

Speaker Biographies

U.S. Department of Energy Energy Exchange, August 2015

Chris Abbuehl (Constellation Energy)

Christopher Abbuehl is responsible for leading the development of energy efficiency and renewable energy projects at Constellation Energy with a primary focus on the federal market sector. At Constellation, he has been involved with projects involving solar, wind, geothermal, and biomass resources. Previously, he worked in the Federal Energy Management Program as an alternative financing specialist supporting public—private partnerships involving clean energy projects. Prior to that, he worked in the private sector on energy efficiency and renewable energy projects in Central and Eastern Europe as well as Asia. Christopher holds a business degree from the University of Kansas and a law degree from American University.

Navid Ahdieh (National Renewable Energy Laboratory)

Navid Ahdieh joined National Renewable Energy Laboratory in 2010 as a project leader and is based in Washington, DC. He supports the Federal Energy Management Program's Federal Fleets task, for which he works with U.S. government agencies on petroleum use and greenhouse gas emissions reduction strategies and the deployment of alternative fuels and advanced vehicle technologies through analysis of regulatory compliance and development of analytical tools and training. Navid earned a master's degree in global environmental policy from American University in Washington, DC, and a bachelor's degree in geography and international politics from the University of North Carolina at Chapel Hill.

Kathleen Ahsing (U.S. Army)

Kathleen Ahsing serves as the director for the U.S. Army's renewable energy programs and business operations. She is responsible for development and execution of the Army's privately financed, large-scale renewable energy portfolio and for development of policies supporting the renewable energy programs. Kathy is a professional engineer in the State of Hawaii. She is a graduate of the University of Hawaii, Manoa, in civil engineering and holds a master's in resourcing national security strategy from the Industrial College of the Armed Forces.

Bob Albertini (Pepco Energy Services)

Bob Albertini manages business development efforts involving distributed energy and combined heat and power (CHP) projects for Pepco Energy Services. He has 25 years of experience in the utility and energy industry, developing complex energy projects on both the



demand side and supply side. These projects include energy savings performance contracts; utility energy service contracts; and design, build, operate, maintain (DBOM) for CHP projects, including biogas and landfill gas applications.

Don Albinger (Johnson Controls Inc.)

As vice president of product management for Johnson Controls Inc., Don Albinger leads a global team of product managers in the automated building management and controls market. His team is responsible for developing and deploying state-of-the-art building controls and management systems that drive advanced building performance. Having been with Johnson Controls since 1984, Don's leadership experience includes the business and technical advancement of performance contracting, renewable energy, building automation and fire and security control systems, and global product sales and distribution management.

Don has spoken at multiple venues for numerous organizations, owing in part to his membership in ASHRAE, the Association of Energy Engineers, the American Council of Renewable Energy, and the American Solar Energy Society. Don obtained a bachelor of science in education from the University of Wisconsin at Platteville, a second bachelor of science in mechanical engineering at the Milwaukee School of Engineering, and a master's degree in engineering management from the same institution.

Ron Allard (U.S. General Services Administration)

Ron Allard works for the U.S. General Services Administration as the national capital region energy branch chief and is responsible for energy and water performance for over 100 million square feet of federal space. Previously, he worked for over 15 years as director of engineering for a private-sector company with responsibility for office and manufacturing facilities in New Hampshire and Maine. He also served as managing partner for an engineering consulting firm with a focus on power plant development. Ron has an engineering degree and an MBA from Northeastern University in Boston and is certified as a LEED® Accredited Professional, Certified Energy Manager®, and Certified Energy Auditor (CEA™).

Jeffery Anoka (U.S. Department of Energy)

Jeff joined the U.S. Department of Energy as its director of corporate recruitment and outreach in December 2014. Jeff started his federal career as a Student Career Experience Program (SCEP) intern with the Federal Transit Administration (FTA) as a project development specialist in 2005. While at FTA, he also functioned as the Atlanta Region's human resources representative, leading initiatives around the Office's recruitment of "hard-to-fill" positions. Jeff has also worked for the Federal Deposit Insurance Corporation (FDIC), where he served as a corporate outreach and recruitment program specialist; the Export-Import Bank of the United



States, where he served as a human resources business partner; the Consumer Financial Protection Bureau, where he served as a senior human capital customer consultant; and most recently, the U.S. Securities and Exchange Commission, where he served as the agency's workforce diversity program manager. Jeff holds an MBA from the University of Maryland, University College, and a B.A. in human resources management from Georgia State University.

Domenic Armano (FirstFuel Software)

As vice president of customer solutions, Domenic brings deep domain and operational experience to FirstFuel customers. Prior to FirstFuel, Domenic was director of strategy and innovation at Johnson Controls Inc., where he was responsible for the evaluation of new technologies relevant to Johnson Controls' businesses. Here he forged critical relationships with entrepreneurs, universities, national laboratories, technology incubators, and venture capitalists. In addition, he conducted due diligence of many energy technology companies, which resulted in alliances and strategic partnerships. Before that, Domenic was a regional engineering manager responsible for developing over \$300 million in energy efficiency and renewable projects, including the comprehensive energy efficiency retrofit at the historic Empire State Building. Domenic holds an MBA from Boston University, an M.S. in engineering management from Tufts University, and a B.S. in mechanical engineering from the University of Massachusetts. He is a licensed professional engineer.

Michael Bartlett (ABM Industries, Inc.)

Michael Bartlett is the Director, Federal Energy for ABM Industries, Inc. He is responsible for development and implementation of federal energy projects utilizing all contract vehicles and for all federal clients. He started his career in the US Navy as a Civil Engineer Corps Officer performing various facility support, construction, and energy savings roles. After military service Michael worked for several Energy Service Companies including Chevron Energy Solutions, Johnson Controls, and Ameresco developing projects and building their sales pipelines. Michael has personal lead the development of more than 50 energy savings projects on federal facilities over the last 25 years.

Linda Baschnagel (U.S. General Services Administration)

Linda Baschnagel has been an energy engineer with the energy and sustainability branch of the U.S. General Services Administration (GSA), Region 6, for three years. Previously, she was a project manager in the design and construction division, managing multiple projects totaling more than \$50 million in the four-state region. As the lead engineer for the R6 Energy Team, Linda provides professional engineering, technical, and programmatic support services, as well as technical analysis integrating mechanical engineering principles, concepts, and practices into



building management and operational practices to improve energy and water use efficiencies in regional facilities. Prior to joining GSA, Linda worked for more than 28 years in engineering consulting, gaining extensive experience in design, project management, master planning, energy conservation, commissioning, and construction site management for projects of all sizes for government, industrial, educational, medical, pharmaceutical, and commercial clients. Linda has a bachelor's degree in mechanical engineering from Iowa State University and is a registered professional engineer in Missouri and Kansas.

David Batz (Edison Electric Institute)

David Batz joined Edison Electric Institute (EEI) in 2009 to focus on cyber and infrastructure security in the association's energy delivery group. In cooperation with the U.S. Department of Energy and the U.S. Department of Homeland Security, David assists EEI member companies with understanding and applying appropriate security solutions to address emerging cyber and physical security threats and issues. He has provided professional technology and security solutions and services for over 25 years; the last 10 have focused on cybersecurity issues for utilities and critical infrastructure protection. David also assists in the development and articulation of policy positions concerning Smart Grid.

Prior to joining EEI, David was a cybersecurity risk manager with Alliant Energy, an electric and gas utility serving customers in Iowa and Wisconsin. During his 20-year tenure with Alliant Energy, he performed in a variety of roles within the information technology and facility services departments.

Loida Begley (U.S. Department of Energy, National Nuclear Security Administration)

Loida Begley served as the sustainable buildings lead for the National Nuclear Security Administration (NNSA) Office of Sustainability over four years. NNSA manages the nation's nuclear security and nuclear nonproliferation programs. In her role, she integrated sustainable building requirements and practices into construction and operations across eight NNSA sites. Loida received both Bachelor of Science and Master of Science degrees in civil and environmental engineering from the University of California, Los Angeles, and a master of public policy degree from the University of California, Berkeley. She is a professional engineer, registered in California.



Paul Birkeland (Global Strategic Energy)

Paul Birkeland is founder and principal of Global Strategic Energy, an energy strategy and consulting firm based in Seattle, Washington. Paul is an internationally recognized expert in strategic energy management and the ISO 50001 international standard. He has served as a consultant for numerous strategic energy management pilot programs and has delivered training and consulting for industry, utilities, and non-profits in the United States, Canada, Europe, and China. Paul is one of the first ISO 50001 auditors and one of the first Certified Practitioners in Energy Management Systems. Paul holds B.S. and M.S. degrees in engineering and is an Association of Energy Engineers Certified Energy Manager (CEM).

Thomas Blanchard (Centers for Disease Control and Prevention)

Tom Blanchard is a registered professional engineer with the State of Georgia and currently serves as the Centers for Disease Control's (CDC's) Roybal campus portfolio manager in the asset management services office. He works on maintaining the value and program needs of CDC's real property assets (buildings) and planning for future facilities at the Roybal Campus (CDC headquarters and biological laboratory facilities). Tom came to the CDC in May of 2000 as a mechanical engineer in CDC's facilities organization and has provided portfolio management since 2006. Before coming to the CDC, Tom worked for 15 years as a mechanical engineer for Lockheed Martin, performing principal facility design for the F-22, C-130, C-5, C-141, P-3, and Jet Star programs, among others.

Jim Bochat (Commissioning Concepts)

Jim Bochat, president of Commissioning Concepts, has been involved in the Arizona engineering and construction industry for over 40 years. His experience includes mechanical design, mechanical construction, controls, testing and balancing, commissioning, and retrocommissioning. Jim is a former president of the National Environmental Balancing Bureau (NEBB), chairman of the NEBB Commissioning Committee, and an instructor for NEBB's commissioning and retrocommissioning programs. He is a life member of ASHRAE (American Society of Heating and Air-Conditioning Engineers) and serves on three committees—Guideline Project Committee 1.2 – The Commissioning Process for Existing HVAC&R Systems (formerly GPC-30), GL1.2, and the Project Management Professional (PMP) Project Committee and Certification—as well as chairs the ASHRAE PMP Best Practices committee. He recently served on the ABAA Whole Building Air Tightness Committee. A NEBB-certified professional since 1974, he has co-authored several standards regarding commissioning for NEBB, ASHRAE, and ABAA.

Jim was presented the George B. Hightower Award for his distinguished service to NEBB at the 2010 NEBB Annual meeting. The George B. Hightower Award is NEBB's most prestigious honor



and is presented periodically to people who have made special contributions to NEBB's success. A native of Arizona, Jim studied mechanical engineering at Arizona State University.

Brian Boyd (Pacific Northwest National Laboratory)

Brian Boyd is a research engineer with Pacific Northwest National Laboratory, specializing in water resource management and energy efficiency. Some of his work experience includes development of strategic plans for water management at federal sites, technology demonstration and technology evaluation, energy and efficiency analysis, plant reliability, and environmental and resource sustainability analysis. Brian has served as technical lead and technical contributor working with the Federal Energy Management Program, the Sustainability Performance Office, the Office of the Deputy Assistant Secretary of the Army, the Army Office of Assistant Chief of Staff for Installation Management, the U.S. Army Installation Management Command, and the Building Technologies Program Commercial Building Integration Sub-Program.

Kate Brandt (The White House Council on Environmental Quality)

As the federal chief sustainability officer, Kate Brandt is responsible for promoting sustainability across federal government operations including 360,000 buildings, 650,000 vehicles, and \$445 billion annually in purchased goods and services. Prior to her appointment, Kate served as a senior advisor at the U.S. Department of Energy's Office of the Under Secretary for Science and Energy, where she played a key role in establishing the office and executing the President's Climate Action Plan. Kate received a master's degree in international relations from the University of Cambridge, where she was a Gates Cambridge Scholar. She graduated with honors from Brown University.

Wendell C. Brase (University of California, Irvine)

Wendell Brase is vice chancellor for administrative and business services at the University of California (UC), Irvine. With 31 years of experience in the UC system (13 years at UC Santa Cruz and 18 years at Irvine), he is responsible for UC Irvine's administrative, financial, and business services. Wendell is a member of the sustainability advisory panel for the National Association of College and University Business Officers (NACUBO) and is chair of UC's Climate Solutions Steering Group.

UC Irvine's administrative and business services division has been cited with 11 national awards for process improvement, innovation, and administrative streamlining, including first prize in NACUBO's Higher Education Awards Program (1996), CAUSE's Best Practices Award (1997), the USA Today Quality Cup Award (1998), and the EDUCAUSE Award for Excellence in Administrative Information Systems (2004).



Tom Broderick (U.S. Department of Energy)

Tom has been with the U.S. Department of Energy's Intermountain Clean Energy Application Center since 2006. His focus has been on the technical assistance function. Prior to that, he worked for gas and electric utilities for 17 years in Arizona and Pennsylvania in marketing, technical assistance, customer outreach, and market development. He also worked for Owens-Corning Fiberglas in research and product development, where he published three papers and developed a patented product. Tom received a master's degree in mechanical engineering from the University of Massachusetts, and he is a Certified Energy Manager® through the Association of Energy Engineers.

Nicole Bulgarino (Ameresco)

Nicole Bulgarino is the senior vice president and general manager of federal solutions for Ameresco, a leading energy efficiency and renewable energy company. She is responsible for the overall management of Ameresco's dedicated business unit serving federal government customers. She has nearly 20 years of experience in developing and executing energy efficiency and renewable energy solutions.

Nicole has overseen the implementation of over \$700 million in federal energy projects. She serves as the company representative for federal energy savings performance contracts and federal agreements for renewable energy. She also oversees the development and operation of energy efficiency projects and energy systems involving biomass, combined heat and power, digester gas, distributed generation, geothermal energy, landfill gas, microgrids and energy storage, and solar and wind technologies. Nicole is experienced in the design and development of demand-side energy efficiency projects, including deep energy retrofits. She has served as the lead engineer for the development, design, and start-up of many energy savings performance contract (ESPC) projects, including the U.S. Department of Energy Savannah River Site Biomass Cogeneration Facility—the largest federal biomass facility constructed under the largest renewable ESPC.

Nicole earned a Bachelor of Science degree in chemical engineering from the University of Tennessee. She is a licensed professional engineer and obtained an executive management and leadership certificate from the Massachusetts Institute of Technology.



Lara Buluç (U.S. Forest Service)

Lara Buluç has served as the sustainable operations/climate change coordinator with the U.S. Forest Service (USFS), Region 5, in Vallejo, California, since August 2011. In this role, she oversees sustainable operations and climate change programs at California's 18 national forests. Hired as a presidential management fellow, Lara has supported sustainable operations assignments across the agency from the Washington Office to the Shasta—Trinity National Forest. During a detail to the Washington Office, Lara led the agency's first comprehensive greenhouse gas inventory per Executive Order 13514.

Lara holds a dual B.S. in biology and ecosystem science and policy from the University of Miami, Florida, and a master's degree in corporate environmental management and political economy of the environment from the Bren School of Environmental Science & Management at the University of California, Santa Barbara.

Saralyn Bunch (U.S. Department of Energy)

Saralyn Bunch is a technical project lead for the Federal Energy Management Program (FEMP), where she is responsible for metering and data management, water management, energy efficient lighting and controls, and energy efficient product procurement. She joined FEMP in 2013, bringing over 35 years of management, engineering, and construction experience. Prior to joining FEMP, she was responsible for the design of non-nuclear facilities and infrastructure to support the license application for the nuclear repository at Yucca Mountain. Saralyn earned her B.S. in civil engineering from the University of Pittsburgh and her M.S. in engineering from The Catholic University of America.

Andrew Burr (U.S. Department of Energy)

Andrew Burr is a fellow with the U.S. Department of Energy's Building Technologies Office, where he works on urban strategy and building technologies deployment. He was previously director of policy at the Institute for Market Transformation (IMT), where he advised cities on energy efficiency policy and political strategy. While at IMT, he helped launch the City Energy Project, a \$10 million joint initiative with the Natural Resources Defense Council and the mayors of 10 American cities. Andrew previously served as an advisor to the Innovation Fund of the Urban Sustainability Directors Network. He has been quoted by national media including *The New York Times, USA Today*, and *Governing Magazine*, and he has presented on U.S. energy policy in China and Europe.



Mike Bushey (Southern California Edison)

Mike Bushey manages the Government, Institutions, Agriculture and Water Segment at Southern California Edison. His responsibilities include the management team and staff that serve all federal customers, state customers, cities, counties, schools, colleges, universities, water districts, and agriculture customers within SCE's 50,000-square-mile service territory.

