

Company overview

About Stem

Stem, a leading provider of intelligent energy storage, combines big data, predictive analytics and advanced energy storage to simultaneously reduce electricity costs for businesses and in aggregate, deliver services to the grid. Stem's software learns a customer's unique energy profile to store and deploy energy to maximize savings, and displays real-time and predicted energy use alongside actionable recommendations. When aggregated, Stem's customer-sited storage network offers flexible, cost-competitive capacity to the grid.

Stem is headquartered in Millbrae, California with operations in California, Hawaii and New York.

Energy Storage Industry

Stem is a leader in the rapidly growing energy storage market. According to Navigant Research, the value for distributed energy storage is expected to grow from \$452 million and a global capacity of 171.9 MW in 2014 to \$16.5 billion and 121.5 GW by 2024.

Stem works with commercial and industrial businesses to lower electric bills by combining automated energy storage and Stem's PowerScope energy software. Stem's customers include leading Fortune 500 companies such as Adobe, Safeway and Extended Stay Hotels, as well as independent businesses. Stem also works with utilities, grid operators and energy retailers to aggregate Stem's network of storage to deliver grid services.

Investors

Stem is funded by a consortium of leading investors including Angeleno Group, Iberdrola (Inversiones Financieras Perseo), GE Ventures, Constellation New Energy, Total Energy Ventures and Mitsui & Co., Ltd.

Products & Services

The Stem system

The Stem system works seamlessly by integrating three industry-leading technologies:

Stem's **PowerScope** software provides a new way of understanding and forecasting energy costs. PowerScope combines historical energy use, weather forecasts and rates to learn and then predict a company's unique energy patterns. With PowerScope, customers gain unprecedented visibility, down to the second, into their energy use.

PowerStore is Stem's UL-certified, fast-converting energy storage system. PowerStore draws energy when costs are low and deploys when high, saving customers the most on their electric bills. The system is installed on-site and integrates seamlessly with existing systems.

Stem's **PowerMonitor** sub-metering device is installed on-site to track the building in real-time and send commands for when to store and deploy energy.

Stem Financing

Stem is the storage industry leader with over \$100 million available in project financing. Customers pay nothing upfront, and pay a small monthly lease that is more than offset by their energy savings. With Stem financing, customers start saving from the day their system is installed.

Installation and Safety

Stem systems are modularly designed for a simple and safe installation process. The Stem system can be installed by a licensed electrician in a day, and does not require costly or time-consuming siting or construction. Stem's standardized installation process ensures safety and quality control.

Stem systems follow the most up-to-date standards in system certification and installation procedures from UL (Underwriters Laboratories), IEEE (Institute of Electrical and Electronics Engineers), UN/DOT (United Nations Department of Transportation), OSHA (Occupational Safety and Health Association), NEC (National Electrical Code), IBC (International Building Code) and local fire codes. Stem is an active collaborator with these organizations to comply with and drive safety standards for the growing intelligent storage industry.

Grid Services

Grid services

Customer-sited storage is a powerful resource that delivers reliable services to the grid while helping customers understand and transform their energy use.

Stem works with leading utilities, grid operators and retailers to harness our aggregated storage network as a cost-competitive, controllable and fast-acting resource where it matters most. With customer-sited storage, installation is faster and less complex than alternative storage resources requiring space, involved siting and complex interconnection processes.

Stem works with leading grid operators to solve a variety of grid challenges with Stem's storage network.

- Delivers capacity in congested areas
- Supports high penetrations of intermittent renewables like solar and wind
- Creates a guaranteed demand response resource
- Delivers powerful frequency regulation
- Provides visibility behind the meter

Grid Partners

Stem is actively engaged in programs with Hawaii Electric Company (HECO), Southern California Edison (SCE), Pacific Gas and Electric Company (PG&E), Sacramento Municipal Utility District (SMUD) and the California Independent System Operator.

Within SCE's Local Capacity Requirements procurement, Stem was awarded 85 MW of customer-sited storage to be used as a fast-acting and precise capacity resource in the highly congested West Los Angeles Basin region.

In Hawaii, Stem is working with HECO to help customers lower electric bills with storage. At the same time, HECO is able to aggregate Stem's storage network as a firming capacity to mitigate quality and control challenges as a result of high penetrations of renewables like solar and wind.

