AEC 2016

ADVANCED ENERGY CONFERENCE

The Premier New York State Energy Conference

CONFERENCE PROGRAM

APRIL 20, 21 & 22, 2016 • JACOB JAVITS CONVENTION CENTER • NEW YORK CITY

ADVANCED ENERGY™
Research and Technology Center
AT STONY BROOK UNIVERSITY

a New York State designated Center of Excellence

WELCOME TO ADVANCED ENERGY 2016



Since the discovery of fire, the search for ways to source, harness and store energy has become one of humanity's greatest endeavors. Today that search continues at an accelerating pace, driven forward by increasing worldwide demand and the emergence of promising new technologies. Around the world, there is a growing spirit of cooperation between nations and individuals to realize the potential that these technologies hold for delivering clean, sustainable energy. Together, we seek to meet the needs of our children and secure the environment for generations to come. Advanced Energy 2016 brings together leaders from every area of energy development in order to stimulate the cross-disciplinary cooperation that will ultimately lead to the breakthroughs of tomorrow.

As New York State's premier energy conference, Advanced Energy 2016 would like to recognize the dedicated efforts the State has made, under the leadership of Governor Andrew M. Cuomo, toward advancing energy-related research and business. Reforming the Energy Vision (REV) is the Governor's comprehensive strategy for encouraging smarter energy choices among consumers, stimulating the development of energy-related products and services, creating business opportunities and jobs, and protecting the environment. Together with other State-sponsored initiatives, such as START-UP NY and the Business Incubator and Innovation Hotspot programs, REV confirms New York's leadership role in advancing energy-related technologies and businesses.

We must also recognize our major conference sponsors for their generosity and demonstrated commitment to the future of the energy sector. Particular thanks go out to: our **Host Sponsor**: NYSERDA; our **Platinum Sponsors**: New York State Smart Grid Consortium, New York Power Authority, National Grid, NextEra Energy Resources, PSEG, Stony Brook University; our **Gold Sponsors**: NYU Tandon School of Engineering, City College of New York, Lockheed Martin Energy, SMM Advertising; and our **Silver Sponsors**: West Monroe Partners, DONG Energy, Petro Home Services and Hydro Quebec.

The Advanced Energy Conference is organized by the Advanced Energy Research & Technology Center (AERTC), a designated New York State Center of Excellence at Stony Brook University. We wish to recognize the distinguished members of the AERTC Advisory Board for their wisdom and guidance. Additionally, neither the AERTC nor the Advanced Energy Conference would exist without the continued support of the New York State Government, and we wish to express our gratitude to the New York State Legislature – particularly Senate Majority Leader John J. Flanagan, Speaker of the Assembly Carl E. Heastie, and Chairman of the Senate Committee on Higher Education, Kenneth P. LaValle.

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GOVERNOR

April 5, 2016

Dear Friends,

It is a pleasure to welcome you to the Advanced Energy 2016 at the iconic Jacob Javits Convention Center. This conference is another example of how New York is bringing together thought leaders from across the world to advance the State's cleantech economy.

The Empire State is demonstrating -- through its Reforming the Energy Vision strategy -- how to build a cleaner, more resilient and affordable energy system. We are working with our public and private sector partners to grow the state's clean energy economy, support innovation, ensure grid resilience, mobilize private capital, create new jobs, and increase choice and affordability for energy consumers.

Our collective efforts will place clean, locally produced power at the core of New York's energy system thereby protecting the environment and supporting the State's ambitious goals to reduce greenhouse gas emissions by 40% from 1990 levels with a mandate to generate 50% of its electricity from renewable energy sources by 2030.

The Advanced Energy Conference represents a wonderful opportunity to continue the dialogue and collaboration we need to ensure New York remains a national leader in the energy sector.

Warmest regards and best wishes for a productive conference.

Sincerely,

ANDREW M. CUOMO

WE WORK FOR THE PEOPLE
PERFORMANCE ★ INTEGRITY ★ PRIDE

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A MESSAGE FROM OUR HOST SPONSOR

NYSERDA is proud to continue its support of the Advanced Energy Conference, one of the leading energy conferences in the Northeast. We encourage you to take advantage of this remarkable opportunity to engage and network with an exceptionally broad range of industry researchers, innovators, academic leaders and policymakers from the energy community. New York State has become the most innovative market in the nation for new energy solutions, and offers the markets, policies and resources to drive growth in companies with new ideas for clean energy products and services as we continue to build the clean energy economy. Under Governor Cuomo's Reforming the Energy (REV) vision, the State is advancing innovative energy solutions to develop a clean, resilient and affordable energy system for all New Yorkers with the combined efforts of government, industry and communities. Join us.

– John B. Rhodes
President and CEO
NYSERDA

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A MESSAGE FROM OUR PLATINUM SPONSORS

Stony Brook University is excited and proud to support the Advanced Energy Conference 2016, the premier New York State energy conference and the 9th Conference in the series. This year the conference is being held at the incredible Javits Center, one of the preeminent and most sought-after conference centers in the world – a fitting venue because the Advanced Energy Conference is arguably the most prestigious gathering of researchers, industry experts, innovators and policymakers in energy today.

I would like to express my gratitude to the dedicated team at the Stony Brook University Advanced Energy Research and Technology Center, a New York State designated Center of Excellence, for making this conference a reality. I would also like to thank the conference committees, exhibitors, and supporting organizations who brought together a diverse gathering of global energy and government leaders to exchange ideas for energy research and technology deployment. It is exactly this type of collaboration and commitment that will chart the path for future generations as we strive to create more options in the fields of clean and efficient energy distribution and storage.

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

Stony Brook University

The New York State Smart Grid Consortium is proud to join as a partner at Advanced Energy 2016 in New York City, hosting this year's edition of the premier forum for sharing cutting-edge ideas and the latest advances in energy R&D, and forging new alliances with the visionaries who are shaping the world of energy for the 21st century. The Consortium is a public-private partnership formed to enable and facilitate the development and commercialization of bold new Smart Grid technologies, platforms and systems. It brings together academic and research institutions, global technology developers, energy providers and utilities in the private and public sectors, regulators, R&D sponsors, and new technology commercialization organizations. NYSSGC is excited to support New York's Reforming the Energy Vision (REV) initiative, with its ambitious goals for a more resilient and affordable energy system, cleaner transportation, steep reductions in GHGs, and continuing energy innovation to capture the economic value of our solutions to our own problems.

– Bob Catell
Chairman
NY State Smart Grid Consortium

NYS SmartGrid Consortium

The New York Power Authority is excited to be part of Advanced Energy 2016. We help execute Governor Cuomo's Reforming the Energy Vision strategy, which is reshaping how utilities will do business, in part through the use of clean energy and cutting-edge technology. The goals of REV, such as reducing greenhouse gas emissions 40 percent by 2030 and having half of all energy use in the state come from renewable sources by then are both ambitious and achievable. We know that through our own research and having heard from the thought leaders who make this conference so indispensable. We need to think big and there's no better forum to initiate the collaborations and partnerships to ensure we have an energy system that is at once resilient, efficient and affordable. In New York, the future of energy really is now.

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

NEW YORK STATE OF OPPORTUNITY. | NY Power Authority

A MESSAGE FROM OUR PLATINUM SPONSORS

National Grid is playing a leadership role in supporting New York's REV agenda. We are uniquely qualified to shape energy policy because our 8,000 New York based employees live and work in the same local communities as the 4 million customers we proudly serve. We need to ensure that our energy becomes cleaner, more efficient, resilient and reliable – all while offering customers more choices and more control.

Our Connect21 strategy is our plan to cost-effectively meet our customers' 21st century energy demands. We are delivering a balanced approach, which includes strategic partnerships, smart infrastructure investments, innovative technologies, continued environmental stewardship, and progressive rate making.

We are excited to build a new and enhanced energy delivery model that meets customers' needs and we are committed to helping shape the energy future."

– Ken Daly
President
National Grid New York

nationalgrid
HERE WITH YOU. HERE FOR YOU.

The Advanced Energy Conference is a key gathering of energy professionals in New York. This is an excellent forum to exchange ideas and learn about current energy issues and opportunities in the state. This is a unique opportunity for our company and we are proud to support the conference.

– Ross D. Groffman
Executive Director
NextEra Energy Resources, LLC

NEXTera ENERGY RESOURCES

At PSEG Long Island, we are committed to providing our Long Island and Rockaways' customers with exceptional customer service, best-in-class reliability and storm response, as well as a strong level of involvement in the communities in which we live and work. Supporting the Advanced Energy Conference provides us with the opportunity to share our vision and to come together with other leaders and visionaries to explore the future of energy on Long Island, in our state and across the nation.

– David Daly
President and Chief Operating Officer
PSEG Long Island

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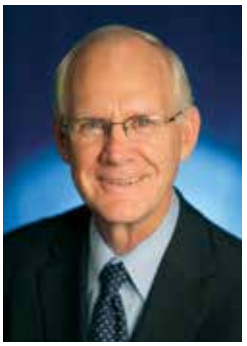

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SPECIAL THANKS

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 foresees 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.

Dr. Kathy Araújo
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KEYNOTE SPEAKERS

Jill Anderson – *New York Power Authority*
Jill Anderson is Senior Vice President Commercial Operations at the New York Power Authority (NYPA), overseeing market activities to generate more than $2 billion in annual revenue from marketing NYPA's assets. Her team is responsible for power generation trading, fuel operations, and hedging. She leads development of new transmission and generation and also manages federal and state regulatory affairs. Previously Jill led supply acquisition and renewable energy for NYPA, responsible for energy procurement including solar, wind, and biomass.

Prior to joining NYPA, Jill was the Project Office Manager for Hess Corporation. She worked for Consolidated Edison Company of New York where she held operations positions in electric, gas, and steam distribution. She has experience in power generation design and construction, working as a field engineer for Parsons Brinckerhoff in Boston, Massachusetts.

Jill received a Master of Business Administration from New York University and a Bachelor of Science in Mechanical Engineering from Boston University.

Robert Catell – *Advanced Energy Center*
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, Futures in Education Endowment Fund, the New York Energy Policy Institute's Advisory Council (NYEPI).

Mr. Catell serves on the Board of the following governmental organization: NYS Economic Development Power Allocation Board (EDPAB). He also serves on the Board of the following not for profit organizations: Brooklyn Community Foundation, City College of New York 21st Century Foundation, Colin Powell School for Civic and Global Leadership, Department of Education; Diocese of Rockville Centre, Feinstein Institute for Medical Research, National Grid Foundation, St. Francis Hospital Foundation, Tomorrow's Hope Foundation, and the New York City Police Foundation. Mr. Catell serves on the Board of the following business organizations: American Vanadium Corp. (AVC), Atmos Air Solutions, BioRestorative Therapies, Long Island Angel Network (LIAN), Long Island Association (LIA), National Petroleum Council, the New York Academy of Sciences (NYAS), ThermoLift Inc., and the Water Company, LLC. He serves on the Advisory Board for: Advanced Power North America (APNA), Applied DNA Sciences Inc., Atmos Air Solutions, CAI Investments, the Center for Urban Sciences & Progress (CUSP), EC Infosystems, Our Energy Policy Foundation, Posillico Inc., SUNY Farmingdale, the President's Advisory Council at Adelphi University, VNG.CO, and the Winthrop Hospital Board of Regents.

Mr. Catell is an Executive in Residence at Hofstra University and was named the first "John J. Phelan, Jr. Fellow" of the Robert B. Willumstad School of Business at Adelphi University.

Mr. Catell is a former Chairman of the American Gas Association, Brooklyn Chamber of Commerce, KEYERA Energy Management Ltd., 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 former board member of: the Brooklyn Public Library Foundation, Edison Electric Institute (EEI), Energy Association of NYS, Long Island Foreign Affairs Forum, New York State Energy Research & Development Authority (NYSERDA), the advisory board of HeartShare 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

Dr. Roger Flanagan – *Lockheed Martin Energy*
Roger Flanagan is Managing Director of Lockheed Martin Energy, leading the company's business unit with electric and gas utilities in North America. LM Energy provides utilities with distributed energy resources through energy efficiency, demand response, renewables, cogen, storage, and microgrids. LM Energy also provides utilities with advanced technology in transmission & distribution automation, grid & customer analytics, information & operations technology, and cyber security.

Dr. Flanagan has 30 years of professional experience in energy and national security with Lockheed Martin and the Tennessee Valley Authority. He has worked at the Oak Ridge National Laboratory and is formerly the Director of the Remote Sensing Laboratory at Nellis and Andrews Air Force Bases. He has held senior technical and management positions in electric power generation, transmission & distribution, and has managed technical operations support groups at Livermore, Los Alamos, and Sandia National Laboratories.

Dr. Flanagan earned a Doctor of Philosophy degree in Engineering from the University of Tennessee and Masters and Bachelors of Science degrees in Engineering from West Virginia University. He is the author of numerous publications

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Dr. Doon Gibbs – *Brookhaven National Laboratory*
Doon Gibbs leads Brookhaven National Laboratory, a multi-program U.S. Department of Energy laboratory with about 3,000 employees, more than 4,000 facility users each year, and an annual budget of $600 to $700 million. Home to seven Nobel Prizes, Brookhaven Lab features a research portfolio that ranges from fundamental science to innovation, development, and commercialization of technologies, with major programs in nuclear and high energy physics; energy science and technology; biological and environmental research; nonproliferation and national security; and data-driven computational science. Brookhaven Lab's main user facilities include the National Synchrotron Light Source II, the Relativistic Heavy Ion Collider, and the Center for Functional Nanomaterials.

Doon Gibbs earned a B.S. in physics and mathematics from the University of Utah in 1977, and an M.S. and Ph.D. in physics from the University of Illinois at Urbana-Champaign, in 1979 and 1982 respectively. He joined Brookhaven in 1983 as an assistant physicist and progressed through the ranks to become a senior physicist in 2000. Gibbs's managerial experience at Brookhaven includes the posts of Group Leader of X-ray Scattering, Associate and Deputy Chair of Physics, Head of Condensed Matter Physics, Interim Director of the Center for Functional Nanomaterials, Associate Laboratory Director for Basic Energy Sciences, and Deputy Laboratory Director for Science and Technology. He became Laboratory Director in 2013.

Gibbs was honored with the 2003 Advanced Photon Source Arthur H. Compton Award "for pioneering theoretical and experimental work in resonant magnetic x-ray scattering, which has led to many important applications in condensed matter physics." Gibbs was instrumental in overseeing the design and construction of Brookhaven's Center for Functional Nanomaterials, and has played a significant role in advancing other major Lab projects including the National Synchrotron Light Source II and Interdisciplinary Science Building. He has also overseen the growth of Brookhaven's basic energy sciences programs in chemistry, materials science, nanoscience, and condensed matter physics.

Gibbs is a Fellow of both the American Association for the Advancement of Science and the American Physical Society.

KEYNOTE SPEAKERS

Janet Joseph – *NYSERDA*

Janet Joseph is the Vice President for Innovation and Strategy at the New York State Energy Research and Development Authority (NYSERDA). Janet oversees research and market development programs, focused on catalyzing partnerships to increase innovation and investment in clean energy in New York.

Ms. Joseph has over 25 years of experience in clean energy. She has held technical, policy and leadership positions at NYSERDA, where she has spearheaded initiatives to develop renewable power in New York, built a cleantech start up industry, and identified greenhouse gas reduction strategies that provide benefits for New Yorkers. Prior to joining NYSERDA, Janet was a research scientist at Battelle Pacific Northwest Laboratory. Janet has also worked as a consultant for Booz-Allen and Hamilton in Washington, D.C.

Janet Joseph serves on the Boards of the Clean Energy States Alliance, the Northeast Clean Energy Council Institute, and the RPI Center for Future Energy Systems. Janet received the 2015 Public Service Excellence Award from the State Academy for Public Administration, and was voted as one of the top ten Clean Tech leaders in New York. Janet has a Master's degree in Environmental Chemistry from the University of Maryland.

Richard Kauffman – *New York State*

Richard Kauffman joined the office of New York Gov. Andrew Cuomo as the state's first Chairman of Energy and Finance for New York, or 'energy czar,' in January 2013. On behalf of Governor Cuomo, Mr. Kauffman leads New York State's comprehensive energy policy effort, known as Reforming the Energy Vision (REV).

REV includes regulatory reform to modernize the energy and utility industry, a ten-year commitment to support renewable energy and efficiency markets through the $5 billon Clean Energy Fund, and other initiatives including the NY-Sun solar program and NY Green Bank. Through REV, New York State has enacted a Clean Energy Standard mandating 50% of the state's electricity come from renewable sources by 2030. These efforts will enable greenhouse gas emission reductions of 40% by 2030.

