

Baker Center Energy and Environment Forum

Thursday, September 25, 2014 - 1:00-2.30 pm Toyota Auditorium, Howard Baker Center 1640 Cumberland Avenue, UT Campus

Jacob LaRiviere, University of Tennessee

Quantifying Environmental Benefits of Fracking: Air Quality, Renewables and Implications for Energy Policy

This talk quantifies air quality improvements and energy policy implications from one of the most important changes to energy markets of the last halfcentury: hydraulic fracturing ("fracking"). This talk discusses two research projects related to possible environmental benefits of fracking: first, we use a regional specific electricity dispatch model to predict what the causal effect of natural gas price decreases (due to fracking) are for coal fired electricity generation. We then match those causal changes to detailed air quality monitor data to estimate the causal effect of the price decrease on changes in air quality. Second, we estimate how the decrease in natural gas prices has asymmetrically affected the emissions profile from electricity generation in different US regions throughout the day. This lets us link the effects of fracking to changes in various pollution outcomes from different energy policies, paying specific attention to renewable generation sources like wind. The talk highlights the importance of analyzing both the costs and benefits in determining both regional and national energy policies.



new

time

