2019 BOARD OF DIRECTORS ELECTION CANDIDATE PROFILES

Julie Blunden
Executive Vice President of Business Development
EVgo

Over the course of more than 30 years in the power sector, I have had the honor of working at the leading edge of four stages of transformation in the sector. At AES, I was directly involved in building cogeneration power plants under PURPA, creating the first wave of competition in generation. Later, after business school, I worked on AES' global expansion including M&A globally. In 1997, I moved to Green Mountain Power and was one of 35 founders who spun off Green Mountain Energy Company, the first retail power supplier to offer renewable energy, first in California, and then in competitive retail markets across the East and in Texas. I ran the California business as the Western Regional President of Green Mountain Energy, developing the first wholesale and retail REC contracts in the world, participating in the development of the Green-e certification standard, and leading the team through the California Energy Crisis. After the demise of competitive retail markets in California, I moved to KEMA/Xenergy where I led work in renewables, retail competition and rate design. The California Energy Commission was a key client for whom I led a 10-company team supporting all technical consulting for their renewable energy program. In that capacity I was seconded by the CEC to CalEPA to develop Governor Schwarzenegger's Million Solar Homes program. Moving to SunPower Corp. as an EVP, we built the company from less than $25 MM in revenue to $2 billion over 7 years. Before joining EVgo a year ago as EVP of Business Development, I also led global foundations, provided consulting to stationary storage companies, worked as an executive at SunEdison, and provided pro bono consulting in the EV sector.

The energy storage sector has turned the corner and become a critical element of new resource planning both at the central station and distributed scale. ESA’s strategic plan anticipates our organization representing the full range of storage activity in both electricity markets and the rapidly transforming transportation markets. Storage is the enabling resource for optimization of conventional power plants, much higher levels of renewable penetration for central station and distributed, resilience purposes not contemplated a decade ago, and most recently, the transportation sector. ESA is poised to seize the opportunity to become the glue between power industry stakeholders as well as transportation industry stakeholders. The intersection of power and transportation is now evident for companies like EVgo as we integrate storage into our fast charging network, the largest public fast charging network in the US currently serving customers in 34 states. ESA can be a leader accelerating both decarbonization of the power and transportation sectors.

Within 3 years, I see ESA growing by a factor of 2 in revenue and by a factor of 3 within 5 years. By extending ESA's reach within the power sector to those enabled by ES, including transportation, ESA will increase the diversity of its membership categories, companies and interests.

Over the last two decades I have served on a dozen boards, including a seven-year term on the SEIA Board, with a 2-year stint as Vice Chair. Trade groups are a critical vehicle for market growth during early market transformation. ESA has already made the transition from its original R&D focus to commercial business. With my long view on market transformation in the power sector from PURPA, to competitive wholesale and retail markets, to the solar industry, and then stationary and mobile storage, I bring an understanding of the opportunity and obstacles to true market transformation. I look forward to continuing to shape ESA's expansion into the transportation sector.

Kenneth Boyce
Principal Engineer Director, Energy & Power Technologies
UL LLC

I am a Corporate Fellow at UL LLC and also serve as Principal Engineer Director, Energy & Power Technologies, overseeing global standards development and technical operations for batteries and energy storage systems, electric vehicle and e-mobility systems, renewable energy technologies, advanced grid technology, Smart City infrastructure, and related systems. I am very active in the standards and code communities, Chairing NEC Code Panel 1 and the Solar Energy Industries Association Codes & Standards Working Group, developing global energy schemes, Chairing UL's Energy Council, and serving as an Industry Advisory Board member. My work with the DOE, National Laboratories, academic institutions and industry has advanced scientific knowledge and solutions in the energy sector, including leading several significant renewable energy research projects. I have decades of leadership experience in safety engineering, hold a Bachelor of Science in Electrical Engineering degree from the Illinois Institute of Technology, and am a Registered Professional Engineer. My extensive work in battery safety has led to rich engagement with ESA leadership, member companies and events, having presented at ESACon and coordinated UL engagement in other ESA events.

