



Designing Institutions for Clean Energy Justice

Carnot Lecture in honor of Jacqueline
Patterson, 2024 Carnot Prize Recipient

November 4, 2024

Shelley Welton



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Advancing justice requires building public institutions that are democratically accountable and responsive, and that have the authorities and capacities to ensure equity and justice, dismantling systems of domination and inequality.

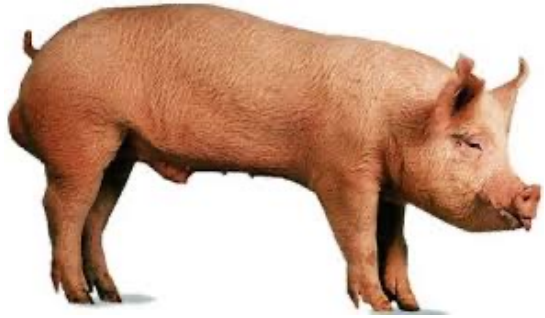


K. Sabeel Rahman

Structural Justice and the Infrastructure of Inclusion



Our energy institutions are ill-equipped to manage clean energy justice concerns. Understanding how institutional design relates to substantive justice challenges opens pathways for structural reforms that can help advocates achieve clean energy justice.



What is **clean energy** justice?



What is clean energy justice?

Energy justice: aims 'to provide all individuals, across all areas, with safe, affordable and sustainable energy' (Jenkins 2018)

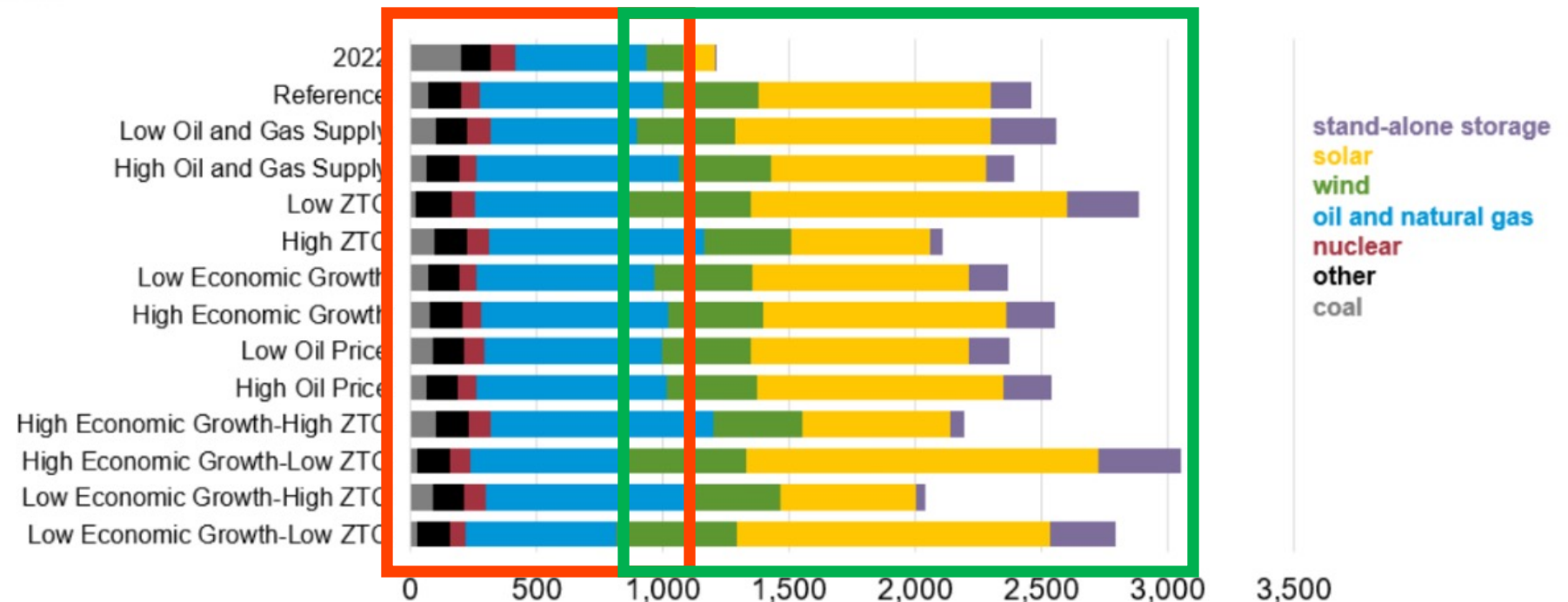


What is clean energy justice?