Mr. Kauffman oversees and manages the state's complete portfolio of energy agencies and authorities, comprised of the Department of Public Service (DPS), the New York Power Authority (NYPA), the Long Island Power Authority (LIPA), and the New York State Energy Research and Development Authority (NYSERDA). He was appointed chair of NYSERDA's board in June 2013.

As the state's most senior energy official, Mr. Kauffman was New York's lead delegate in Paris at the 2015 United Nations Climate Change Conference, or COP21. In 2014, Mr. Kauffman was named by Fortune Magazine as one of the World's Top 25 Eco-Innovators.

Prior to joining the Cuomo administration, Mr. Kauffman served as Senior Advisor to Secretary Steven Chu at the U.S. Department of Energy. In his private sector career, he was CEO of Good Energies, Inc., a leading investor in clean energy technologies, a partner of Goldman Sachs where he chaired the Global Financing Group, and vice chairman of Morgan Stanley's Institutional Securities Business and co-head of its Banking Department. Mr. Kauffman has served as Chairman of the Board of Levi Strauss & Co., on the boards of organizations including the Brookings Institution and the Wildlife Conservation Society, and is a member of the Council on Foreign Relations.

Mr. Kauffman received a bachelor's degree from Stanford University, a master's degree in international relations from Yale University, and a master's in public and private management from the Yale School of Management.

KEYNOTE SPEAKERS

Dr. Ellen Morris – *Columbia University*
Ellen teaches Energy and Enterprise Development at Columbia University's School of International and Public Affairs and is a Faculty Affiliate at the Center on Global Energy Policy. At Columbia, Ellen serves as a mentor in the Women's International Leadership Program and is the faculty advisor for the Women in Energy student group at SIPA. Ellen is an Ambassador for The Clean Energy Education and Empowerment Initiative that was launched by the Clean Energy Ministerial to close the gender gap in STEM fields. In addition to her faculty appointment, Ellen is the President and Founder of Sustainable Energy Solutions, an international consulting services company that promotes the increased use and deployment of clean energy technologies and services as a means to support economic development and reduce poverty in developing countries. She was also a founder of Embark Energy, a social enterprise that trains and mentors energy entrepreneurs and Arc Finance, a non-profit that links microfinance and clean energy.

Ellen serves as an advisor and Board Member for social enterprises focused on clean energy, including Simpa Networks (India), Earth Spark International (Haiti), and Empowered by Light (Zambia) and is the Energy Program Advisor for the Clinton Global Initiative. She started her career in clean energy working for the National Renewable Energy Laboratory, in the geothermal program. In the early part of her career, she worked as a Fellow on the Science, Space and Technology Committee of the U.S. Congress and as an exploration geophysicist for Texaco. She holds a Bachelor of Science degree in geophysical engineering from the Colorado School of Mines and a doctoral degree in marine geophysics from the University of Rhode Island.

Dr. Franklin (Lynn) M. Orr – *United States Department of Energy*
Dr. Franklin (Lynn) M. Orr was sworn in as the Under Secretary for Science and Energy on December 17, 2014.

As the Under Secretary, Dr. Orr is the principal advisor to the Secretary and Deputy Secretary on clean energy technologies and science and energy research initiatives. Dr. Orr is the inaugural Under Secretary for the office, which was created by Secretary of Energy Ernest Moniz to closely integrate DOE's basic science, applied research, technology development, and deployment efforts. As Under Secretary, he oversees DOE's offices of Electricity Delivery and Energy Reliability, Energy Efficiency and Renewable Energy, Fossil Energy, Indian Energy Policy and Programs, Nuclear Energy, and Science. In total, these programs steward the majority of DOE's National Laboratories (13 of 17).

Prior to joining the Department of Energy, Dr. Orr was the Keleen and Carlton Beal Professor Emeritus in the Department of Energy Resources Engineering at Stanford University. He joined Stanford in 1985. He served as the founding director of the Precourt Institute for Energy at Stanford University from 2009 to 2013. He was the founding director of the Stanford Global Climate and Energy Project from 2002 to 2008, and he served as Dean of the School of Earth Sciences at Stanford from 1994 to 2002. He was head of the miscible flooding section at the New Mexico Petroleum Recovery Research Center, New Mexico Institute of Mining and Technology from 1978 to 1985, a research engineer at the Shell Development Company Bellaire Research Center from 1976 to 1978, and assistant to the director, Office of Federal Activities, U.S. Environmental Protection Agency from 1970 to 1972. He holds a Ph.D. from the University of Minnesota and a B.S. from Stanford University, both in Chemical Engineering.

Dr. Orr is also a member of the National Academy of Engineering. He served as a member of the Board of Directors of the Monterey Bay Aquarium Research Institute from 1987 to 2014, and was a member of the Board of Trustees of the David and Lucile Packard Foundation from 1999 to 2008, for which he has also chaired the Science Advisory Panel for the Packard Fellowships in Science and Engineering from 1988 to 2014. He served as a member of the 2008/09 National Research Council Committee on America's Energy Future.

KEYNOTE SPEAKERS

Gil Quiniones – *New York Power Authority*
Gil C. Quiniones has served as President and Chief Executive Officer of the New York Power Authority (NYPA), the nation's largest state-owned electric utility, since 2011. He is responsible for developing and implementing the statewide utility's strategic vision and mission and for supervising its operations, legal and financial matters and relationships with external stakeholders.

Mr. Quiniones was Co-Chairman of the New York Energy Highway Task Force, which helped carry out Governor Andrew M. Cuomo's vision for reimagining New York State's energy system through partnerships between the public and private sectors. Under his leadership, NYPA is currently playing a key role in the Governor's Reforming the Energy Vision initiative to use market forces and new technology to empower customers and encourage the growth of clean renewable energy and energy efficiency.

Before joining NYPA in 2007 as Executive Vice President of Energy Marketing and Corporate Affairs, Mr. Quiniones served in several positions in the administration of New York City Mayor Michael R. Bloomberg, including more than four years as Senior Vice President of Energy and Telecommunications. He previously worked for Con Edison for 16 years and was one of four co-founders of Con Edison Solutions, the utility's unregulated energy services company.

Mr. Quiniones is Chairman of the Board of Directors of the Electric Power Research Institute, the electric power industry's international research and development organization. He is Vice Chairman of the Board of Directors of the New York State Energy Research and Development Authority, serves on the boards of the Large Public Power Council and the Alliance to Save Energy and is NYPA's principal representative to the American Public Power Association.

John Rhodes – *NYSERDA*
John B. Rhodes was appointed President and Chief Executive Officer of the New York State Energy Research and Development Authority (NYSERDA) on September 16, 2013. Mr. Rhodes brings more than 30 years of experience in business with a focus on the financial and energy industries having lived and worked internationally, including India, Germany, Brazil, and Argentina.

Prior to his appointment, Mr. Rhodes served as the Director for the Center for Market Innovation at the Natural Resources Defense Council (NRDC), an international environmental advocacy organization. The Center works to channel private capital towards environmentally beneficial investments with a focus on energy efficiency, renewable energy, green infrastructure, and sustainable food and agriculture.

Before joining NRDC, Mr. Rhodes spent three years acting as Chief Operating Officer at Good Energies, a leading investment firm focused on renewable energy and energy efficiency; and was formerly a partner at Booz Allen Hamilton where he provided strategic consulting for clients across technology–intensive industries.
Mr. Rhodes is a graduate of Princeton University and the Yale School of Management.

Dr. Yacov Shamash – *Stony Brook University*
Dr. Shamash is the Vice President for Economic Development at Stony Brook University. Dr. Shamash supervises the University's four incubators, three New York State Centers for Advanced Technology (Medical Biotechnology, Sensor Systems and Integrated Electric Energy Systems); two New York State Centers of Excellence (Wireless and Information Technology (CEWIT), and the Advanced Energy Research and Technology Center (AERTC)); the Small Business Development Center; and the workforce development programs of the Center for Emerging Technologies. In 1995, Dr. Shamash led SUNY's colleges of engineering to create the statewide Strategic Partnership for Industrial Resurgence (SPIR) program. Stony Brook's cumulative results include more than 3,100 projects completed with more than 490 companies, helping company partners win more than $105.9 million in competitive federal awards.

(continued)

Dr. Yacov Shamash (continued)
During the period from 1992 to 2015 Dr. Shamash served as Dean of the College of Engineering and Applied Sciences at Stony Brook University. Under his leadership, the College expanded from 1,500 to over 5,000 students with average SAT scores of entering undergraduate students increasing from 1,150 to 1343, and external research expenditures increasing six fold to $30 million per year.

Prior to joining Stony Brook University in 1992, Dr. Shamash served as the Director of the School of Electrical Engineering and Computer Science at Washington State University and was the founding Director of the National Science Foundation Industry/ University Center for the Design of Analog/Digital Integrated Circuits. Dr. Shamash is currently a member of the Board of Directors of Keytronic Corporation and Applied DNA Inc. He is also a member of the Board of Directors for 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.

Samuel L. Stanley Jr., M.D. – *Stony Brook University*
Samuel L. Stanley Jr., M.D. became the fifth president of Stony Brook University on July 1, 2009, taking the helm of one of the nation's most prestigious research institutions.

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. He is an expert in the biological mechanisms that cells employ when responding to infectious agents such as parasites, bacteria, and viruses, a process commonly called the inflammatory response.

A Seattle native, Dr. Stanley has a Bachelor of Arts degree in biological sciences (Phi Beta Kappa) from the University of Chicago. After earning his medical degree from Harvard Medical School in 1980, he completed his resident-physician training at Massachusetts General Hospital. In 1983 he began a fellowship in infectious diseases at Washington University School of Medicine, became a professor of medicine in 1999, and in 2004 was appointed a professor in the Department of Molecular Microbiology in recognition of the collaborative nature of his research.

Dr. Stanley serves on the SUNY Strategic Planning Steering Committee, which plays a pivotal role in shaping the development of SUNY's new Strategic Plan that will guide SUNY for the next five years and the University for the next ten. As chair of Brookhaven Science Associates, which co-manages Brookhaven National Laboratory with Battelle Memorial Institute, Dr. Stanley joins the leaders of a select group of prestigious academic institutions, including Princeton, Stanford, the University of California-Berkeley, and the University of Chicago, in co-managing and collaborating with a national laboratory. He also serves on the boards of the SUNY Research Foundation, Cold Spring Harbor Laboratory, Goodwill Industries of Greater NY and NJ, and the Long Island Association. He was a member of the National Advisory Allergy and Infectious Diseases Council at the NIH, and was a member of the NIH Directors Blue Ribbon Panel on the National Emerging Infectious Diseases Laboratories. Dr. Stanley serves as an ambassador for the Paul G. Rogers Society for Global Health Research. Dr. Stanley has received an Honorary Doctorate Degree in Science from Konkuk University in Korea.

Dr. Stanley is a champion of academic and industry collaborations, knowing the enormous economic potential of successful university and corporate partnerships. With his extensive experience as a researcher, a patent holder and a former leader of technology transfer, Dr. Stanley brings an invaluable perspective to the emerging field of translational research. He also continues to work as a strong advocate for federal funding of basic research, working through organizations such as the AAU and The Science Coalition, to promote the critical role of University research in innovation and discovery.

KEYNOTE SPEAKERS

Dr. Ellen Williams – *U.S. Department of Energy, ARPA-E*
Dr. Ellen Williams is the Director of the Advanced Research Projects Agency–Energy (ARPA-E), responsible for oversight of the Agency.

Prior to joining ARPA-E, Dr. Williams served as the Senior Advisor to the Secretary of Energy and the Chief Scientist for BP. She is currently on a leave of absence from the University of Maryland where she has served as a Distinguished University Professor in the Department of Physics and the Institute for Physical Science and Technology since 2000. Dr. Williams has served as a Professor in the Department of Physics at the University of Maryland since 1991. She founded the University of Maryland Materials Research Science and Engineering Center and served as its Director from 1996 through 2009.

Dr. Williams received a B.S. in Chemistry from Michigan State University and a Ph.D. in Chemistry from the California Institute of Technology.

Chair Audrey Zibelman – *NYS Department of Public Service*
Audrey Zibelman was confirmed as a Commissioner of the New York State Public Service Commission on June 19, 2013, and was named Chair on September 3, 2013. Her term turns through February 1, 2018.

Ms. Zibelman has extensive experience in the public, private and not-for-profit energy and electricity sectors. She is a recognized national and international expert in energy policy, markets and Smart Grid innovation.

As PSC Chair, she sits on the State Energy Planning Board. She is also Chair of the New York State Board on Electric Generation Siting and the Environment. She sits on the board of the New York State Energy Research and Development Authority (NYSERDA), the board of the Regional Greenhouse Gas Initiative Inc. (RGGI), the Audit Committee of RGGI, the New York State Disaster Preparedness Commission, and the Bureau of Ocean Energy Management Task Force. Ms. Zibelman was appointed to the National Association of Regulatory Utility Commissioners (NARUC) Board of Directors, and is a member of NARUC Committee on Electricity She is also a member of the U.S. Department of Energy's Electricity Advisory Committee. She is a member of Lawrence Berkeley National Laboratory's Future Electric Utility Regulation Advisory Group. She is also a board member of the Advanced Energy Research and Technology Center (AERTC).

Ms. Zibelman received her B.A. from Pennsylvania State University and her J.D. from Hamline University School of Law.

Dr. Nancy Zimpher – *State University of New York*
In 2009, Nancy L. Zimpher became the 12th Chancellor of the State University of New York (SUNY) the nation's largest comprehensive system of higher education. Since that time, she has been a vocal advocate for groundbreaking legislative reforms that ensure SUNY can provide broad access to higher education, while maximizing its impact as an engine of economic development throughout the state.

Dr. Zimpher is active in numerous state and national education organizations, and is a recognized leader in the areas of teacher preparation, urban education, and university-community engagement. She is co-founder of StriveTogether, a national network of innovative systemic partnerships that holistically address challenges across the education pipeline.

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.

C3E Women in Energy "The New York Update"

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Moderator

Dr. Ellen Morris
Energy & Environment Faculty
Columbia University

Opening Keynote

Jill Anderson
Senior Vice President Commercial Operations
NYPA

Closing Keynote

Janet Joseph
Vice President for Innovation and Strategy
NYSERDA

PANEL DISCUSSION

Katherine Hamilton
Principal & Co-Founder
38 North Solutions

Dr. Nancy Kete
Managing Director
Rockefeller Foundation

Erika Symmonds
Director of Workforce Development
Grid Alternatives

SPECIAL THANKS

Lisa Broughton, Event Coordinator
Suffolk County Energy Director
Suffolk County Economic Development and Planning

Driving Change: Emerging Trends Influencing the Evolution of New York's Clean Energy Workforce

CO-CHAIR

Rebecca Hughes
Project Manager
NYSERDA

CO-CHAIR

Pat Malone
Executive Director
Advanced Energy Training Institute
& Center for Corporate Education
at Stony Brook University

SESSION ONE

Macro Trends in Clean Energy: What to Expect in the Next Decade

Moderator

Ryan Snow
Director, Global Community Development
US Green Building Council

Dr. Danielle Merfeld
Vice President, Niskayuna Technology Center
GE Global Research

Paul M. Wyman
General Manager, SmartGrid Solutions
Lockheed Martin
Information Systems &
Global Solutions

Jigar Shah
President & Co-Founder
Generate Capital Inc.