Our world simply must have energy storage, and the stakes are high for it to be done right. The ability for storage to complement renewable energy technologies, provide additional resiliency to the grid, and empower energy consumers all make storage essential. Because of this we must lead the way together to recognize the role of energy storage in securing our optimum energy future. I see ESA's role as critical for catalyzing the voice of the storage industry into a relevant, cogent strategy. In the next three years I see this including leadership in addressing issues in the dynamic expansion of energy storage across the residential, commercial and utility scale domains; working with key organizations to proactively address safety, integration into the infrastructure and emergency preparedness; building methods to objectively assess performance, reliability and durability which support educated decisions on technology, financing, and procurement; and enhancing processes to support effective life cycle management as more systems are deployed and age. As the storage industry itself matures, providing scalable solutions that can be readily adopted will be increasingly important, and standards and codes are critical accelerators for that scaling. Extending to five years, driving for continued storage penetration throughout North America will be important as more local energy policies transform the infrastructure. ESA must lead the way to successful storage deployment.

Throughout my professional career, I have been focused on several principles that I believe are directly relevant to work with the ESA Board of Directors. Purpose, through commitment to accomplishing important outcomes to make the world tangibly better and to serve people. Technical excellence, in supporting acceleration of new technologies through reasoned consideration and practical, proactive mitigation of risks so that the true benefits can be fully obtained. Collaboration, by engaging with people, listening to understand their views and find common ground, identifying what the challenges are that must be addressed, and working side by side to execute. Growth, to expand what I know, what I can do and how I can obtain the results that are needed. I am fortunate to be a leader in a Mission-driven company that allows me to embrace those principles every day, but what has been best is the ability to engage with like-minded people in our community and do important things well together with them. From my experiences with ESA, I see the ESA Board as a body of people who are excellent partners and whom I believe I can support with my skills. I am extremely passionate about a safe and clean energy future for our planet and its people, and believe I can be a positive contributor in the way the ESA Board works. I will bring commitment, a focus on solutions, a strong network of energy leaders, and a passion to help advance ESA and its members toward fulfilling its important Mission.

Javier Cavada
CEO
Highview Power

I joined Highview Power as CEO and President in September 2018 with the mission to drive the ambitious global expansion strategy for the company's proprietary cryogenic energy storage technology. I previously spent 17 years in leadership positions at Wärtsilä Corporation, one of the world's top three technology companies in the energy market. As president of Wärtsilä's energy division and member of the corporation's executive board, I led the company's push toward 100% renewables, spearheading a deep transformation that enabled the company to become a leading system integrator. Under my leadership, Wärtsilä's global market share in gas and liquid fuel power plants grew from 9% to 21%. My long career at Wärtsilä also included extensive international experience, including executive roles in China, Italy, the Netherlands, Spain and Finland. In combination with these executive roles, I chaired the board of Greensmith Energy Management Inc. I have also held leadership roles within the German multinational firm Robert Bosch in the fields of automotive technology and manufacturing. I hold a PhD in industrial engineering and, among other awards, have been recognized as a Distinguished Alumni by the University of Cantabria in Spain.

It is important for the Energy Storage Association to continue leading the conversation about the value and role of all energy storage technologies and promoting the industry as a key driver in grid modernization. In promoting the widespread use of competitive and reliable energy storage, the next 3-5 years will be a critical time for public policy advocacy in order to accelerate market growth. Helping to clear any regulatory hurdles and ensuring the energy storage industry is included in public policy decisions will enable a competitive market that is necessary to achieve the industry's goal of 35 GW by 2025. As energy markets transition from traditional sources of energy to renewable energy, it will be important for the ESA and its members to also educate legacy markets and utilities about the value of energy storage as a key component in their shift to new business models. Energy storage is a bridge to the energy transition.

By leveraging my many years of experience at Wartsila, I will be able to provide keen insights to the legacy energy markets and how to make the business case for energy storage and a shift to new business models. I am passionate about enabling the smooth transition to 100% renewables though a thriving energy storage industry. Specifically, I would like to lead the conversation about the need for long-duration energy storage.

Jacqueline DeRosa
Vice President Energy Storage Systems
Ameresco

As the Vice President of Energy Storage Systems, I am strategically driving energy storage project development opportunities for Ameresco, a leader in the distributed energy space. Prior to joining Ameresco, I was the Vice President of Emerging Technologies North America at Customized Energy Solutions (CES). Our team at CES was recognized by the ESA with the Outstanding Industry Achievement award in 2016.

