

# Electrification and Welfare for the Marginalized: Evidence from India

EPRG Working Paper 2101

Cambridge Working Paper in Economics 2107

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## Abstract

Uneven electrification can be a source of welfare disparity. Given the recent progress of electrification in India, we analyze the differences in access and reliability of electricity, and its impact on household welfare for marginalized and dominant social groups by caste and religion. We carry out longitudinal analysis from a national survey, 2005-2012, using OLS, fixed effects, and panel instrumental variable regressions. Our analysis shows that marginalized groups (Hindu Schedule Caste/Schedule Tribe and Muslims) had higher likelihood of electricity access compared to the dominant groups (Hindu forward castes and Other Backward Caste). In terms of electricity reliability, marginalized groups lost less electricity hours in a day as compared to dominant groups. Results showed that electrification enabled marginalized households to increase their consumption, assets and move out of poverty; the effects were more pronounced in rural areas. The findings are robust to alternative ways of measuring consumption, and use of more recent data set, 2015-2018. We posit that electrification improved the livelihoods of marginalized groups. However, it did not reduce absolute disparities among social groups.

**Keywords** Electricity access, Electricity reliability, Instrumental variables, Marginalized groups, Welfare

**JEL Classification** D12, D31, E12, I32

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Publication January 2021  
Financial Support Financial support from the Copenhagen School of Energy Infrastructure (CSEI) to Tooraj Jamasb is acknowledged.

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