Lucas Finco
Manager of Analysis & Forecasting for (EE) & (DM)
Consolidated Edison

Dan Egan
VP of Sustainability & Utilities
Vornado Real Estate

Paul Meyer
SVP of Commissioning
WSP Parsons Brinkerhoff

SESSION TWO

Workforce Adaptations: How Employer-Driven Programming is Changing the Way We Work

Moderator

Sammy Chu
Chief Innovation Officer
Enerlogic

Ellen Ryan
Deputy Assistant Commissioner
NYC DCAS: Energy
Management Division

Neil G. Rosen
Director of Sustainability, Physical Assets
Northwell Health

Michael Yee
Director, Educational & Cultural Trust Fund of the Electrical Industry

Howard Styles
Director of Training
IUOE Local 94

Michael Bobker
Director, Building Performance Lab, CUNY
Institute for Urban Systems,
City College of New York

Katherine Rougeux
Project Manager
NYPA

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SESSION CHAIRPERSONS

Jill C. Anderson *Session B4 – REV & Integrated Grid - Transmission*

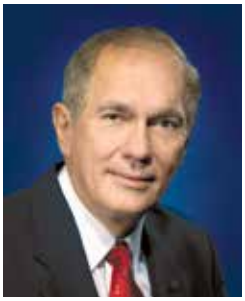
Jill Anderson is Senior Vice President Commercial Operations at the New York Power Authority (NYPA), overseeing market activities to generate more than $2 billion in annual revenue from marketing NYPA's assets. Her team is responsible for power generation trading, fuel operations, and hedging. She leads development of new transmission and generation and also manages federal and state regulatory affairs. Previously Jill led supply acquisition and renewable energy for NYPA, responsible for energy procurement including solar, wind, and biomass. Prior to joining NYPA, Jill was the Project Office Manager for Hess Corporation. She worked for Consolidated Edison Company of New York where she held operations positions in electric, gas, and steam distribution. She has experience in power generation design and construction, working as a field engineer for Parsons Brinckerhoff in Boston, Massachusetts. Jill received a Master of Business Administration from New York University and a Bachelor of Science in Mechanical Engineering from Boston University.

Dr. Kathleen Araújo *Session A4 – Role of Policy in Regional Energy Transitions*
Session E4 – Nuclear Energy: Achievements, Lessons Learned & Prospects
Session G3 – Offshore Wind

Dr. Kathleen Araújo specializes in strategic decision-making and planning associated with national energy-environmental systems, innovation, and industrial development. She is an assistant professor at Stony Brook University, where she is completing a book on low carbon energy change in prime mover countries. She has consulted for inter-governmental organizations, as well as partnered with the American Academy of Arts and Sciences. Dr. Araújo is a reviewer for the National Science Foundation and for periodicals, including the Journal of Energy Engineering, Utility Policy, Energy Policy, and the Global Status Report for REN21. Dr. Araújo earned her Ph.D. at MIT, completing post-doctoral research at the Harvard Kennedy School in science, technology, policy, and nuclear safety.

Mark Austin *Session A2 – Early Stage & Growth Capital*

Mark Austin is a Venture Partner with Bright Capital, a global venture capital firm focused on investments in clean and alternative energy, energy and resource efficiency, advanced materials, energy storage, agtech, water, and green chemistry. In addition to the full cycle of the investment process, he also serves as a Director on the boards QM Power, Agrivida, and Ener-G-Rotors. As Managing Director of Chandler Reed LLC, Mr. Austin provided strategy and advisory services to funds, corporates, as well as entrepreneurs and CEOs of public and private technology-based companies. A former serial tech entrepreneur in electro-optics, medical lab devices, and advanced materials, Mr. Austin also served as a consultant to UNDP's Sustainable Energy & Environment Division (SEED) for sustainable technologies globally. He is an Entrepreneur-in-Resident with NYSERDA, has mentored entrepreneurs in Africa, and spoken at conferences in Europe, Asia, Africa and North America on venture investing, energy, strategy and entrepreneurship. Mr. Austin has multiple patents issued internationally, has won international product design awards, and is a graduate of Williams College.



Dr. Robert A. Bari *Session E4 – Nuclear Energy: Achievements, Lessons Learned & Prospects*

Dr. Robert A. Bari is a Senior Physicist at Brookhaven National Laboratory and has over 40 years of experience in nuclear energy. He is co-chairman of the working group on proliferation resistance and physical protection of the Generation IV International Forum. Dr. Bari has served on the Board of Directors of the American Nuclear Society and as President of the International Association for Probabilistic Safety Assessment and Management. He was awarded the Theo J. "Tommy" Thompson Award in 2003 by the American Nuclear Society. He is a fellow of the American Nuclear Society and of the American Physical Society. He has been a committee member of the U. S. National Academy of Sciences on Lessons Learned from the Fukushima Nuclear Accident for Improving Safety and Security of the U.S. Nuclear Plants. He received his doctorate from Brandeis University (1970) and his bachelor's degree from Rutgers University (1965).

SESSION CHAIRPERSONS

Dr. Edward A. Bogucz *Session C2 – Advanced Buildings I*

Ed Bogucz leads SyracuseCoE, New York State's Center of Excellence for innovations in environmental and energy systems. SyracuseCoE engages collaborators from across SU and at more than 200 companies and institutions to accelerate innovations that address global challenges in clean energy, healthy buildings, and sustainable communities. SyracuseCoE's headquarters is internationally recognized for its unique facilities for research, development, and demonstration of innovations that improve energy efficiency and indoor environmental quality. The facility is the first research building in New York State to earn Platinum in the LEED® green building rating system. It is located on a redeveloped urban brownfield in downtown Syracuse, on the site where the L.C. Smith & Brothers Co. once manufactured typewriters along the Erie Canal. Prior to SyracuseCoE, Bogucz served more than eight years as dean of the L.C. Smith College of Engineering and Computer Science at Syracuse University. Bogucz joined the Syracuse University faculty in 1985. He has received three awards for teaching excellence. He also has worked on R&D projects sponsored by the National Science Foundation, NASA, US EPA, US DOE, NYSTAR, NYSERDA, Carrier Corp., and National Grid. Bogucz holds B.S. and Ph.D. degrees in mechanical engineering from Lehigh University and an M.S. degree in heat transfer engineering from London's Imperial College. He serves on the Board of the Near Westside Initiative.

Paul DeCotis *Session G2 – Water Energy Nexus*

Paul DeCotis is senior director and head of West Monroe Partners' east coast Energy & Utilities practice, based in New York City. He leads the firm's executive advisory and regulatory offerings and has more than 35 years of experience as an industry executive, consultant, analyst, and educator. Paul is an accomplished and respected executive and thought leader with deep expertise in trends and issues facing today's energy and utility leaders. Paul was managing director for contract oversight at Long Island Power Authority, and vice president of power markets, overseeing power generation, project development, contract negotiations and management for power purchase agreements, integrated resource planning, and FERC and RTO market policy. Paul served as energy secretary and chair of the state energy planning board for two New York Governors. As the senior energy advisor to the governors, he oversaw strategy, policy, legislation, and implementation activities for the state's energy agencies.

Collette Ericsson *Session H3 – Advances in Urban Mobility*

Collette Ericsson is the Chief Sustainability Officer and the Enterprise Asset Management Lead for New York Metropolitan Transportation Authority's (MTA) Bus Operations where she leads the organization to achieve more sustainable operations and more effective lifecycle strategies and plans for its assets. Her work impacts all facets of this multi-billion dollar enterprise that serves 2.5 million bus customers each weekday with 18,000 employees, a fleet of 5,700 buses and almost 40 facilities. Ms. Ericsson's responsibilities include the evaluation of bus propulsion technologies, alternative fuels and infrastructure, and energy efficiency improvement projects. Before joining the public sector in 1999, Ms. Ericsson worked in the oil and gas industry in design and construction management of major capital projects and programs in California and Hawaii. Her projects included utility-scale geothermal and cogeneration.

Dr. Bruce Fardanesh *Session B3 – Emerging Smart Grid Technologies*

Dr. Bruce Fardanesh is the Chief Electrical Engineer at the New York Power Authority where he directs all activities related to power systems planning and operation, system protection and control, power systems equipment and metering. He is the author or co-author of over 100 Journal and Conference papersas well as many technical reports. His professional activities include power system optimization andoptimal operation, development of new power system monitoring, control and analysis tools utilizing phasor measurements, as well as application of advanced FACTS controllers in power systems. He has also been teaching graduate and undergraduate courses in power systems and electric machines area forover 25 years. Bruce is a Fellow of IEEE.

SESSION CHAIRPERSONS

James T. Gallagher *Session D3 – MicroGrids & Distributed Generation I*

James T. Gallagher is the Executive Director of the New York State Smart Grid Consortium and has over 35 years of energy policy and industry experience. Gallagher oversees the Consortium and its members as they work toward broad statewide implementation of a safe, secure, and reliable smart grid to modernize New York's energy infrastructure. Prior to joining the Consortium, Gallagher served as Senior Manager for Strategic Planning at the New York Independent System Operator and as Director of Energy Policy for the City of New York where he was the lead energy advisor to the Office of Mayor Michael Bloomberg. Prior to joining the City, he was Director of the Office of Electricity and Environment for the New York Public Service Commission, where he enjoyed a 21 year career, and held senior energy policy positions at Northeast Utilities, the Pennsylvania Governor's Energy Council, as well as the Tennessee Valley Authority.

Alycia Gilde *Session H2 – Advanced Vehicle Technologies*

Alycia Gilde is the Northeast Regional Director at CALSTART, a national non-profit clean transportation organization. Initiatives under her purview include: the Northeast Diesel Collaborative (NEDC) Strategic Planning Committee, Northeast Clean Freight Corridors Initiative, NYSERDA's $19 million alternative fuel vehicle incentive program, the New York Truck – Voucher Incentive Program, City of Chicago's marketing campaign for a $14 million incentive program, Drive Clean Chicago, and most recently, Charge to Work NYC, a New York City Electric Vehicle Workplace Charging and Stakeholder Engagement Initiative. On a national level, Ms. Gilde leads policy and stakeholder engagement efforts to support adoption of clean transportation technologies with focused efforts on Clean Corridors, Phase II Rules for Medium-Heavy Duty Fuel Economy Vehicle Standards, and the High Efficiency Truck User's Forum E-Truck Task Force. Alycia graduated from the University of Connecticut with a B.A. in Global Environmental Mass Media and served in the Peace Corps for two years in Ghana, West Africa.

Dr. Imre Gyuk *Session E2 – Battery & Energy Storage II*

After taking a B.S. from Fordham University, Dr. Gyuk did graduate work at Brown University on Superconductivity. Having received a Ph.D. in Theoretical Particle Physics from Purdue University he became a Research Associate at Syracuse. As an Assistant Professor he taught Physics, Civil Engineering, and Environmental Architecture at the University of Wisconsin. Dr. Gyuk became an Associate Professor in the Department of Physics at Kuwait University where he became interested in issues of sustainability. Dr. Gyuk joined the Department of Energy to manage the Thermal and Physical Storage program. For the past 12 years he has directed the Electrical Energy Storage research program in the Office of Electricity developing a wide portfolio of storage technologies for a broad spectrum of applications. He supervised the $185M ARRA stimulus funding for Grid Scale Energy Storage Demonstrations and is now partnering with the States on storage projects for grid resilience. His work has led to 9 R&D 100 awards and he is internationally recognized as a leader in the energy storage field.

Dr. Gary P. Halada *Session F2 – Advances in Additive Manufacturing*

Gary P. Halada is an Associate Professor in Materials Science and Engineering at Stony Brook University. His research focuses on the nature of environment-material interactions, including corrosion and its prevention, remediation of soil and groundwater, synthesis of catalytic nanostructures, and most recently development of novel materials for additive manufacturing. This work has led to more than 100 publications in journals, peer-reviewed proceedings and book chapters, as well as pending patents in new environmentally-benign and inexpensive synthesis of catalytic nanoparticles and functionalized biomaterials. Halada is currently leading development of the Additive Manufacturing Prototyping and Applications Center at SBU, as well as leading a committee on additive manufacturing for the SUNY Network of Excellence in Materials and Advanced Manufacturing and representing SUNY on a committee on additive manufacturing for the New York State Energy Research and Development Authority. He also helps coordinate efforts of the Long Island Alternative Energy Consortium, a collaborative effort among seven Long Island colleges as well as government and private entities, to develop multi-disciplinary undergraduate and experiential education programs for the rapidly evolving energy sector.

SESSION CHAIRPERSONS

David Hochman *Session G1 – Economic Development Assistance for Clean Tech Innovators*

David Hochman is a consultant in technology-based economic development, serving clients in the government and non-profit sectors. He also serves as part-time Executive Director of the Business Incubator Association of New York State. He is a board member of the New York State Economic Development Council. A long-time affiliate of Battelle's Technology Partnership Practice (recently reconstituted as TEConomy Partners), he has consulted to numerous state governments and non-profit intermediaries developing strategies for innovation-based economic development. Earlier in his career, he served as Deputy Director of the New Jersey Commission on Science and Technology. In the early 1980s, he co-founded and served as COO of a software venture. This angel-backed company was an early entrant in the personal-computer industry, and one of the first to position itself as a content provider based in the NYC publishing community. He exited that venture by sale to a venture capitalist rolling up similar companies.

Dr. William Horak *Session E3 – Nuclear Advanced Reactors*

Horak has a B.S. in aeronautical and astronautical engineering and an M.S. and a Ph.D. in nuclear engineering from the University of Illinois. He is an internationally recognized expert on energy issues and has served on numerous boards, committees, and panels, both in the U.S. and for international organizations, such as the European Bank for Reconstruction and Development. Since coming to Brookhaven in 1979 as an assistant nuclear engineer, Horak has served as group leader for the International Projects Division for the then-Department of Nuclear Energy and head of the Energy and Nuclear Technology Division of the Department of Advanced Technology. He had a lead role in the Department of Energy's activities in response to the Chernobyl accident, including evaluations of Soviet-designed facilities. He has implemented and managed numerous programs in nuclear safety, international safeguards, and energy-system development. In his current position, Horak initiated new research programs on materials for extreme environments, hydrogen storage, and advanced battery design. Horak has received numerous commendations, including the American Nuclear Society's Mark Mills Award and the Nuclear Regulatory Commission's Special Achievement Certificate.

Dr. William D. Jemison *Session F4 – Energy Cybersecurity*

Dr. William D. Jemison is the Dean of the Wallace H. Coulter School of Engineering at Clarkson University. He received the BSEE degree from Lafayette College, the MESc degree from Penn State University, and the Ph.D. degree from Drexel University. He joined Clarkson University in Potsdam, NY in July of 2010. His previous work includes twenty-five years of combined government, industry, and academic experience at the Naval Air Warfare Center, Lockheed Martin Corporation, Orbit/FR, and Lafayette College. Dr. Jemison is a Fellow of the IEEE. In addition to his Dean responsibilities, Dr. Jemison represents Clarkson on several regional technology and economic development initiatives that address power, energy, cyber, and advanced manufacturing.

John Joshi *Session A1 – Clean Energy Project Financing*

John Joshi joined NYSERDA on June 2nd as Director of Financing Solutions. In this role John will develop strategies as part of our Clean Energy Fund for mobilizing private capital and market-based financing solutions to support scaled investments in clean energy across sectors and technology areas. This role is important to support the Governor's energy agenda and the strategy for scaling clean energy by engaging private capital financing solutions. John will interact with market financing institutions, both those already participating in providing solutions for clean energy financing and those who are not involved in offering financing products for these purposes or do so at small scale, to develop understanding or opportunities for developing effective solutions to support consumer and organization investment in clean energy projects. In this role John will also focus on technologies where financing solutions have been underutilized or underdeveloped. All of these strategies will be designed to complement and support the projects and initiatives being funded through the NY Green Bank. John has extensive experience in solar & renewable energy capital markets solutions, structured products, hedge funds, & risk management. Most recently as Head of Capital Markets for PLANT. Smart Energy Solutions LLC, he advised the White House policy staff, the Senate Finance staffers and the Secretary of Energy on effective solutions for increased capital for the solar sector, including active participation in the Solar Access Public Capital (SAPC) initiative.

SESSION CHAIRPERSONS

Dr. Robert F. Karlicek, Jr. *Session C1 – Advanced Lighting*

Dr. Robert F. Karlicek, Jr. directs the NSF funded Center for Lighting Enabled Systems & Applications (LESA) and is a Professor of Electrical, Computer and Systems Engineering at Rensselaer Polytechnic Institute. Before joining Rensselaer, he performed fundamental opto-electronics research and held technical management positions at AT&T Bell Labs, General Electric, W. L. Gore and Associates, as well as several high-tech startup companies. He obtained his Ph.D. in Physical Chemistry from the University of Pittsburgh and has over 45 published technical papers and 38 issued U.S. patents.

