



USDOT Region V Regional
University Transportation Center

The NEXTRANS Center Presents a Seminar by:

DR. CHRIS HENDRICKSON

Professor of Civil and Environmental Engineering, Engineering and Public
Safety at Carnegie Mellon University
Duquesne Light Company University Professor

Electric Vehicles and Environmental Life Cycle Assessment

Thursday, September 13, 2012 at 3:30 p.m.

Purdue University, Civil Engineering Building, Room 1144

A reception for Dr. Hendrickson will be held immediately following the seminar in the Faculty Lounge.



Abstract: Battery powered electric vehicles, either as plug-in hybrids or full battery powered vehicles, are being encouraged by public policy and introduced by vehicle manufacturers worldwide. This talk will review important attributes affecting the environmental life cycle performance of these vehicles, including battery materials, vehicle design, vehicle operation and grid power mix. The history of an early attempt at introducing these vehicles in the 1990s will be reviewed for lessons learned.

Bio: Dr. Hendrickson is the Duquesne Light Company University Professor of Engineering, Co-Director of the Green Design Institute at Carnegie Mellon University and Editor-in-chief of the ASCE Journal of Transportation Engineering. His research, teaching and consulting are in the general area of engineering planning and management, including

design for the environment, project management, transportation systems, finance and computer applications. Current research projects include life cycle assessment methods (especially based on economic input/output tables such as eiolca.net), assessment of alternative construction materials, economic and environmental implications of Ecommerce, product takeback planning, and infrastructure for alternative fuels.

He has co-authored three textbooks, Environmental Life Cycle Assessment of Goods and Services: An Input-Output Approach, Project Management for Construction, and Transportation Investment and Pricing Principles; and two monographs, Knowledge Based Process Planning for Construction and Manufacturing, and Concurrent Computer Integrated Building Design. In addition, he has published numerous articles in the professional literature.

He is member of the National Academy of Engineering, a Distinguished Member of the American Society of Civil Engineering, an Emeritus Member of the Transportation Research Board and a Fellow of the American Association for the Advancement of Science. He has been the recipient of the 2002 ASCE Turner Lecture Award, the 2002 Fenves Systems Research Award, the 1994 Frank M. Masters Transportation Engineering Award, Outstanding Professor of the Year Award of the ASCE Pittsburgh Section, the 1989 ASCE Walter L. Huber Civil Engineering Research Award, the 1987 Benjamin Richard Teare Teaching Award and the 1973 Rhodes Scholarship.