



## Fuel Cell Challenge 2.0 – Business Plan Competition

In an effort to engage partners from across the U.S., the Fuel Cell Challenge will have an independent review committee consisting of representatives from the clean tech industry (academia, investment, entrepreneurs, technologists, seasoned executives). Confirmed committee members are:

**Shannon Baxter-Clemmons**, *Executive Director, South Carolina Hydrogen & Fuel Cell Alliance*

**Hector Colon-Mercado**, *Senior Engineer, Savannah River National Laboratory*

**Scott Greenway**, *Founder, Greenway Energy*

**Russ Keller**, *Vice President, Advanced Technology Institute*

**Sam Logan**, *Logan Energy*

**Stewart McKenzie**, *Zone Manager, SC Launch*

**Cody Nystrom**, *SJ Ventures*

**Don Rohr**, *Manager, Plug Power*

**Robert Rose**, *Senior Advisor, U.S. Fuel Cell Council*

**Ron Seftick**, *CEO, Trulite*

**John Van Zee**, *Director, National Science Foundation Center for Fuel Cells*

Read more about the review committee below.

### **Shannon Baxter-Clemmons, Executive Director, South Carolina Hydrogen & Fuel Cell Alliance**

Shannon Baxter-Clemmons, Ph.D. presently serves as the Executive Director of the South Carolina Hydrogen and Fuel Cell Alliance. The South Carolina Hydrogen and Fuel Cell Alliance is a public-private collaboration for cooperative and coordinated utilization of resources in the State used to advance the commercialization of hydrogen and fuel cell technologies.

Dr. Baxter-Clemmons previously held the position of Assistant Secretary for Hydrogen and Alternative Fuel Policy under the Secretary of the California Environmental Protection Agency. In 2004, she led the development of the California Hydrogen Blueprint Plan for the State with the input of over 200 active stakeholders. Governor Schwarzenegger adopted the Blueprint in May 2005 as the State's hydrogen policy agenda. Prior to 2004, she worked in the Chairman's Office of Science and Advanced Technology at the California Air Resources Board. She served as ARB's representative on the California Fuel Cell Partnership's Working Group from 1999-2004. She managed the development of two ground breaking studies for the CaFCP, including *Bringing Fuel Cell Vehicles to Market: Scenarios and Challenges with Fuel Alternatives*, 2001; and *Support Facilities for Hydrogen Fueled Vehicles: Conceptual Design and Cost Analysis Study*, 2004.

Dr. Baxter-Clemmons currently serves on the Fuel Cell Seminar Board of Directors, as a co-chair for the Transportation Research Board's Alternative Fuels and Technologies Committee, on the DOE/NREL Hydrogen Education Review Panel and previously on the National Hydrogen Association's "H2 and

You” public education campaign’s Steering Committee. In 2009, she assumed the role as the Chair of the South Carolina Hydrogen and Fuel Cell Economic Cluster.

Dr. Baxter-Clemmons was born and raised in the Lowcountry of South Carolina. She and her husband, David Clemmons, have two children Isabelle and Jacob, and live in Charleston, SC.

**Hector Colon-Mercado, Senior Engineer, Savannah River National Laboratory**

Dr. Hector Colón-Mercado, a Senior Engineer at the Savannah River National Laboratory, is the Principal Investigator on the PEM fuel cell hydrogen impurities project. He has 8 years of study and experience in material science in the fuel cell field. He has published 12 papers in the area of fuel cells and electrolyzers. His specializations are the study of durability of cathode catalysts for fuel cells, preparation and characterization of new catalysts for fuel cells, characterization of membranes, study of the effects of fuel impurities and catalyst development for PEM electrolyzers.

Dr. Colon-Mercado graduated from the University of South Carolina in 2005 with a PhD in Chemical Engineering.

**Scott Greenway, Founder, Greenway Energy**

Scott Greenway was awarded a B.S. in Chemical Engineering from Kansas State University in 2001. During an NSF-REU program at the University of South Carolina, he became interested in alternative energy and fuel cells. While studying for a year in Giessen, Germany he was astonished by the energy and environmental consciousness of European culture. Because of this experience, Scott decided to pursue a Ph.D. in the area of Polymer Electrolyte Membrane (PEM) fuel cells under the direction of Dr. John Van Zee.

During his Ph.D., Scott has collaborated with fuel cell industry members as a part of the NSF Industry Cooperative Research Center for Fuel Cells. He has been active in fuel cell modeling and design projects as well as experimental work on advanced electrochemical characterization techniques such as Electrochemical Impedance Spectroscopy (EIS). He has also traveled nationally and internationally promoting fuel cell programs at the University of South Carolina.

