

Impact of Biogas plants on Rural Residential Property Values and Implications for Local Acceptability

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Abstract

In this paper, we investigate the impact of large and farm biogas plants on the rural residential property values. To achieve this, we use a dataset from 11,279 housing transactions in the period 2007-2015. We trace spatial effect of biogas plants on the local property market. Our results show that large biogas plants have a significant negative impact on rural residential property value while on-farm biogas plants have a significant positive impact on house price. Residential property value reduces by 6.68% when a distance to a large biogas facility gets nearer by 1% but residential value increases by 7.73% with 1% increasing proximity from a farm biogas plant. Our findings suggest that preference for/against biogas plants may not arise from neither pure altruism nor pure selfishness. Based on these results policy implication for planning and expansion of biogas production are discussed.