Projected U.S. Energy Mix, 2050

Figure 3.

Total installed capacity in all sectors, 2022 (history) and 2050
gigawatts



Data source: U.S. Energy Information Administration, *Annual Energy Outlook 2023* (AEO2023)

Note: ZTC=Zero-Carbon Technology Cost; other=geothermal, biomass, municipal waste, fuel cells, hydroelectric, pumped hydro storage.



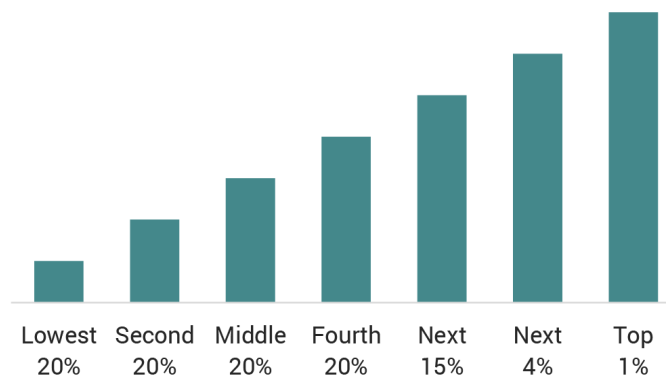
Major Justice Considerations in the Clean Energy Transition

- (1) Who pays?
- (2) Who benefits?
- (3) What kinds, and where does it all go?
- (4) **Who decides?**

Who Pays?

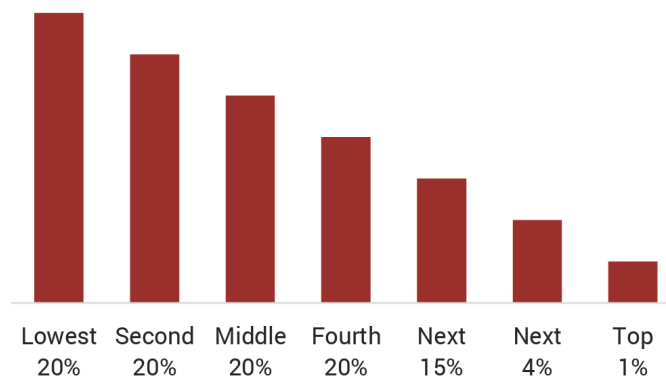
1. Ratepayers versus taxpayers
2. Rate design
3. Beyond dollars

Progressive, Regressive, or Proportional?



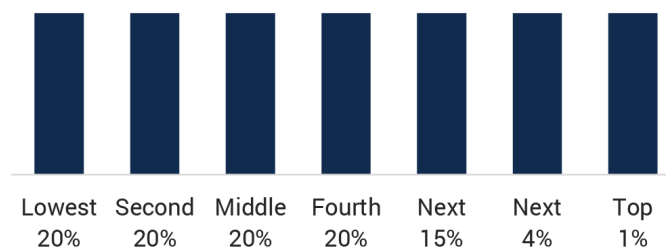
Progressive Tax

A progressive tax is one in which upper-income families pay a larger share of their incomes in tax than do those with lower incomes.



Regressive Tax

A regressive tax requires poor and middle-income families to pay a larger share of their incomes in tax than upper-income families.



Proportional Tax

A proportional tax requires the same percentage of income from everyone, regardless of how much or how little they earn.

Who Pays?

