EV Challenge Board Bios

Ewan Pritchard, PhD, P.E., President

Ewan is the Director of Industry and Innovation for the Future Renewable Electric Energy Delivery and Management (FREEDM) Systems Center as well as Program Manager for the Advanced Transportation Energy Center (ATEC), at NC State University.

As Director of Industry and Innovation for the FREEDM Systems Center, he works to knit the needs of industry with the mission and goals of the center. As Program Manager of ATEC, he works with the automotive industry to learn about the hurdles of adopting vehicle electrification and how NC State can overcome those hurdles.

Ewan is best known for his work to bring plug-in hybrid school buses to the market. Ewan has been involved with the energy and transportation industry since 1997 with his work on industrial energy efficiency and electric vehicles at Advanced Energy Corporation. He left Advanced Energy for a short time to work with GKN Automotive on driveline solutions before returning to Advanced Energy Corporation to tackle plug-in hybrids. He began the program to transform the school bus industry to plug-in hybrids in 2002 and completed his masters thesis on the subject in 2003. Since then he has worked with numerous vehicle companies and organizations to develop innovative electric and plug-in platforms to reduce environmental emissions.

Ewan holds PhD, MS and BS degrees in Mechanical Engineering from NC State University.

Heather Hildebrandt, Board Treasurer

Heather Hildebrandt has a bachelor of science in mechanical engineering and a master of science in civil engineering and environmental programs from North Carolina State University. She has spent most of her career working for the North Carolina Division of Air Quality in their Mobile Source Compliance Branch. Heather has extensive experience in grant administration in both awarding state grants to recipients as well as managing federal EPA and Congestion Mitigation Air Quality grants to the Division. Her involvement in alternative fuels and retrofit technologies for mobile sources sparked her interest in electric vehicles and she has been involved in the EV Challenge since 1996.

Phil Bardsley, MPH, PhD, Board Secretary

Phil has been involved with electric vehicles since 2001 when he converted a gasoline car to electric. He has volunteered with EV education programs since then and has rebuilt another EV originally converted by high school students. Phil is currently the Board secretary with the Carolina Electric Vehicle Coalition which oversees the prestigious EV Challenge high school education program. He has an MPH and PhD in public health from UCLA and works as a research data analyst at UNC-Chapel Hill where he is head of Research Programming Services at the Carolina Population Center.

Ken Dulaney, PE, Board Member

Ken Dulaney is Vice President of Engineering at Advanced Energy – a non-profit founded in 1980 to mitigate the increase in electric rates through energy efficiency, demand response and renewable generation. Ken leads his staff in taking a market-based approach to energy — applying sound engineering knowledge to provide energy efficiency testing, training and consulting in the areas of motors and drives, plug-in transportation, renewable energy, commercial buildings and industrial processes. His team occasionally allows him to work on fun projects like energy audits, economic payback analyses, and electric vehicle evaluations. Prior to joining Advanced Energy, he was a project manager at an environmental consulting firm and a mechanical design engineer. He has degrees from Furman University, Georgia Tech and the University of Texas at Austin.

Rhett T. George, Jr., Ph.D., Board Member

Rhett T. George, Jr., earned the BSEE degree from Duke University (1955), and MSE (1956) and Ph.D. (1965) from the University of Florida in electrical engineering. His research activities have included laser applications, analog system design (low and high power op amps), and interfacing of computerized instrumentation with high-energy switched power supplies. He has been a consultant for digital and analog guidance systems for launch vehicles and missiles.

Since joining the Faculty of Duke University in 1957, he has taught courses in network analysis and synthesis, linear system theory, linear control systems, and electromagnetic fields and waves, as well as electronic circuits, pulse and digital circuits, lasers, and microprocessor fundamentals and applications. Recent course offerings have been Electric Vehicle Design including an EV conversion laboratory, Power Electronics, and considerations in engineering design. He retired in 2009.

Eric Ryan, Executive Director

In February of 2011, the Board of Directors re-hired Eric Ryan as the executive director of the EV Challenge. He last served in this capacity from 2000-2003 in which he oversaw a four-fold increase in the number of program participants and organizational capacity. It is Mr. Ryan's primary role to strengthen organizational capacity and educational outreach.

Mr. Ryan is a former physics teacher and electric vehicle education instructor and has overseen eight electric vehicle conversion projects. He was his school district's teacher of the year in 1995. His successes leading low-income, rural students to electric vehicle championships were captured on the front page of the *Wall Street Journal* and in the book, Electric Dreams.

Since he left the classroom in 1997, Mr. Ryan has operated an independent management consulting firm focusing on strategic planning for small nonprofit organizations.