Executive team

John Carrington

John Carrington, Chief Executive Officer and Director, has a distinguished track record with over 25 years of proven leadership in technology, energy and industrial companies. John comes to Stem from thin film solar company MiaSole, the largest CIGS-based solar company globally with over \$550 million of investment, where he was Chief Executive Officer. John executed on the sale of Miasole to Hanergy in December 2012. Prior to MiaSole, John was Executive Vice President of Marketing and Business Development at First Solar where he grew the company revenue from \$400 million to \$2 billion, opening markets in the US, Asia and Europe. John also spent over 16 years at General Electric, most recently as General Manager and Chief Marketing Officer of the \$7 billion GE Plastics global organization where he led global innovation, new technology efforts and product strategy for over 30,000 customers. John was part of a small executive team that executed on the \$12 billion sale of GE Plastics to SABIC in 2007. While at GE, John led innovation efforts in the healthcare, electronics, business equipment, transportation and aviation, solar, wind, defense, telecommunications, security and media sectors. He is an alumnus of the University of Colorado.

Executive team (cont'd)

Karen Butterfield

As Chief Commercial Officer, Karen is responsible for building and leading Stem's commercial enterprise, including strategy, marketing, business development and channel partnering. Prior to joining Stem, she was a Managing Director in the commercial systems group at SunPower. Her teams successfully deployed large PV systems on DOD, DOE and VA facilities throughout the United States. Additionally, Karen led the key account efforts at SunPower with responsibility for Apple, Verizon, Macy's and other Fortune 500 customers. Karen has consulted in utility-scale energy programs and spent 10 years at Honeywell Grid Solutions designing and delivering energy efficiency, demand response and smart metering programs. Karen graduated from Bowdoin College with a BA in economics.

David Erhart

As Vice President of Engineering, David Erhart is responsible for Stem's hardware and power electronics systems architecture. Prior to joining Stem, David was Chief Technology Officer at Quicknet Technologies, Inc., where he led an engineering team that created VoIP hardware, software and call processing systems. Previously, David was a lead software engineer at Altos Engineering Applications, where he developed maintenance applications for nuclear power plants. David graduated from the University of South Alabama with a BS in Electrical Engineering.

Tad Glauthier

As Vice President of Hawaii Operations, Tad is responsible for executing on Stem's customer and utility-facing market development activities in Hawaii including Business Development, Marketing, Regulatory Affairs and Utility Relations. Prior to joining Stem, Tad worked at the Boston Consulting Group, where he specialized in growth strategies for Fortune 500 Companies. Tad graduated Phi Beta Kappa with a BA in English from Stanford University and received his MBA from Stanford's Graduate School of Business.

Ben Kearns

As Vice President of Technology, Ben is in charge of building and running Stem's overall technology infrastructure, including predictive analytics, control systems, and security. Prior to Stem, he was Vice President of services of U1 Consulting, where he successfully deployed large scale, high-availability enterprise open-source projects for companies such as Credit Suisse and Bank of America. Ben graduated from UC Davis with a BS in Applied Mathematics.

Executive team (cont'd)

Randy Palombi

As Vice President of Sales, Randy is responsible for building and leading Stem's direct and channel partner sales teams. Randy has over 25 years of experience in the energy industry, spanning sales, marketing, business development and operations. Prior to joining Stem, he was a Vice President in Constellation's Load Response organization, where he oversaw the sales and delivery of innovative energy management solutions for end-use customers, as well as utilities. Previously, Randy served in sales leadership positions at CPower, APX, and Sempra Utilities, and led management consulting practices for Price Waterhouse Cooper Consulting and eLoyalty. Randy graduated from California State Polytechnic University with a BS in Mechanical Engineering and earned his MBA from Pepperdine University.

Prakesh Patel

As Vice President of Capital Markets and Strategy, Prakesh leads Stem's financing strategy and supports corporate fundraising initiatives. Prakesh has spent his career financing technology and energy ventures across a broad cross section of industries. He joins Stem from Angeleno Group, an energy and natural resources-focused private equity firm, where he helped to lead their investment in Stem. Previously, Prakesh built and managed a portfolio of private equity investments at Nova Capital and Deutsche Bank. His prior work also includes closing over \$500 million of project finance at the International Finance Corporation (The World Bank Group). Prakesh has a BA from the University of California, Berkeley and an MBA from Yale University.

Andrzej Skoskiewicz

As Vice President of Product Development, Andrzej is responsible for defining Stem's technical product and manufacturing. Previously, Andrzej served as director of module engineering at GreenVolts, where he oversaw the design and commercialization of High Concentration Photovoltaic Modules (HCPV). Andrzej was also director of product development at Nanosolar and worked as a project manager at IDEO, where he developed medical, automotive, and consumer electronics products. Andrzej holds a BS and MS in Mechanical Engineering from MIT.