

“Quality of Service Predicts Willingness to Pay for Household Electricity Connections in Rural India”

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### Executive Summary

POST-PRINT: <https://authors.elsevier.com/a/1YbJz14YGgbUWN>

PRE-PRINT: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3325960](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3325960)

DATA: <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/COXYJQ>

#### 1. What is the question?

How does the affordability of electricity affect whether households consume it? On one hand, households might consider their local electricity service adequate but too expensive. On the other, households might be willing and able to pay for service but choose not to do so because the quality of service does not meet their needs. This article uses detailed 2014-2015 survey data from rural households across six states in India to understand the relationship between the quality of electricity service and households’ willingness to pay for an electricity connection.

#### 2. What is the answer?

High quality electricity service significantly affects households’ willingness to pay. A one-hour increase in the total hours and nighttime hours of electricity available increases households’ willingness to pay for connections by 13% and 34% respectively. Additionally, a 10% increase in the quality of electricity – measured based on total available hours, the frequency of electricity outages, and the frequency of voltage fluctuations – increases willingness to pay by around 48%.

#### 3. What does this mean for policy and practice?

This insight has direct implications for India’s rural electrification programs, which subsidizes the cost of electricity without improving its quality. Addressing the quality of electricity service is essential and would increase households willingness to pay for it. The revenue from these households would, in turn, help pay for the cost of these improvements.

#### 4. About ISEP

The Initiative for Sustainable Energy Policy (ISEP) is an interdisciplinary research program that uses cutting-edge social and behavioral science to design, test, and implement better energy policies in emerging economies. Hosted at the Johns Hopkins School of Advanced International Studies (SAIS), ISEP identifies opportunities for policy reforms that allow emerging economies to achieve human development at minimal economic and environmental costs. The initiative pursues such opportunities both pro-actively, with continuous policy innovation and bold ideas, and by responding to policymakers’ demands and needs in sustained engagement and dialogue.

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