Mike is a seasoned leader with over 25 years of utility and energy industry experience. He has held numerous individual contributor roles in account management, sales, and project management and many leadership roles in customer service operations and strategic customer accounts divisions. Each role had increasing responsibility, influence, and demonstrated results to operating unit goals and the company performance.

Mike holds a Bachelor of Science degree from Arizona State University and a Master of Business Administration degree from the University of California, Irvine.

Natasha Campbell (U.S. Department of Energy)

Natasha Campbell joined the U.S. Department of Energy (DOE) as a senior advisor on industrial relations and economic and workforce development in July 2014. Prior to her appointment, she served as the director for labor relations and collective bargaining for the District of Columbia government. In that capacity, she had responsibility for administering the comprehensive labor relations and collective bargaining program, inclusive of approximately 25,000 bargaining unit employees and 33 bargaining units. Her responsibilities included negotiations, mediation, arbitrations, litigation, representation petitions, and negotiability appeals. Since joining DOE, Natasha has played a key role in supporting the Energy Jobs Strategy Council, which seeks to accelerate the growth of and access to jobs in all sectors of the United States energy economy while meeting the goals of the Administration's Climate Action Plan. The Council also seeks to ensure that jobs being created in the energy, manufacturing, and STEM sectors build stronger, more inclusive communities. Utilizing DOE's convening authority, Ms. Campbell facilitates stakeholder engagement with workforce development systems; non-profit organizations; state, local, and regional governments; economic development planners; industry; the unemployed; and disadvantaged communities.

Cara Carmichael (Rocky Mountain Institute)

Cara's background in both architecture and engineering has served as the cross-disciplinary foundation for her passion of working on strategic energy design and master planning in buildings and portfolios. Cara helped shape the strategic creation and operation of the RetroFit Initiative within the Rocky Mountain Institute (RMI). She led the content development and launch of the RetroFit Depot, an online industry resource about deep retrofits that provides



information about benefits, processes, case studies, and tools to prove the economic viability of deep commercial building retrofits. Cara continues to lead an effort focused on implementing a deep retrofit business model within energy service companies and targeted architectural, engineering, and consulting firms. Coupled with her ability to create high-level net zero energy masterplans and deep retrofit value propositions, she enjoys working at a tangible project level to apply integrative design solutions and turn theory into practice on actual projects.

Currently, Cara is leading RMI's efforts to design a new, next-generation deep green headquarters for RMI in Basalt, Colorado. She is applying integrated project delivery and quantifying some of the value beyond energy cost savings the building will provide to create a replicable process and financial model for other small building owners to follow. Other recent projects include Ford's Green Dealership program and the General Services Administration's Net Zero Renovation Challenge. Cara is also working with a global healthcare company to create a net zero energy roadmap for one of the company's research and development campuses based on the principles of aggressive efficiency and finding the most cost-effective balance point between energy efficiency and onsite renewable energy generation.

Mike Case (U.S. Army Corps of Engineers)

Michael Case is a program manager at the U.S. Army Engineer Research and Development Center, Construction Engineering Research Laboratory (ERDC-CERL). His portfolio includes the Net Zero Planner research program, creating new ways to plan effectively for reduced energy, water, and solid waste usage on defense installations and in other types of small communities. Michael also manages the Automated Construction of Expeditionary Structures program, developing the U.S. Army's capability to print custom-designed expeditionary structures on demand, in the field, using locally available materials. Past projects include the Corps' building information modeling (BIM) roadmap, the Land use Evolution and Impact Assessment Model (LEAM), the Sustainable Installation Regional Resources Assessment website, the Defense Environmental Information eXchange network (DENIX), the Design Review and Checking System (DrChecks), and the Sustainable Project Rating Tool (SPIRIT).

Michael holds doctoral and master's degrees in mechanical engineering from the University of Illinois at Urbana-Champaign and a bachelor of science in mechanical engineering from Cornell University.

Ariel Castillo (U.S. Department of Defense)

Ariel Castillo currently serves as a business and technical manager for the Office of the Assistant Secretary of Defense, Energy, Installations, and Environment. He manages and oversees energy resilience efforts for the U.S. Department of Defense (DOD). He is also directly responsible for



the publication of DOD's Annual Energy Management Report. Ariel holds a bachelor of business administration degree in finance from the University of Notre Dame, a master's degree in business administration from the University of Dayton, and a doctorate of philosophy in engineering management with a concentration in environmental and energy management from George Washington University.

Scott Clark (U.S. Army)

Scott Clark is the energy manager for the Directorate of Public Works at Fort Carson in Colorado Springs, Colorado. He is responsible for the overall coordination and administration of the energy program, including the pursuit and programming of energy and water projects to move Fort Carson towards its net zero energy and water goals. Scott's efforts have helped Fort Carson achieve over a 21% energy intensity reduction since 2003 and 30% water intensity reduction since 2007. Scott is a Certified Energy Manager® and has a B.S. in electrical engineering from Colorado State University.

Kristyn Clayton (U.S. General Services Administration)

Kristyn Clayton has more than 25 years of experience providing design, construction management, and energy and sustainability services to federal, institutional, and commercial customers. She has hands-on experience auditing, planning, constructing, and optimizing buildings, including oversight of LEED® certification of commercial buildings nationwide. Kristyn is an expert in building science, especially areas involving high-performance building systems, and has taught these principles at the college level. She is often asked to review and comment on project development, design, installation, and measurement and validation (M&V) of complex systems in existing buildings and the relationship of those activities with respect to expected operations. Kristyn has degrees in electrical engineering and architecture and is a Certified Energy Manager®.

Phil Coleman (Lawrence Berkeley National Laboratory)

Phil Coleman has worked at Lawrence Berkeley National Laboratory (LBNL) since 1996. He is a technical advisor to the Federal Energy Management Program's (FEMP's) Energy Savings Performance Contracting (ESPC) program, focusing particularly on utility rates and measurement and verification of savings. Also in support of FEMP, Phil has spearheaded an initiative to educate federal facilities on efficiency and renewable project incentives, demand response, utilities procurement, and "rate-responsive building operation." Internationally, he has advised governments in Mexico, India, Chile, and Jordan on developing public sector energy conservation programs. Before joining LBNL, Phil prepared market research for a fast-growth



alternative air-conditioning company and conducted residential audits and program evaluations for an energy consulting firm.

Phil received his bachelor's degree from Earlham College (1986) and his master of science in energy management and policy from the University of Pennsylvania (1994). He also holds the Association of Energy Engineers' Certified Energy Manager® (CEM®) and Certified Measurement and Verification Professional (CMVP) designations.

Sharon Conger (U.S. General Services Administration)

Sharon Conger has worked for the U.S. General Services Administration (GSA) since 1989. She is located in GSA's Rocky Mountain Region in Denver, Colorado. Sharon began in the public buildings service as a realty specialist and spent 10 years as a realty contracting officer lead. She then delved into asset management. Sharon spent seven years as a business center manager, managing nearly 40 employees, and was responsible for strategic planning in the areas of assets, personnel, and budget management concurrent with oversight of daily operations and serving as a focal point for key programmatic decisions for the Colorado Service Center. Sharon's GSA experience is broad, encompassing a wide range of GSA activities: property management, acquisition/contracting, asset management, real estate acquisition, project management, and financial management. In 2012, Sharon moved into her current role as the national program lead for energy savings performance contracts in GSA's Central Office Facilities Management and Special Programs Division.

Sharon graduated with honors from Colorado State University with a dual degree in business administration and psychology.

Phillip Consiglio (Southern California Edison)

Phill Consiglio currently manages the federal and schools customer segment teams as well as the Utility Energy Services Contracting (UESC) team, for Southern California Edison Company. With over 30 years of experience, Phill has led teams in the development, contracting, and management of renewable energy systems, energy conservation projects, energy storage, and electricity distribution, predominantly in the Federal Sector.

Phill earned a bachelor's degree in Physics from the University of La Verne and has completed the W. Edwards Deming Management Program. He is a Certified Energy Manger and sits on the Steering Committee of the Federal Utility Partnership Working Group as well as the Board of Directors of the Association of Professional Energy Managers for Los Angeles and Orange Counties.



Michael Contreras (Solar Energy Technologies Office)

Michael Contreras is an American Association for the Advancement of Science (AAAS) science and technology policy fellow at the U.S. Department of Energy (DOE), Solar Energy Technologies Office, SunShot Initiative. Mike is a co-founder and the managing director of the SunShot Catalyst prize program, which leverages solar data assets to rapidly create and fund scalable software startups. The program has backed 17 early-stage teams and has been featured in media outlets such as Forbes, TechCrunch, Gigaom, and CleanTechnica. The SunShot Catalyst was also recognized globally by IdeaScale with a 2014 Open Innovation Award and is a recipient of the International Society of Professional Innovation Management (ISPIM) 2015 Grand Prize.

Prior to his work at DOE, Mike was a principal investigator and spacecraft structural analyst at the Caltech Jet Propulsion Laboratory, advancing the technology readiness of aerodynamic decelerator systems funded by NASA. He has been a Fulbright scholar and an Air Force Research Laboratory Space scholar. Mike holds Bachelor of Science and Master of Science degrees from the University of California, Los Angeles, and a Ph.D. in civil engineering and a master's degree in mechanical engineering from Rice University.

Ash Corson (Toyota)

Ash Corson is the Alternative Fuels Vehicle (AFV) Manager for Toyota Motor Sales, USA, Inc. Working within Toyota's Advanced Technology Group, Ash's primary responsibilities include North American AFV product development, fuel cell powertrain deployment, and hydrogen infrastructure enablement. Currently, Ash is aiding the launch preparations for the 2016MY Toyota Mirai fuel cell car and its supporting hydrogen fueling network. Previously, Ash was the Senior Product Planner responsible for the Lexus RX, ES, & IS model lines, and helped plan and launch the 2006MY Lexus RX400h, the world's first luxury hybrid. Ash received his MBA from Georgetown University, a double major in Economics and Chinese from Connecticut College, and has multiple years of experience in the consulting, digital, and strategic planning spaces.

Doug Culbreth (Oak Ridge National Laboratory)

Doug Culbreth is a federal project executive at Oak Ridge National Laboratory, where he supports the U.S. Department of Energy's Federal Energy Management Program. Doug coordinates federal alternative financing activities in the Southeast and Europe, including utility energy saving contracts (UESCs), power purchase agreements, Enable, and the Federal Energy Management Program's energy saving performance contracts (ESPCs). Doug has over 35 years of experience in the development and evaluation of energy efficiency and renewable energy



projects in the local, state, and federal government sectors. He has participated in the award of projects with a total investment value over \$800 million.

Thomas D. Culp (Birch Point Consulting)

Thomas Culp is the owner of Birch Point Consulting, located in La Crosse, Wisconsin. Since earning a Ph.D. in chemical engineering from the University of Wisconsin, Thomas has spent 16 years in the glass and window industry in the areas of energy efficient glazing and window performance, low-e glass coatings, and building code development. One area of particular interest has been promoting the use of low-e panels to cost effectively retrofit windows in existing buildings. Thomas is co-vice chair of the ASHRAE 90.1 standards committee and a member of the National Fenestration Rating Council and Attachments Energy Rating Council boards of directors.

Jeff Dagle (Pacific Northwest National Laboratory)

Jeff Dagle joined Pacific Northwest National Laboratory (PNNL) in 1989 and currently manages several projects in the areas of transmission reliability and control system security for the U.S. Department of Energy (DOE) Office of Electricity Delivery and Energy Reliability, U.S. Department of Homeland Security, and other clients. Jeff is a senior member of the Institute of Electrical and Electronics Engineers and a licensed professional engineer in Washington State. Significant career highlights include receiving the 2001 Tri-City Engineer of the Year award from the Washington Society of Professional Engineers; leading the data requests and management task for the August 14, 2003, Northeast Blackout Investigation Task Force; briefing President George Bush and Secretary Samuel Bodman on electric power grid research initiatives underway at PNNL in March 2005; supporting the DOE Infrastructure Security and Energy Restoration Division with onsite assessments in New Orleans following Hurricane Katrina in fall 2005; receiving two patents; receiving a Federal Laboratory Consortium for Technology Transfer (FLC) Award in 2007; and receiving an R&D 100 Award in 2008 for the Grid Friendly™ Appliance Controller technology.

Oliver Davis (concept3D Inc.)

Oliver Davis is chief executive officer and co-founder of concept3D Inc. Oliver co-founded concept3D Inc. as a leading 3D modeling services company. Since its start in 2006, concept3D has launched a successful interactive map-based software platform, along with simuwatt. simuwatt Energy Auditor is a mobile and web-based energy auditing application designed to improve the accuracy and speed of onsite commercial building audits. The brainchild of concept3D and the National Renewable Energy Laboratory (NREL), simuwatt was initially funded through the U.S. Department of Defense's Environmental Security Technology



Certification Program (ESTCP) program. ESTCP demonstrations showed a 20+:1 savings over traditional onsite energy surveying methods. simuwatt is now available for commercial use. Oliver graduated from Skidmore College with a B.A. in government and still works with government entities.

Monica DeAngelo (U.S. Department of Navy)

Monica DeAngelo is the director of facilities and renewable energy program integration for the U.S. Department of Navy (DON). In this role, she provides subject matter expertise and leadership to develop DON renewable energy policy, ensures detailed technical and financial analysis is done to recommend sound business decisions, and is responsible for the integration of renewable energy projects into existing DON portfolios. She also serves as the technical director to the DON Renewable Energy Program Office (REPO). Monica received a master of science in environmental engineering from Columbia University, New York, a bachelor of science in civil and environmental engineering from Wilkes University, Pennsylvania, and holds Certified Energy Manager® (CEM®) certification.

Marcus De La Rosa (Pacific Northwest National Laboratory)

Marcus De La Rosa works closely with federal clients to help them understand and meet the requirements of the Energy Policy Act of 2005, Energy Independence and Security Act of 2007, and executive orders. His primary focus over the years has been in energy, water, and renewable energy field assessments, modeling, and analysis, mostly at U.S. Department of Defense sites. He also has a background in utility rate analysis and building energy modeling. Marcus is currently supporting the Army Reserve's building metering, building automation systems, and energy savings performance contract (ESPC) initiatives.

Michael Deru (National Renewable Energy Laboratory)

Michael Deru joined the National Renewable Energy Laboratory (NREL) in 2000 and manages the systems performance section within the Commercial Buildings Research Group. He leads the Space Conditioning Project team and the Advanced RTU Campaign for the U.S. Department of Energy. He also manages projects related to development and testing of novel HVAC systems, building performance simulations, performance metrics for sustainability, source energy and emissions factors, water, and the U.S. Life Cycle Inventory Database. Michael received an R&D 100 Award in 2005 and is very active within ASHRAE. Prior to joining NREL, Michael worked as a nuclear plant engineer with Westinghouse Electric supporting the U.S. Naval Nuclear Power program.

Michael received his B.S. in mechanical engineering from the University of Wyoming and his M.S. and Ph.D. in mechanical engineering from Colorado State University.



Rick Diamond (Lawrence Berkley National Laboratory)

Rick Diamond, Ph.D., is a staff scientist at Lawrence Berkeley National Laboratory, where he serves as the deputy for research operations of the building technology and urban systems division. His research has focused on the impacts of behavior on the building energy performance. Research project areas include housing, schools, and commercial and federal buildings, including the U.S. House of Representatives. Rick is a founding member of the Institutional Change team at the Federal Energy Management Program (FEMP).

Rick has a B.A. in visual and environmental studies from Harvard College and an M. Arch. and Ph.D. from the University of California (UC) at Berkeley. He has been on the faculty at Harvard University's Graduate School of Design and the California College of Arts and Crafts, and he has been a visiting professor in the Architecture Department at UC Berkeley.

Ralph DiNola (New Buildings Institute)

New Buildings Institute Executive Director Ralph DiNola has dedicated his professional life to bringing green building innovation to scale. He served as a technical advisor for the Living Building Challenge™ standard and has consulted on over 130 LEED® projects, including ten precedent-setting LEED Platinum certifications. He is a LEED fellow and has been founding board chair of the International Living Future Institute, founder and former principal at Green Building Services, and a 2012 BetterBricks award winner.

