



## Evidence of gender inequality in energy use from a mixed-methods study in India

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### **ABSTRACT**

Prior studies suggest that women particularly stand to benefit from increased electricity access. Yet, few have empirically tested this implicit linkage between energy access (SDG 7) and gender equality (SDG 5). More specifically, few explore how female household members use electricity once it is made accessible. Using India as an illustrative case, we conduct a mixed methods study. We first inductively assess household appliance use by gender in Gujarat (n = 31). We then assess the generalizability of the use patterns identified through a representative six-state household survey (Bihar, Jharkhand, Madhya Pradesh, Odisha, Uttar Pradesh and West Bengal, n = 8,563). In including use, we find that women are neither the sole nor primary beneficiaries of electricity access, even when appliances that would particularly benefit them are affordable. While energy access could improve gender equity, our study highlights intra-household power dynamics as an important boundary condition on realizing more equitable energy access.

### **BIOGRAPHY**

Paulina Jaramillo is currently a professor of engineering and public policy at Carnegie Mellon University (CMU). Jaramillo's past research focused on life cycle assessment of energy systems with an emphasis on climate change impacts and mitigation research. As a professor at CMU, she is currently involved in multi-disciplinary research projects to better understand the social, economic, and environmental implications of policy-driven changes in the operations of the energy system. Over the past five years, her research and education efforts have expanded to include issues related to energy access and development in the Global South. She has also worked to incorporate values and beliefs in energy planning in historically disenfranchised communities and to understand the implications of energy access in gender equity.