I have been an ESA Board member for two years and I have actively dedicated my time to multiple committees and events. This history will be helpful to ensure collaboration and a smooth transition to a new set of Board members.

With over 30 years of experience in the electric power industry -- including working directly for both the California ISO and the Federal Energy Regulatory Commission -- I will continue to help guide the ESA as it grows its membership and broadens its impact both at the state and national level.

I have worked in the energy storage arena for over a decade. During this time, I have worked alongside technology providers, utilities, government entities, financial institutions, integrators, developers, and many types of customers. I have a sound understanding of the various storage technologies. My experience with energy storage spans geographical regions throughout the US and internationally. I understand electric power markets, rules, designs and regulations. I have an in-depth knowledge of capacity markets, demand response, interconnection requirements, energy and ancillary services markets, renewable integration, transmission planning and retail rate design.

I highlight these details because I bring to the ESA Board a wide spectrum of knowledge and a comprehensive understanding of our industry which is imperative when advocating for change. With its long history and diverse membership, ESA is well-positioned at both the national and state level to ensure that energy storage is placed on a level playing field with other technologies and solutions. By understanding the barriers to our industry and where broader changes are needed, I can provide the relevant input to the ESA Board and staff to help inform and prioritize ESA's efforts.

I have been an avid supporter and contributor to ESA since its inception. For example, I have conducted ~10 workshops at the ESA annual conferences aimed at providing up-to-date information about market rules and approaches for valuing energy storage. I have enthusiastically been a speaker at many ESA sponsored events, and I am a well-known speaker on energy storage topics at conferences globally. I've performed podcasts and have contributed to various publications and key industry reports that articulate the value of energy storage. I have contributed to state initiatives that have resulted in new policies that advance energy storage development. I am well-connected in the electric power industry, which can be leveraged to benefit ESA.

I envision a marketplace where energy storage is adopted as a commercially viable and cost-effective technology for a comprehensive set of applications. For this to happen, the market rules at both at the wholesale and retail levels will need to continue to advance to ensure storage is treated on a level playing field with other types of energy resources. I envision a future where energy storage solutions are commonplace -- where hybrid resources and aggregations become conventional approaches, transmission needs are served with energy storage, where distributed storage assets are fairly compensated for the multiple uses they provide, and peaking power needs are solved with energy storage solutions.

Kiran Kumaraswamy
Vice President of Market Applications
Fluence

I am the Vice President of Market Applications at Fluence. In this role, I manage a team of professionals that help customers identify applications that are attractive for energy storage development. As part of my responsibilities, I cover the globe in terms of developing and implementing Fluence's go to market strategies for key markets. My work involves implementing regulatory and policy solutions that create access to key markets. I am a frequent speaker at industry conferences on policy issues that impact energy storage and have testified at the U.S Congress and FERC on a range of subjects including wholesale market reforms and multiple use-cases for energy storage. I work closely with electricity industry stakeholders, NGO's, trade associations and state regulators to develop policy priorities and market action plans. Prior to joining Fluence, I worked as a Senior Manager in ICF International advising private sector clients on wholesale power market and transmission issues. I hold an MS in Electrical Engineering from University of Wisconsin, Madison and a BS in Electrical Engineering from the University of Madras, India.

Almost every commodity that we think of commonly has storage embedded in it. Whether it is natural gas, data or consumer goods - we have storage embedded in every aspect of the supply chain in these commodities. Electricity is the only place where we have struggled for 100+ years without high volumes of storage; with recent technological advancements occurring in batteries, we have an incredible opportunity to embed storage in every aspect of our electricity system. In my vision, I see energy storage at the grid level (in front of meter), in our homes (behind the meter), and in commercial, industrial locations. This is the way I see the future for our industry.