Jeff Dominick (National Renewable Energy Laboratory)

Jeff Dominick is currently the National Renewable Energy Laboratory's (NREL's) principal investigator for energy improvement demonstration projects funded at U.S. Navy sites in Hawaii and Guam. His responsibilities include leading the demonstration planning and reporting results. Previously Jeff led the Federal Energy Management Program activities at the laboratory, including the delivery of energy efficiency and renewable energy technology assistance to federal agencies. Jeff specialized in the financing and development of federal solar and wind distributed energy systems. He also worked with an energy services company specializing in large renewable generation projects on federal sites. Previous to NREL employment, while at NASA's Johnson Space Center in Houston, Texas, Jeff was a project manager responsible for the design, development, and testing of spacecraft life support and cooling systems. Jeff holds a bachelor's degree in mechanical engineering from Virginia Tech and an MBA from the University of Colorado.



Patricia Donohue (US Army Corps of Engineers)

Patricia Donohue leads the Regional Sustainable Engineering Center for the U.S. Army Corps of Engineers, North Atlantic Division, located in Brooklyn, New York. She was hired five years ago as an agent of change to develop the Regional Sustainable Engineering Center, introducing sustainability and energy management in all projects within the division's six districts. She also developed and leads four national sustainable centers of expertise in commissioning, LID, solar thermal systems, and microgrids. Patricia oversees strategic direction, business transformation, strategic communication, and technical engineering guidance for a region that encompasses 50 Army and Air Force installations across 14 U.S. states and Europe. She is also responsible for energy management and financial programming of over 65 civil works projects (dams and recreation sites).

John Dumler, Digital Realty

John R. Dumler is Digital Realty's technical operations manager for energy. In this role, he is responsible for developing and implementing a company-wide operational energy management program. Prior to joining Digital Realty in 2014, John was a senior mechanical engineer at Internap Network Services, where he was responsible for defining all mechanical engineering design standards. John began his career in the data center industry as a mechanical engineer with EYP Mission Critical, where he was a key member of the energy and sustainability team. He has performed numerous data center energy efficiency audits for both the federal and private sectors and has been lead mechanical engineer on multiple high-profile data center mechanical system designs.

John is a registered professional engineer, Certified Energy Manager®, and LEED® Accredited Professional. He received a B.S. in mechanical engineering from Clarkson University.

Scot Duncan (Enerliance & Retrofit Originality Incorporated)

Scot Duncan is a mechanical engineer, Founder of Enerliance, Founder and President of Retrofit Originality Incorporated, and a subject matter expert for the ACE. He got his start going out on construction jobsites with his dad when he was 12 years old. By the time he was 15, he was on the payroll with Honeywell helping out the field technicians. Since then, he has spent his career focusing on creating energy efficient HVAC systems and on solving problems created by other engineers.

Scot founded Retrofit Originality Incorporated in 1987 to design high efficiency HVAC systems. He created and patented the High Efficiency Dehumidification System, called HEDS, to solve the energy, cost, and sustainability issues associated with controlling relative humidity (RH) in



occupied spaces. The need for HEDS was obvious after spending time at a multitude of bases and seeing the results of poor RH control.

Bev Dyer (U.S. Department of Energy)

Beverly Dyer works for the Office of Energy Efficiency and Renewable Energy (EERE) as the director of training for the Federal Energy Management Program (FEMP). She joined FEMP in October 2000, following her position as the U.S. Environmental Protection Agency's (EPA's) ENERGY STAR® Buildings program manager for federal agencies. She also served the EPA as an interagency project officer for developing guidance for modeling the transport of radioactive substances, and she assisted the National Science Foundation as a science resource analyst tracking research and development.

In her current position, Bev leads the development and delivery of state-of-the-art technical and policy courses aligned with EERE's mission, technologies, and best practices to meet legislative mandates and goals. Bev holds an M.A. in science, technology, and public policy from the George Washington University and a B.A. in history with a minor in education. She underwent teacher training at the International School of Dusseldorf, Germany, where she earned a certification in secondary education. She is a graduate of the Office of Personnel Management's Senior Executive Service Candidate Program and is a LEED Accredited Professional for Building and Construction.

Jed Ela (U.S. General Services Administration)

Jed Ela is sustainability advisor and the lead for sustainable supply chains for the U.S. General Services Administration (GSA), Office of Government-wide Policy, Office of Federal High-Performance Green Buildings. Jed oversees GSA's sustainability work, including the sustainability plan; strategies for reducing energy, water, waste, and greenhouse gases; and sustainable supply chains. He leads GSA's partnership with CDP to engage with federal suppliers on carbon emissions reductions, and he advises on strategies for reducing emissions from major GSA contracts. Before GSA, he worked with White House Council on Environmental Quality and the California Air Resources Board. Jed graduated from Wesleyan University and the University of California, Los Angeles, Law School.

Dave Elrod (DPR Construction)

Dave Elrod offers more than 30 years of construction industry experience as DPR Construction's southwest regional leader. A partner and owner in the company, Dave brings the unique ability to lead the Phoenix regional management team (RMT) with a shared leadership approach that fosters the development of more than 174 regional employees. In the ten years prior to coming to DPR, Dave operated and maintained facilities for large, advanced technology manufacturing



firms. Dave attended Oregon State University in Corvallis to study construction engineering management and business administration. He has completed the CMOS design and engineering program at the Masters Design and Technical Center in Santa Clara, California; is a graduate of the Arizona Builder's Alliance Leadership Development; and is a LEED® Accredited Professional with the U.S. Green Building Council (USGBC). Dave is an active board member of the Alliance for Construction Excellence (ACE), Phoenix Biomedical Campus Advisory Council, Arizona Builders Alliance, and Phoenix Community Alliance. Dave is a guest lecturer for Arizona State University and has spoken at Tradeline Inc. (Leading-Edge Resources for Facilities Planning and Management).

Deane Evans (New Jersey Institute of Technology)

Deane Evans is a registered architect and currently directs the Center for Building Knowledge (CBK) at the New Jersey Institute of Technology. He has over 30 years' experience—in both the private and public sectors—in creating and disseminating information on high-performance buildings. He has held positions such as senior principal at Steven Winter Associates, a building systems consulting firm; vice president for research at the American Institute of Architects in Washington, DC; and founding director of the Partnership for Advancing Technology in Housing (PATH) program at the U.S. Department of Housing and Urban Development. In his current position, Deane directs CBK, a multi-disciplinary research and technical assistance center focused on improving the performance of buildings and communities.

Deane is a fellow of the American Institute of Architects and currently serves as chair of the Sustainable Buildings Industry Council at the National Institute of Building Sciences.

Nick Fernandez (Pacific Northwest National Laboratory)

Nick Fernandez is an energy analyst and mechanical engineer with Pacific Northwest National Laboratory's (PNNL's) building energy systems and technology group. He has worked at PNNL for six years, focusing primarily on building controls/re-tuning and building energy simulation. Nick has performed re-tuning site visits to U.S. General Services Administration buildings as part of Targeted Energy Efficiency Expert Evaluations (Targeted E4) for the past four years; he is currently an engineering team lead for this project. Nick earned his bachelor's and master's degrees in mechanical engineering from the University of Maryland. His master's thesis studied the performance and oil retention characteristics of a CO₂ heat pump water heater.



Dave Ferro (concept3D Inc.)

Dave Ferro managed the development of simuwatt Energy Auditor, a mobile and web-based energy auditing application designed to improve the accuracy and speed of on-site commercial building audits. The brainchild of concept3D and the National Renewable Energy Laboratory (NREL), simuwatt was initially funded through the U.S. Department of Defense's Environmental Security Technology Certification Program (ESTCP) program. ESTCP demonstrations showed a 20+:1 savings over traditional onsite energy surveying methods. simuwatt is now available for commercial use.

Dave has 15 years' experience in product management, delivering data-driven web and mobile solutions in the telecommunications, mortgage, and market research sectors. He graduated from the University of California, San Diego, with a B.A. in history and received an MBA from the Thunderbird School of Global Management.

Jeanette Fiess (U.S. Army Corps of Engineers)

Jeanette Fiess is an electrical engineer working in Seattle for the U.S. Army Corps of Engineers (USACE), Northwestern Division, and serves as the division program manager for sustainability and energy. She was selected by the White House as this year's winner in the Sustainability Hero category. Under Jeanette's leadership, the USACE Northwestern Division has increased the number of employees with training in high-performance building standards by 70%. In 2012, Jeanette led the nationwide USACE effort to update the USACE Unified Facilities Guide specifications, which lacked critical sustainability requirements. USACE headquarters has recommended that training developed by Jeanette be included as part of its national training platform in future years.

Liz Fischer (Building Commissioning Association)

Liz Fischer has been active in the energy efficiency, conservation, and commissioning industry for more than 25 years. She is the executive director of the Building Commissioning Association (BCA), an international association dedicated exclusively to the advancement of building commissioning and the professionals who practice it. Liz is responsible for the BCA's education and training programs, administration, and international board development. She represents the BCA in regional and global discussions of standards and guidelines advocating for best practices in commissioning the built environment. She was a co-creator of the National Conference on Building Commissioning (NCBC), the annual technical conference on building commissioning—now international and going into its 24th year. Prior to her current BCA role, Liz was a senior program manager at Portland Energy Conservation, where she participated in the firm's development and management of commissioning programs, research, and training.



Peter Y. Flynn (Bostonia)

Peter Flynn has over 20 years of experience in law and finance and is a co-founder of Bostonia. He is experienced in the financing of energy efficiency, distributed generation, and renewable energy projects, as well as project finance, real estate finance, securitization, and public—private partnerships. At Bostonia, Peter has structured and placed over \$2 billion in federal, municipal, and commercial energy projects. He was lead banker on two of the largest federal energy projects, a \$102 million project for the U.S. Navy in Japan (partially denominated in Yen) and a \$207 million microgrid project for the U.S. Food and Drug Administration. In addition, he was lead banker for an innovative project combining energy efficiency and solar photovoltaics (PV) for the U.S. Army at the White Sands Missile Range in New Mexico. He recently completed Bostonia's first cross-border commercial energy financing for a college in Ontario, Canada.

Peter is a frequent speaker on topics such as financing of energy and real estate projects. He is the co-author of the article "Unique Issues Associated with Financing Federal Government Receivables," which appeared in *The Journal of Structured Finance*. Peter serves as a member of ACORE's National Defense and Security Advisory Committee. He is a graduate of Boston University School of Law and Syracuse University, where he graduated Magna Cum Laude and Phi Beta Kappa.

Jesse Gary (U.S. Department of Energy)

Jesse Gary manages the renewable energy program for the U.S. Department of Energy's Federal Energy Management Program, which works to remove barriers for increased deployment of renewable energy across the federal sector. He also works with the U.S. Department of State in support of their renewable energy and Energy Savings Performance Contracting programs.

Brian Gilligan (U.S. General Services Administration)

Brian Gilligan is a sustainability program manager in the Office of Federal High Performance Green Buildings at the U.S. General Services Administration (GSA). He is responsible for implementation of the Federal Buildings Personnel Training Act, which seeks to improve facility performance, reduce operating costs and protect the Government's investments in green building through enhanced training. He supports other initiatives related to optimizing the indoor environment to achieve federal goals for cost savings, environmental protection, and human health and well-being. He came to GSA in 2009 as a workplace strategist and sustainability advocate with GSA's Total Workplace Initiative, helping federal agencies right-size their physical and environmental footprints through improved requirements development and portfolio management. A former U.S. Navy Civil Engineer Corps officer, he served nearly a



decade in roles in facility, energy, and construction management at bases in the United States and overseas.

Brian lectures on topics in facilities management at The Catholic University of America. He is registered as a professional engineer and holds a B.S. in mechanical engineering from Rensselaer Polytechnic Institute and the degree of engineer in civil and environmental engineering from Stanford University.

Chris Gillis (Pacific Gas and Electric)

Chris Gillis has more than a decade of experience in the electric and gas utility industry and currently works as a principal account manager at Pacific Gas and Electric Company (PG&E) in San Francisco. In his current role, he oversees the federal government customer segment strategy for PG&E's Energy Solutions & Service Organization, where he has successfully implemented more than 6 megawatts (MW) and 30 million kilowatt-hours of energy conservation. Prior to his current position, he was a senior project manager for Generation Interconnection Services (GIS) at PG&E. While with GIS, he worked on numerous wholesale and distributed generation projects. The fossil fuel and renewable energy interconnection projects ranged from 1 MW to 400 MW in size.

James Goddard (Pacific Northwest National Laboratory)

James Goddard is currently a controls technologist for Pacific Northwest National Laboratory. He has extensive experience maintaining and troubleshooting HVAC systems. His career in this field spans more than 10 years of experience installing, maintaining, and servicing HVAC systems for corporations, including Campbell and Bruce Refrigeration, Dale Thomas Commercial HVAC, Apollo Sheet Metal, and Johnson Controls Inc.

Daniel Gore (U.S. Department of Energy)

Daniel Gore is the chief of technology services for the U.S. Department of Energy's (DOE's) Federal Energy Management Program (FEMP). From 2004–2013, he was the energy manager for the U.S. Coast Guard. He retains a DOE career achievement award for energy and water management in the federal sector. Daniel has also served as an engineer for the Federal Energy Regulatory Commission, the Maritime Administration, and the Military Sealift Command.

Roger Grant (National Institute of Building Sciences)

Roger Grant is a program director for the National Institute of Building Sciences (NIBS), where he manages the Integrated Resilient Design Program (IRDP), High Performance Building Council (HPBC), and Commercial Workforce Credentialing Council (CWCC). He has focused on developing and delivering information products and services to support design, construction,



and management of the built environment for more than 30 years. Roger has experience in whole building performance and technology, building information modeling, building safety and security assessment, cost planning and estimating, and project and business management. As a member of architecture, engineering, or construction (A/E/C) industry associations, he has been extensively involved in technology and standards development and has served on the board and technical committee of the buildingSMART Alliance, as well as the planning and technical committees of the National Building Information Model Standard. Roger began working with the International Alliance for Interoperability, now buildingSMART International, shortly after its founding and is now the leader of the bSI Product Room and the secretary of the bSI Data Dictionary Group.

Roger holds a bachelor of science in construction management and a master of business administration, both from Bradley University.

Brad Gustafson (U.S. Department of Energy)

Brad Gustafson is supervisor for the Federal Energy Management Program (FEMP) customer services program. He began supporting federal energy initiatives in 1995 as an employee of Lawrence Berkeley National Laboratory. At FEMP, he has served as a project facilitator for energy savings performance contracts (ESPCs); served as the program manager for the Technology Transfer, Utility, Technical Assistance and Fleet Programs; and served on detail as senate legislative advisor for energy for Senator Lincoln Chafee. Formerly, Brad was program manager of the Pacific Gas and Electric (PG&E) HVAC program at the PG&E Energy Center.

David Guthrie (U.S. Fish and Wildlife Service)

David Guthrie is the energy coordinator for the U.S. Fish and Wildlife Service. He is a registered professional engineer, with degrees in natural resources, environmental engineering, and international public policy. David has received numerous awards since 1994 for his work in making the Service's energy management program a federal leader. In 2011, he received both a Federal Energy and Water Management Award for Exceptional Service and the Federal Energy Manager Program Manager's Award, honoring his contributions in the areas of energy efficiency, water conservation, and the use of advanced and renewable energy technologies at federal facilities.

Mike Gutowski (Johnson Controls)

Mike Gutowski is a development leader with Johnson Controls as part of their federal team, specializing in energy savings performance contract (ESPC) work. He is responsible for all development, financial modeling, and delivery of ESPC projects under his charge. Prior to joining Johnson Controls, Mike worked as a project manager with a large construction



management firm and got his start in the construction world as an MEP consultant after serving in the U.S. Navy. Mike is a registered professional engineer, Certified Energy Manager, and LEED® Accredited Professional. Mike received his B.S. from the University of Florida.

Kathryn Guy (U.S. Army Corps of Engineers)

Kathryn Guy is a materials engineer with the U.S. Army Engineer Research and Development Center – Construction Engineering Research Laboratory (ERDC-CERL) in Champaign, Illinois. Here she splits her time between being out in the field, teaching installation staff to perform comprehensive energy and water evaluations (CEWEs), and working in the lab, developing low-energy, deployable waste water treatment systems. Periodically, Kathryn is also able to enjoy working with the next generation of scientists through outreach activities such as a summer camp for middle school students. Kathryn obtained her Ph.D. in chemistry at the University of Illinois at Urbana-Champaign.

Chuck Hammock (Andrews, Hammock & Powell, Inc.)