Micah Kotch *Session D4 – MicroGrids & Distributed Generation II*

Micah Kotch serves as Director of NY Prize and Strategic Advisor for Innovation at the New York State Energy and Research and Development Authority (NYSERDA) where he is responsible for the design and execution of the nation's first community microgrid competition, helping to catalyze the innovation and entrepreneurship necessary to transform the State's electric power infrastructure. He serves as part of the New York State team on REV Demonstration Projects; unprecedented partnerships between technology companies and utilities advancing private investment in clean energy and utility business model evolution. Micah previously served as Director of Innovation and Entrepreneurship at the NYU Tandon School of Engineering, where he partnered with the New York City Economic Development Corporation to open New York City's first sponsored tech incubator. A Chinese major at Colgate University, Micah graduated with distinction and started his first company while working in Ningbo, China. An internationally sought-out speaker on clean energy innovation and economic development, he has been profiled in the *Wall Street Journal,* the *New York Times, Scientific American,* and *NPR Marketplace.*

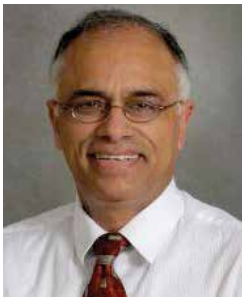
Gabriel Kra *Session E1 – Battery & Energy Storage I*

Gabriel Kra is a Founder and Managing Director of Prelude Ventures, overseeing Prelude's investments in alternative energy and cleantech companies. Gabriel currently sits on the Board of Directors of Renew Financial, PLANT PV, Sense Labs, Ripple, and Project Frog and is active as a board observer with Suniva (ShunFeng Clean Energy), Yerdle, Citrine, and QuantumScape. Other investments at Prelude include Solarbridge (SPWR) and Clean Urban Energy. Gabriel also serves on the Board of Directors of Physical Science Innovations, and on advisory boards of Cyclotron Road, Prime, and the California League of Conservation Voters. Prior to founding Prelude, Gabriel was an investment banker with Deutsche Bank in its solar and semiconductor group in San Francisco. Previously, Gabriel held positions in 3 venture-backed telecommunications and semiconductor startups. Gabriel holds MBAs from the Haas School of Business and Columbia Business School, a master's degree in atmospheric chemistry from SUNY Stony Brook, and a BA in Philosophy from Columbia College.

John Love *Session B2 – Emerging Smart Grid Technologies: a Case Study*

John Love is a Senior Project Manager for the New York State Energy Research and Development Authority (NYSERDA). He received his bachelor's degree in Mechanical Engineering from Manhattan College and his master's degree in Business Administration from Union College. Before joining NYSERDA, Mr. Love held various engineering and project management positions with General Electric Power Systems and Plug Power, Inc. Mr. Love currently manages projects in NYSERDA's Smart Grid Research program area that improve the resiliency, reliability, efficiency, and overall performance of the electric power delivery system in New York State. Additionally, he manages the Competitive Greenhouse Gas Reduction Program targeted at reducing greenhouse gas emissions from the power sector in New York State.

SESSION CHAIRPERSONS



Dr. Devinder Mahajan *Session F3 – BioEnergy*

Dr. Devinder Mahajan is Professor and Co-Director of Chemical & Molecular Engineering. Concurrently, he serves as Jefferson Science Fellow with the U.S. Department of State and Associate Editor, Journal of Renewable and Sustainable Energy (JRSE). His research includes monitoring energy policies and development of low-carbon technologies to address sustainability and climate change issues. He has published over 260 papers, delivered over 100 lectures, edited 8 special journal volumes, and holds 15 patents. Dr. Mahajan's awards include: NEDO Fellow, Japan (1997); Outstanding Mentor Award from the U.S. Department of Energy (2007, 2009); University Visiting Professor, Universitá di Roma "La Sapienza"; Roma, Italy (2008); Visiting Researcher, Institute for Global Environmental Strategies (IGES), Japan (2009); Fulbright Specialist Scholar, Asian Institute of Technology (AIT), Thailand (2010); Member, International Committee on Science (ICSU)- U.N. Sustainable Development Goals (SDGs) (2013-14); U.S. Government Representative, Committee on Energy Research and Technology (CERT), International Energy Agency; Marie Curie Researcher (2013-16) under the nine-country consortium led by UPM, Madrid and European Commission. In 2015, he was selected as a High-End Foreign Expert-Energy & Environment, China.

David Manning *Session A3 – Energy Policy*

David Manning was named Director of Brookhaven National Laboratory's Stakeholder and Community Relations Office in January, 2015. Manning's responsibilities include developing, implementing, and assessing strategic internal and external communications plans and programs to advance the scientific mission and priority programs and initiatives of the Lab; developing and implementing government and stakeholder relations programs to help increase support for the Lab's programs and priority projects; and overseeing science education and workforce development programs to fulfill the Lab's and U.S. Department of Energy's education and diversity goals. Manning has worked in both government and the private sector, including serving as the Deputy Minister of Energy for Alberta, Canada, and head of public affairs for Keyspan/National Grid. Most recently, he served as the U.S. representative for the Premier of Alberta, deeply involved in energy issues. Manning earned a B.A. and L.L.B. in law from the University of Alberta, and did post-graduate work in international law at the Australian National University.

Dr. Patrick Phelan *Session C3 – Department of Energy Building Efficiency R&D*

Patrick Phelan received his BS degree from Tulane University in New Orleans, his MS degree from MIT, and his PhD from UC Berkeley, all in mechanical engineering. Following a two-year post-doctoral fellowship at the Tokyo Institute of Technology, he started his academic career as an Assistant Professor at the University of Hawaii in 1992. In 1996 he moved to Arizona State University (ASU), where he is a Professor of Mechanical & Aerospace Engineering, and a Senior Sustainability Scientist. While on leave from ASU he served as the Director of the NSF Thermal Transport Processes Program from 2006 to 2008. He is again on leave from ASU, and through July 2016 is the Program Manager for Emerging Technologies in the Building Technologies Office, Energy Efficiency and Renewable Energy, US Department of Energy.

Karl R. Rábago *Session D1 – Advances in Solar Energy*

Karl R. Rábago is the Executive Director of the Pace Energy and Climate Center, at the Pace University School of Law in White Plains, New York. Pace is actively involved in every aspect of the New York REV—Reforming the Energy Vision—proceeding, in their own right and on behalf of the Clean Energy Organizations Coalition. Pace is also a public interest intervenor in rate cases and other key proceedings before the New York Public Service Commission. Karl is also co-director of the Northeast Solar Energy Market Coalition (NESEMC), a US DOE SunShot Initiative Project that works to harmonize solar market policy in the 9-state northeast region, by creating a novel coalition of solar business associations in the region. Karl has more than 25 years experience in energy and climate policy and markets. He is recognized as an innovator in electric utility regulatory issues relating to clean energy services and technologies.

SESSION CHAIRPERSONS

Joah Sapphire *Session H4 – Smart Mobility & Connected Vehicles*

Joah Sapphire leads Internet of Things (IoT) solutions for complex system of systems leveraging over twenty years of experience as senior manager of public and private organizations. Mr. Sapphire is Founder and President of Global Dynamic Group, LLC. Previously, he was Founding Partner of Verulam LLC, China Representative of Ospraie Management, LLC, CFO of NROTB, Deputy Commissioner of Suffolk County, Finance Director of Nassau County and Senior Analyst for the New York State Assembly. Mr. Sapphire serves as adjunct professor for Columbia University's School of International and Public Affairs where he teaches Financial Management and led a Capstone Workshop in infrastructure investing. He is an industry affiliate of Cornell University's Program in Infrastructure Policy and a member of the Advisory Board of University at Buffalo's Institute for Sustainable Transportation and Logistics. Mr. Sapphire received a Bachelor of Science from Cornell University and a Master of Public Administration from Columbia University.

Reuben Sarkar *Session H1 – Alternative Transportation Fuels*

Reuben Sarkar is the Deputy Assistant Secretary for Transportation. He oversees EERE's Sustainable Transportation sector, which includes the Vehicle, Fuel Cell, and Bioenergy Technologies offices, all with a focus to reduce our oil dependence, avoid pollution, and create jobs by designing and manufacturing alternatives to petroleum fuels and more energy efficient cars and trucks. Before joining the Department of Energy, Mr. Sarkar was leading business development and strategy for Proterra, a manufacturer of electric buses and fast charging stations, with prior leadership roles in engineering. Previously, he worked at General Motors where his most recent role was as the lead design release engineer on the first generation electric drive system of the Volt. Reuben holds both Bachelor and Master of Science degrees in chemical engineering, as well as an MBA, all from the University of Michigan in Ann Arbor.

Guy Sliker *Session B1 – REV & the Integrated Grid - Distribution Solutions*

Guy Sliker is the Director of Integrated Grid at the New York Power Authority, the nation's largest state-owned power organization. Mr. Sliker has been working in the distributed generation and renewable energy fields for 20 years, primarily with public and private electric utility companies. At his current position at the New York Power Authority Mr. Sliker is responsible for the implementation of the company's research and development activities related to microgrids and distributed energy resources. Mr. Sliker has a BA in Economics and an MS in Mechanical Engineering, both from the University of Massachusetts.

Dr. Fotis Sotiropoulos *Session G4 – Wind Energy*

Fotis Sotiropoulos is the Dean of the College of Engineering and Applied Sciences (CEAS) at Stony Brook University (SBU) as of October 2015. Prior to joining SBU Dr. Sotiropoulos was the James L. Record Professor of Civil, Environmental and Geo-Engineering, Director of the St. Anthony Falls Laboratory, and Director of the EOLOS wind energy research consortium at the University of Minnesota, Twin Cities. Prior to that, Dr. Sotiropoulos was on the faculty of the School of Civil and Environmental Engineering at the Georgia Institute of Technology, with a joint appointment in the G. W. Woodruff School of Mechanical Engineering. His research focuses on simulation-based engineering science for fluid mechanics problems in renewable energy, environmental, biological, and cardiovascular applications. Funded by the National Science Foundation, the Department of Energy, the National Institutes of Health, the Sandia National Laboratories, private industry, and other state and federal agencies, Sotiropoulos has raised over $37M in externally-sponsored funds for research and research facility development and renovation. He is a Fellow of the American Physical Society (APS), has authored over 170 peer reviewed journal papers and book chapters, has twice won the APS Division of Fluid Dynamics Gallery of Fluid Motion (2009, 2011), and is also a recipient of a Career Award from the National Science Foundation. He is also a 2014 distinguished lecturer of the Mortimer and Raymond Sackler Institute of Advanced Studies at Tel Aviv University and is serving or has served on the editorial boards of several journals.

SESSION CHAIRPERSONS

David South *Session D2 – Community Solar*

David South is a senior principal in the Energy & Utilities Practice at West Monroe Partners; he also leads its firm-wide Sustainability Practice. He has more than 35 years of power generation, distributed energy and emissions control technology and related market, strategic, policy and regulatory assessment experience. At West Monroe David delivers strategic, market and business transformation advisory services related to distributed energy and sustainability. Prior to West Monroe, David was President of Technology & Market Solutions, LLC, which provided analytic, strategic, economic, and regulatory advisory services on technology, market, and compliance issues involved with electricity generation and distribution, industrial boilers and processes, and mobile sources. Before joining the private sector David spent 15 years with Argonne National Laboratory conducting applied economic and market research on advanced energy and environmental technologies and related environmental programmatic issues for federal and state government clients.

Arunkumar Vedhathiri *Session C4 – Advanced Buildings II*

Arun Vedhathiri manages the NYEnergyManager Program at New York Power Authority focusing on providing an array of energy management services centered on collection and processing of energy data streaming in real-time from smart meters and sensors installed in thousands of buildings in New York. He has 15 years of experience in energy efficiency and green building design and has served as lead energy consultant in several award winning projects including a five billion dollar semiconductor plant in NY. He is seasoned in energy and data analytics and presented in AIA, IESNA, ASES, ACEEE and USGBC conferences. He has served on ASHRAE research and standard committees and has trained over 600 design professionals and building code officials on energy codes and high performance buildings through various state energy programs and New York City Department of Buildings. He has a graduate degree in Energy Performance in Buildings and a Bachelor's degree in Architecture.

Dr. Daniel Walczyk *Session F1 – Manufacturing Energy Efficiency*

Daniel Walczyk is a Professor of Mechanical Engineering and Director of the Center for Automation Technologies and Systems (CATS) at Rensselaer Polytechnic Institute. His professional degrees include a BS from Syracuse University in 1986, a MS from Rensselaer in 1991, and a PhD from MIT in 1995, all in mechanical engineering. He also obtained his PE degree in 1994 and worked as a post-doctoral researcher at the RWTH Aachen, Germany with a focus on path planning for CNC machining. Before starting his academic career in 1996, Dr. Walczyk spent seven years in industry – five years with GE and two years as a machine designer with an automation company. His current research interests include advanced composites and biocomposites manufacturing, additive manufacturing, material handling, rapid tooling and biomedical device design. He has been recognized for his contributions to manufacturing education and research including ASME Fellow, SAE Teetor Award, NSF Career Award and PECASE.

Nikola Tesla memorial located at Niagara Falls

2016 POSTER SESSION JUDGES

Dr. Amir Shahirinia
Assistant Professor of Electrical and Renewable Energy Engineering

Alfred University
Center for Advanced Ceramic Technology

Dr. Jeff Hung
Assistant Professor and Program Coordinator - Mechanical Engineering Technology Department

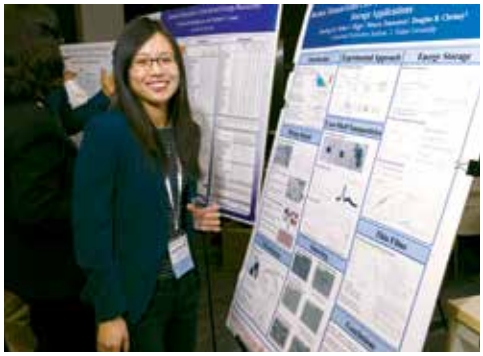
Farmingdale State College
State University of New York

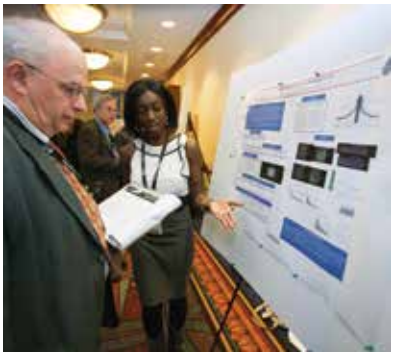
Dr. Trevor Simmons
Research Scientist at the Center for Future Energy Systems

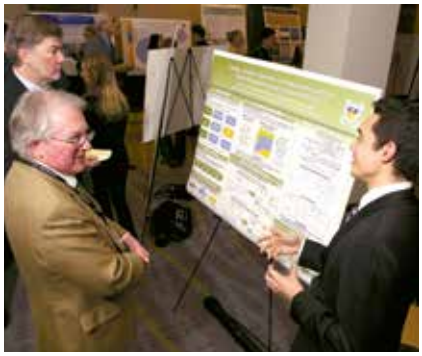
Rensselaer

LIST OF CATEGORIES:

- **Undergraduate College Student** (judged session)
- **Graduate College Student** (judged session)
- **Industry/Academic Representative**







EARLY REGISTRATION & PRE-CONFERENCE WORKSHOPS – WEDNESDAY, APRIL 20

1:00pm - 5:00pm	**Early Registration & Exhibitor Setup–Badge Pickup Open**

PRE-CONFERENCE WORKSHOPS AGENDA – WEDNESDAY, APRIL 20

2:00pm-5:00pm

PRE-CONFERENCE WORKSHOP SERIES:

Open to All; No Cost to Attend – Advance Registration Required
Driving Change: Emerging Trends Influencing the Evolution of New York's Clean Energy Workforce

2:00pm - 3:00pm

SESSION ONE:
Macro Trends in Clean Energy: What to Expect in the Next Decade
Panelists: Ryan Snow *(US Green Building Council)* , Dr. Danielle Merfeld *(GE Global Research)*
Paul M. Wyman *(Lockheed Martin Information Systems & Global Solutions)*
Jigar Shah *(Generate Capital Inc)*, Lucas Finco *(Consolidated Edison)*
Dan Egan *(Vornado Real Estate)*, Paul Meyer (*WSP Parsons Brinkerhoff)*

3:30pm - 4:30pm

SESSION TWO:
Workforce Adaptations: How Employer-Driven Programming is Changing the Way We Work
Rebecca Hughes *(NYSERDA)* , Pat Malone *(Stony Brook University)*
Panelists: Sammy Chu *(Enerlogic)* , Ellen Ryan *(NYC DCAS: Energy Management Division)*
Neil G. Rosen *(Northwell Health)*, Michael Yee *(IBEW Local 3)* Howard Styles *(IUOE Local 94)*
Michael Bobker *(City College of New York)*, Katherine Rougeux *(NYPA)*

Open to All: C3E Women in Energy "The New York Update"
Moderator: Dr. Ellen Morris *(Columbia University)*