The US has a leadership position in terms of deploying energy storage technology; we have the opportunity to continue to be in the top spot. Clearing the market hurdles and providing direction, will help us move quickly and help us retain leadership position. In both peaking capacity and T&D applications I see significant value for storage that is still largely unrealized in the market. In my view, we are still at "*seeing the tip of iceberg*" stage in both these applications. Several utilities are now beginning to include storage in their Integrated Resource Planning (IRP) analyses; but this should increase multi-fold in the next 2 years. In a similar way, I envision the traditional T&D planning to change and fully include storage as a resource. If there is a more efficient way of solving the grid's needs using storage, it should be considered in that analysis**. Our job as being leaders in this industry is to help foster this type of change at the planning, policy and execution level across the country.**

In the last few years, I have played a key role in working with ESA to create the framework where energy storage technologies can participate in regional power markets. I have testified at FERC on this topic and strongly believe that my efforts in part contributed to the landmark energy storage order from FERC. I believe the next step for ESA is to break open the "storage as transmission" area. We are seeing early signs of success in markets like California, Massachusetts but also significant headwinds in markets like Texas. I would like to play a leadership role in helping clear this significant market hurdle for storage. Similarly, we need to rapidly get to a stage where all IRP's across the country have storage included as a resource. I would like to help create this much needed acceleration. Finally, to the extent Congress takes up the issue of tax credits I would like for ESA to get stand-alone storage included for qualification; we should focus our efforts and try to get this done, my presence in DC metro area allows me to be available as a board member for any meetings at the Hill in short notice.

Benjamin Lowe
Manager
Enovation Partners

About Ben:
I have been involved in the energy industry for almost two decades. I am currently a member of Enovation Partners' energy storage practice, working on OEM and utility storage strategy. I am the principal industry point of contact for the Lazard Levelized Cost of Storage, which Enovation has supported for each of the past four years and have also supported ESA as chair of its C&I Rate Design and Dual Participation Policy Working Groups.

Prior to Enovation, I was policy director at energy storage manufacturing start-up Alevo USA, where I successfully won passage of legislation ordering the North Carolina Energy Storage Study; and intervened in MISO and PJM market design disputes in front of FERC. My comments in favor of broader deployment and utilization of energy storage resources were also cited by FERC in Order 841 and its Policy Statement on the Utilization of Electric Storage Resources for Multiple Services When Receiving Cost-Based Recovery (PL 17-2-000).

Prior to Alevo, I worked in corporate strategy at Duke Energy in Charlotte, North Carolina. There, I analyzed new cost-recovery strategies to reflect the shift from central station generation to investments in T&D and distributed energy resources. I earned my MBA from Northwestern's Kellogg School of Management in 2009 and BA in Economics-Political Science from Columbia University in 2001.

Ben's Vision for ESA:

For ESA to achieve its goal of 35 GW installed by 2025, energy storage technologies need to become a standard technology for utilities and grid operators, no different than a transformer, power plant, substation or transmission line. That means utilities and grid operators not only need to understand how energy storage provides value but also need to become comfortable with the operation, durability, safety and resilience of energy storage technologies.

In addition to utilities, ESA should partner with large commercial and industrial energy users, including data center operators Amazon, Facebook and Google. Energy storage's value comes from its versatility, and ESA should ensure that large energy users – who are frequently influential at state commissions – understand that the technology's ability to perform multiple services over the course of a day or simultaneously means lower costs and electric rates for customers.

Peter Muhoro
Vice President, Strategic Industry Research and Analysis
National Rural Utilities Cooperative Finance Corporation (CFC)

I am the Vice President, Strategic Industry Research and Analysis at the National Rural Utilities Cooperative Finance Corporation (CFC). I bring technical knowledge and strategic planning expertise to electric cooperatives, and am responsible for strategic technical and industry research, business intelligence and advanced technologies trends analysis. Prior to joining CFC in 2017, I held several positions working for, and with electric cooperatives. Most recently, I served as the Chief Strategy Officer at Pedernales Electric Cooperative, the largest distribution electric cooperative in the U.S. Prior to that, I was an Advisor at the Cooperative Research Network, the technology research arm of the National Rural Electric Cooperative Association. I previously launched several small businesses focused on energy analysis, bottom of the pyramid issues and poverty reduction through efficient electrification. I serve on the boards of the Energy Storage Association (current chair of the finance committee), the Smart Electric Power Alliance, as well as other advisory committees. I am a sought-after speaker both nationally and internationally. I hold a B.Sc. in Physics and Mathematics from Hampton University, a M.Sc. and Ph.D. in Applied Physics from the University of Michigan.

