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Abstract

Systemic blackouts have increased due to extreme weather events and supply shortages, leading to a prominent example of demand rationing. Exploiting features of smart meters, we propose a partial rationing policy for residential households to avoid blackouts. We have two main findings. First, partial rationing policies can be equivalent to large rolling blackouts, even when the partial rationing is generous. Second, due to selection, partial rationing policies reduce the number of households effectively impacted by the rationing event, even without losing power. We conclude with a discussion of open questions about the design of optimal rationing policies.



Short Bio

Mar Reguant (PhD in Economics, MIT, 2011) is an expert in the areas of electricity market design and climate policy. She has previously worked at Stanford GSB and the Toulouse School of Economics, and Northwestern University. She is now an ICREA researcher at IAE-CSIC and a professor (part-time) at Northwestern. She has received numerous awards, including a Presidential Early Career Award for Science and Engineering (PECASE, 2019) and an ERC Consolidator grant in 2021.

Speakers

Speaker: Mar Reguant. ICREA Researcher at IAE-CSIC.

Host: Francisco J. Doblas-Reyes, Earth Science Department, BSC.

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