Dr. Joan Ogden is Professor of Environmental Science and Policy at the University of California, Davis and Director of the Sustainable Transportation Energy Pathways Program at the campus’s Institute of Transportation Studies. Her primary research interest is technical and economic assessment of new energy technologies, especially in the areas of alternative fuels, fuel cells, renewable energy and energy conservation. She holds a B.S. in mathematics from the University of Illinois, and a Ph.D. in theoretical physics from the University of Maryland.

Making a transition to a sustainable transportation system requires fast-moving success on three fronts: improved energy efficiency, reduced travel demand, and adoption of low carbon fuels that can be produced from widely available primary sources. There are technical options for moving closer to each of these goals, including adoption of alternative fuels such as electricity, biofuels, and hydrogen. By combining these approaches, recent studies suggest it would be technically feasible to significantly reduce transportation-related greenhouse gas (GHG) emissions and diversify away from dependence on petroleum over the next few decades. But actual progress towards these goals has been slower than the technical potential suggests, because of an array of complex transition issues. In this talk, Ogden will examine the options for meeting sustainability and energy security goals in the transport sector, and discuss barriers to their implementation.