Chuck Hammock, PE, has been a consulting engineer for the last 27 years and also holds the LEED® Building Design and Construction credential from the U.S. Green Building Council and the Certified GeoExchanger Designer (CGD) designation from the International Ground Source Heat Pump Association and the Association of Energy Engineers (IGSHPA/AEE). In a career devoted exclusively to building HVAC engineering, his specialty is in innovative deployments of geothermal heat pump systems. He is the principal investigator for the U.S. Department of Defense's first deployment of aquifer and borehole thermal energy storage (ATES/BTES) under the Environmental Security Technology Certification Program (ESTCP) program, topics he will cover extensively during his session.

Amanda Hatherly (Santa Fe Community College)

Amanda Hatherly is the director of the New Mexico Energy\$mart Academy and Center of Excellence for Green Building and Energy Efficiency at Santa Fe Community College. She is on the Board of the Santa Fe Area Homebuilders' Association and is a member of the Sustainable Santa Fe Commission. An expert in energy efficiency, healthy homes, and green building training, she is regularly invited to speak about related issues at venues and events around the country, such as the Massachusetts Institute of Technology's Women in Clean Energy Symposium. Amanda is the principal investigator for a National Science Foundation grant creating building science online simulations and games.



Thomas Hattery (Oak Ridge National Labortory)

From 2002 until today, Thomas Hattery has been a federal project executive for the U.S. Department of Energy's Federal Energy Management Program (FEMP). In this role, he assists federal agencies with alternatively financed energy improvements through vehicles such as energy savings performance contracting and utility energy savings contracting. Thomas covers the U.S. mid-Atlantic and Northeast regions and all U.S. State Department facilities worldwide. From 1997 to 2002, Thomas was an assistant director of the Maryland Energy Administration, where he managed several programs including Maryland's Energy Performance Contracting, Million Solar Roofs, Home Energy Rating System, and Biomass fuel. Thomas is a former president of the Energy Services Coalition, a national organization promoting energy savings performance contracting.

Charlie Hein (Federal Bureau of Prisons)

Charlie Hein is currently the Federal Bureau of Prison's (BOP's) national energy program manager. He began his BOP career in 2004 as a heating, ventilation, air conditioning, and refrigeration supervisor at the United States Penitentiary in Lewisburg, Pennsylvania. He later served as general foreman at the Federal Correctional Institution in Cumberland, Maryland, and facilities management specialist in the Mid-Atlantic Regional Office located in Annapolis Junction, Maryland. In his current position, Charlie oversees the BOP energy program, which includes over 100 federal prisons across the United States.

Mike Holda (Lawrence Berkeley National Laboratory)

Mike Holda has been supporting the Federal Energy Management Program's (FEMP's) Alternative Financing Program, helping federal agencies develop alternatively financed projects for the past 18 years. He has over 30 years of experience in facility design, engineering, project, and program management at U.S. Department of Energy national laboratories. Mike was the energy management program leader at Lawrence Livermore National Laboratory for seven years. He is currently a part-time employee at Lawrence Berkeley National Laboratory, assisting in the deployment of new and underutilized technologies in energy savings performance contract (ESPC) projects.

Mike has a B.S. in electrical engineering from the University of Illinois and a master of business administration from Golden Gate University. He is a professional electrical engineer in the State of California, Certified Energy Manager®, Certified Lighting Efficiency Professional, and LEED® Accredited Professional. He has served as chairman of the Energy Efficiency Working Group for U.S. Department of Energy facilities.



Jim Holton (Georgia Power Company)

Jim Holton was selected as Georgia Power Company's Federal Segment Manager in 2013. In this role, Jim is responsible for positioning the company to deliver high levels customer satisfaction and provide safe, reliable, profitable electricity sales to federal agencies throughout the state.

A native of Macon, Ga., Jim joined Southern Company in 1982 as a co-op student. After receiving his bachelor's degree in Information and Computer Science from Georgia Institute of Technology, he began his full-time career with the company as an analyst. Throughout his career with Southern Company, he has held various positions at Southern Company Services, Southern Development Investment Group, Southern Company Energy Solutions and Georgia Power Company. Jim has held leadership positions in a multiple functional areas including Information Technologies, Distribution, Marketing and Sales.

Jim received his Master's degree in Business Administration in Finance from Kennesaw State University. He currently is President of the Georgia Power Macon Federal Credit Union. He is married to his wife Amy and has two sons – Matt and Connor.

Sara Hunt (BCS Inc.)

Sara Hunt is a senior research analyst with BCS, Inc., and works as the technology-to-market lead in the U.S. Department of Energy's (DOE's) Wind and Water Power Technologies Office (WWPTO), where she focuses on laboratory and industry engagement to commercialize renewable energy technologies. Her role includes management and oversight of approximately 10 laboratory tech-to-market projects for wind and water power technologies and management of a laboratory small business voucher program. She co-founded the DOE Prize Community that brings together a diverse set of expertise across DOE to help spur energy technology innovation through prizes and challenges, and she also co-leads the Wave Energy Prize. She has worked as a support contractor at DOE for four years and came to DOE with experience at an environmental non-profit and in the office of a U.S. senator. Sara received her master's in energy policy and climate science from Johns Hopkins University.

Diana Hun (Oak Ridge National Laboratory)

Diana Hun is a research and development staff member in the Building Envelope Research Group at Oak Ridge National Laboratory with 13 years of experience in the building construction industry. Her research areas include improving the airtightness of buildings while minimizing risks due to potential building material deterioration and indoor air quality problems. She is currently assessing the performance of air barrier technologies, studying the optimization of building energy demands and indoor air quality, and evaluating the moisture



durability of energy efficient walls. To this end, she is collaborating with the Building America program, the U.S.—China Clean Energy Research Center Building Energy Efficiency consortium, and the Air Barrier Association of America. Diana received her Ph.D. from the University of Texas at Austin, where she studied human exposure to hazardous air pollutants in homes.

Vernon Hunt (U.S. Navy)

Vernon Hunt is the energy product line coordinator for Naval Facilities Engineering Command Southwest (NAVFAC SW), responsible for developing and executing energy programs in support of Navy Region Southwest and Marine Corps Installations Command West and community management of energy personnel across NAVFAC SW. His team is also responsible for development execution of energy savings performance contracts and utility energy service contracts. Vernon is a technical advisor to the commanding officer of NAVFAC SW on shore energy program issues and renewable energy system strategy development.

Hetal Jain (U.S. Department of Transportation)

As a U.S. Department of Transportation (DOT) sustainability program manager, Hetal Jain has led many national sustainability and energy initiatives for DOT's internal operations. She combines passion for and knowledge of the environment with over a decade of sustainability program management experience at multiple federal agencies including DOT, the National Oceanic and Atmospheric Administration, and the U.S. Environmental Protection Agency. Hetal was recognized as a GreenGov Presidential Award winner in 2014 and a Federal Computer Week Rising Star in 2013. Hetal has an M.P.A. from Columbia University (New York) in environmental science and policy and a B.S. in environmental science from the University of Southern California (USC).

Sarah Jensen (U.S. Department of Energy)

Sarah Jensen is the Federal Energy Management Program (FEMP) technical lead for sustainable buildings. She assists agencies with identifying and implementing sustainable building strategies and co-chairs the Interagency Sustainability Working Group with the U.S. General Services Administration. She most recently served as deputy director and environmental counsel for the Green the Capitol Office for the U.S. House of Representatives.

Kevin Johnson (Energy Systems Group)

Kevin Johnson is the director of federal business development for Energy Systems Group (ESG), which has been recognized by the National Association of Energy Service Companies (NAESCO) as an accredited energy service provider with demonstrated extensive expertise in energy savings performance contract (ESPC) and utility energy service contract (UESC) project



investigation, development, and implementation. Kevin is responsible for managing and mentoring the sales, solutions/project development teams, and implementation activities for ESG's direct federal customers, along with utility partners, their federal customers, and other key account customers. Kevin identifies and exceeds customer expectations through innovative energy solutions and financial options.

Kevin has over 25 years of leadership and team management experience in the energy industry and a distinguished history of engineering and project management in the execution of advanced technology applications. Over the past 10 years, Kevin's highly energetic team has developed and executed more than \$500 million in highly successful energy projects utilizing the UESC, ESPC, and enhanced use lease (EUL) contract vehicles throughout the continental United States. These projects provide over \$75 million in annual energy savings and also provide enhanced energy security to critical U.S. Department of Defense and other government customers.

Hayes Jones (U.S. Department of Energy)

Hayes Jones is the operations supervisor for the Federal Energy Management Program (FEMP). In this role, she works with FEMP's operations and data team to effectively share the government's record of energy management and to share FEMP's resources. She holds Master of Environmental Management and Bachelor of Science degrees from Duke University.

Kathleen Judd (Pacific Northwest National Laboratory)

Kathleen Judd is a senior research scientist and team lead in the Building Energy Systems Group at Pacific Northwest National Laboratory (PNNL). She focuses on using institutional and behavioral change principles to drive sustainability strategy, and evaluating sustainability performance at the building and organizational levels. Kathleen has practical experience with design, implementation, and evaluation of successful behavioral change projects in the federal sector. As a member of PNNL's own Sustainability Program team, she engages with management to set sustainability strategy, leads PNNL's sustainability reporting efforts, and leads behavior change initiatives among employees to help achieve PNNL's sustainability goals.

Don Juhasz (Defense Logistics Agency)

Don Juhasz is a motivational speaker who uses humor and insight to encourage behavioral changes needed to reduce our wasteful actions and processes. He designed his own dream home using the energy savings techniques he has learned as an engineer. A former military test pilot, flight test engineer, and astronaut candidate, he currently serves as the director for energy resource management for the Defense Logistics Agency. A Cum Laude engineering graduate with a master of engineering degree from Brigham Young University, Don is a Certified



Energy Manager® with over 20 years' active involvement performing energy audits, energy reduction projects, and renewable energy development. Don received the 2009 Federal Energy Management Meritorious Service Award and is a three-time recipient of both the Secretary of the Army's Energy and Water Management Award and the Federal Energy Management Award.

David Jump (QuEST)

David Jump, PE, has 22 years of experience providing energy engineering services to large commercial and industrial customers. He developed QuEST's practice areas in commissioning, integrated auditing, and savings verification, and he led teams to identify and implement cost-effective improvements in customer facilities. David has led industry efforts to streamline and improve energy savings verification procedures, reduce administration costs, improve accuracy, and prolong the benefits of energy efficiency projects. His work integrating whole-building measurement and verification (M&V) in the University of California system's monitoring-based commissioning program led to best practice awards for his customers three years in a row. He serves on ASHRAE's Guideline 14 Committee and the California Commissioning Collaborative's Advisory Board, and he is past chair of the Efficiency Valuation Organization's International Performance Measurement & Verification Protocol (IPMVP) Committee. David received his B.S., M.S., and Ph.D. in mechanical engineering from the University of California, Santa Barbara, and was a visiting scholar at the Institüt für Technische Thermodynamik in Stuttgart, Germany.

Kevin Kampschroer (U.S. General Services Administration)

Kevin Kampschroer is the director of the Office of Federal High-Performance Green Buildings at the U.S. General Services Administration (GSA), where he has worked for nearly 40 years. He has created the framework for GSA's responses to the challenges of greenhouse gas emissions reductions and the American Recovery and Reinvestment Act's mandate to move GSA's federal building inventory toward high-performance green buildings. Kevin has devised a challenge for companies to dramatically improve the government's ability to achieve deep retrofits through energy savings performance contracts—which has doubled the amount of energy conservation from these contracts. His team manages the government's implementation of a comprehensive improvement in the training and certification of facility managers and personnel across the entire federal government (Federal Buildings Personnel Training Act of 2010). As GSA's senior climate adaptation official, he leads the agency in planning for climate change risks. Kevin was the project manager for the Ronald Reagan Building & International Trade Center (344 M2). He has lectured at various universities such as the Massachusetts Institute of Technology, Harvard, Georgia Tech, and Yale. He was a contributing author to the recently published medical study—the first of its kind—showing the link between building characteristics, office worker stress, and



heart function. This study showed the beneficial results of good lighting, natural light, and indoor environmental quality. Kevin is a graduate of Yale University.

Alicen Kandt (National Renewable Energy Laboratory)

Alicen Kandt is a senior mechanical engineer at the National Renewable Energy Laboratory (NREL). Alicen provides assistance in assessing technical and economic potential of renewable energy, energy efficiency, and water efficiency opportunities as well as providing technical support of projects. Alicen's research interests focus on net zero efforts and the water—energy nexus, particularly the quantification of the energy uses of our water infrastructure. Alicen holds an M.S. in mechanical engineering from the University of Colorado at Boulder and a B.S. in mathematics from the University of Puget Sound.

Srinivas Katipamula (Pacific Northwest National Laboratory)

Srinivas Katipamula is a staff scientist at Pacific Northwest National Laboratory (PNNL). He joined PNNL in 1994. Srinivas has extensive technical experience in the evaluation of advanced design concepts for HVAC systems, demand response techniques for commercial and residential buildings, development of automated fault detection and diagnostic techniques, building and energy system simulations, analysis and evaluation of new energy efficient technologies, and development and use of analytical modeling techniques. A fellow of both ASHRAE and the American Society of Mechanical Engineers (AMSE), he is active in technical committees of both organizations and is an associate editor of the ASME *Journal of Energy Resources Technology*. Srinivas previously worked at the Energy Systems Laboratory at Texas A&M University and Enron Energy Services.

Julia Kelley (Oak Ridge National Laboratory)

Julia Kelley has more than 15 years of experience in the area of federal/utility partnerships and utility demand-side management programs. She works for Oak Ridge National Laboratory, where she serves on the Federal Energy Management Program (FEMP) Utility Team. She has been heavily involved in supporting FEMP since 1996. As a Utility Team member, she provides training and technical assistance to federal agencies and utility company representatives on utility energy service contracts. Julia is also a member of FEMP's Federal Utility Partnership Working Group Steering Committee.

Mandeep Khera (Daintree Networks)

Mandeep Khera is responsible for marketing and channel sales functions at Daintree Networks. His experience spans various industries including big data analytics, mobile application development platform, security, web services, customer relationship management, asset



management, and logistics management. At Daintree Networks, Mandeep is focused on smart buildings and the Internet of Things (IoT). He is a graduate of Harvard Business School's Leading Product Development program and Northwestern University's Executive Development Program. He also holds an MBA from Santa Clara University.

Andrea Kincaid (Defense Logistics Agency)

Andrea Kincaid is responsible for managing and facilitating requirements for the Defense Logistics Agency Energy's (DLA Energy's) competitive electricity, renewable power, energy savings performance contracts, and demand response purchase programs. Prior to this role, she spent 11 years purchasing fuel for military activities worldwide at DLA Energy. Andrea is currently supporting the U.S. Department of Defense and other federal civilian facilities in meeting renewable energy goals as established in the Energy Policy Act of 2005, Executive Order 13423, Energy Independence and Security Act of 2007, and the National Defense Authorization Act of 2007. She is the recipient of two Presidential Awards for Leadership in Federal Energy Management for work accomplished directing renewable efforts on behalf of federal agencies. Andrea is certified in contracting at Level III under the Defense Acquisition Workforce Improvement Act, holds an unlimited Contracting Officer's Warrant, and is a member of the Defense Acquisition Corps.

Paul Kistler (Naval Facilities Engineering Command)

Paul Kistler is the team leader for the Navy Energy Technology Validation (Techval) Program. The Navy Techval Program evaluates and validates newer energy saving technologies that have just been introduced to the commercial marketplace. Once these technologies are validated, Techval works to transition them into Navy-wide use. Since assuming his current position in 1995, Paul has also participated in energy conservation surveys and energy savings performance contact (ESPC) technical reviews. He is a registered professional engineer and a Certified Energy Manager®. He holds a bachelor's degree in mechanical engineering from the University of Illinois.

Dan Kreeger (Association of Climate Change Officers)

Daniel Kreeger is co-founder and executive director of the Association of Climate Change Officers (ACCO). He has vast experience collaborating with government entities, environmental non-governmental organizations (NGOs), academic institutions, and the private sector. He has a unique familiarity of key climate/sustainability initiatives at most Fortune 500 companies, top 100 government contractors, and government entities. Dan has produced a broad range of climate/sustainability-focused education and training programs, such as the GreenGov Symposium, The Climate Leadership Conference, and ACCO's CCO Certification™ program.



Sneh Kumar (Alcoa Inc.)