2:00pm - 2:30pm

Networking

2:30pm - 3:00pm

Opening Keynote
Jill Anderson *(NYPA)*

3:00pm - 4:30pm

C3E Panel Discussion
Katherine Hamilton *(38 North Solutions)*
Nancy Kete *(Rockefeller Foundation)*, Erika Symmonds *(Grid Alternatives)*

4:30pm - 5:00pm

Closing Keynote
Janet Joseph *(NYSERDA)*

5:00PM **ADJOURNED**

ADVANCED ENERGY™
Research and Technology Center
AT STONY BROOK UNIVERSITY
a New York State designated Center of Excellence

CONFERENCE AGENDA – THURSDAY, APRIL 21

7:30am		**Registration Open**
8:00am		**Continental Breakfast Begins & Networking on Exhibit Floor**
9:00am - 9:30am		**Opening Remarks** Robert Catell *(Advanced Energy Center)*, Richard Kauffman *(NYS)*
PLENARY SESSION	9:30am - 9:45am	**The NYS Clean Energy Fund** John Rhodes *(NYSERDA)*
	9:45am	**REV NYS (Video 5min)**
	9:50am - 11:15am	**REV Demos – Panel Session** Moderator: Chair Audrey Zibelman *(NYS PSC)* James Brennan *(Consolidated Edison)*, Dr. Robert Rogan *(Sunpower)*, Jeffrey Ballard *(AVANGRID)* Justin Segall *(Simple Energy)*, Edward White *(National Grid)*, Matthew Enstice *(Buffalo Niagara Medical Campus)*
	11:15am - 11:30am	**The Future of Transmission** Gil Quiniones *(New York Power Authority)*
11:30AM - 12:15PM		**NETWORKING BREAK, VISIT EXHIBITORS**
12:15pm		**Lunch Begins - Welcome Chancellor Nancy Zimpher (SUNY)** - *Host, Robert Catell (Advanced Energy Center)*
PLENARY SESSION	12:30pm - 12:50pm	**Keynote Speaker** Dr. Ellen Williams *(Director of ARPA - E, U.S. Department of Energy)*
	1:20pm - 1:45pm	**Keynote Speaker** Dr. Franklin (Lynn) M. Orr (*Under Secretary for Science and Energy, U.S. Department of Energy)*
1:45PM - 2:15PM		**NETWORKING BREAK, VISIT EXHIBITORS**

	TRACK A	TRACK B	TRACK C	TRACK D
SESSION I 2:15pm - 3:30pm	**Clean Energy Project Financing** **(PANEL SESSION)** **CHAIRPERSON:** John Joshi, *NYSERDA* Dr. Sanjiv Malhotra, *US Dept of Energy* Chris Diaz, *Seminole Financial Services* Keith Martin, *Chadbourne & Parke* Mark Thielking *Energy Improvement Corp.*	**REV & Integrated Grid Distribution Solutions** **CHAIRPERSON:** Guy Sliker *NYPA* Adam Langton, *BMW* Emily Wheeler *Vice President of Operations* *Smarter Grid Solutions* Naimish Patel, *Gridco Systems*	**Advanced Lighting** **CHAIRPERSON:** Dr. Robert Karlicek *Smart Lighting Center, RPI* Lee Davis, *New Product Development* *Ephesus Lighting* Mike Fusco *LED Specialists* Jeff Quinlan, *Acuity*	**Advances in Solar Energy** **CHAIRPERSON:** Karl R. Rábago *Pace University* Dr. Alexander Orlov *Stony Brook University* Frank van Mierlo *1366 Technologies* Dr. Thomas Hoff *Clean Power Research*
3:30PM - 3:45PM	**NETWORKING BREAK, VISIT EXHIBITORS**			
SESSION II 3:45pm - 5:00pm	**Early Stage & Growth Capital** **(PANEL SESSION)** **CHAIRPERSON:** Mark Austin *Bright Capital* Régine Clément, *CREO Syndicate* Henry Chung, *LG Innovation Ventures* Justin Desrosiers, *Investors' Circle* Scott Burger, *PRIME Coalition* David Miller, *Clean Energy Venture Group*	**Emerging Smart Grid Technologies: A Case Study** **CHAIRPERSON:** John Love *NYSERDA* Robert Currie *Smarter Grid Solutions* Andrew Reid *Consolidated Edison*	**Advanced Buildings I** **CHAIRPERSON:** Dr. Edward Bogucz *Syracuse University* Jason Vollen *AECOM* Jerritt Gluck *Bonded Energy* Edward Baker *Doosan* Ian Shapiro, *Taitem Engineering*	**Community Solar** **CHAIRPERSON:** David South *West Monroe Partners* Glen Weinberg *Joule Assets* David Sandbank, *NY-SUN, NYSERDA* Tom Sweeney *Clean Energy Collective* Matt Cheney, *CleanPath Energy*
5:00PM - 6:30PM	**EVENING NETWORKING RECEPTION – HOST: DR. DOON GIBBS/EXHIBITS & POSTER SESSION**			

CONFERENCE AGENDA – THURSDAY, APRIL 21

	Registration Open	7:30am
	Continental Breakfast Begins & Networking on Exhibit Floor	8:00am
	Opening Remarks Robert Catell *(Advanced Energy Center)*, Richard Kauffman *(NYS)*	9:00am - 9:30am
9:30am - 9:45am	**The NYS Clean Energy Fund** John Rhodes *(NYSERDA)*	**PLENARY SESSION**
9:45am	**REV NYS (Video 5min)**	
9:50am - 11:15am	**REV Demos – Panel Session** Moderator: Chair Audrey Zibelman *(NYS PSC)* James Brennan *(Consolidated Edison)*, Dr. Robert Rogan *(Sunpower)*, Jeffrey Ballard *(AVANGRID)* Justin Segall *(Simple Energy)*, Edward White *(National Grid)*, Matthew Enstice *(Buffalo Niagara Medical Campus)*	
11:15am - 11:30am	**The Future of Transmission** Gil Quiniones *(New York Power Authority)*	
	NETWORKING BREAK, VISIT EXHIBITORS	11:30AM - 12:15PM
	Lunch Begins - Welcome Chancellor Nancy Zimpher (SUNY) - *Host, Robert Catell (Advanced Energy Center)*	12:15pm
12:30pm - 12:50pm	**Keynote Speaker** Dr. Ellen Williams *(Director of ARPA - E, U.S. Department of Energy)*	**PLENARY SESSION**
1:20pm - 1:45pm	**Keynote Speaker** Dr. Franklin (Lynn) M. Orr (*Under Secretary for Science and Energy, U.S. Department of Energy)*	
	NETWORKING BREAK, VISIT EXHIBITORS	1:45PM - 2:15PM

TRACK E	TRACK F	TRACK G	TRACK H	
Battery & Energy Storage I **CHAIRPERSON:** Gabriel Kra *Prelude Ventures* Dr. Edward Buiel *G4 Synergetics* Boris Gragera, *NEST-Ion* Colin Wessells, *Alveo Energy* Dr. William Acker, *NY-BEST*	**Manufacturing Energy Efficiency** **CHAIRPERSON:** Dr. Dan Walczyk *Rensselaer Polytechnic Institute* Dr. Michael Thurston *Rochester Institute of Technology* Michael Newell, *Ener-G-Rotors, Inc* Richard deFay *Copper Development Association*	**Economic Development Assistance for Clean Tech Innovators** **CHAIRPERSON:** David Hochman *Business Incubator Association of NY* Martin Byrne, *RPI, CFES, CAT* Leslie Whatley, *ESD, Start-UP NY* Everton Henriques, *FUZEHUB* Dr. John Blaho, *CUNY Innovation Hot Spots*	**Alternative Transportation Fuels** **CHAIRPERSON:** Reuben Sarkar *US Dept of Energy* Britta Gross, *General Motors* Karsten Barde, *National Grid* Dana Lowell *M.J. Bradley & Associates*	**SESSION I** 2:15pm - 3:30pm
NETWORKING BREAK, VISIT EXHIBITORS				3:30PM - 3:45PM
Battery & Energy Storage II **CHAIRPERSON:** Dr. Imre Gyuk *US Dept of Energy* Mark Kelley *Crown Battery* Dr. Fernando Gomez-Baquero *BESS-Tech* Dr. Esther Takeuchi *Stony Brook University*	**Advances in Additive Manufacturing** **CHAIRPERSON:** Dr. Gary Halada *Stony Brook University* Dr. Daniel Slep, *ChemCubed* Dr. Hod Lipson *Columbia University* Dr. Ronald Aman *Rochester Institute of Technology*	**Water Energy Nexus** **(PANEL SESSION)** **CHAIRPERSON:** Paul DeCotis, *West Monroe Partners* Dr. Harold Walker *NYS Center for Clean Water Technology* Peter Mulvaney, *West Monroe Partners* Kathleen O'Conner, *NYSERDA* Dr. Serpil Guran *Rutgers University Eco Complex* Pinakin Desai *MW Reclamation of Chicago*	**Advanced Vehicle Technologies** **CHAIRPERSON:** Alycia Gilde *CALSTART* Jeremy McCool, *HEVO Inc.* Spiro Kattan, *Dept. Sanitation NYC* Dr. Casey Hoffman *Vistex Composites* Len Poveromo *Composites Prototyping Center*	**SESSION II** 3:45pm - 5:00pm

EVENING NETWORKING RECEPTION – HOST: DR. DOON GIBBS/EXHIBITS & POSTER SESSION 5:00PM - 6:30PM

CONFERENCE AGENDA – FRIDAY, APRIL 22

7:30am	**Registration Open - Continental Breakfast & Networking on Exhibit Floor**			
7:30AM - 8:30AM	**NETWORKING BREAK, VISIT EXHIBITORS**			
	TRACK A	**TRACK B**	**TRACK C**	**TRACK D**
SESSION III 8:30am - 9:45am	**Energy Policy** **CHAIRPERSON:** David Manning *Brookhaven National Laboratory* Rudy Stegemoeller *Special Assistant for Energy Policy NYS Dept. of Public Service* Prof. Toby Peters *Dearman* Michael Bradley *M.J. Bradley & Associates* Jonathan Schrag *Environmental Defense Fund*	**Emerging Smart Grid Technologies** **CHAIRPERSON:** Dr. Bruce Fardanesh *NYPA* Jeffrey Katz *IBM* Daniel Huard *N2 Global Solutions* Bruce Germano *Jasmine Universe*	**Department of Energy Building Efficiency R&D** **CHAIRPERSON:** Dr. Patrick Phelan *US Dept. of Energy* Antonio Bouza *US DoE, EERE* Dr. Marina Sofos *US DoE, EERE*	**MicroGrids & Distributed Generation I** **CHAIRPERSON:** James Gallagher *NYS Smart Grid Consortium* Taylor Brockman *Causam* Charlotte Matthews *Related Companies* Rémy Garaude Verdier *Electricité Réseau Distribution France*
9:45AM - 10:15AM	**NETWORKING BREAK, VISIT EXHIBITORS**			
SESSION IV 10:15am - 11:30am	**Role of Policy in Regional Energy Transitions** **(PANEL SESSION)** **CHAIRPERSON:** Dr. Kathleen Araújo *Stony Brook University* Danielle Lane, *Dong Energy* Dr. William Bonvillian, *MIT* Robert Gough *Intertribal Council on Utility Policy* Pierre Arcand *Minister of Energy, Quebec* Judith Greenwald, *US Dept. of Energy* Dr. Jonathan Raab, *Raab Associates*	**REV & Integrated Grid Transmission** **CHAIRPERSON:** Jill Anderson *NYPA* Dennis Elsenbeck *National Grid* Gregg Rotenberg *SmartWires* Clarke Bruno *Anbaric*	**Advanced Buildings II** **CHAIRPERSON:** Arun Vedhathiri *NYPA* Dr. Peter Hofbauer *ThermoLift* Benjamin Miller *Closed Loops* Patrick J. Piper *QM POWER* Adam Walburger *CDH Energy*	**MicroGrids & Distributed Generation II** **CHAIRPERSON:** Micah Kotch *NYSERDA* Philip Austen *National Grid* Michael Razanousky *NYSERDA* James T. Reilly *Reilly Associates* Paul Tyno *Buffalo Niagara Medical Campus*
11:30AM - 12:15PM	**NETWORKING BREAK, VISIT EXHIBITORS**			
12:15pm	**Lunch Begins/Exhibit Area Will Close - Welcome by Robert Catell** - *Host, President Sam Stanley (Stony Brook University)*			
PLENARY SESSIONS	12:20pm - 12:45pm	**Keynote Speaker** Dr. Roger Flanagan *(Lockheed Martin Energy)*		
	1:00pm - 2:10pm	**PANEL SESSION** **Future of the Electric Utility Industry: Challenges and Opportunities** Janet Joseph *(NYSERDA)* Mark Lynch *(NYSEG, RG&E)*, Robert Schimmenti *(Consolidated Edison)*, David Daly *(PSEG-LI)* Ken Daly *(National Grid)*, Michael Mosher *(Central Hudson Gas & Electric)*		
2:10pm - 2:15pm	**Closing Remarks**			
2:15PM	**CONFERENCE ADJOURNED, RAFFLE BEGINS**			

CONFERENCE AGENDA – FRIDAY, APRIL 22

Registration Open - Continental Breakfast & Networking on Exhibit Floor — 7:30am

NETWORKING BREAK, VISIT EXHIBITORS — 7:30AM - 8:30AM

TRACK E

Nuclear Advanced Reactors

CHAIRPERSON:
Dr. William Horak
Brookhaven National Laboratory

Dr. Eric Loewen
GE Hitachi Nuclear Energy

Kirk Sorenson
Flibe Energy

Dr. Todd Allen
Third Way

Caroline Cochran
Oklo Inc.

TRACK F

BioEnergy

CHAIRPERSON:
Dr. Devinder Mahajan
Stony Brook University

Dr. Gelvin Stevenson
AgriPower

Dr. Kyoung Ro
USDA

James Pfeiffer
Green Waste Energy

Dan Goodwin
Oberon Fuels

TRACK G

Offshore Wind: Challenges & Opportunities
(PANEL SESSION)

CHAIRPERSON:
Dr. Kathleen Araújo
Stony Brook University

Aileen Kenney
Deepwater Wind

Dr. Carolyn Heeps
Dong Energy

Nancy Sopko
American Wind Energy Association

Dr. Jeremy Firestone
University of Delaware

TRACK H

Advances in Urban Mobility

CHAIRPERSON:
Collette Ericsson
MTA NYCT

Etienne Teyssandier
Dearman

Joe Ambrosio
UTS LLC

Ari Kahn
MOVE Systems

Susan McSherry
NYC DOT

SESSION III 8:30am - 9:45am

NETWORKING BREAK, VISIT EXHIBITORS — 9:45AM - 10:15AM

Nuclear Energy: Achievements, Lessons Learned & Prospects

CO-CHAIRPERSON:
Dr. Robert Bari
Brookhaven National Laboratory

CO-CHAIRPERSON:
Dr. Kathleen Araújo
Stony Brook University

Carol Kessler
North Raven Consulting LLC

Dr. Roald Wigeland
Idaho National Laboratory

Herschel Specter
Micro-Utilities Inc.