**Russ Keller, Vice President, Advanced Technology Institute (ATI)**

Mr. Keller joined ATI in July 2008 and assumed duties as the Business Unit Manager responsible for leading ATI efforts in energy, healthcare and emergency preparedness. In September 2009 he was promoted to ATI Vice President and assigned additional responsibilities for helping organize and charter a new consortium of industry, academic and non-profit organizations to partner with the Department of Defense in developing and prototyping urgently needed intelligence, surveillance and reconnaissance capabilities for US forces in Afghanistan.

Russ joined ATI’s parent company, SCRA, in October 2005 to establish SCRA’s alternative energy business unit. Focusing initially on in-state opportunities for commercializing hydrogen and fuel cell technologies, he helped create the University of South Carolina – City of Columbia Fuel Cell Collaborative. This collaboration received national recognition in June 2009 as the recipient of the Southern Policies Growth Board Innovator Award. Beyond hydrogen and fuel cell technology Russ has established SCRA’s leadership in other alternative energy program areas. He has served as a member of the Executive Committee for the South Carolina Biomass Council, and helped launch the state’s Renewable Energy Grants Program in the fall of 2007.

Prior to joining SCRA, Russ served a 26 year career in the U.S. Navy. A nuclear-trained submarine officer, he completed four tours of duty at sea, culminating in command of USS SPRINGFIELD, a nuclear-powered fast attack submarine. Following his command tour, he completed back-to-back assignments totaling 4½ years in the Navy's Office of Legislative Affairs in Washington, DC, where he served as a principal advisor to the Secretary of the Navy and the Chief of Naval Operations and was responsible for developing the legislative strategy for a \$70 billion portfolio that included all Navy procurement, research and development and operations and maintenance programs. His final active duty assignment was as the Commanding Officer of the Naval Nuclear Power Training Command in Charleston, SC, where he was responsible for the initial nuclear power training for every officer and enlisted Sailor in the nuclear Navy.

Russ is a 1979 graduate of the United States Naval Academy, where he earned a Bachelor of Science degree in mechanical engineering. In 1987 he earned a Masters in Public Administration from Harvard University's John F. Kennedy School of Government. He currently serves as a trustee for the U.S. Naval Academy Foundation and Executive Vice President for the Charleston Chapter of the Navy League; volunteers as a mentor in the Citadel Business School Mentors Association and with a local high school engineering advisory council; and participates in various other activities aimed at advancing public school science, technology, engineering, and math initiatives.

### **Sam Logan, Logan Energy**

Sam Logan is an energy executive with 25 years experience in the industry including oil and gas exploration/ production, energy marketing, project development and pipeline transportation. In June 1994, he founded LOGANEnergy<sup>®</sup> Corp. and shifted his business focus to power generation.

Over the last decade, Mr. Logan has been at the heart of Fuel Cell development in the U.S., working collaboratively with the private sector and government entities. LOGANEnergy<sup>®</sup> first became an authorized representative of the UTC PC25 fuel cell power plant and a service provider for part of the original Department of Defense (DOD) Fuel Cell fleet. LOGAN expanded its Fuel Cell services by contracting to support the DOD PEM Fuel Cell demonstration programs in 2001.

Over the past five years the company has installed over 60 PEM demonstration units at numerous DOD and commercial sites. In mid-2004, LOGAN became a distributor of FuelCell Energy high-efficiency Fuel Cell systems adding multi-megawatt capability to its catalog of Fuel Cell products. To date, the LOGAN team has a portfolio experience aggregating 8MW of high availability and CHP applications equal to approximately 10% of worldwide Fuel Cell capacity.

Mr. Logan is a 1970 graduate of the University of the South at Sewanee, Tennessee, and a former Captain of Marines and Naval Aviator.

### **Stewart McKenzie, Midlands Zone Manager, SC Launch**

Stewart manages SC Launch Zone in the Midlands, as well as, having a domain focus in alternative energy and advanced materials technologies. He recruits, qualifies, and cultivates client companies for the SC Launch Program. He conducts preliminary due diligence on program applicants and provides "care and feeding" to client companies. Stewart collaborates closely with the University of SC, and the USC Research Foundation, resource partners, and economic development organizations.

