

Marketing Colloquia

Tuesday, October 8, 2013

Where: 741 JMHH

When: 3:00 PM to 4:20 PM

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Learning-by-doing in the Solar Photovoltaic Industry

(joint work with Kenneth Gillingham, Yale)

ABSTRACT: The solar photovoltaic (PV) industry in the United States has been the recipient of substantial production subsidies at the federal and state level, often motivated by both environmental externalities and dynamic spillovers from learning-by-doing (LBD) in the installation of the technology. However, empirical evidence on the precise nature and magnitude of these LBD spillovers is nonexistent, despite billions of dollars of subsidies. We develop a model of firm behavior in the solar PV market that allows for learning-by-doing, economies of scale, market power, and dynamic pricing. Using a rich dataset on solar PV installations in California that includes final installation prices, module costs, inverter costs, and the exact time and location of the installation, we estimate learning due both to a contractor's own cumulative production and the cumulative production of the contractor's competitors. We find statistically significant contractor-specific LBD at the regional level but limited evidence of economically significant spillovers.