provides comprehensive and cost-effective building energy management that can reduce energy costs for residential and commercial properties.

G4 Synergetics
G4 Synergetics is an energy storage company focused on high power storage solutions. Located in Alachua, Fl., G4 has 100 acres available for battery manufacturing.

Yuco Optics Corp.
Yuco produces high-power infrared, green and ultraviolet lasers and laser-based manufacturing systems including thin film solar cell scriber. Our products provide cost-effective, environment-friendly solutions.

Advanced Control Solutions, Inc.
Advanced Control Solutions designs and installs energy management systems. Including HVAC, lighting control, utility monitoring and invoicing, access control and more.

The Center for Autonomous Solar Power (CASP) at Binghamton University
The Center for Autonomous Solar Power (CASP) at Binghamton University conducts research on thin film solar cells fabricated from earth abundant elements on flexible substrates.

Electrovaya
Electrovaya is a manufacturer of Lithium Ion SuperPolymer® batteries and battery-related products. Based in North America, Electrovaya products have been successfully implemented in the utility, automotive, and healthcare markets.

Juwi Solar Inc.
juwi solar Inc. (JSI) is a privately-held solar energy generation company based in Boulder, Colorado. JSI's primary business is the development, design, construction, operation and maintenance of utility-scale (1MW and larger) solar energy generation facilities in North America. To date JSI has successfully built large-scale solar projects in Arizona, Florida, Nevada, New Jersey, North Carolina, Ohio and Texas. JSI is majority-owned by juwi Holding AG of Germany. With over 600 employees worldwide, juwi's solar group has built more than 1,500 solar photovoltaic installations globally, totaling more than 1GW of operating capacity.

Fisonic
Fisonic's breakthrough EnergyMAX heat exchange technology will save Manhattan steam customers billions of gallons of water and millions of gallons of fossil fuel annually.

MILWIND, LLC.
MILWIND is a patented vertical axis wind turbine that contracts into a cylinder in high winds, and incorporates a 98% efficient speed increaser to improve performance.

The Tesla Science Foundation
The Tesla Science Foundation 501(c)3 was formed to promote the legacy of Nikola Tesla by raising awareness of his accomplishments and contributions to the 21st Century to include introducing his many patents and inventions that remain applicable to our current needs. We bring together those with a genuine interest in Tesla through educational programs, workshops, meetings, and public events. TeslaScienceFoundation.org

Ford
The all-new 2013 C-MAX Hybrid launches this fall as part of Ford's power of choice strategy to deliver leading fuel economy across its lineup while tripling electrified vehicle production capacity by 2013. As the first hybrid to achieve equal city and highway ratings, C-MAX Hybrid delivers EPA-certified 47 mpg city, 47 mpg highway ratings – 7 mpg better than Toyota Prius v on the highway – for a 47 mpg combined rating. C-MAX Hybrid also is expected to offer 15 class-exclusive features – such as SmartGauge® with EcoGuide and the available hands-free liftgate – and be America's most affordable hybrid utility vehicle.

Toyota
The Toyota Fuel Cell Hybrid Vehicle advanced (FCHV-adv) is based on the popular Toyota Highlander mid-size SUV. It utilizes the same core hybrid synergy drive (HSD) technology utilized in the Toyota Prius. The FCHV-adv fuel cell system features four compressed hydrogen fuel tanks, an electric motor, a nickel-metal hydride battery, and a power control unit. Hydrogen gas is fed into the fuel cell stack where it is combined with oxygen. The electricity produced by this chemical reaction is used to power the electric motor and to charge the battery.

Northrop Grumman
Northrop Grumman is a leading global security company providing innovative systems, products and solutions in aerospace, electronics, information systems, and technical services to government and commercial customers worldwide. Please visit www.northropgrumman.com for more information.

ADVANCED ENERGY CONFERENCE: A FIVE-YEAR HISTORY OF GROWTH AND SUCCESS

Individuals Attending

	2007	2008	2009	2010	2011
Attendees	270	960	1080	1441	443

Individuals Presenting

	2007	2008	2009	2010	2011
Presenters	21	136	192	232	123

Corporate/Organizational Participation

	2007	2008	2009	2010	2011
Represented	100	375	466	533	214
Exhibiting	18	47	67	114	49

Academic Participation

	2007	2008	2009	2010	2011
College/Universities Represented	6	17	31	37	25
Posters Presented	8	36	48	59	37

ADVANCED ENERGY CONFERENCE: A FIVE-YEAR HISTORY OF GROWTH AND SUCCESS

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OCTOBER IN ALBANY, NY

ADVANCED ENERGY 2014
OCTOBER IN NEW YORK CITY

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Energy. Innovation. Solutions.

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HERE WITH YOU. HERE FOR YOU.

NYS SmartGrid Consortium

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State University of New York

KEMA DNV

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SVAM International, Inc.

EisnerAmper
Accountants & Advisors

CACT
Energy • Environment • Health Care

Center of Excellence Wireless and Information Technology
www.cewit.org

AES Energy Storage

AECOM

Clean Energy

caithness long island energy center

eldor POWER TO PERFORM

CEBIP

PHILIPS

UTC Power
A United Technologies Company

GreenWay Solutions, Inc.

Advanced Energy Training Institute

AtmosAir Solutions
Breathing is Believing

The Valley Group
a Nexans company

The Value of Performance. Northrop Grumman

JETRO New York

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GEM Energy • IMT Solar • Leviton Mfg. Co. • RSP Systems • SATEC Inc. • Sentient Science Corporation • Vision Quest Lighting • Wellan • O'Brien & Gere
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Watt Fuel Cell Corporation (WATT) • Priority Cool Refrigerants • Subsea Energy, N.A., LLC (SSENA) • Solar Cool Technologies Inc. • DG Energy Partners
Directed Energy, Clean-Tech Incubator & UB Biosciences • Cortland Research LLC • The Paper Battery Company • Synairco
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SUPPORTING ORGANIZATIONS

ACORE American Council On Renewable Energy

itac

ADVANCED ENERGY™
RESEARCH AND TECHNOLOGY CENTER