Stewart is a technology business development specialist having deep experience in specialty chemicals, alternative energy, and advanced materials. Stewart most recently served as Director of Business Development, Nanotechnology and Energy Systems, at Columbian Chemicals Company in Marietta, Georgia. While there, he was responsible for developing the overall commercialization strategy of new

business in electrocatalysts and carbon nanomaterials. Stewart's professional background includes more than 26 years of experience in large corporations, including FMC, Union Carbide, and DSM, as well as, having entrepreneurial experience as President of a ultraviolet light curable coatings and inks, as well as, the Manager of Marketing and Sales for a startup vacuum metallization company before returning to the Southeastern US. Stewart also has extensive international business experience including Western Europe and Asia over the past 10 years.

Stewart earned a Master's degree in Business Administration from Queens University in Charlotte, North Carolina. He holds a Bachelor of Science degree in Chemical Engineering from the University of Kentucky.

**Cody Nystrom, Senior Associate, SJF Ventures**

Cody Nystrom is a Senior Associate at SJF Ventures, a venture capital fund with \$45 MM under management that provides expansion capital to companies pursuing sustainable strategies within the fields of cleantech and technology-enhanced business services. She also works with SJF's allied non-profit, SJF Advisory Services, to provide resources to entrepreneurs working to grow positive impact enterprises. As a member of the SJF investment team, Cody actively sources new opportunities, performs due diligence and helps manage new investments. Cody serves as board observer for SJF portfolio company, CleanScapes, a Seattle-based recycling, organics and waste services provider. She joined SJF in their Durham, North Carolina office in 2007.

Cody helped found and co-leads the Raleigh-Durham CleanLinks Network, a cleantech business networking group with over 600 members. Additionally, Cody serves on selection, judging and advisory committees for Investors Circle, SVCIC (Sustainable Venture Capital Investment Competition) and the T-100 mentoring group at University of Virginia. In addition to her interest and involvement in clean energy, she has a strong passion for nutrition and sustainable food systems.

Cody was previously with Ewing Bemiss & Co., a middle-market investment bank based in Richmond, Virginia where she focused on renewable energy M&A transactions with specific experience involving landfill gas and waste-to-energy companies. Cody holds a BS (summa cum laude) in Systems and Information Engineering from the University of Virginia with a minor in Business.

**Don Rohr, Manager, Plug Power**

Rohr is currently leading a team at Plug Power Inc. that develops and transitions fuel cell technology into viable commercial products. His specialties include chemical reaction engineering, process development, technology management, and program development.

**Ron Seftick, CEO, Trulite**

Ronald Seftick is Trulite's President. Prior to joining Trulite in 2007, Mr. Seftick had served since 2003 as the Vice President of the Large Systems Business of American Power Conversion. From 2002 through 2003, Mr. Seftick was the President of Wagner Systems headquartered in Markdorf, Germany, responsible for the Industrial Division for the Americas. From 2000 to 2002, Mr. Seftick was the Executive Vice President for GE-Zenith Controls. Mr. Seftick is a past president of the Electrical Generating Systems Association where he also served as Chairman of the Board. Additionally, Mr. Seftick has held advisory roles to NEMA, 7X24, and Power Gen International.

**John Van Zee, Director, National Science Foundation Center for Fell Cells**

Dr. Van Zee studies fuel cells with experimental and computational methods. His current focus is with Proton Exchange Membrane Fuel Cells (PEMFCs) and with metal-H<sub>2</sub>O<sub>2</sub> semi fuel cells.

The experimental and computational efforts are complimentary because the models are verified with water-balance and average current/voltage data and because often it is easier to test hypotheses with the models prior to performing designed experiments. On the other hand, the PEMFC experimental facilities in Dr. Van Zee's laboratory allow for investigations that foster new developments with the mathematical models and computational schemes.

Dr. Van Zee, his students and his co-workers are interested in quantitatively determining measurable parameters that can be used to scale designs from laboratory-size reactors to full-scale fuel cells and batteries. This is accomplished by comparing the mathematical models with the experimental data and by determining electrochemical rate constants and mass transfer coefficients in a manner similar to that used in traditional chemical engineering.

In addition to fuel cells Dr. Van Zee has studied the electrochemical engineering aspects of nickel electrode preparation, nitrate reduction for waste minimization, and hydrogen storage in fullerene-based nanotube materials. His accomplishments include a description of nickel-hydroxide precipitation at both planar and porous electrodes. His group has developed mathematical models that can be used by manufacturers of satellite batteries to insure that the uniform deposition, needed for long cycle life, has occurred.