Energy Cybersecurity

CHAIRPERSON:
Dr. William Jemison
Clarkson University

Keri Glitch, *AVANGRID*

Manny Cancel
Consolidated Edison

Dr. Kenneth Edge
AIS

Doug Chapman
NYISO

Wind Energy
(PANEL SESSION)

CHAIRPERSON:
Dr. Fotis Sotiropoulos
Stony Brook University

Michael Derby
US DoE, EERE

Dr. Daniel Laird
US DoE, NREL

Dr. David Maniaci
US DoE, Sandia, SWiFT

Smart Mobility & Connected Vehicles

CHAIRPERSON:
Joah Sapphire
Global Dynamic Group

Dr. Wuping Xin
KLD Engineering

Dr. Seung Il Moon
Korean EE & Science Research Institute

Dr. John Tipaldo
NYC Department of Transportation

SESSION IV 10:15am - 11:30am

NETWORKING BREAK, VISIT EXHIBITORS — 11:30AM - 12:15PM

Lunch Begins/Exhibit Area Will Close - Welcome by Robert Catell - *Host, President Sam Stanley (Stony Brook University)* — 12:15pm

PLENARY SESSIONS

12:20pm - 12:45pm

Keynote Speaker
Dr. Roger Flanagan *(Lockheed Martin Energy)*

1:00pm - 2:10pm

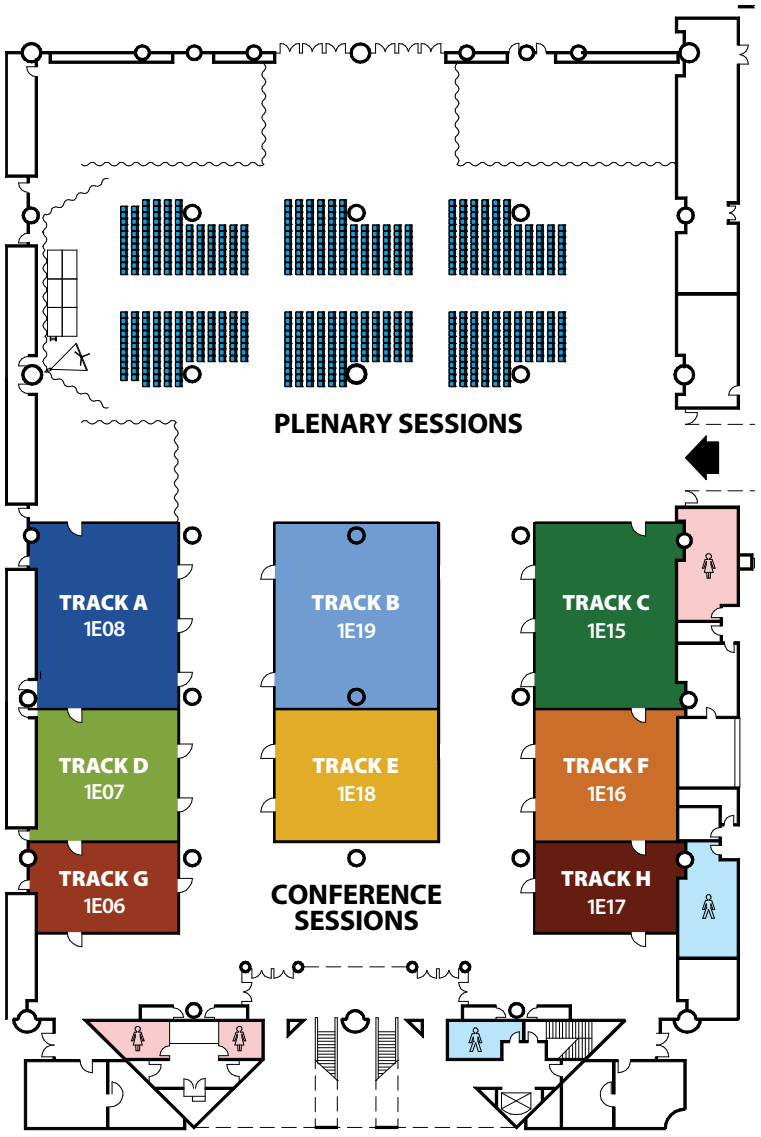
PANEL SESSION
Future of the Electric Utility Industry: Challenges and Opportunities
Janet Joseph *(NYSERDA)*
Mark Lynch *(NYSEG, RG&E)*, Robert Schimmenti *(Consolidated Edison)*, David Daly *(PSEG-LI)*
Ken Daly *(National Grid)*, Michael Mosher *(Central Hudson Gas & Electric)*

Closing Remarks — 2:10pm - 2:15pm

CONFERENCE ADJOURNED, RAFFLE BEGINS — 2:15PM

EXHIBIT HALL & BOOTH ASSIGNMENTS

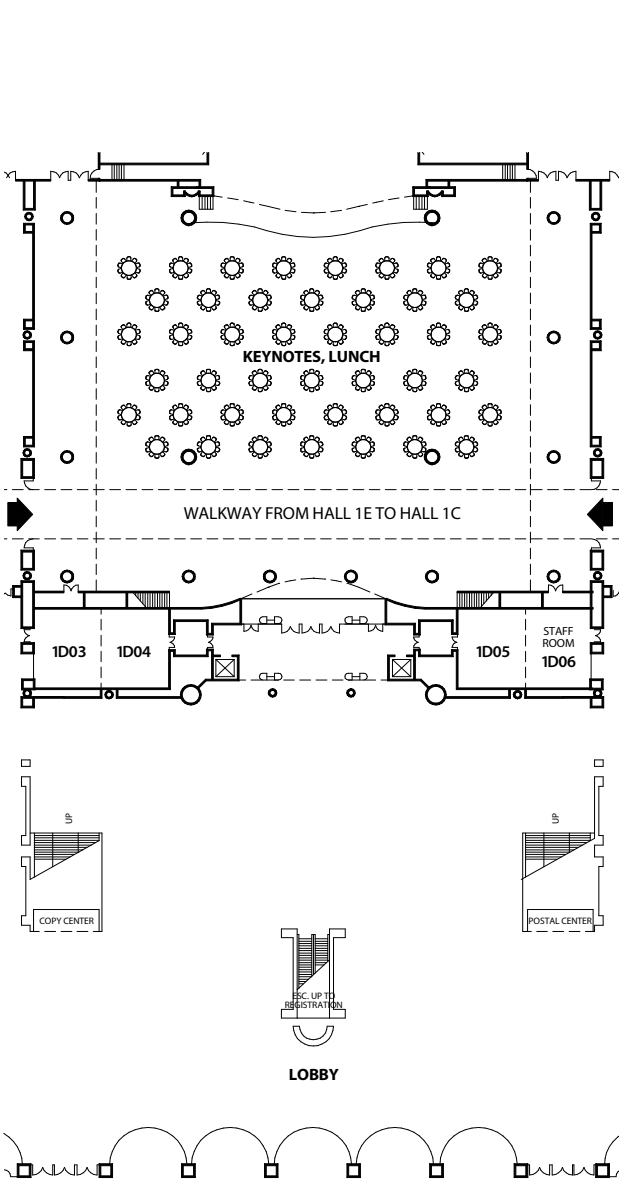
EXHIBITOR	BOOTH #
Advanced Energy Center	213
AtmosAir Solution/Arkados	209
Best Energy Power	314
Big Cat Worldwide, Inc.	219
Binghamton University S3IP Small Scale Systems Integration and Packaging	512
Brookhaven Science Associates	220
Center for Architecture Science and Ecology (CASE)	511
Center for Future Energy Systems (CFES)	511
Center of Excellence in Wireless and Information Technology (CEWIT)	514
Clarkson University	319
Clean Energy Business Incubator Program (CEBIP)	503
Composite Prototyping Center (CPC)	505
CUNY Energy Institute	508
Dept of Technology and Society at Stony Brook University	T15
DONG Energy	409
Economic Development at Stony Brook University	519
Empire State Development	419
Energy Focus, Inc.	315
Farmingdale State College	507
Fordham's Social Innovation Collaboratory	T11
G4 Synergetics	206
Greater New York Chamber of Commerce	T14
Harvest Power Solar	208
Hoffmann & Baron, LLP	317
Jasmine Universe	321
Kazuo Inamori School of Engineering at Alfred University	312
Lake Erie Energy Development Corporation (LEEDCo)	509
Lockheed Martin Energy	210
National Grid	203
New York Institute of Technology (NYIT)	T13
New York Power Authority (NYPA)	403
NYS High Performance Computing Consortium (HPCNY)	413
NYS Smart Grid Consortium (NYSSGC)	202
NYS Center for Advanced Technology at Stony Brook University CIEES CAT & Sensor CAT	519
NYSERDA	303
NYSERDA Corral	T16-T40
NYU Tandon School of Engineering	313
O'Brien & Gere	414
Petro Home and Commercial Services	304
Power Analytics, a Causam Company	218
PSEG Long Island	308
Rensselaer Polytechnic Institute	511



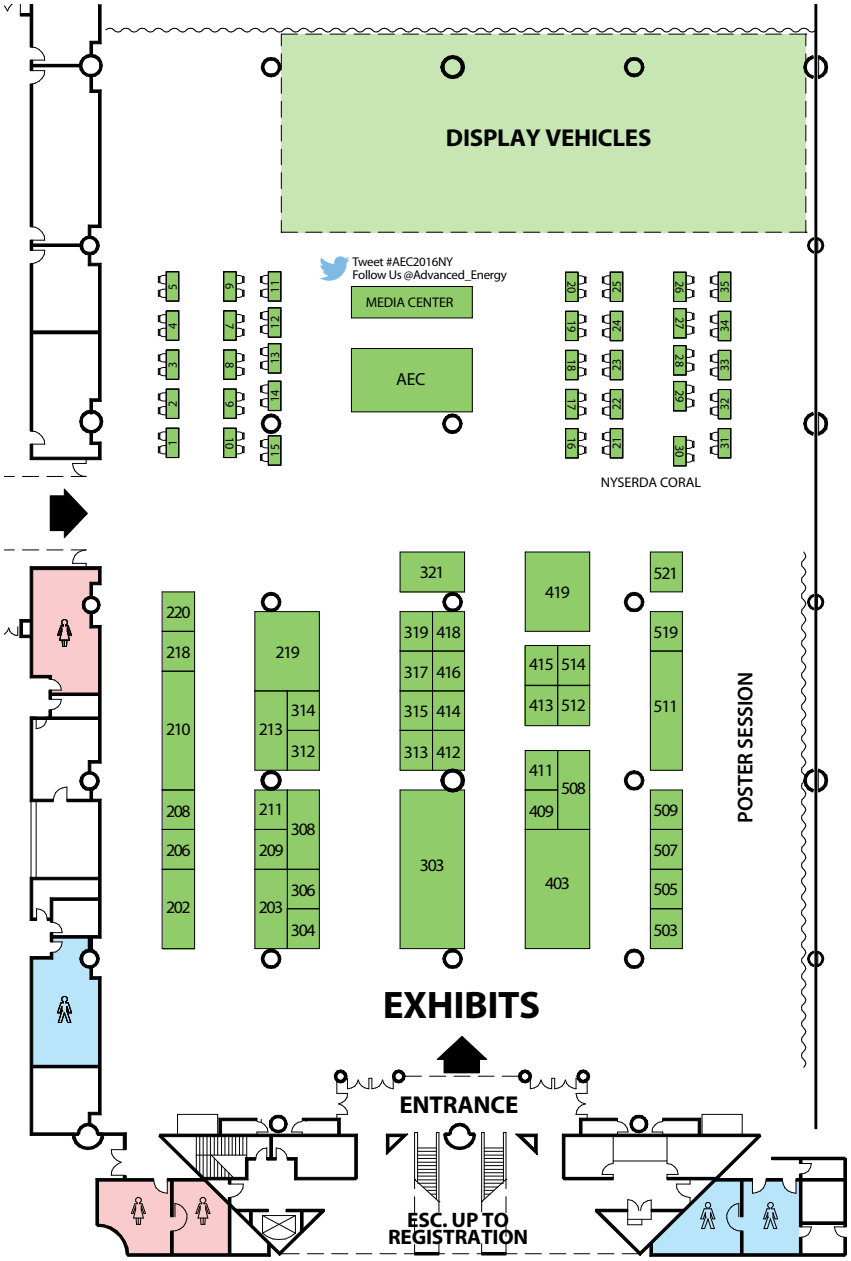
HALL 1E

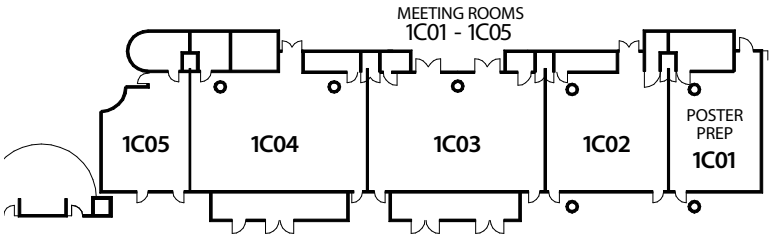
EXHIBITOR	BOOTH #
Ruskin Moscou Faltischek, P.C.	306
Smarter Grid Solutions	202
Suffolk County Community College	T10
Synfuels Americas	412
SyracuseCoE	415
Tarsier Ltd.	418
ThermoLift	211
vhb	416
West Monroe	411

EXHIBIT HALL & BOOTH ASSIGNMENTS



HALL 1D





HALL 1C

NYSERDA

NYSERDA, a public benefit corporation, offers objective information and analysis, innovative programs, technical expertise, and support to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce reliance on fossil fuels. NYSERDA professionals work to protect the environment and create clean energy jobs. NYSERDA has been developing partnerships to advance innovative energy solutions in New York State since 1975. To learn more about NYSERDA's programs, visit nyserda.ny.gov or follow us on Twitter, Facebook, YouTube, or Instagram.

NATIONAL GRID

National Grid is an electricity and natural gas delivery company that connects nearly 7 million customers to vital energy sources through its networks in New York, Massachusetts and Rhode Island. It is the largest distributor of natural gas in the Northeast. Through our U.S. Connect21 strategy, National Grid is transforming its electricity and natural gas networks to support the 21st century digital economy with smarter, cleaner, and more resilient energy solutions. Connect21 is vital to our communities' long-term economic and environmental health and aligns with regulatory initiatives in New York (REV: Reforming the Energy Vision) and Massachusetts (Grid Modernization). We have energy efficiency solutions to give your business a competitive advantage. To learn more, visit our exhibit booth or www.ngrid.com/save.

NEXTERA ENERGY RESOURCES, LLC

NextEra Energy Resources, LLC is a clean energy leader. It operates primarily as a wholesale power generator, providing power and environmental attributes to utilities, retail electricity providers, power cooperatives, municipal electric providers and large industrial companies. It owns and operates approximately 21,000 megawatts of generating assets located primarily in 25 states and Canada as of year-end 2015. NextEra Energy Resources, together with its affiliated entities, is the world's largest generator of renewable energy from the wind and sun. NextEra Energy Resources is a subsidiary of Juno Beach, Fla.-based NextEra Energy, Inc. NextEra Energy owns and operates generating assets of 46,300 megawatts, including the assets of NextEra Energy Resources. NextEra Energy subsidiaries, including Florida Power & Light Company, have developed new or repowered natural gas power plants with a combined generating capacity of more than 17,000 megawatts. For more information, visit www.NextEraEnergyResources.com.

NEW YORK POWER AUTHORITY (NYPA)

The New York Power Authority is the nation's largest state public power organization, through the operation of its 16 generating facilities and more than 1,400 circuit-miles of transmission lines. NYPA is also a national leader in promoting energy efficiency, the development of clean energy technologies and electric vehicles. NYPA uses no tax money or state credit. It finances the bulk of its operations through the sale of bonds and revenues earned through sales of electricity. More than 70 percent of the electricity NYPA produces is clean, renewable hydropower. For more information visit www.nypa.gov.

THE NEW YORK STATE SMART GRID CONSORTIUM (NYSSGC)

The New York State Smart Grid Consortium (Consortium) is a unique non-profit public-private partnership that promotes broad statewide implementation of a clean, safe, and reliable smart grid. The Consortium brings together many of the world's leading utilities, technology providers, policy makers and research institutions to identify opportunities for accelerating grid modernization. The Consortium is the only organization of its kind in the US, with its diverse membership, focused on catalyzing the evolution of our energy system. The organization provides the perfect convening point to develop, test and implement optimal solutions to address regulatory and energy policy challenges. The Consortium is committed to assisting the public, energy policy makers and the energy industry in taking full advantage of clean energy technology.

PSEG LONG ISLAND

PSEG Long Island is committed to building an industry leading electric company dedicated to providing the people of Long Island and Rockaways with exceptional customer service, best-in-class reliability and storm response, and a strong level of involvement in the communities in which its employees live and work. PSEG Long Island operates the Long Island Power Authority's transmission and distribution system under a 12-year contract. PSEG Long Island is a subsidiary of Public Service Enterprise Group Incorporated (NYSE:PEG), a publicly traded diversified energy company with annual revenues of approximately $11 billion.

STONY BROOK UNIVERSITY

In less than 60 years of existence, Stony Brook University has established itself as one of America's most dynamic public universities, an essential part of the region's economy, and an international research institution that is changing the world. *U.S.News & World Report* ranks Stony Brook among the top 100 universities in the nation and the top 40 public universities. A member of the prestigious, invitation-only Association 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 Children's Hospital, the Long Island State Veterans Home, and our major healthcare centers, institutes, programs and clinics.

