



BIG energy seminar series

Addressing the scale and complexity of the global energy challenge.



Experience and the Evolution of Wind Power Project Costs in the United States **John Anderson** **Stanford University**

Date: Friday, January 25, 2013 at 3:30–5:00 p.m

Location: Economics Building, ECON room 117

(Building is near the intersection of Broadway and College Avenue)

Abstract:

I investigate empirically the relationship between accumulated experience completing wind power projects and the installed costs of wind generating capacity in the United States for the period 2001-2009. I develop a modeling framework that: (i) disentangles accumulated experience from other determinants of cost -- in particular, input prices, scale economies, and technical change; and (ii) allows for alternative measures of experience and multiple channels through which experience can accumulate. For a variety of model specifications, I find evidence of modest firm-specific learning-by-doing but no evidence of knowledge spillovers across firms. I also find evidence consistent with firms being able to share experience with and purchase experience from competitors via joint ventures and acquisitions, respectively. Finally, I find evidence that firms' experience depreciates rapidly over time. These findings suggest that the cost-reducing benefits of experience in wind capacity installations are fully captured by the entity that undertakes these installations (and, subsequently, any acquiring entity thereof), rather than by other participants in the industry.

Campus Map: Economics Building <http://www.colorado.edu/campusmap/map.html?bldg=ECON>