Sneh Kumar is currently the business technology leader for Alcoa's global building and construction systems (BCS) market. He is responsible for the planning, development, and execution of the product and process technology projects for the BCS market. Prior to his current role, Sneh was a member of the BCS—Cranberry business for 9 years in various positions contributing to and leading research and development; manufacturing improvements and implementations; and government contracts. His contributions have been instrumental in the development of a series of high-performance BCS façade products with market-leading performance attributes.

Sneh is an actively engaged with the external BCS partners, e.g., industry organizations, universities, and government national laboratories. He has been a member of the board of directors of the National Fenestration Rating Council (NFRC) since 2009 and is currently a member of the NFRC executive council. Sneh is a Certified Energy Manager® and a LEED® Accredited Professional. He completed his bachelor's and master's degrees in mechanical engineering at the Indian Institute of Technology, Madras, India, and the University of Massachusetts, Amherst, respectively.

Wayne Latham (Federal Energy Management Program)

Wayne Latham is the U.S. Department of Energy's contracting officer for the 16 energy savings performance contract (ESPC) IDIQs, along with the predecessor ESPCs and the project facilitation (PF) services contract with EMP2. He has been with the Golden Field Office since September of 2012 as part of the team to provide support and guidance to program office and federal agency partners. Previously, Wayne worked as a contract specialist with the National Park Service, Environmental Protection Agency, Department of Defense, and National Oceanic and Atmospheric Administration. His has held non-governmental positions in sales, marketing, and project management with construction, manufacturing, and telecommunications firms.

Guanging Lin (Lawrence Berkeley National Laboratory)

Guanjing Lin is a senior scientific engineering associate in the building technology and urban systems division at Lawrence Berkeley National Laboratory. Her research focuses on building performance monitoring and analytics, fault detection and diagnosis, and building commissioning. She received her Ph.D. in mechanical engineering from Texas A&M University.

Bernard Lindsey (U.S. Navy)

Bernard Lindsey serves as the regional energy program manager for Navy Region Southwest. He is responsible for developing and executing shore energy programs and on providing energy



management policy expertise to installations under the Region's command. He is a technical advisor to the regional commander and regional engineer, dealing with shore energy program issues related to shore infrastructure energy efficiency improvements and renewable energy system strategy development. He is a key player on the Regional management team that tracks and reports progress towards the many federal goals and requirements associated with energy efficiency, renewable energy development, and water conservation. Bernard also provides energy program advice and support to the Regional Environmental Coordinator (REC) team at Navy Region Southwest.

From 2003 to 2005, Bernard served as the Regional utilities and energy program manager for the Navy Region Japan and Naval Facilities Engineering Command (NAVFAC) Far East. Before that, he served in various NAVFAC Southwest project management positions associated with facilities design and construction, utilities, energy, and environmental characterization and cleanup initiatives.

Will Lintner (Federal Energy Management Program)

Will Lintner is a team member of the U.S. Department of Energy (DOE) Federal Energy Management Program (FEMP). As such, he is responsible for facilitating the use of new energy efficiency, water, and renewable energy technologies and sustainable best practices within federal facilities, including laboratories and data centers. In 2000, he was recognized by DOE for his contributions to reducing the Department's operating costs by over \$100 million per year through investments in energy efficiency retrofit projects. In 2007, he received a Presidential Award for Leadership in Federal Energy Management for his contribution to the joint DOE/EPA laboratories for the 21st Century program.

Chris Lyons (Solar Turbines)

Chris Lyons has over 30 years of experience in the energy field. He has worked in a variety of areas from plant construction and commissioning to design engineering to sales and marketing. Currently, Chris is a manager of marketing and product management for Solar Turbines, based in San Diego. In this role, he is responsible for developing and promoting new products and applications. With Solar Turbine's commitment to the development of new products and markets, he has a host of other technical resources located within the company, such as combustion engineering and package design engineering. Chris has a B.S. in chemical engineering from the University of Rhode Island.

Phil Macey (JE Dunn Construction)

Phil Macey is the national director of collaborative project delivery for JE Dunn Construction. JE Dunn is ranked as one of the top 10 national construction firms, with over \$2.8 billion annually



in work for clients in healthcare, higher education, and institutional markets. Phil works with teams to leverage the power of collaboration to drive increased efficiency in facility delivery. He uses a unique value-focused approach in concert with building information modeling (BIM), lean construction, and prefabrication to deliver high-quality facilities on conventional budgets. As an executive in the integrated project delivery group, he leads the continuous improvement process on projects throughout the company's 20 national offices. He has led teams in the creation of net zero energy facilities, corporate headquarters, clean rooms, and a wide array of research laboratories. Phil was the executive project manager of the design/build team of the National Renewable Energy Laboratory's Research Support Facility (RSF I) and the RSF Expansion project (RSF II). The combined projects are documented as the nation's largest net zero energy building.

Kishore Manghnani (Orama Inc.)

Kishore Manghnani has 25 years of management and marketing experience working at various systems and semiconductor companies in Silicon Valley. Kishore has built successful businesses from scratch in applications and technologies such as wireless micro-controllers for the Internet of Things (IoT), smart lighting, wireless home networking, broadband access, smart homes, and other consumer electronics products. Kishore is co-founder and chief executive officer of Orama Inc., a venture started in 2014 to build a smart lighting IoT software platform. Kishore has also served as vice president and general manager in the communications division of Marvell, where he was responsible for the smart energy, LED lighting, IoT platform, and wi-fi business units. Prior to Marvell, Kishore worked in various executive roles at Terayon, TeraLogic, LSI Logic, and Maxtor. He holds an MBA from Santa Clara University and an MSEE from the University of Hawaii.

Lance Marbut (U.S. Bureau of Reclamation)

Lance Marbut is the sustainable buildings coordinator for the Bureau of Reclamation Lower Colorado Region (LCR). He was a key participant in the development and implementation of Reclamation's sustainable buildings program. Currently, LCR claims three buildings as fully compliant with the Reclamation Guiding Principles, one of which is a 50,000-gross-square-foot LEED® Platinum office building. Through Lance's leadership, LCR continually maintains guiding principle compliance on all building projects. He is also the LCR energy manger and real property asset coordinator. Lance holds credentials as a Sustainable Buildings Professional from the International Facility Managers Association.



Cheryl Martin (Harwich Partners)

Cheryl Martin recently launched the consulting firm Harwich Partners to work with public- and private-sector entities to identify critical business, technology, finance, regulatory, and policy drivers that would accelerate adoption of new technologies into key markets. Before Harwich Partners, she served as the acting director of the U.S. Department of Energy's Advanced Research Projects Agency–Energy (ARPA-E). In addition, she was the deputy director for commercialization and developed ARPA-E's Technology-to-Market program, which helps breakthrough energy technologies succeed in the marketplace.

Prior to joining ARPA-E, Cheryl was an executive in residence with Kleiner Perkins Caufield and Byers, a venture capital firm. She also spent 20 years with Rohm and Haas Company in a variety of roles, including general manager for the paint and coatings materials business in Europe, the Middle East, and Africa.

Cheryl earned a B.A. degree in chemistry from the College of the Holy Cross and a Ph.D. in organic chemistry from the Massachusetts Institute of Technology. She is active in the American Chemical Society (ACS) and serves on the board of directors for Philabundance, the greater Philadelphia region's largest hunger relief organization.

Les Martin (U.S. Air Force)

Les Martin is the U.S. Air Force's program manager for energy savings performance contracts (ESPCs) and utility energy service contracts (UESCs). He is responsible for centrally managing all Air Force ESPCs and UESCs, and his office is involved in all stages of project development, evaluation, and contract award and administration.

Michaela Martin (ICF International)

Michaela Martin is the lead for the Southwest line of business within ICF's energy efficiency division. In this role, she is the executive in charge of ICF's energy efficiency business from Arkansas to Arizona, responsible for energy program implementation for ICF's electric and gas utility clients. Michaela has over 20 years of experience in government, residential, commercial, and industrial sector program design, implementation, and evaluation, including technology research, development, and deployment. Her portfolio of project experience includes energy analytics and software tool development, energy assessments, technical training, technology roadmapping and demonstration, low-income weatherization, energy savings performance contracting, and voluntary agreements.

Michaela also has extensive experience in energy program performance metrics and evaluation. As a program manager with Oak Ridge National Laboratory (ORNL), she managed large, multi-



million dollar projects, deploying top U.S. energy experts from the private sector, universities, and national laboratories in technical assistance and technology deployment activities. In recent years, Michaela has led and deployed diverse teams of U.S. experts on international cooperative and development activities related to industrial energy efficiency.

Trina Martynowicz (U.S. Environmental Protection Agency)

Trina Martynowicz's diverse professional background spans a wide range of environmental areas at the U.S. Environmental Protection Agency (EPA). She currently works at the EPA's Pacific Southwest Region 9 office in San Francisco. There Trina supports projects, partnerships, and policies to reduce greenhouse gases, such as converting methane into electricity and renewable natural gas to be used as a transportation fuel. She oversees the deployment of electric vehicles charged by a variety of renewable energy sources in the U.S. Pacific Island Territories and provides various innovative grants to significantly reduce air pollution.

Most recently, Trina served as the chief of staff to the Obama-appointed U.S. EPA regional administrator, Jared Blumenfeld, advancing agency priorities. Other previous professional experience includes overseeing a national partnership between federal, state, and local governments and private industries to demonstrate and deploy innovative technologies to reduce regional air pollutants in California's worst air quality areas. She worked with the West Coast Collaborative, a public–private partnership, to reduce diesel fuel and air emissions in the goods movement sector. Prior to working in San Francisco, Trina was at the EPA in Washington, DC, setting national policy and guidance to clean up the nation's most contaminated federal properties.

Trina received her bachelor's degree in environmental science and politics from the University of California at Santa Cruz and her master's degree in environmental science and policy from Columbia University.

Chris Mathey (Constellation Energy)

Chris Mathey is the director of public sector, project management, and federal business development for Constellation. He has spent 15 years managing energy issues in public and private sectors and currently serves as Constellation's subject matter expert on energy security and resilience. Previously, he was director of federal affairs for Constellation, with earlier roles at Exelon and the U.S. House of Representatives focused on regulatory policy.

Steven T. McMaster (U.S. Department of Energy)

Steven McMaster joined the U.S. Department of Energy's (DOE's) Office of Technology Transitions in March 2015. Steven brings to DOE a broad and deep understanding of the issues



and challenges associated with transitioning emerging energy technologies. He co-chaired the Battelle Commercialization Council and regularly participated as a speaker or panelist at a range of technology transfer and technology-based economic development events and forums. He was a part of the team that worked with the prior DOE technology transfer coordinator, Karina Edmunds, in creating the ACT and Startup America programs. In 2014, Mr. McMaster served as the chair of DOE's Technology Transfer Working Group.

Prior to his current role, Steven was the director of technology deployment at the Idaho National Laboratory (INL). At INL, he and his department had responsibility for intellectual property, technology licensing, technology commercialization, technology deployment and technology-based economic development. Steven has also served as the business development manager for the Mayo Clinic's reference laboratory business (Mayo Medical Laboratories) and as a senior licensing manager for the Mayo Clinic's Office of Intellectual Property. Before working for the Mayo Clinic, Steven was a technology licensing associate for Utah State University's (USU) technology transfer office and research park, following earlier responsibility as USU's chief procurement officer and legal counsel (by assignment from the Utah Attorney General's office).

Steven has a J.D. and a B.A. in business management from the University of Utah. He has been certified as a licensing professional by the Licensing Executive Society.

Robert McMillin (Siemens Industry, Inc.)

Robert McMillin has been working for Siemens for the past 19 years. He started in project development, focusing on chilled water plant centralization and thermal storage. For the last 9 years, he has been the manager of the Siemens energy service company business for the six-and-a-half state region between El Paso, Texas, and Panama City, Florida. Robert focused on both the federal and municipal/university/school/hospital (MUSH) markets, growing the business in the region from about \$20 million to about \$90 million per year. Robert received his Master of Science (MS) and Doctorate of Philosophy (PhD) in mechanical engineering from Texas A&M University.

Mike Mills (Sain Engineering Associates, Inc.)

In June 2014, Mike Mills became the president and chief operating officer for Sain Engineering Associates, Inc. (SEA). Prior to holding that position, he served as the company's corporate controller. Mike has over 20 years of experience in the fields of financial management, government contracting, operations, program/project management, and strategic planning. He began his career with Ernst & Young LLP, providing accounting and auditing services to a variety



of public and private clients. Prior to joining SEA, he served as controller and principal accounting officer for BioCryst Pharmaceuticals, Inc., a publicly traded biotechnology company.

Mike graduated from the University of Alabama at Birmingham with a B.S. in accounting. He is a certified public accountant (CPA) and a Business Energy Professional (BEP®). He is a member of the American Institute of CPAs, the Alabama Society of CPAs, and the Association of Energy Engineers.

Sven Mumme (ARPA-E)

Sven Mumme is a Technology-to-Market Advisor at the Advanced Research Projects Agency–Energy (ARPA-E) where he helps transition breakthrough energy technologies from lab to market. He is responsible for leading the commercialization strategy for the Methane Opportunities for Vehicular Energy (MOVE) program and a variety of building efficiency, energy storage, and gas to liquids projects from the Open 2012 program.

Prior to joining ARPA-E, Mumme worked for the specialty chemicals and materials company W.R. Grace from 2006 to 2012. In his most recent role as a Global Marketing Manager for Incubator Technologies, part of Grace's New Business Development department, he was charged with developing high-risk/high-reward businesses in energy storage, alternative feedstock conversion, and drug delivery and leading the new product development stage-gate process to advance step-out technologies to market.

From 1999 to 2005, Mumme was a Project Engineer at Underwriters Laboratories (UL), where he designed laboratory systems and equipment for UL's test facilities across Asia, Europe and North America.

Mumme earned a B.S. with Honors in Mechanical Engineering from Queen's University in Kingston, Ontario and an MBA from The Fuqua School of Business at Duke University.

Michael Myer (Pacific Northwest National Laboratory)

Michael Myer is a senior researcher at Pacific Northwest National Laboratory and has been with the laboratory since 2007. Prior to working for PNNL, he previously worked in lighting design for Naomi Miller Lighting Design and Hayden McKay Lighting Design. He is involved in several major lighting programs including Appliance Standards, Lighting Energy Efficiency in Parking (LEEP) Campaign, Interior Lighting Campaign (ILC), and other lighting market transformation programs. Mr. Myer has authored or co-authored many technical publications/reports and made several presentations at national conferences. Mr. Myer earned a B.A. from Arizona State University and an M.S. in Lighting from Rensselaer Polytechnic Institute. He was Lighting



Certified (LC) by the National Council on Qualifications for the Lighting Professions (NCQLP) in 2003.

Jeff Niesz (Pepco Energy)

Jeff Niesz has over 20 years of energy service company and energy industry experience. Currently, he is serving as the senior director of Pepco Energy's federal division, leading business programs and a team responsible for developing and executing federal task orders—specifically, utility energy service contract task orders under U.S. General Services Administration area-wide utilities contracts, and energy service provider contract task orders under IDIQs with the U.S. Department of Energy (DOE) and the U.S. Army Corps of Engineers. His experience includes task orders with a cumulative value in excess of \$300 million for clients such as the U.S. Department of State, the U.S. Army, the U.S. Navy, and DOE. Previously, he led Pepco Energy's business development and market expansion efforts with state and local governments, K-12 schools, and higher education clients. Jeff holds a BA from The Catholic University of America and an MBA from Loyola College.

Jeanne Nordstrom (U.S. Department of Veterans Affairs)

Jeanne Nordstrom has worked in the facilities management department at the Southern Arizona VA Health Care System for over 27 years. Currently, she holds the position of supervisory industrial hygienist and green environmental manager. She is a certified industrial hygienist and received her Ph.D. in environmental science from the University of Arizona.

Michael Norton (U.S. Army Corps of Engineers)

Michael Norton joined the U.S. Army Engineering and Support Center headquartered in Huntsville, Alabama, in November 2004. He is currently serving as the energy implementation branch chief, managing the execution of four energy programs that involve energy savings performance contracts (ESPCs), utility energy services contracts (UESCs), power purchase agreements (PPAs), and commercial utility programs (CUPs). In this capacity, Michael supports the U.S. Army and other Department of Defense services in meeting federal mandates. To this end, he leads the development and implementation of energy, water, and waste reduction and renewable energy efforts. Michael holds a Bachelor of Science degree in civil engineering from the University of Alabama and a master's degree in business administration from the University of Phoenix.