THE CITY COLLEGE OF NEW YORK | CUNY THE CITY UNIVERSITY OF NEW YORK

Situated at City College of New York, the CUNY Energy Institute produces cutting-edge research and develops innovative sustainable energy technologies that have practical and economical applications. The projects include the development of low-cost, safe and reliable batteries with fast discharge rates and high energy densities. In collaboration with its spin-off company, Urban Electric Power, the rechargeable zinc-manganese dioxide battery technology is being commercialized for stationary electrical energy storage applications. Additionally, R&D is conducted on a new bioreactor for conversion of methane gas to liquid fuels, next generation Very High Temperature Reactors, new technologies for thermal and catalytic conversion of liquid fuels to hydrogen and greenhouse gases (carbon-based) to fuels, Enhanced Oil Recovery, and innovative DC-DC power converters that are smaller, cheaper, more efficient, and longer-lasting.

NYU TANDON SCHOOL OF ENGINEERING

The NYU Tandon School of Engineering dates to 1854, when the NYU School of Civil Engineering and Architecture and the Brooklyn Polytechnic Institute were founded. Their successor institutions merged in January 2014 to create a comprehensive school of education and research in engineering and applied science. In addition to programs in downtown Brooklyn, NYU Tandon is connected to engineering programs in NYU Abu Dhabi and NYU Shanghai, and it operates business incubators in downtown Manhattan and Brooklyn.

LOCKHEED MARTIN ENERGY

We're Engineering a Better Tomorrow

With more than 100 years of technical innovation at work, Lockheed Martin Energy is solving the energy challenges of today and tomorrow. We are supporting electric and gas utilities to meet their capacity and reliability needs by providing distributed energy resources and advanced technologies. We have the industry's best scientists and engineers focused on solutions for energy management and storage, renewables, ocean technologies, and bioenergy.

SMM ADVERTISING: HUMANIZING BRANDS.
SMM is Advanced Energy 2016's official marketing agency. With a 31-year history of serving technology-based clients, SMM has deep roots in the energy industry, as well as electronics, bioscience, healthcare and employee recruitment. A full-service advertising and marketing agency headquartered on Long Island, NY, SMM has been humanizing brands since 1985: they do that by building authentic and engaging communication strategies through all available media platforms. Services include: branding, websites, video, print, broadcast and online advertising; collateral, direct and Internet marketing, social media, and PR. www.smmadvertising.com

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WEST MONROE
West Monroe provides strategy, advisory and business consulting, systems integration, program management and telecommunications services related to distribution and network systems undergoing modernization and transformation. West Monroe brings business, technology and industry best practices and experience to the Utility industry with strong knowledge of Strategic and Regulatory affairs, Telecommunications and Utility IT/OT operations.

PETRO HOME AND COMMERCIAL SERVICES
As the #1 heating oil company in the country, with over 100 years of experience, Petro is the only partner you need to help design cleaner, cost-effective energy and fuel solutions packages. We offer cutting edge solutions for residential, commercial and multi-family dwellings and work with local authorities to offer turnkey alternatives for all regulation compliance issues which can lead to Energy Star Ratings for your buildings.

DONG ENERGY
DONG Energy is one of the leading energy groups in Northern Europe, headquartered in Denmark. Around 6,700 ambitious employees are engaged in developing, constructing and operating offshore wind farms; generating power and heat from our power stations; providing energy to residential and business customers on a daily basis; and producing oil and gas.

HYDRO-QUÈBEC
Hydro-Quèbec generates, transmits and distributes electricity. Its sole shareholder is the Quèbec government. It uses mainly renewable generating options, in particular large hydro, and supports the development of other technologies—such as wind energy and biomass. A responsible corporate citizen committed to sustainability, Hydro-Quèbec carries out construction projects to prepare for the future. It also conducts R&D in energy-related fields, including energy efficiency. The company has four divisions.

JASMINE UNIVERSE
Jasmine Universe offers an energy management system that directly links with suppliers with consumers, enabling suppliers to provide their customers with real time information and alter consumer behavior to improve grid efficiency and reliability through alternative price offerings, DR and/or other supplier generated objectives. Jasmine is a Startup New York company, with offices at the AEC.

DEEPWATER WIND
Deepwater Wind is a leading U.S. offshore wind and transmission developer. The Company is led by a veteran team with extensive experience in developing renewable-energy projects. The Company is actively planning offshore wind projects to serve multiple East Coast markets located 15 or more miles offshore, including New York, Massachusetts, Rhode Island, and New Jersey as well as deep waters projects on the U.S. West Coast. The Company's Block Island Wind Farm is America's first offshore wind farm.

CAITHNESS LONG ISLAND ENERGY CENTER

Caithness Energy, L.L.C. is an independent power producer engaged in the development of power plants from renewable energy and natural gas in the United States. Over the last 40 years, Caithness hassuccessfully developed, operated and owned interests in over 40 power projects utilizing wind, geothermal, solar and natural gas.

CLARKSON UNIVERSITY

Clarkson University is America's Corporate Partner University, educating leaders in industry and collaborating to drive innovation and research directed toward global issues in engineering, business, education, sciences and health. Clarkson's main campus is in Potsdam, N.Y., with graduate and research facilities in Beacon and Schenectady, and future plans in Manhattan.

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.

RENSSELAER POLYTECHNIC INSTITUTE

Rensselaer Polytechnic Institute will showcase two technology Centers: **Center for Future Energy Systems (CFES)**, the foci of energy research at Rensselaer, first designated in 2005 as the "Energy CAT", the NYSTAR program designed to spur technology-based applied research; and the **Center for Architecture Science and Ecology (CASE)** which is addressing the need for accelerated innovation of Built Ecologies through the development of next-generation building systems.

CENTER FOR ARCHITECTURAL SCIENCE AND ECOLOGY (CASE)

To learn more about the Center for Architectural Science and Ecology (CASE), please visit our website at hwww.case.rpi.edu.

CENTER FOR FUTURE ENERGY SYSTEMS (CFES)

To learn more about the Center for Future Energy Systems (CFES), please visit our website at www.rpi.edu/cfes.

ADVANCED ENERGY TRAINING INSTITUTE (AETI)

The Advanced Energy Training Institute (AETI) at Stony Brook University is the training division of the Advanced Energy Research and Technology Center. Working with leaders in the clean energy economy, AETI establishes a platform for the skills, knowledge and credentials necessary in this evolving area. The center develops programs, conduct market studies and focus groups, and offers innovative programs in building, energy efficiency, power, project management, water and more.

THE KAZUO INAMORI SCHOOL OF ENGINEERING (SOE) AT ALFRED UNIVERSITY

The Kazuo Inamori School of Engineering (SOE) at Alfred University, housed in the New York State College of Ceramics, is a leader in undergraduate and graduate education of ceramic engineers, glass scientists, material scientists, and renewable energy engineers. SOE faculty conduct research focusing on a variety of materials and disciplines including advanced materials (nanostructured ceramics and composites), glass, electronic and photonic materials, whitewares, biomaterials, energy and environmental systems, sensors and solid-state circuitry, and automotive and manufacturing systems.

BLOOM ENERGY
Bloom Energy is a provider of all-electric solid oxide fuel cell technology that produces reliable power using a highly resilient and environmentally superior non-combustion process. The result is a new option for energy infrastructure that combines increased electrical reliability with targeted deployments and significantly lower environmental impacts. Bloom Energy has completed over 250 fuel cell projects on both the customer side of the meter and the utility side of the meter in the U.S and Japan.

EMPIRE STATE DEVELOPMENT'S DIVISION OF SCIENCE, TECHNOLOGY AND INNOVATION
Empire State Development's Division of Science, Technology and Innovation accelerates the growth of New York State's high-tech economy through programs supporting world-class technology research, a robust network of industry-university partnerships, and assistance to manufacturers and technology companies.

ATMOSAIR SOLUTIONS
AtmosAir is a technology that improves indoor air quality while helping buildings save energy. AtmosAir is installed in many different applications where air quality is critical to performance.

ARKADOS GROUP
Arkados Group is a global provider of scalable and inter-operable energy management solutions, with a primary focus on the design, installation and control monitoring of innovative solutions, sustainable and cost-effective energy solutions to multi-family residential, commercial and industrial buildings. Arkados Group is a leader in the "Internet of Things" applications and in all Smart Building and Smart Factory technology together with its strategic global partners and its mission is to bring full-featured, cutting-edge products to market with a focus on maximizing ROI for its customers.

FARMINGDALE STATE COLLEGE
The Renewable Energy and Sustainability Center at Farmingdale State College's objective is to enhance public awareness of emerging renewable energy resources through a focus on applied research and workforce training in the renewable and smart grid technologies. The center collaborates with local and regional industry, and academia, as well as engineering professional societies to offer certificate level training classes.

BINGHAMTON UNIVERSITY THE SMALL SCALE SYSTEMS INTEGRATION AND PACKAGING (S3IP) CENTER OF EXCELLENCE
The S3IP and its five constituent research centers serves industrial partners, applying university research and practical problem-solving capabilities to manufacturing of microelectronic products, commercialization of flexible printed electronic technology, development of advanced batteries and energy harvesting devices, and improvements in the energy efficiency of data centers.

CENTER FOR INTEGRATED ELECTRIC ENERGY SYSTEMS (CIEES) AT STONY BROOK UNIVERSITY
The Center for Integrated Electric Energy Systems (CIEES) is the newest Center for Advanced Technology (CAT) at Stony Brook University (SBU). Its mission is to leverage the technical capabilities of the intellectual assets of SBU and Brookhaven National Laboratory to provide competitive advantage to established and future energy related industry on Long Island, NY. CIEES has three technology thrusts: Electric Grid, Electric Storage and Integration.

CENTER FOR ADVANCED SENSOR TECHNOLOGIES (SENSOR CAT) AT STONY BROOK UNIVERSITY
Designer of different wireless and copper-less (fiber optic) sensors and sensor based networks. Sensors for medical, industrial and military applications.

CENTER OF EXCELLENCE IN WIRELESS AND INFORMATION TECHNOLOGY (CEWIT)
The New York State Center of Excellence in Wireless and Information Technology (CEWIT) at Stony Brook University is a next generation research and educational facility whose mission is threefold: become recognized as a world leader in interdisciplinary research in the emerging, critical technologies of the information age, address the skilled technology worker shortage, and foster new enterprise development.

SYRACUSECOE
SyracuseCoE is New York State's Center of Excellence for Environmental and Energy Systems. Led by Syracuse University, SyracuseCoE engages faculty, students and collaborators at 200+ firms and institutions to catalyze innovations that improve energy efficiency, environmental quality and resilience in healthy buildings and cleaner, greener communities.

THE NEW YORK STATE HIGH PERFORMANCE COMPUTING CONSORTIUM (HPCNY)
The New York State High Performance Computing Consortium (HPCNY) is a NYSTAR funded program that unites computing expertise from Stony Brook University, Rensselaer Polytechnic Institute, SUNY Buffalo, Mount Sinai School of Medicine, and Marist College to provide competitive advantages to York State companies through the implementation of high performance computing.

LAKE ERIE ENERGY DEVELOPMENT CORPORATION (LEEDCO)
Lake Erie Energy Development Corporation (LEEDCo) is a regional non-profit and economic development organization building an offshore wind energy industry in Ohio. The demonstration project, known as Icebreaker, will be an approximately 20 megawatt (MW) offshore wind farm with six turbines located seven miles north of Cleveland in Lake Erie.

TARSIER LTD.
Tarsier Ltd. (OTC PINK: TAER), is a publicly traded Delaware Corporation in New York City. Tarsier's mission is to provide consumers "focused solutions for a brighter planet." Its Smart City, T-Flow - Energy Managment Systems, empower companies to take advantage of lucrative Demand Response programs and other ancillary service opportunities.

VHB
Energy clients turn to VHB for our broad knowledge of the regulatory environment and latest policies and trends to advance transmission, distribution, and siting projects. Over 1,100 engineers, scientists, planners, and designers across 23 offices, including four New York locations, deliver value to our clients and shape our communities in a meaningful way.

LONG ISLAND HIGH TECHNOLOGY INCUBATOR
LIHTI is a 70,000/sf, 501c(3) corporation which opened in 1992 as a mixed use incubator to promote biotech, engineering and Information Technology. The facility is home to 34 companies, an Incubator Without Walls Program and the Clean Energy Business Incubator Program.

BIG CAT PREMIUM ELECTRIC BICYCLES
Big Cat Worldwide, Inc., a Long Island, New York based company designs, manufactures and distributes Electric Bikes. Big Cat E-Bikes offer the greatest combination of features, function and great pricing available on the market today, which is fueling Big Cat's growth as the fastest growing E-Bike brand in North America.

CLEAN ENERGY BUSINESS INCUBATOR PROGRAM (CEBIP)
The Clean Energy Business Incubator Program (CEBIP) provides assistance for developers of renewable/clean energy technologies, including: access to office and lab space; business development/pitch review; access to investors; workshops; and the expertise, business acumen and technological resources of our management team, advisory board and extensive partners.

BROOKHAVEN SCIENCE ASSOCIATES
The U.S. Department of Energy's (DOE) Brookhaven National Laboratory is managed on behalf of DOE by Brookhaven Science Associates (BSA), a partnership formed by Stony Brook University, on Long Island, and Battelle, located in Columbus, Ohio. BSA also engages six of the world's premier research universities—Columbia, Cornell, Harvard, the Massachusetts Institute of Technology, Princeton and Yale—in the governance and oversight of the Laboratory.

BEST ENERGY POWER
Best Energy Power (BEP) designs and installs Solar PV Systems in the NY Metro area utilizing only tier 1 components. We are price competitive and have the largest market share in NYC Commercial installations (22%). BEP will demonstrate an excellent ROI together with long term sustainability.

COMPOSITE PROTOTYPING CENTER
The Composite Prototyping Center (CPC) is a resource for manufacturers seeking entry into the rapidly growing composites market. Its core mission is to take the best assets available to form a core manufacturing competency in the industry, while providing companies with essential training/ workforce development, process technologies, prototype manufacturing and testing capabilities.

ECONOMIC DEVELOPMENT AT STONY BROOK UNIVERSITY
The Office of the Vice President for Economic Development oversees more than 20 economic development and business assistance programs serving companies of any size at any stage of growth across all technology industry sectors, as well as companies that depend on technology to manage critical business processes. These programs have helped more than 450 companies, through more than 3,500 projects, create or retain more than 19,000 jobs.

ENERGY FOCUS, INC.
Energy Focus, Inc. is a leading provider of energy efficient LED lighting product, and a developer of energy efficient technology.

FORDHAM UNIVERSITY
Fordham's Social Innovation Collaboratory is a network of students, faculty, and community members, partnering with organizations such as the United Nations and BMW, promoting innovative solutions to challenges such as sustainable farming, EV adoption and urban mobility.

G4 SYNERGETICS
G4 Synergetics has developed the next generation advanced NiMH battery specifically designed for high power applications and utilizes an integrated air-cooled architecture.

HARVEST POWER SOLAR
Residential and Commercial solar installer with over 1,000 installations completed in the New York City metropolitan area since 2008. NABCEP certified installer with an impeccable customer satisfaction record. Go to www.harvestpower.net to learn how Harvest Power Solar can help you save.

HOFFMANN & BARON, LLP
Possessing expertise in all areas of technology, Hoffmann & Baron, a premier Intellectual Property law firm, provides the umbrella of Intellectual Property protection that stimulates innovation and economic growth.

O'BRIEN & GERE
OBG provides comprehensive, integrated engineering solutions in the areas of Advanced Manufacturing, Energy, Environment, and Water. OBG – There's a way.

POWER ANALYTICS - A CAUSAM ENERGY COMPANY
Causam is a Raleigh, NC based company focused on the design, operation, customer engagement and financial settlements of distributed energy, micro-grids, and renewable energy. Causam will be demonstrating its latest platform, EnergyNet, at the Conference.

SYNFUELS AMERICAS
Synfuels Americas is an international leader in innovative research and development of advanced energy technologies, such as high-efficiency and low-emitting Fischer-Tropsch synthesis.

THERMOLIFT
ThermoLift is developing a cold-climate, natural gas air-conditioner and heat pump technology that combines heating, cooling, and hot water delivery into a single appliance that can provide a 30-50% reduction in building HVAC costs.

NEW YORK INSTITUTE OF TECHNOLOGY (NYIT)
New York Institute of Technology (NYIT) offers 90 degree programs, including undergraduate, graduate, and professional degrees, in more than 50 fields of study.

SUFFOLK COUNTY COMMUNITY COLLEGE
Suffolk County Community College, a leader in renewable energy and energy efficiency education, provides training and certification in LEED, energy auditing (BPI) and solar/PV (NABCEP).

DEPARTMENT OF TECHNOLOGY AND SOCIETY AT STONY BROOK UNIVERSITY
The Department of Technology and Society's College of Engineering and Applied Sciences, research and academic interests are centered on energy-environmental systems, and engineering & technology workforce policy.