The 35x25: A Vision for Energy Storage lines up with my vision to see gigawatts of energy storage deployed within the electric cooperative footprint. The 900+ electric cooperatives serve nearly 60% of the land-mass in the U.S., territory that is primarily very rural with many challenges on the grid. Energy storage continues to become the opportunity to address such problems, providing a more reliable and resilient grid with fewer emissions. As I enter into my last term as a director on the ESA board, my vision for the energy storage industry is a fast developing time-line that will allow for more deployments of different technologies from two perspectives: largescale storage on the side of the utility and behind-the-meter products. Each will provide benefits while keeping costs low and with no revenue loss. With energy storage, I see growth of more renewable energy, asset deferral, savings from high energy peak pricing, enabling of transactive energy, and the capability for consumers to truly utilize energy in the most ideal way. It is my vision to the see the energy storage industry work closer with utilities to find affordable solutions of integrating energy storage and provide a roadmap for further deployment.

With a fast-changing energy industry, energy storage will play a key role for many stakeholders. My vision over the next 3-5 years for the Energy Storage Association is an increased pace in educating stakeholders, especially utilities, on integration of energy storage, providing business case templates with cost-benefit analysis, working with the industry including government agencies to provide a needs-based technology matrix and accelerated engagement in policy decisions, including decisions at the RTO/ISO level. Key areas that the association will need to continue focus on will includes solidifying all member value, expanding reach, consideration of international focus and awareness and what policy actions will be taken especially after the 2020 election and the sunsetting of the investment tax credit for solar that has some application for storage.

As a current board member, it has been my joy to work closely with other board members to help lead the association in a direction of growth for the energy storage industry. One of my key areas will be to bring the perspective of electric cooperatives. There are over 900 electric cooperatives in the U.S. that serve over 43 million and cover nearly 60% of the land mass in the U.S. Working with electric cooperatives will be key in seeing success of deployments of energy storage systems. In addition, electric cooperatives are self-governed, with the exception of a few that are regulated by a state commission. This allows electric cooperatives to be early adopters of technology as decisions are made locally. Finding solutions for electric co-ops will be a critical angle to see further deployment of energy storage systems. Further, with CFC being a financial services organization, bringing the finance perspective to decisions the board makes and considers for growth in energy storage will be a critical asset. I can confidently say that my previous and continued service as a director and to the board will remain that of high excellence.

Kate McKeever
Director of Regulatory & Institutional Affairs
Enel Green Power North America

I serve as Director of Regulatory and Institutional Affairs for Enel Green Power North America, Inc. (EGP-NA). Based in the company's Andover, Massachusetts headquarters, I am responsible for government relations and public policy for the U.S. Eastern Region. I have lead EGP-NA's energy storage policy development in multiple jurisdictions focusing on creating short to medium term revenue streams while simultaneously working to develop market rules that allow for full storage participation. I joined EGP-NA in April 2017 after 17 years working for the Commonwealth of Massachusetts, where I last held the position of General Counsel in the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) in the Baker-Polito Administration. In this role, I provided legal advice on developing and implementing the Commonwealth's energy and environmental policies and programs and establishing legislative priorities. Prior to EEA, I was appointed by Governor Deval Patrick as a Commissioner at the Massachusetts Department of Public Utilities (DPU) to lead the state utility regulatory authority. My other previous experience includes being both the Chief of Staff and a Hearing Officer at DPU, working as an Assistant District Attorney in Suffolk County, and serving as a Legislative Aide for the Speaker of the Massachusetts House of Representatives.