Axy Pagan-Vazquez (U.S. Army Corps of Engineers)

Axy Pagán-Vázquez joined the Construction Engineering Research Laboratory (CERL) in 2010. Since then, he has been involved in modeling heat transfer in building envelope sections,



simulating and studying energetic performance of the whole building, and developing and designing a novel non-rotary wind generator (recipient of a 2013 Army research and development award). His interests and efforts also led to his involvement with the Information Technology Laboratory's (ITL's) High Performance Computing Center. Here he worked with nonlinear hyperelastic materials and fluid flow modeling of computational fluid dynamics (CFD) techniques and tools, and he led team members to develop multi-field computational models, write construction guidelines, and publish articles in professional journals. Axy is licensed as a professional engineer in the state of Illinois, certified as a Project Management Professional (PMP)®, and is currently pursuing a master of science degree in mechanical engineering from the University of Illinois, Urbana-Champaign, focusing on computational methods and modeling of turbulence.

Andrew Parker (National Renewable Energy Laboratory)

Andrew Parker joined the National Renewable Energy Laboratory (NREL) in 2010. His goal is to help make high-efficiency building design commonplace by making existing energy analysis tools more accessible. He works closely with the OpenStudio development team, focusing on product design and the needs of industry. He also works with utilities and third-party companies that are using the tools developed by the commercial buildings research group. Andrew is interested in the improvement of software for the energy auditing space and was the project manager for a large Department of Defense Environmental Security Technology Certification Program (ESTCP) project, working with a third-party company to develop and demonstrate a mobile energy auditing tool.

Michael S. Parker (Johnson Controls Inc.)

Michael Parker has 30 years of experience in the energy conservation field. He has performed detailed technical and financial analyses for large-scale energy savings performance contract (ESPC) projects within the federal sector for Johnson Controls since 1995. His portfolio of federal energy projects exceeds \$600 million, with such notable customers as Oak Ridge National Laboratory, Y-12 National Security Complex, Aberdeen Proving Ground, and Fort Bliss.

Michael is a licensed professional engineer in three states (Arizona, Nevada, New Mexico), Certified Energy Manager® (CEM), Certified Demand Side Management Professional (CDSM™), Certified Lighting Efficiency Professional (CLEP™), and LEED® Accredited Professional. He was named the International Energy Engineer by the Association of Energy Engineers (AEE) in 1998, served as the 2000 and 2001 AEE Region 5 vice president, and has been recognized as an AEE Legend in Energy. Michael serves on the AEE Performance Contracting and Funding Professional



Certification Board, is a founding board member and officer of the Central Pennsylvania Chapter of AEE, and a member of ASHRAE.

Kristen Parrish (Arizona State University)

Kristen Parrish is an assistant professor in the school of sustainable engineering and the built environment at Arizona State University (ASU). Kristen's work focuses on integrating energy efficiency measures into building design, construction, and operations processes. Specifically, she is interested in novel design processes that financially and technically facilitate energy-efficient buildings. Her work also explores how principles of lean manufacturing facilitate energy efficiency in the commercial building industry. Another research interest of Kristen's is engineering education; she explores how project- and experience-based learning foster better understanding of engineering and management principles.

Christopher Payne (Lawrence Berkley National Laboratory)

Christopher Payne is a scientist at Lawrence Berkeley National Laboratory (LBNL), where he leads the Sustainable Federal Operations group. His research has focused on energy consumption decision-making in the non-residential sector, including organizational behavior related to energy efficiency and sustainability. An internationally recognized expert in the design and implementation of public sector sustainable acquisition programs, Chris is the lead researcher for LBNL's support of the Federal Energy Management Program (FEMP) and a cofounder of FEMP's Institutional Change team.

Chris earned his doctor of philosophy in urban affairs and public policy from the University of Delaware, his master of science in science and technology studies from Rensselaer Polytechnic Institute, and his bachelor of arts in physics from Carleton College. He is a LEED® Accredited Professional and a Certified Energy Manager®.

Joe Phillips (IBM Smarter Buildings Solutions)

Joe Phillips is responsible for the application of IBM Smarter Building business solutions to property owners and the building industry. He leads the development of value propositions and business cases worldwide. Joe aligns IBM capabilities with the unique needs and environments of building industry partners and customers, especially for the optimization of buildings and facility management business processes. He specializes in harnessing the power of data embedded in the Building Internet of Things to improve facility performance, reduce operating expenses, and transform industry business strategies, alliances, and practices.



Shanti Pless (National Renewable Energy Laboratory)

Shanti Pless joined the Commercial Building Research Group at the National Renewable Energy Laboratory (NREL) in 1999 with a focus on applied research and design processes for commercial building energy efficiency and building integrated renewable energy. This work has included facilitating numerous integrated design processes and energy modeling teams needed to realize cost-effective zero energy commercial buildings. He is leading the development of the next round of advanced energy design guides and managing the whole buildings systems integration section of the group. Shanti has written more than 50 journal articles, industry publications, guidebooks, and technical reports related to energy efficiency and zero energy buildings, with frequent national keynote speaking experience at industry conferences such as Greenbuild, the American Institute of Architects, and ASHRAE. He was awarded an ASHRAE Technology Award in 2013 for NREL's large-scale zero energy Research Support Facility.

Kinga Porst (U.S. General Services Administration)

Kinga Porst serves as an energy and water efficiency expert in the U.S. General Services Administration (GSA) Office of Federal High Performance Green Buildings, with particular focus on submetering, energy conservation programs, renewable energy, and indoor environmental quality. She has been working on improving the usage of energy savings performance contracts (ESPCs) in the federal government and achieving deep energy retrofits in existing buildings. She is a member of the newly formed GSA ESPC project management office. Kinga is also a member of the Interagency Energy Management Task Force, Interagency Energy Efficient Product Procurement Working Group, Better Buildings Alliance (formerly CREA), and Building Technology Research and Development Committee.

Kinga has over 18 years of experience in the public and commercial building industry with extensive knowledge in energy management, energy analysis, air conditioning, and green building practices and policies, coupled with 10 years of experience in sales and marketing management. She worked for Johnson Controls prior to joining GSA in 2010. She sold comprehensive energy performance contracts to local and state government agencies in Maryland, Virginia, and Washington, DC. She was responsible for conducting energy audits and analyzing facility improvement measures. In 2010, Kinga was the first female president of the National Capital Chapter of ASHRAE, elected for a one-year term.

Kinga has an MBA from Case Western Reserve University and a master's degree in engineering from the Technical University of Budapest. She is LEED® Accredited Professional and a Certified Energy Manager®.



Eleni Reed (U.S. General Services Administration)

Eleni Reed serves as chief greening officer at the U.S. General Services Administration's Public Buildings Service (PBS). Eleni works with PBS business lines and regions to integrate sustainability practices in all aspects of real estate operations to increase environmental performance in support of GSA's sustainability plan. She also leads the agency's Green Proving Ground, a program that utilizes GSA's real estate portfolio to test and evaluate innovative building technologies and practices. Prior to GSA, Eleni was director of sustainability strategies with Cushman and Wakefield, and she worked with the City of New York's Mayor's Office of Operations.

Charlie Rienhardt (U.S. General Services Administration)

Charlie Rienhardt has served as the sustainability program manager at the U.S. General Services Administration's (GSA's) Denver Federal Center (DFC). There he is responsible for the DFC Sustainability Program and ISO 14001 and ISO 50001 programs. Under his leadership, the DFC became the State of Colorado Gold Leader in the State of Colorado Environmental Leadership Program. Charlie helped implement \$50,000,000 in renewable and energy reduction projects, including deploying 8 megawatts of photovoltaic solar panels, replacing DFC boilers with higherficiency low-nitrogen oxide units, replacing 32 vehicles for onsite use with low-speed electric vehicles, and implementing a B-cycle bike share program, as well as numerous other lighting and HVAC energy and water use reduction projects.

Carlie has eight years of higher education in aerospace administration, electronic engineering technology, and business administration. He is a stationary engineer, a Certified Energy Manager®, a Real Property Administrator®, and a member of the Association of Energy Engineers.

John Riley (Arizona State University)

John Riley is the sustainability operations officer at Arizona State University. Since 2007, the University has reduced greenhouse gas emissions by 18.4%, despite adding 24% more space and 26% more people. The University's current 24.1 megawatts of solar power is the largest of any university, and John plans to double it to 50 megawatts. He is a founding member of the Sustainable Purchasing Leadership Council and of the Innovator's Working Group of the Rocky Mountain Institute, as well as a senior sustainability scientist in the Julie Ann Wrigley Global Institute of Sustainability.



Francis Rubinstein (Lawrence Berkeley National Laboratory)

Francis Rubinstein has been a staff scientist in the building technologies and urban systems department at the Lawrence Berkeley National Laboratory (LBNL) for nearly 35 years. Before "semi-retiring" from the LBNL in 2014, he led the laboratory's research work on advanced techniques for lighting controls in buildings. He has been technical lead for numerous demonstrations of advanced lighting controls in buildings for many years and since 2010 has conducted several demonstrations of LEDs with lighting controls as part of the U.S. General Services Administration's Green Proving Ground program. Francis has published widely on the impact of lighting controls on commercial lighting energy use and on the calibration and commissioning of lighting and daylighting control systems. The "sliding setpoint algorithm" that he developed is used in several commercial control systems today. He spearheaded the successful effort to get controllable lighting into the 2013 revision of California's Title 24 Building Code. Francis is a fellow of the Illuminating Engineering Society of North America.

Ridah Sabouni (Energetics Incorporated)

Ridah Sabouni is a senior engineer with Energetics Incorporated, based in the Energetics Washington, DC, office. In his six years with Energetics, Ridah has worked closely with clients at the U.S. Department of Energy (DOE) Building Technologies Office and the Advanced Manufacturing Office, supporting energy management and research and development programs. He played a key role in the development of the DOE Superior Energy Performance program and the DOE eGuide for Energy Management.

Ridah is a certified Project Management Professional (PMP)[®], Certified Energy Manager[®] (CEM), and Certified Measurement and Verification Professional (CMVP)[®]. He has a B.S. in electrical engineering from the University of California, Davis, and an M.S. in electrical engineering from the University of California, Santa Barbara.

Anita Salem (Naval Postgraduate School)

Anita Salem is a design researcher with extensive experience in human-centered design. She works in the public and private sectors helping to integrate stakeholder and end-user needs, wants, and behaviors into the development of new processes, policies, and technologies. Anita received her master's degree from the University of Washington in human-centered design and engineering in 1997. Since then, she has taught user experience design, information design, and design research methods at the University of Washington and the Naval Postgraduate School (NPS). She currently teaches "Design Thinking" for the systems engineering department at NPS. Anita also serves as a consultant for a variety of organizations, such as the Bill and Melinda Gates Foundation, Getty Images, Cisco Systems, AT&T, and Washington State.



Dale Sartor, Lawrence Berkeley National Laboratory

Dale Sartor heads the Lawrence Berkeley National Laboratory (LBNL) Building Technologies Applications Team, which assists with the transfer of new and underutilized technology. He has over 35 years of professional experience in energy efficiency and renewable energy applications, including 10 years as a principal of an architecture and engineering company and 7 years as the head of LBNL's In-House Energy Management Program. He oversees the Federal Energy Management Program's new Center of Expertise for Data centers. Dale has an AB in architecture and a master's degree in business administration. He is a licensed mechanical engineer and a licensed general building contractor.

Karma Sawyer (U.S. Department of Energy, Building Technologies Office)

Karma Sawyer is the technology analysis and commercialization manager and a physical scientist in the Emerging Technologies (ET) Program within the U.S. Department of Energy's (DOE's) Building Technologies Office (BTO). Prior to this position, she was responsible for the BTO fenestration and building envelope technology portfolios. Karma originally joined DOE in 2010 as an ARPA-E fellow, where she performed technical, environmental, and economic assessment of CO₂ capture, utilization, and sequestration, as well as methods for direct natural gas-to-liquid conversion and thermal storage. She later took over as an assistant program director, responsible for ARPA-E's capture portfolio.

Karma worked as a postdoctoral scholar in the department of mechanical engineering at the University of California, Berkeley. There she studied phonon localization in silicon nanowires for thermoelectric applications and direct air CO₂ capture as a member of the editorial committee for a technology assessment for the American Physical Society Panel on Public Affairs. She was named an American Association for the Advancement of Science (AAAS) Science and Technology Policy fellow at ARPA-E (2010) and a fellow at the American Chemical Society—Petroleum Research Fund Summer School. She has authored 10 publications and 15 conference proceedings in the areas of energy, physical chemistry, and materials science. Karma received a B.S. with honors in chemistry from Syracuse University and a Ph.D. in chemistry from the University of California, Berkeley.

Tom Scaramellino (Essess)

As president and chief executive officer (CEO) of Essess, Tom Scaramellino oversees the strategic direction of Essess and is responsible for driving the company's success in the utility and government sectors. Tom was previously the founder and CEO of Efficiency 2.0, a leading energy efficiency software and rewards provider for the large investor-owned utility market. He founded Efficiency 2.0 in 2009 and managed its growth through April 2012, when the company



sold to C3 Energy, an energy software firm founded and managed by Tom Siebel of Siebel Systems. Subsequent to the sale, Tom managed C3 Energy's utility business as senior vice president and general manager of C3 residential and small and medium business division. Tom is a trained lawyer and has previously held roles with the law firm of Davis Polk & Wardwell and the Office of the Governor of New York. He earned his B.A. and M.A. from Harvard University and his J.D. from Yale Law School.

Skye Schell (U.S. Department of Energy)

Skye Schell serves as team leader for the U.S. Department of Energy (DOE) Federal Energy Management Program (FEMP) Project Transaction Services group. He has worked at FEMP since 2001. Prior to joining DOE, he served in a variety of capacities at Freddie Mac, a Virginia-based national financial services firm. Skye also served as vice president for secondary marketing and product development for a Dallas-based mortgage company and was the director of government agency relations for a trade association in Washington. He has a bachelor's degree in economics from the State University of New York at Albany and a master of planning degree from the School of Architecture at the University of Virginia.

Kevin Schneider (Pacific Northwest National Laboratory)

Kevin P. Schneider is currently a principal research engineer at Pacific Northwest National Laboratory, working at the Battelle Seattle Research Center in Seattle, Washington. He is also an adjunct faculty member at Washington State University and an affiliate assistant professor at the University of Washington. His main areas of research are distribution system analysis and power system operations. He is currently a senior member of the Institute of Electrical and Electronics Engineers (IEEE); secretary of the Power System Analysis, Computing and Economics Committee (PSACE); and past chair of the Distribution System Analysis Sub-Committee. Kevin received his B.S. degree in physics and his M.S. and Ph.D. degrees in electrical engineering from the University of Washington. He is a licensed professional engineer in Washington State.

Sandrine Schultz (U.S. Navy)

As the Navy Installations Command energy program manager, Sandrine Schultz works to heighten energy awareness, improve energy efficiency, and meet the Secretary of the Navy's energy goals through smart investments. Sandrine approved and funded 147 energy and water projects implemented in FY 2012 that resulted in energy and water cost avoidance totaling more than \$89.1 million. She also directed six energy third-party-financed energy projects that are saving the Navy an additional \$13.6 million annually. Sandrine established innovative tools such as the Navy Shore Geospatial Energy Module, a geospatial solution designed to inform Navy Shore Energy investment decisions, and the Energy Return on Investments tool, which



analyzes all energy initiatives to ensure that accurate return on investment (ROI) data are used to inform investments of limited program resources. She is committed to integrating energy across all operational areas. Her contributions to the development of Navy-wide energy implementation plans have been instrumental in the institutionalization of Navy policy, strategy, and energy efficiency.

Chandra Shah (NREL)

Ms. Shah is a Senior Project Leader with the National Renewable Energy Laboratory. She has supported the FEMP program since 1998 and currently assists federal agencies with renewable energy purchases. She holds an MBA from the University of Washington and a Bachelor of Science in Mechanical Engineering from the University of Michigan.

Zach Shelin (Cadmus Group)

Zach Shelin supports the ENERGY STAR® program by providing technical support and training to both end users and service providers who utilize ENERGY STAR tools and resources. Zach gives users specialized guidance on the Portfolio Manager tool and its associated web services, helping users to understand the tool's metrics calculation, sharing, and data quality assurance features. He has developed and presented widely attended trainings and presentations on ENERGY STAR tools and resources.

