

Biographical notes for Efrain Ornelas

Efrain Ornelas is a Senior Program Manager and is responsible for the Electric Drive technologies area in Pacific Gas and Electric Company's Clean Air Transportation Department located in San Francisco, California. PG&E serves most of northern and central California, providing both natural gas and electric services to 15 million of the states residents.

Efrain is responsible for reviewing and assessing advanced electric vehicle technologies for PG&E with the goal of providing PG&E's fleet operations group with transportation options to improve efficiency and reduce costs. His group also is responsible for electric vehicle testing, infrastructure planning, Grid impact analysis of PHEV/EV and the development of Smart Charging infrastructure that will link to PG&E's Smart Meters and AMI network.

He is involved in a number of national advanced transportation technology forums and working groups and is currently Chairman of EPRI's National Electric Transportation Infrastructure Working Council that works to facilitate the development and revision of national codes and standards associated with the safe and efficient interconnection and/or charging of all types of electric drive technologies. He also participates on a number of Society of Automotive Engineers standards taskforces related to electric vehicle charging and communications between the vehicle and the grid.

He joined PG&E in 1978 and has held a number of positions that covers a broad spectrum of responsibilities and duties within the utility. Since 1996 he has been involved in advanced clean vehicle technologies when he joined the Clean Air Transportation Department at PG&E.

Raised in Northern California, Efrain graduated from the University of Santa Clara with a BS degree in engineering.

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Mark H Alexander

Mark is Manager, Vehicle Systems Analysis in the Electric Transportation program area of the Power Delivery and Utilization Sector. His current research activities focus on the development of hybrid electric vehicle simulations, control strategies, and software for plug-in hybrid and fuel cell vehicles. Mark also manages EPRI's field test demonstration data acquisition program, including hardware design and data analysis.

Mr. Alexander joined EPRI in 2004 as a Technical Specialist working on the vehicle specifications and test plan for the EPRI / DaimlerChrysler Sprinter demonstration program. As part of this program, he developed the LFM simulation library to model the behavior and control of plug-in hybrid electric vehicles. This library has been continuously developed and is currently used as part of EPRI's vehicle project development process.

Before joining EPRI, Mr. Alexander worked at The MathWorks, the developers of MATLAB and Simulink, in the Engineering Development Program.

Mr. Alexander received a BS in Mechanical Engineering and an MS in Electrical Engineering, both from the University of California at Davis. While at Davis, Mark spent nearly eight years at the Hybrid Electric Vehicle Research Center working on the development of prototype plug-in hybrid electric vehicles and conducting research on hybrid powertrain design, embedded control systems, vehicle simulation, and high-voltage systems.