

# Public Support for Community Microgrids: Valuation Evidence from Arizona, Colorado, New Mexico, and Utah



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# Electric customers are willing to pay for microgrid installations depending on the level of benefits.

### Motivation

- First research into whether electric customers value microgrid installations to increase reliability and resiliency in the Southwest.
- Four-corners is a unique study site with wide range of reliability and policy objectives by jurisdiction
- Microgrids do not benefit customers equally, so it is valuable to see how support differs between different levels of benefits.
- Electric providers, regulators, and stakeholders should know the public demand and willingness to pay for these systems.

### Level of Benefits

- **Split sample:** 2,397 in indirect benefits group, and 2,385 in direct benefits group
- **Direct group:** "...would directly benefit your community by providing electricity to the community and support for critical infrastructure during stress events."
- **Indirect group:** "...would be installed in a nearby community, but in times of grid stress, this microgrid could reduce the probability of outages to your community."

### Key Takeaways / Conclusions

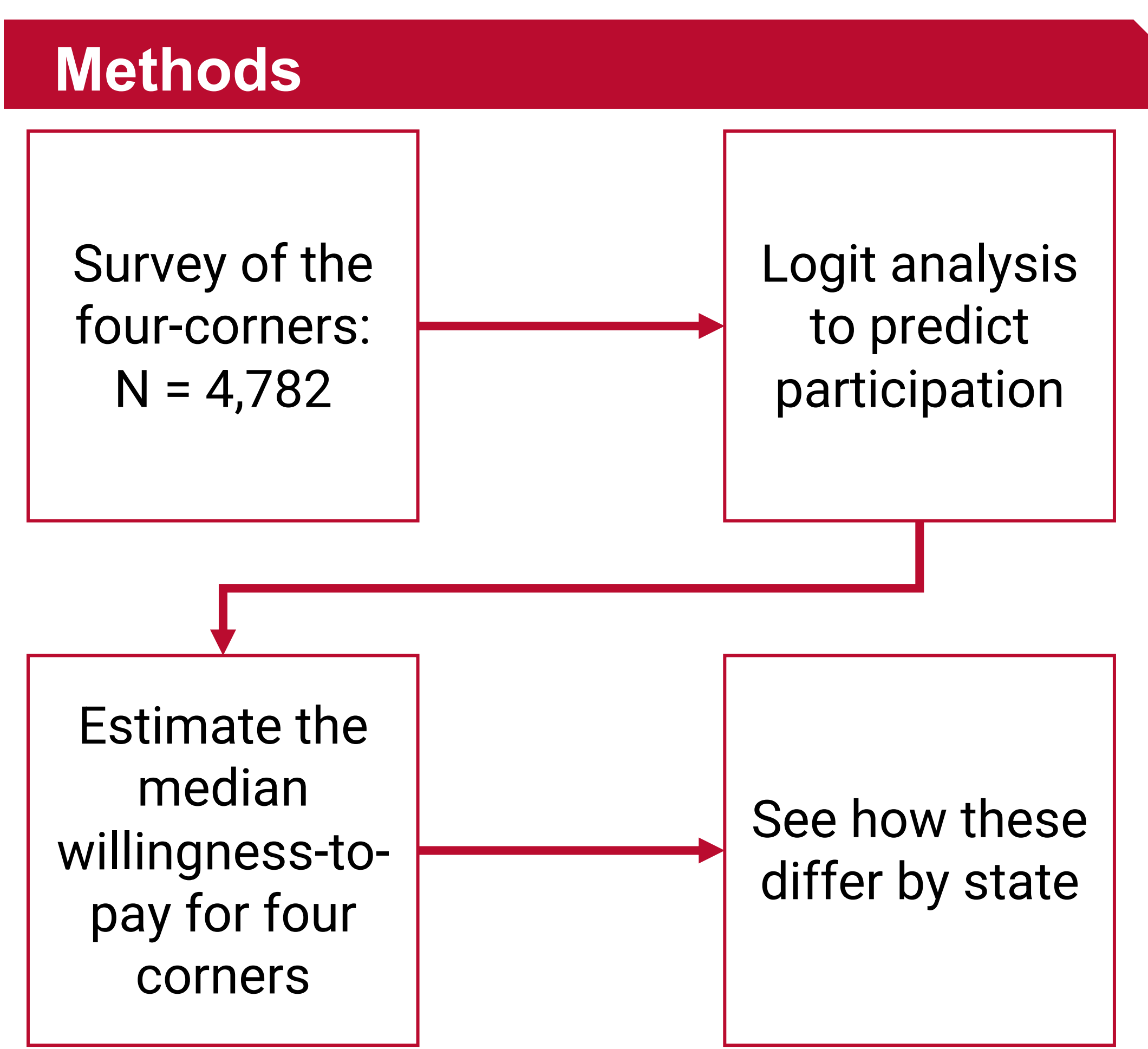
- The public are more likely to support microgrids if they directly benefit their local community (critical infrastructure and reduced power outage potential).
- The median WTP is higher for microgrids providing direct benefits. This suggests that decision-makers might want to stagger surcharge increases based on location.
- Socioeconomic, institutional, and ideological characteristics of respondents greatly affect their willingness to vote for the installation
- Results differ by state due to heterogeneity among respondent and state characteristics
- Strong majority would emerge if the microgrid was guaranteed to use entirely renewable generation on site.

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### Main Results (Full Sample/Four Corners)

**Program Support**

- No – 39.98%
- Yes – 42.38%
- Not Sure – 17.67%
- People are more likely to support if benefits are direct

**Direct Benefits Group**

- Median Monthly WTP = \$0.58 per electric rate payer
- Total Program WTP = \$13.92 per electric rate payer (24-month surcharge)

**Indirect Benefits Group**

- Median Monthly WTP = \$1.06 per electric rate payer
- Total Program WTP = \$25.44 per electric rate payer (24-month surcharge)

### State Specific Analysis

**State Differences**

- Utah is WTP the most – substantially higher than the other states, and New Mexico is WTP the least
- States are substantially different in renewable portfolio standards, average electricity cost per month, energy mix, an reliability
- Arizona and Colorado are WTP the least and results are similar to main conclusions (most reliable electric grids, 2<sup>nd</sup> and 11<sup>th</sup> respectively)

