

**TRACK NAME**

Sustainability Research, Education, and Community Engagement - GIOS

SESSION NAME

Peak Oil Planning – Urban Design Strategies

DATE + TIME + ROOM NUMBER

Saturday September 6th – 1:00pm – 101C

SESSION DESCRIPTION

This session will discuss urban design as a means of addressing the peak oil phenomenon

The Post-Petroleum Initiative for Metropolitan Phoenix: Transforming the Urban Environment for a New Energy Future is an initiative of the Phoenix Urban Research Laboratory and the School of Architecture and Landscape Architecture (SALA) at the College of Design at Arizona State University. PURL and SALA anticipate planning and urban design as an efficient and rapid means to address one of the most urgent challenges of our time: peak oil, or the end of the era of abundant and inexpensive oil.

There are three responses to the peak oil challenge. The first approach is to compete for dwindling supplies; but such global competition will exact high political and economic costs. The second approach is to develop new sources of energy supply for most alternative technologies, will require significant time and investment to develop, and none has the energy density (and thus efficiency and transportability) of petroleum.

The third approach, and the focus of the Peak Oil Initiative, is to adapt urban environments to reduce energy demand. To date energy supply has been the focus rather than methods for reducing energy demand. Buildings and transportation account for more than two-thirds of U.S. energy use (U.S. Department of Energy, et. al). Through the strategic redesign and adaptation of urban systems- buildings and transportation as well as land use, landscape, power, water, and waste- cities can significantly reduce energy demand. This strategy of urban planning and design benefits communities in ways that measurably improve community and individual health, air standards, water resources, food quality and supply, neighborhood networks, social cohesion, and overall quality of life. Most crucially, this increases the availability of energy and water, resources that are the foundation for an economy. Communities need strategic planning and design to fill the coming energy gap, in order to grow.

This session will demonstrate a previous Peak Oil Plan completed for the City of San Buenaventura. This case study will be compared to Phoenix to display opportunities and constraints in the valley.

PRESENTOR(s)

Ken McCown – School of Architecture and Landscape Architecture at Arizona State University

PRESENTER BIOGRAPHY(s)

Ken McCown is a faculty member at the School of Architecture and Landscape Architecture at Arizona State University. His professional work includes sustainable resorts, regenerative water infrastructure planning, peak oil planning and urban design for World Heritage Sites.