GREATER NEW YORK CHAMBER OF COMMERCE
The Greater New York Chamber of Commerce provides great networking receptions, breakfasts, luncheons, seminars and business expos. We have a database of over 30,000 plus businesses representing small, medium size and major corporations, public officials, foreign dignitaries and consulates in the New York city area. Join us and get listed and linked at www.chamber.nyc.

THE TESLA SCIENCE FOUNDATION
The Tesla Science Foundation is a 501 (c)(3) nonprofit organization dedicated to promoting the life, legacy and scientific innovations of Nikola Tesla. Having successfully hosted numerous lectures, seminars, forums - to include the annual Energy Independence Conference and Tesla Memorial Conference - our foundation is the most active Tesla related organization in the United States today. Through our dedicated efforts and generous support from our contributors, the Tesla Science Foundation network of distinguished scientists, engineers, academics, artists, students and other Tesla enthusiasts worldwide continues to grow. Visionary and scientist Nikola Tesla is included in the **UNESCO Memory of the World** register. To host the educational traveling exhibition "Tesla: Past Present Future" inquire online at teslasciencefoundation.org.

ADVANCED ENERGY CONFERENCE SERIES: AN EIGHT-YEAR HISTORY OF GROWTH AND SUCCESS

Individuals Attending

	2007	2008	2009	2010	2011	2012*	2013	2014
Attendees	270	960	1080	1441	443	1640	1662	684

Corporate/Organizational Participation

	2007	2008	2009	2010	2011	2012*	2013	2014
Represented	100	375	466	533	214	750	765	403
Exhibit Booths	18	47	67	114	49	90	130	57

Individuals Presenting

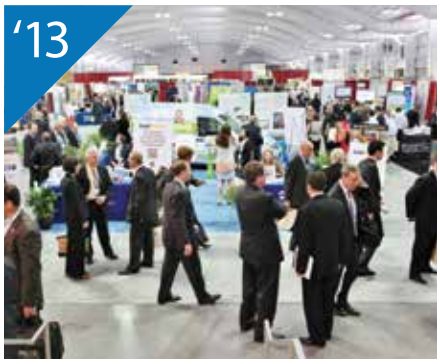
	2007	2008	2009	2010	2011	2012*	2013	2014
Presenters	21	136	192	232	123	342	369	129

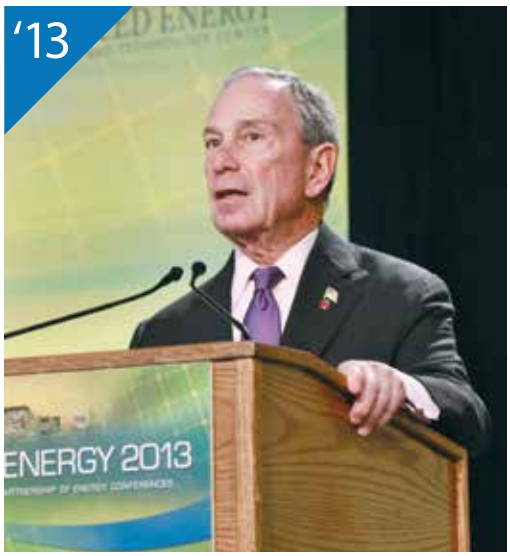
Academic Participation

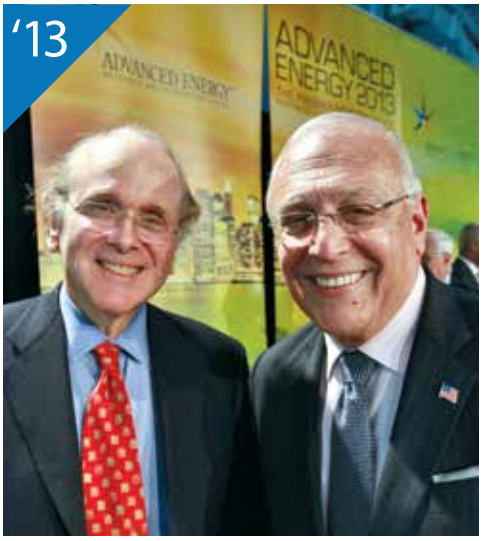
	2007	2008	2009	2010	2011	2012*	2013	2014
Colleges/Universities Represented	6	17	31	37	25	31	72	29
Posters Presented	8	36	48	59	37	60	96	30

* Advanced Energy 2012 canceled due to Hurricane Sandy. (estimates)

ADVANCED ENERGY CONFERENCE SERIES: AN EIGHT-YEAR HISTORY OF GROWTH AND SUCCESS







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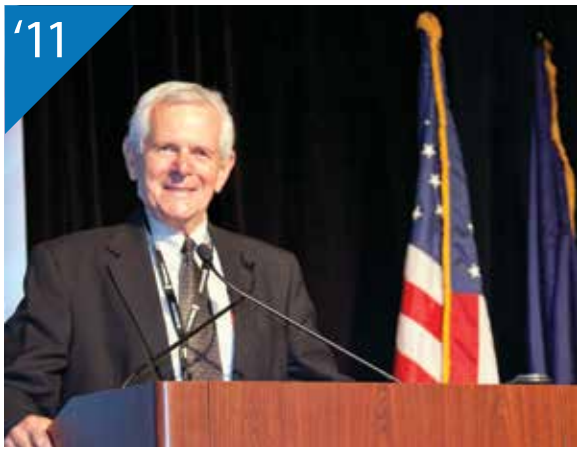

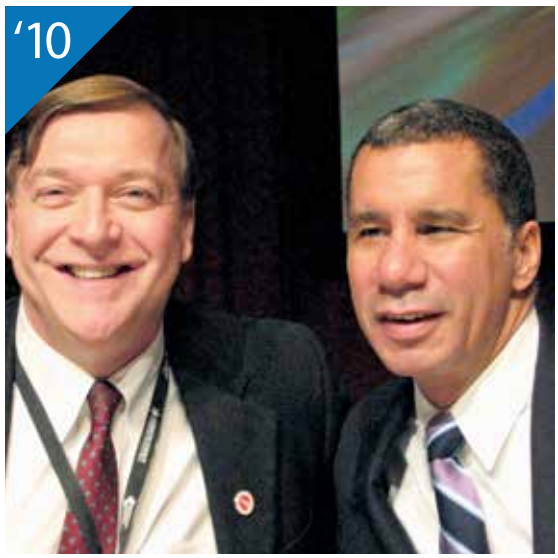

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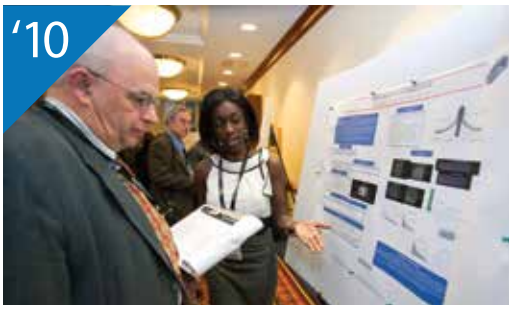

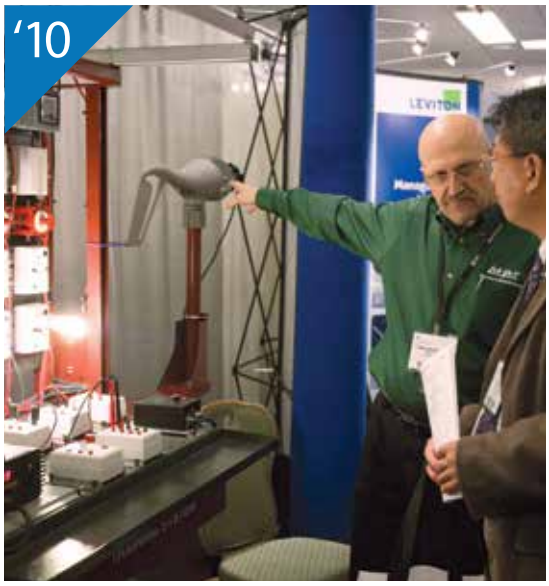

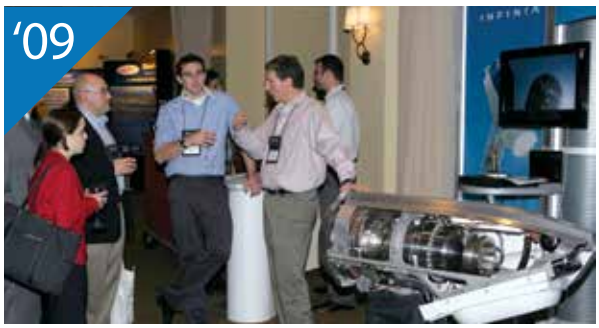

JOIN US AGAIN AT
ADVANCED ENERGY 2018
NEW YORK CITY

A cleaner energy future offers infinite opportunities.

Find them in New York State today.

New York State has taken the lead to reform its energy vision and it's our goal to have 50% of all of our energy generated by renewable sources by 2030.

That's why New York State now represents one of the biggest and best markets in the world for you to develop, prove and sell your energy products.

Plus, along with NY's $5.3 billion Clean Energy Fund, we offer access to world-class technical expertise, R&D, and the financial resources to help you succeed.

Find out more at: www.business.ny.gov
Contact Brenda Grober: 518.292.5200

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NYS SmartGrid Consortium

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Clarkson University

JASMINE

caithness long island energy center

LEEDCo

ADVANCED ENERGY TRAINING INSTITUTE AT STONY BROOK UNIVERSITY

Rensselaer

case Center for Architecture Science and Ecology

CFES Center for Future Energy Systems

Alfred University Center for Advanced Ceramic Technology

CUNY The City University of New York

AtmosAir SOLUTIONS

Arkados

NEW YORK STATE OF OPPORTUNITY. Division of Science, Technology & Innovation

Farmingdale State College State University of New York

Bloomenergy

SYRACUSE UNIVERSITY SYRACUSEcoe

HPC NY

Sensor CAT

SIP

Tarsier

vhb

CIEES Center for Integrated Electrical Energy Systems

Center of Excellence WIRELESS AND INFORMATION TECHNOLOGY AT STONY BROOK UNIVERSITY

LIHTI

BIG CAT

Clean Energy Business Incubator Program AT STONY BROOK UNIVERSITY

MAJOR EXHIBITORS

Best Energy Power • BMW • Composite Prototyping Center • Department of Technology and Society at Stony Brook University
Energy Focus, Inc. • Fordham's Social Innovation Collaboratory • G4 Synergetics • Greater New York Chamber of Commerce
Harvest Power Solar • Hoffmann & Baron, LLP • New York Institute of Technology • O'Brien & Gere • Power Analytics, a Causam Company
Smarter Grid Solutions • Suffolk County Community College • Synfuels Americas • Tesla Science Foundation
ThermoLift • Brookhaven Science Associates

SUPPORTING ORGANIZATIONS

WATER EFFICIENCY

Business Energy

ONSITE ENERGY MANAGEMENT

North American Clean Energy

Photon

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RENEWABLE ENERGY WORLD.COM

NAVIGANT RESEARCH

2016 RENEWABLE ENERGY CONFERENCE | June 15-17

ADVANCED ENERGY™ Research and Technology Center
AT STONY BROOK UNIVERSITY
a New York State designated Center of Excellence

ADVANCED ENERGY 2016 CONFERENCE ADDENDUM • APRIL 20, 21 & 22

Companies

The Tesla Science Foundation - *Tables 8 & 9*
The Tesla Science Foundation is a 501 (c)(3) nonprofit organization dedicated to promoting the life, legacy and scientific innovations of Nikola Tesla. Having successfully hosted numerous lectures, seminars, forums - to include the annual Energy Independence Conference and Tesla Memorial Conference - our foundation is the most active Tesla related organization in the United States today. Through our dedicated efforts and generous support from our contributors, the Tesla Science Foundation network of distinguished scientists, engineers, academics, artists, students and other Tesla enthusiasts worldwide continues to grow. Visionary and scientist Nikola Tesla is included in the **UNESCO Memory of the World** register. To host the educational traveling exhibition "Tesla: Past Present Future" inquire online at teslasciencefoundation.org

Smarter Grid Solutions - *Booth 202*
Smarter Grid Solutions provides a unique real-time deterministic approach to DER control with our sub-second Active Network Management (ANM) technology. Our ANM Strata solution is a critical component to enable an integrated Distributed Energy Resource Management System.

Evr-Green Mini - *Table 12*
Introducing the next generation of the Evr-Green® line of Electric Vehicle Supply Equipment (EVSE), the Evr-Green Mini electric vehicle charging station. Our new charging station delivers nearly 5 kW of power and offers a more compact, affordable, easy to use – easy to install solution to electric vehicle charging. The Evr-Green Mini was designed to be the smallest wall-mounted EV charging station available in North America and delivers a maximum of 20 electric vehicle miles per hour.

NYSERDA Cleantech Partners

Energystics, Ltd - *Table 16*
A research startup company that developed radically different patented linear electric generators for converting any environmental vibrational energy source, including ocean waves, into electric power.

NOVOROCS Technologies LLC - *Table 19*
NOVOROCS Technologies provides catalytic reforming solutions to energy and petrochemical industries. Products include fuel cell reformers, fuel processors for flare gas, and reactors for NOx reduction.

N2 Global Solutions, Inc. - *Table 24*
Integrated wireless network that improves a buildings management system's operational performance by seamlessly merging existing wireless protocols—providing a cost effective Clean-Edge environment.

Brimes Energy Inc. - *Table 17*
Brimes Energy is a start-up company developing the Jellyfish technology to harvest ocean wave energy and looking to build 10 MW wave power units.

EV-Box North America, Inc. - *Table 21*
EV-Box is the European Market Leader in Electric Vehicle-Charging solutions, deploying over 38,000 stations in 840 cities and counting. We provide highly functional Smart Charging Stations for a mid-market price.

(Continued on back)

Bonded Energy Solutions - *Table 18*
Bonded Energy Solutions has designed a patent pending cloud-based Building Management System that creates apartment level zones in steam heated buildings.

Enerknol, Inc. - *Table 22*
EnerKnol connects market participants to North American energy regulatory and legislative data from hundreds of federal, regional, and state sources.

Opus One Solutions Energy Corporation - *Table 23*
Opus One Solutions is a software engineering and solutions company with the vision of a Connected Energy Internet, delivering real-time energy management to the modern grid. www.opusonesolutions.com

Aris Renewable Energy, LLC - *Table 20*
Aris Renewable Energy is introducing its Off-Grid Wind/Solar LED Street Lamp, small wind turbine that breaks price/performance barriers, and building ventilation product to reduce energy costs.

Molecular Glasses Inc. - *Table 25*
Molecular Glasses is developing patent-pending materials for the manufacture of Organic Light Emitting Diode (OLED) displays on devices such as cell phones, tablets, and flat screen TVs.

Tyll Solar, LLC - *Table 28*
Tyll Solar LLC was founded to manage the research, engineering and commercial development for the Tyll Solar sCHP panel technology for licensing to solar companies.

LED Spirit - *Table 29*
LED Spirit has made a revolutionary new LED lighting design called the LS Core which eliminates the printed circuit board from the LED manufacturing process.

Kohilo Wind - *Table 30*
Kohilo is a wind energy company that manufactures vertical axis wind turbines.

EkoStinger - *Table 31*
The only aerodynamic trailer system that moves with your tandem, keeping aerodynamics consistent through full range of motion, saving fuel at all placements & loads.

Presenters

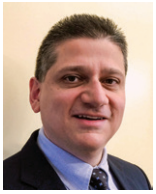
Pre-Conference Workshop, Macro Trends in Clean Energy - What to Expect in the Next Decade: *Michael Harrington, Section Manager, Market Research & Analytics, will be representing Consolidated Edison in this workshop.*

TRACK A Session 2 – **Dr. David Miller**, *Executive Managing Director,* Clean Energy Venture Group joined this session as a speaker.

TRACK C Session 2 – **Jason Vollen**, *COO,* is representing Fresh Air Building Systems LLC.

TRACK D Session 4 – **Paul Tyno**, *Strategic Advisor Energy Initiatives*, Buffalo Niagara Medical Campus joined this session as a speaker.

REV Demo Plenary Session - April 21


Marco Padula
NYS-DPS

Marco Padula, *Acting Deputy Director, Market Structure*, NYS Department of Public Service will serve as Moderator.

Dennis W. Elsenbeck, *Director of Stakeholder and Policy,* National Grid has joined as a panelist.

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