Public Support for Community Microgrids

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Utility-owned community microgrids can provide end-users with decentralized grid access to distributed energy resources and improve reliability and resiliency. However, the feasibility of installing microgrids requires rigorous cost-benefit analysis, which should incorporate social values. Currently, the gap in our understanding of ratepayers’ preferences for community microgrid services leaves stakeholders guessing. Using a survey-based contingent valuation method, with a referendum-style elicitation format, this paper provides evidence of public support for community microgrid installations in Arizona, Colorado, New Mexico, and Utah (the Four Corners). The Four Corners region is unique in its potential for renewable electricity capacity as well as heterogeneous state policy objectives regarding the transition to clean energy. A split-sample survey of 4,783 Four Corner’s ratepayers resulted in between 40-45% of respondents voting to support a community microgrid installation (after controlling for hypothetical bias) with a median willingness-to-pay (WTP) of $25.44 (divided among 24 months) if the ratepayer received direct benefits, or $13.92 if they received indirect benefits. Ratepayers in Utah were willing to pay the most relative to the other states. Additionally, a significant amount of respondents suggest they would change their vote in favor of the microgrid if it incorporated entirely renewable generation sources. Results highlight the impacts of ideological, institutional, and socioeconomic factors on public support and WTP.