John Shonder (U.S. Department of Energy)

John Shonder is the new director of the U.S. Department of Energy's (DOE's) Sustainability Performance Office. He has devoted his career to the design, implementation, and evaluation of policies and programs to improve the sustainability of federal facilities by reducing energy and water use and increasing the use of renewables. Previously, John was the Oak Ridge National Laboratory's program manager for support to the Federal Energy Management Program, where he managed efforts to increase the value of performance-based contracts to federal agencies. He holds B.S. and M.S. degrees in engineering from the University of Illinois at Urbana-Champaign.

Lisa Shulock (Penn State University)

Lisa Shulock is a research project manager at Penn State's Consortium for Building Energy Innovation (CBEI), which is focused on dramatically reducing energy consumption in the small-and medium-sized commercial buildings sector. She is an experienced leader with senior management, consulting, business and strategic planning, project management, and start-up expertise. Lisa has the LEED® Accredited Professional Operations and Maintenance credential, awarded by the U.S. Green Building Council, which distinguishes professionals implementing



sustainable practices, improving performance, heightening efficiency, and reducing environmental impacts in existing buildings through enhanced operations and maintenance. Throughout her 18 months at CBEI, she has managed multiple projects related to increasing building energy efficiency and strengthening the workforce needed to manage energy efficient buildings.

Dee Siegel (Council on Environmental Quality)

Dee Siegel is the Associate Chief Sustainability Officer at the Council on Environmental Quality, where she works with Federal agencies, White House offices, and stakeholders to promote sustainability across Federal government operations. She has more than 10 years of experience in sustainability and corporate responsibility in both the public and private sectors. She joined CEQ in 2014 as Senior Program Manager and supported the development of Executive Order 13693 and the Implementing Instructions, led outreach to Federal suppliers to reduce their greenhouse gas emissions, and helped create the first Federal supplier scorecard. Prior to joining CEQ, she developed and managed sustainability programs at the Office of Personnel Management and the U.S. Peace Corps. Ms. Siegel was previously a consultant providing sustainability strategy and communications advice to corporate clients, including Fortune 500 companies. She also served as a Peace Corps volunteer in Guatemala and a country program officer at Peace Corps headquarters in Washington, D.C. She has an MBA from Yale School of Management and a bachelor's degree in international relations from Boston University.

Jason Sielcken (U.S. General Services Administration)

Jason S. Sielcken has been a project manager with the U.S. General Services Administration (GSA) since 2009. He has over 14 years of experience in the design and construction industry. Recently, Jason served as the senior project manager responsible for overall project control and delivery of the award-winning Wayne N. Aspinall Federal Building and U.S. Courthouse Modernization Project in Grand Junction, Colorado. This historic structure is now considered one of the most energy efficient office buildings in the country. Prior to joining the GSA, he managed historic preservation and deep energy retrofit projects throughout the New York metropolitan area. Jason studied architecture at the University of Colorado in Boulder and the University of Pennsylvania.

Margaret Simmons (U.S. Army Corps of Engineers)

Margaret Simmons began working for the U.S. Army Corps of Engineers in April 1985. She started as a real estate attorney with the Nashville District, leaving in 1991 when she was selected to be the primary environmental attorney and labor counselor in the Office of Counsel at the Huntsville Division (which became the U.S. Army Engineering and Support Center,



Huntsville, in 1995). Margaret provided support to the Formerly-Used Defense Site (FUDS) Program as the focus shifted to munitions response. She contributed to the establishment of the policy and program guidance for execution of FUDS munitions projects. In 1993, she began to work on the Shared Energy Savings Program, which was transitioning to the Energy Savings Performance Contracting (ESPC) program. She was involved with the award of the first set of nationwide contracts to do ESPC in 1996/1997.

In July 2003, Margaret was selected as the counsel for Huntsville Center, responsible for providing all legal services required to support execution of Huntsville Center missions, which span the globe and include over 40 programs. She is the designated agency ethics official for the Huntsville Center. The Center's programs range from demining in Afghanistan to third-party-financed renewable energy projects for the Army to purchase of barracks furniture for soldiers worldwide. Huntsville Center has executed contracts totaling more than \$1 billion each year since 2009. She supervises and depends on a staff of seven attorneys, one paralegal and one secretary.

Margaret received her bachelor of science in education from the University of Tennessee (UT), Knoxville. She received her doctor of jurisprudence degree from UT Knoxville and was admitted to the Tennessee bar in 1980.

Bob Slattery (Oak Ridge National Laboratory)

Bob Slattery is a program manager in Oak Ridge National Laboratory's (ORNL's) Residential, Commercial and Industrial Energy Efficiency group. He currently supports the U.S. Department of Energy's (DOE's) Federal Energy Management Program (FEMP) and the Energy Savings Performance Contracting (ESPC) program through engineering and economic analysis of building energy efficiency and renewable energy projects.

Prior to his position at ORNL, Bob was a senior engineer with Sentech Inc., a clean energy and energy efficiency consulting firm. As a member of Sentech's renewable energy technologies team, he provided technical and analytical support for solar technology program activity within DOE and ORNL. In addition, he supported the technical review and commissioning of renewable technology deployments within the U.S. Department of Veterans Affairs.

Bob is an engineer with 20 years' experience that includes materials and product development, manufacturing, and technology deployment. He holds a bachelor's degree in mechanical engineering from Villanova University and a master's degree in engineering and technology management from Santa Clara University.



Randy Smidt (U.S. Army)

Randy Smidt serves as the Program Manager for Alternative Financing at Headquarters Department of Army in the Office of the Assistant Chief of Staff for Installation Management. In this role he covers both UESC and ESPC at a time when both programs are rapidly expanding. Mr. Smidt has 25 years of experience in energy engineering, working as a consultant to utilities, ESCOs, and federal clients, before becoming the energy manager at Fort Belvoir and later moving to Army HQ.

Philip Smith (Honeywell)

Philip Smith is a senior business consultant for Honeywell. He has been developing and implementing several comprehensive energy savings performance contract (ESPC) projects for the federal government as well as other public and private institutions since 1998. The total construction value associated with these energy conservation projects is over \$350 million, and they generate nearly \$43 million in annual energy savings and maintenance cost avoidance. Prior to joining Honeywell, Philip garnered 25 years of experience as an officer in the U.S. Army Corps of Engineers, culminating with nearly 7 years as director of public works at two major Army installations. His division was responsible for all aspects of engineering design, construction, facility maintenance and repair, utilities, housing operations, and environmental programs.

Philip holds a B.S. from the United States Military Academy and an MBA from National University. He is a registered professional engineer, a Certified Energy Manager®, a Certified Energy Procurement Professional®, and a LEED® Accredited Professional. He is a member of ASHRAE, the Society of American Military Engineers (SAME), and the Association of Energy Engineers (AEE). Philip currently serves as vice chair for education on the SAME National Facilities Asset Management Committee. He was named AEE Region II Energy Engineer of the Year in 2005.

Amy Solana (Pacific Northwest National Laboratory)

Amy Solana has been with Pacific Northwest National Laboratory (PNNL) since 2002 and has been located in the Portland office since 2004. She works primarily with the U.S. Department of Defense (DOD), analyzing potential for renewable energy and efficiency opportunities. She specializes in biomass and waste energy generation, as well as building auditing and modeling, using the Facility Energy Decision System (FEDS) building energy modeling tool. Current work involves technical and economic analyses, on-site audits, project feasibility assessments, and project recommendation and implementation. Amy is leading several studies to implement biomass and waste energy plants on various DOD sites. She is also working with DOD and the commercial sector to create building energy models and make energy efficiency improvement recommendations. Amy also has experience with water efficiency; green building research and



design, including greening construction specifications; utility energy service contracts (UESCs) and other efficiency project funding mechanisms; and emerging technologies.

Robert Somers (2rw Consultants, Inc.)

Robert Somers is the co-founder and president of 2rw Consultants, Inc. A professional engineer registered in 14 states, he is the principal responsible for the firm's energy services. Bob has worked in the energy field for 36 years and has led teams of architects and engineers in the administration of evaluation, design, commissioning, and construction of comprehensive engineering projects for clients throughout the United States. Bob has an extensive background in analysis and design of mechanical and electrical systems to reduce energy consumption and costs. Bob is a LEED® Accredited Professional in Building Design + Construction. He received Bachelor of Science and Master of Science degrees in mechanical engineering from Pennsylvania State University and a Ph.D. in mechanical engineering from the University of Virginia.

Kay Sommerkamp (U.S. Army Corps of Engineers)

Kay Sommerkamp is a retired Army Judge Advocate General (JAG) colonel who currently works as an attorney advisor at the Corps of Engineers, Huntsville Engineering and Support Center. She currently supports several energy programs, including Power Purchase Agreements and Energy Savings Performance Contracting (ESPC). Highlights of her military career include prosecuting and defending cases before courts martial, teaching contract and fiscal law at the Judge Advocate General's School, serving as the contract law advisor for the Coalition Provisional Authority in Baghdad, Iraq, and serving in various leadership positions including as the staff judge advocate at White Sands Missile Range and at the Army Aviation and Missile Command. Kay has served on many successful teams in her eight years at the Huntsville Center. Her education includes a Bachelor of Arts degree from the University of Virginia, a J.D. from the University of Richmond, and a master of laws degree from the Judge Advocate General's School.

Robert St. Thomas (IBM)

Mr. St. Thomas is a Smarter Planet Solution Development Executive for IBM Global Business Services. He has 41 years of experience in the business of Government: in wholesale logistics performance assessment, strategic planning, supply chain integration, and process reengineering. Operationally, he has extensive experience with global deployment activities where he specialized in readiness and performance analysis. He has led numerous public sector projects to assist in asset lifeycle cost management, develop strategic material sourcing programs, and implement balanced scorecard strategies. He is currently focused on enterprise



transformation projects and the application of "Smarter" technologies to improve the environment and reduce costs of operating/sustaining Federal facilities, hospitals, and Research Labs by instrumenting, interconnecting and analyzing various asset classes.

Christopher Steuer (ICF International)

Chris Steuer is a greenhouse gas (GHG) emissions inventory expert. He focuses on estimating and mitigating GHG emissions and designing and implementing solutions for federal agencies and corporations. ICF International's technical lead for the National Park Service Climate Friendly Parks Program, he also supports the U.S. Capitol, the Bureau of Land Management, and the U.S. Fish and Wildlife Service. He assists the U.S. Environmental Protection Agency (EPA) in preparing GHG reporting methodologies and assessing the economic impact of GHG regulation on industrial sectors. Chris has a B.S. in physical science and an M.S. in geography from Pennsylvania State University. As a student, he prepared the country's first decadal GHG emission inventory and projection for a university.

Ron Stewart (Idaho National Laboratory)

Ron Stewart is project manager for the Federal Automotive Statistical Tool (FAST), the web-based compliance reporting tool managed by the U.S. Department of Energy (DOE), the U.S. General Services Administration (GSA), and the Energy Information Administration (EIA) to collect information about the federal government's fleet of motor vehicles. Ron works for Idaho National Laboratory and has over 30 years of experience as a software engineer, project manager, and web-based application developer in a variety of subject matter areas.

Kate McMordie Stoughton (Pacific Northwest National Laboratory)

Kate McMordie Stoughton is a water efficiency engineer with Pacific Northwest National Laboratory (PNNL), specializing in federal water management. She currently leads the water efficiency team for PNNL. Her work includes the development of strategic plans for water management at federal sites, federal policy guidance in water management, and development and instruction of water management training. Kate also has expansive knowledge on developing comprehensive facility-level water assessments, identifying implementation strategies for water conservation and efficiency. She provides water management expertise to federal programs such as the Federal Energy Management Program's water use reduction efforts, the Sustainability Performance Office, Army, and the U.S. General Services Administration. Kate holds a B.S. in civil engineering from the University of Colorado.



Elizabeth Stuart (Lawrence Berkeley National Laboratory)

Elizabeth Stuart is a principal research associate in the Electricity Markets and Policy Group at Lawrence Berkeley National Laboratory (LBNL). Liz conducts research and analysis on a range of policy and program issues related to energy efficiency and demand response, including energy services company (ESCO) industry and market trends; evaluation, measurement and verification of energy efficiency and demand response programs; and technical assistance to states on energy efficiency programs. Liz also provides technical assistance to federal facilities on incentives for financing energy efficiency, renewable, and demand response projects under the auspices of the U.S. Department of Energy's Federal Energy Management Program (FEMP).

Liz has been co-author or lead author on eight LBNL reports and policy briefs whose topics include ratepayer-funded and Recovery Act-funded energy efficiency programs and policies, the energy efficiency services sector workforce, and energy efficiency and green building labeling. Liz serves on the Evaluation and Behavior Committees of the Consortium for Energy Efficiency and is a member of Women's Council on Energy and the Environment. Prior to joining LBNL in June of 2009, Liz garnered over 13 years' experience as a project and department manager in the entertainment software industry, worked in the City of Berkeley Mayor's office on the Berkeley FIRST solar financing program, and consulted for the Environmental Defense Fund's Climate Corps corporate energy efficiency program.

Liz holds a master of business administration in sustainable management from Presidio Graduate School in San Francisco and a bachelor's degree in radio/TV/film from the University of Arizona.

Danny Taasevigen (Pacific Northwest National Laboratory)

Danny Taasevigen is a mechanical engineer and building energy system analyst with Pacific Northwest National Laboratory (PNNL) and is part of the Advanced Building Controls team. He has been with PNNL for five years and has primarily focused on the following projects: commercial building Targeted Energy Efficiency Expert Evaluations (Targeted E4), comprehensive energy and water audits (and controls), fault detection and diagnostics (FDD) in commercial building packaged equipment, whole building energy, and building automation system data analysis. Danny has his bachelor's and master's degrees in mechanical engineering from Montana State University. His thesis focused on renewable energy sources for residential and commercial boilers.

Nate Taylor (SoCalGas)

Nate Taylor is a Project Manager at SoCalGas where he is focused on new business development in the areas of Natural Gas Vehicles, biogas, and Renewable Natural Gas. In Nate's



former role at San Diego Gas & Electric he specialized in Energy Efficiency (EE) and Demand Response (DR) for the Emerging Technologies Program, managing the analysis of new and underutilized technologies through assessments, market behavior studies, scaled field placements, technology development support, and business incubation. Previously Nate worked as a Distribution Operations Engineer designing and managing the construction of utility infrastructure. Nate has a B.S. in Mechanical Engineering from the University of California, San Diego.

Walter Tersch (U.S. General Services Administration)

Walter Tersch tracks federal construction and modernization projects' sustainability aspects, including scope details, performance goals, and compliance. He holds a J.D. in environmental and energy law from Chicago—Kent College of Law. Since completing the two-year Presidential Management Fellows program in 2011, Walter has worked as a program analyst in the U.S. General Services Administration's Office of Design and Construction. He previously served the U.S. Department of Energy, the U.S. Environmental Protection Agency, the Illinois Attorney General's Office, and the City of Chicago. Walter is a LEED® Accredited Professional.

Karen Thomas (National Renewable Energy Laboratory)

Karen Thomas serves as the national laboratory lead for the U.S. Department of Energy's Federal Energy Management Program's (FEMP's) Utility Energy Services Contracting (UESC) program team. She also provides technical support to energy efficiency and renewable energy projects for federal agencies and utilities (nationwide) to implement energy and dollar saving projects in federal facilities. She is the lead instructor for FEMP's UESC workshops and provides technical support to federal acquisition teams. An additional aspect of her lead role is growing the number of utilities providing UESC through strategic partnership building with key utilities and leveraging private sector investment (approximately \$200 million annually) in federal energy projects. Karen serves on the Federal Utility Partnership Working Group Steering Committee. She also served as FEMP's project manager for the Renewable Energy sections of President Obama's Memorandum "Federal Leadership on Energy Management."

Karen is a recipient of the Federal Energy and Water Management Award and the Presidential Award for Leadership in Federal Energy Management.

Chris Tindal (U.S. Navy)

Chris Tindal is the director for operational energy working for Office of the Deputy Assistant Secretary of the Navy for Energy. In this position, he is in charge of setting energy policy and direction for the Department of the Navy (DON) and promoting adoption of alternative fuels and renewable energy resources. Additionally, he is developing intergovernmental,



international, and industry relationships throughout the energy field. Chris is the Navy leader of the Alternative Fuels Initiative (a collaboration of DON, the U.S. Department of Energy, and the U.S. Department of Agriculture). This initiative is developing programs to launch the advanced biofuels industry. Chris is also leading the Great Green Fleet effort and is striving to have 50% of the DON's energy originate from alternative sources by 2020. He firmly believes that changing behaviors toward energy is a key element to achieving the Navy's energy efficiency goals.

