



# CoCo Seminar Series Spring 2024

## How to Make Collaborative Decisions on the Way to Net- Zero Energy System?

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**Wednesday March 27, 2024 12:00-1:00pm EDT  
Hybrid (EB-T1 & Zoom; meeting link available on  
<http://coco.binghamton.edu/>)**



Transition to zero-carbon energy infrastructure entails collaborative decision-making between utilities, policymakers, and stakeholders with conflicting objectives. In the real world, these contradictory objectives must be resolved locally at a much higher spatial resolution than what mathematical models can handle. In this talk, I develop a framework that can make it easier for communities to create clean-energy plans that incorporate their community values and identify preferred least-regrets spatial patterns of clean-energy infrastructure deployment. I will a case study that uses linear programming based spatially, temporally, and operationally resolved power system capacity expansion model (CEM) to evaluate technology tradeoffs in the New York State. Finally, I will discuss tools to explore technology and resource tradeoffs in real time to facilitate collaborative decision-making.

Neha Patankar is a macro-scale energy system modeler and an operations research analyst focusing on the rapidly evolving electricity sector. She works with large-scale linear programming models and uncertainty analysis techniques to provide utilities, policymakers, and stakeholders with robust energy technology and infrastructure deployment pathways. Her research supports policy decisions under deep techno-economic uncertainty, reveals system-wide technology and resource tradeoffs, and evaluates the pathways for economy-wide decarbonization.

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