For the past 100 years, the power sector has operated under a centralized, utility rate-based model. While this model has mostly ensured access and reliability for many consumers, it has failed to address the climate crisis we face, to promote innovation and competition, and to give customers real choice, like in other evolved industries. Energy storage is the game changer! Energy storage is the singular technology that will transform the power sector allowing us to transition to a clean, resilient, and flexible electric grid. Energy storage will allow for increased renewable penetration reducing GHG emissions by replacing peaker plants and eventually fossil fuel plants. Energy storage will balance supply and demand ensuring a reliable electric grid by allowing for direct and indirect customer-directed choices about consumption, charging or discharging to provide customer benefit and grid support. Energy storage will save ratepayers money by allowing for transmission and distribution deferrals and reducing demand charges. These numerous benefits and many more are undeniable but they need to be monetized so that energy storage can be deployed now. In the short to medium term, we need to have ambitious energy storage goals in every state and policies and programs that will allow for the deployment of energy storage projects. At the same time, we need to be diligently engaged at the federal and ISO/RTO level to develop market rules that will allow for energy storage in all forms to fully participate and be compensated for its many attributes. To realize this change, the energy storage industry collectively needs to promote diverse approaches to deploying energy storage projects. We need to support behind-the-meter and in front of the meter projects, stand-alone energy storage projects and hybrid resources, as well as acknowledging that the utilities will play a major role in this transition and deserve to earn a rate of return based on their performance and the services they provide to their customers.

Polly Shaw
Vice President, Regulatory Affairs and Communications, Stem, Inc.

I have served as Stem's Vice President of Regulatory Affairs and Communications since 2016, providing regular policy and communications suggestions to ESA and other trade associations' staff. I have 25 years of energy policy experience in the U.S. and China. Formerly Vice President of External Affairs at SunEdison, I managed a team that helped win a range of supportive policies, including long-term extensions of the federal investment tax credit, two 50 percent renewable portfolio standards, and other market-creating policies. Previously, I was Senior Director of External Relations at Suntech America, and earlier, Senior Regulatory Analyst at the California Public Utilities Commission where I managed the $2.2 billion California Solar Initiative. I earlier served as a program officer at the Energy Foundation. I am on the board of the Interstate Renewable Energy Council, and have served on the board of the California Energy Storage Alliance, Solar Energy Industries Association, the Large Scale Solar Association, and the Midwest Energy Efficiency Alliance.

My near-term vision for the energy storage industry imagines 2025. Energy storage is a ubiquitous platform to integrate high penetrations of renewable energy, modernize the grid, and enable customer choice. Energy storage has surpassed 35 GW in the US and is well on the road towards Bloomberg's 942 GW global projection by 2040. All 13 Rocky Mountain Institute service streams of energy storage are proven and shown to be cost effective in at least one RTO or local market. Energy storage projects bid and deployed after 2020 are viewed by policymakers as safe, reliable, and cost-competitive in at least half the US states. Energy storage has had at least a five-year track record of predictable cost declines due to economies of scale, frictionless trade, and efficient policy design and implementation. The storage industry employs a diverse workforce and supports equitable access to its services and job opportunities for all Americans. The industry has well-defined mutually supportive roles and coordination between national and local voices.

In achieving this vision, ESA is the clear national go-to leader on policy design, data, research, communications, and event networking, promoting all storage technologies, services, and configurations. ESA has a compelling value proposition and narrative for standalone storage and storage integrated with other technologies (generation, EVs, etc), and the association maintains a rich library of data points to use in allies' coordination, advocacy, and PR. ESA has structure and processes that generally result in industry acceptance as 'fair' decisions and has a self-sustaining operating budget of at least $10M, coordinating effectively with other associations, environmental allies, and private sector philanthropies, including international storage associations.

A Stem representative offers considerable operational experience, given that Stem has roughly 1000 systems under contract (500+ installed) across 6 US states, plus Canada and Japan, performing roughly half the market services described by Rocky Mountain Institute. I manage a policy team with unique, long, and highly active involvement across wholesale market and distribution policy, rate design and demand response programs, interconnection and permitting issues, cybersecurity, fire code, etc. Having served on numerous solar association boards during massive market growth, cost declines, and global expansion, I offer replicable experience, including China-related supply issues due to my networks there and two solar trade wars. I'm keen to help refine ESA's growth strategy and coordination with related industries, its data and research focus, and its communications strategies (proactive and defensive). The industry can enhance its value proposition in PR materials and message coordination with local associations or parallel allies. Moreover, the industry will need to prepare for a number of crisis communications events, such as fire or safety, trade wars, labor and equity issues, and recycling. We can maximize output by using Board members to encourage member contributions on strategy and content development with the direction of the Board or by coordinating tightly with allies in the field.