Paul Torcellini (National Renewable Energy Laboratory)

Paul is the principal engineer for the Commercial Buildings Research Group and has been at the National Renewable Energy Laboratory (NREL) for 19 years. Prior to this role, he was the group manager for the Commercial Buildings Research team. He also spent 3 years as a technical advisor to the U.S. Department of Energy in Washington, DC. Paul played an instrumental role in creating the process to achieve zero energy building status for NREL's Research Support Facility. He has authored or co-authored more than 50 papers and articles related to energy efficiency and zero energy commercial buildings. Among his many awards, Paul has received two ASHRAE Technology Awards for his energy efficient buildings work and two *Energy User News* magazine's Efficient Building Awards. He has been key in the development of the *Advanced Energy Design Guide* series from ASHRAE and has chaired development of the guides for K-12 schools and grocery stores. He has also been an adjunct faculty member at Colorado School of Mines and the University of Denver. He is a registered professional engineer.

Chris Tremper (U.S. Department of Energy)

Chris Tremper has 28 years of experience providing analytical support to the U.S. Department of Energy's Federal Energy Management Program (FEMP). From 1990 to 2008, he managed multiple energy analysis contracts supporting FEMP, the U.S. Department of Agriculture, the U.S. Department of Homeland Security, and the U.S. Forest Service. He has developed and implemented energy data reporting protocols that have endured for more than a generation, accommodating with ease the evolving needs and changing policy goals during that time. Chris joined FEMP as a federal government employee in 2008. Most recently, he provided key data and analytical support to the White House Council on Environmental Quality to help frame new federal goals and assisted agencies in revising greenhouse gas reduction (GHG) targets under Executive Order 13693. Chris has a bachelor's degree from Wittenberg University, Springfield, Ohio.

Scott Trottier (Northrup Grumman)

Scott Trottier is an energy engineering manager currently supporting the Defense Logistics Agency's Energy Facility Energy Program in procuring energy efficient, renewable, and



sustainable goods and services. In this role, Scott assists the U.S. Department of Defense with comprehensive energy solutions delivered through energy savings performance contracts, utility energy service contracts, and renewable energy service agreements. Support encompasses all aspects of the projects including initial development, solicitation, evaluation, implementation, and measurement and verification. Scott has Master's and Bachelor's degrees in mechanical engineering from the University of Wisconsin, Milwaukee. He is a professional engineer and a Certified Energy Manager®.

John Trudell III (U.S. Army Corps of Engineers)

John Trudell is the Program Manager of the Energy Information Management program, Energy Division, Corps of Engineers. Huntsville, Alabama. He has worked for the government for over 24 years. He has held positions with the Environmental Protection Agency, the Army Reserves (environmental), the Army Chemical Materials Agency, and the Corps of Engineers (facility renovations, energy, and information management systems).

John Trujillo (City of Phoenix)

With 22 years of local government experience, John Trujillo is the Director for the Public Works Department for the city of Phoenix, the 5th largest city in the nation. John oversees a \$250 million operating budget and over 1,000 employees and provides leadership of all major programs and operations including facilities maintenance, energy, administration, fleet maintenance and solid waste. John holds a Bachelor of Science Degree in Civil Engineering from Northern Arizona University and currently serves as the chair of the National American Public Works Association (APWA) Solid Waste Committee.

Jay Tulley (U.S. Army Garrison, Presidio of Monterey)

Since 2010, Jay Tulley has been the energy manager for directorate of public works at the U.S. Army Garrison, Presidio of Monterey. In this role, he has overseen the energy and water programs, with savings at the Presidio of over \$1.5 million and total energy reductions of 21% during that time. Based on this success and specific initiatives in retro-commissioning and targeted energy conservation at their barracks, the Presidio of Monterey energy team received the Secretary of the Army Energy Award in 2013 and 2014.

Mike Van Dam (Defense Logistics Agency)

Michael Van Dam is the program manager for energy efficiency and advanced utility metering at the Defense Logistics Agency (DLA). He is responsible for development, coordination, and implementation of DLA's energy efficiency and advanced metering programs. Michael joined DLA Installation Support's energy management team in 2010. Prior to this position, he worked



for Orbital Sciences Corporation in Chandler, Arizona, designing, building and launching rockets for the U.S. Department of Defense, NASA, and commercial missions. Michael earned his B.S. in mechanical engineering at Brigham Young University and is a Certified Energy Manager®.

Otto Van Geet (National Renewable Energy Laboratory)

Otto Van Geet is a senior engineer at the National Renewable Energy Laboratory (NREL) and supports the Federal Energy Management Program. Prior to this assignment, Otto was the senior mechanical engineer in the Site Operations group at the National Renewable Energy Laboratory and a mechanical engineer at Sandia National Laboratories. He has been involved in the design, construction, and operation of energy efficient research facilities such as laboratories and data centers, as well as office and general use facilities. Otto was one of the founding members of the Labs21 program and provides technical guidance for the program. His experience also includes renewables screening and assessment, passive solar building design, use of design tools, photovoltaic (PV) system design for on- and off-grid applications, energy audits, and minimizing energy use and greenhouse gas generation for buildings and communities.

Otto has authored many technical reports and conference papers and has been recognized with many awards from professional associations, including the 2007 Presidential Award for Leadership in Federal Energy Management. His is a professional engineer, LEED® Accredited Professional, Certified Energy Manager®, and a Project Management Professional®. He received a B.S. degree in mechanical engineering from the University of New Mexico and an A.A.S. degree in air conditioning technology from the State University of New York.

Greg Vallery (Fort Hunter Liggett)

Greg Vallery is the Department of Public Works engineering chief at Fort Hunter Liggett (FHL), California. FHL currently has a 3 MW photovoltaic (PV) array and 1 MWh battery. Net zero planning will require up to 9 MW of PV and a total of 16 MWh of energy storage. Before joining FHL, Greg was engineering division chief at U.S. Army Garrison Vicenza, Directorate of Public Works, where the Army's most sophisticated microgrid is currently located. U.S. Army Garrison Vicenza relies on combined heat and power and PV for on-site generation.

Maria Vargas (U.S. Department of Energy)

Maria Vargas is the director of the Better Buildings Challenge at the U.S. Department of Energy (DOE). She also serves as a senior program advisor in the DOE Office of Energy Efficiency and Renewable Energy. Prior to her work at DOE, Maria served the U.S. Environmental Protection Agency for more than 15 years as the brand manager for the ENERGY STAR® program. She has



been involved in policy work on the issues of ozone depletion, global climate change, and related environmental and energy issues since 1985.

Maria received a bachelor's degree in political science and economics from Swarthmore College in Pennsylvania and a master's degree in public affairs and urban and regional planning from the University of Oregon.

Kevin Vaughn (Schneider Electric)

Kevin Vaughn is the program director for Schneider Electric's Federal Energy Solutions business. In this capacity, he leads the business development and implementation of Schneider Electric's Federal Energy Savings Performance Contracting program. Kevin has over 25 years of energy-related experience in the areas of engineering, construction management, and sales management. He has earned a degree in physics from DePauw University and a degree in mechanical engineering from North Carolina State University, as well as an MBA in finance and marketing from the University of Chicago.

Peter Virag (Weston Solutions, Inc.)

Pete Virag is a Certified Energy Auditor (CEA[™]) and technical leader for energy services at Weston Solutions in West Chester, Pennsylvania. He has been with Weston for 29 years. Peter has conducted energy audits of facilities in the United States and Europe. He recently led Weston's advanced meter program for the U.S. Navy and the Environmental Security Technology Certification Program (ESTCP) demonstration project at Naval District Washington for Demand Response and Demand Peak Reduction though advanced metering infrastructure (AMI) and building automation system (BAS) integration. Prior to Weston, Peter was on both active and reserve duty with the U.S. Air Force. He received his B.S in meteorology from Rutgers University.

Butch Wallace (Sain Engineering Associates, Inc.)

Butch joined Sain Engineering Associates, Inc. (SEA) in 2011 after retiring from the Air National Guard with over 9 years as a base civil engineer and over 16 years' experience as a federal energy manager. Butch's experience covers all areas of energy management, including energy intensity reduction, alternative technologies, and federal and alternative financing of energy projects. As a base civil engineer, he supervised over 100 personnel to ensure installation support services were provided with little or no downtime. He also successfully achieved federally mandated energy reduction goals, managing facility and utility budgets over \$5 million annually.



Butch is a registered professional engineer, a Certified Energy Manager®, and a Certified Measurement and Verification Professional (CMVP®). He has a Bachelor of Science degree in electrical engineering from the University of Alabama and a Master of Science degree in engineering management from the University of New Orleans. Butch is a member of the Association of Energy Engineers (AEE), the Efficiency Valuation Organization (EVO), the Society of American Military Engineers (SAME), and the Air National Guard Civil Engineers Association. He also volunteers with For Inspiration and Recognition of Science and Technology (FIRST).

Martin Weiland (U.S. General Services Administration)

Martin Weiland manages the PBS-P100, "Facilities Standards for the Public Buildings Service," for the Office of Design and Construction at the U.S. General Services Administration (GSA). The P100 is a multi-tiered performance-based standard used for all significant construction, modernization, and repair and alteration in GSA-owned facilities. Before GSA, Martin managed government outreach and grant seeking for ASHRAE, directed facilities management for a county government, managed energy management and building automation for Georgetown University, and designed HVAC and plumbing systems for an architectural—engineering firm. Martin is a professional engineer.

Mike West (Advantek)

Michael West is the founder and principal of Advantek (www.advantekinc.com). Prior to founding the company in 1997, his work included 7 years of research and development experience in advanced HVAC technology at the University of Florida. Mike has presented several webinars in which he encapsulates the results of research and practical experience and delivers the information for HVAC designers to apply directly to their commercial and institutional building projects. This includes a dedicated outdoor air system webinar in which he provided rich feedback as to the actual questions and concerns of practicing engineers. A longstanding member of the HPAC Engineering editorial advisory board, Mike has also published several articles for the practicing HVAC designer and hands-on facility manager, including "Low-Cost Dedicated Outdoor Air Systems" and "Specifying High-Performance Rooftop Units." Mike earned a doctorate in mechanical engineering/thermal science, is a practicing professional engineer, and holds EPA 608 Types I, II, and III refrigerant technician certifications.

Francis Wheeler (Water Savers, LLC)

Francis Wheeler is the president and chief operating officer of Water Savers, LLC. He has a broad range of water experience, including over a decade's involvement with water efficiency design build performance contracting, and is active within several trade associations. Francis is



frequently invited to speak on water efficiency topics, ranging from the performance contracting cycle to savings potential within hospitals. He plays a key role in the design and implementation of water efficiency programs. Prior to Water Savers, Francis was a chief of information and personnel security at U.S. Marine Corps headquarters. He has also served as a vice president for Water Management, Inc. and for H₂O Applied Technologies and worked for Johnson Controls within the healthcare solutions business. Francis attended the University of Maryland.

Mark "Dusty" Wheeler (Honeywell)

Mark "Dusty" Wheeler is a senior solution development engineer with Honeywell's federal systems group. He has nearly 20 years' experience in the analysis, development, and implementation of energy projects. He is a member of ASHRAE guideline committee GPC1.2 Existing Building Commissioning and TC 7.6 Building Energy Performance. A professional engineer, Dusty has also achieved certifications as a Building Energy Modeling Professional (BEMP), Certified Energy Manager® (CEM®), and Qualified Commissioning Professional (QCP).

Dave Wilkinson (Naval Facilities Engineering and Expeditionary Warfare Center)

Based in Southern California, Dave Wilkinson has been with the Ocean Engineering Department of the Naval Facilities Engineering and Expeditionary Warfare Center (EXWC) since 2009. As an ocean engineer, he has been involved in renewable ocean energy projects with a focus on seawater air conditioning (SWAC), offshore wind, and ocean thermal energy conversion (OTEC). Dave has conducted a worldwide assessment for SWAC for the U.S. Navy and Marine Corps with detailed technical and economic assessments of the top 6 facilities. Dave has an M.S. in ocean and resource engineering from the University of Hawaii and a B.S. in ocean engineering from Florida Atlantic University. Before becoming an ocean engineer, Dave was a U.S. Navy diver, working for the government on various underwater projects around the world.

Paul Wirt (U.S. Army Reserve)

Paul Wirt is the sustainability programs branch chief for the Army Reserve Installation Management Directorate. He is responsible for sustainability initiatives; energy, water, and waste net zero programs; and environmental policy and planning. Paul graduated with a B.S. in construction from Virginia Tech as a Distinguished Military Graduate. Injured during Operation Desert Storm and medically retired from the military as a captain, Paul joined the Department of Public Works at Fort Bragg. There he received numerous awards, including three Secretary of the Army Awards, two White House Closing the Circle Awards, and the Installation Management Command's Support Executive of the Year.



Scott Wolf (Oak Ridge National Laboratory)

Scott Wolf is a federal project executive at Oak Ridge National Laboratory, where he supports the U.S. Department of Energy Federal Energy Management Program. He assists federal agencies in the western part of the country with launching successful third-party-financed projects and has worked with most federal agencies in the field. Scott has 30 years of energy technology and engineering experience, including performing technical analysis and energy program development in the government sector.

Amy K. Wolfe (Oak Ridge National Laboratory)

Amy Wolfe has worked at Oak Ridge National Laboratory (ORNL) for nearly 30 years. She is a distinguished research and development staff member and leads both the Society–Technology Interactions Science Team and the Interim Renewable Energy Systems Group. Her work emphasizes social, institutional, and behavioral aspects of a wide array of society–technology interactions. She is a founding member of the Federal Energy Management Program's Institutional Change team, which focuses on behavioral and institutional change to achieve lasting sustainability goals. Amy received her Ph.D. in anthropology from the University of Pennsylvania.

Jim Woodward (Pacific Northwest National Laboratory)

Jim Woodward came to the Pacific Northwest National Laboratory's (PNNL's) Building Energy Systems group in November 2013 and has enjoyed supporting comprehensive energy and water evaluations (CEWEs) for the Deputy Assistant Secretary of the Army (DASA). Jim's DASA CEWE work has involved on-site energy and water assessments of U.S. Army installations totaling more than 20 million square feet as well as integrated energy modeling and reporting, which assists DASA in meeting a wide array of federal energy and water mandates. Jim also supports the advanced building controls team undertaking data-driven, targeted energy efficiency evaluations of U.S. General Services Administration (GSA) facilities totaling more than 500,000 square feet.

In addition to his project work, Jim is developing a network of peers and clients across PNNL through his participation on a variety of laboratory-wide initiatives. Before PNNL, Jim acquired six years of industry experience in energy engineering, energy resource planning, power and utilities (P&U) risk modeling, and sustainability project financing and development. He has overseen energy management and sustainability work streams in both the public and private sectors. He holds advanced degrees in energy resource management and policy analysis.



Alexander Zhivov (U.S. Army Corps of Engineers)

Alexander Zhivov is a senior researcher at the Engineer Research and Development Center Construction Engineering Research Laboratory. His current projects promote improved energy efficiencies, better strategic implementation of new building technologies, improved HVAC systems and controls, distributed generation technologies, renewable energy technologies, modernized heating plants, improved building commissioning processes, and modeling/analysis tools for installation operations. He has been an operating agent (project manager) for the International Energy Agency (IEA) Energy in Buildings and Communities Programme (ECBCS) Project Annex 46 "Holistic Assessment Toolkit on Energy Efficient Retrofit Measures for Government Buildings"; a co-operating agent for the IEA ECBCS Annex 61 "Development and Demonstration of Financial and Technical Concepts for Deep Energy Retrofits of Government/Public Buildings and Building Clusters"; technical lead of the project "Modeling Net Zero Energy (NZE) Installations"; and a project manager of the Environmental Security Technology Certification Program (ESTCP) project "Demonstrate Energy Component of the Installation Master Plan using 'Net Zero Planner'."

Alexander has been an active member in ASHRAE at the national and international levels since 1989 and received the 2011 ASHRAE Distinguished Service Award and the Exceptional Service Award. He has authored more than 200 publications and contributes to ventilation guides and energy standards. Alexander holds a Ph.D. degree in mechanical engineering from Central Research and Experimental Design Institute for Industrial Buildings, Moscow, and the Research Institute for Labor Protection, Leningrad, and an MBA degree from University of Illinois at Urbana-Champaign.