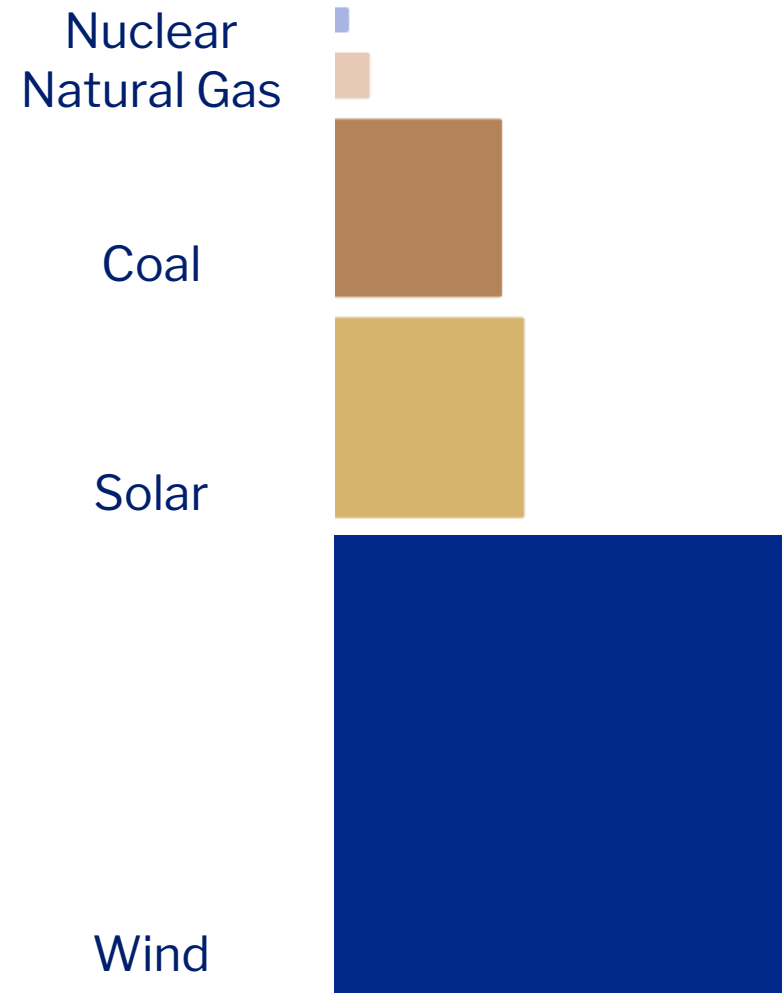
1. Ratepayers versus taxpayers
2. Rate design
3. Beyond dollars

Who Benefits?

1. Monetarily and beyond
2. Producers v. consumers
3. Job quantity & quality

What kinds, and where does it all go?

Land area needed for various energy sources



Who decides?

Households, communities, workers, and civil society groups are cohering visions and movements for clean energy justice.



THE
CHISHOLM
LEGACY
PROJECT

THE PEOPLE'S VISION ²⁰²⁰
for a Democratic, Just
and Green TVA

“Different companies will continue to move certain things in that we don't know that's a hazard to our health. We are just looking at the fact that we got jobs coming in. . . .we are not looking at the overall picture of what it's gonna do to our health. Not just ours but our children's health and the future of our communities.”



Sarah
Suburban South Carolina

I would put resources into solar farms, and wind farms, and the renewable options. There's plenty of land that the country has.



Lucy
Urban South Carolina

“I actually think that if this community, from where it drops off at the mountain here and comes over to this mountain over here, if they worked together that they could have free utilities all the way through this hollow, if all these people got together and worked together Just from a little bit of solar, a bit from the water, a little bit from the wind. I think we could all have free utilities through here.”



Tabitha
Rural Tennessee

“public law’s stylized appeals to the public reflect analytic imprecision and inattention to the values, views, and votes of actual people”

Menezes & Pozen, Looking for the Public in Public Law (forthcoming *U. Chi. L. Rev.*, 2024)

The Energy Democracy Gap

Concerns and hopes articulated by households, communities, & workers



Discussions, metrics, & decisions in energy institutions

to mind: regard as important; feel concern about.



Who decides?

oversees regional markets and planning, sets transmission and wholesale electricity rates

Federal Energy Regulatory Commission

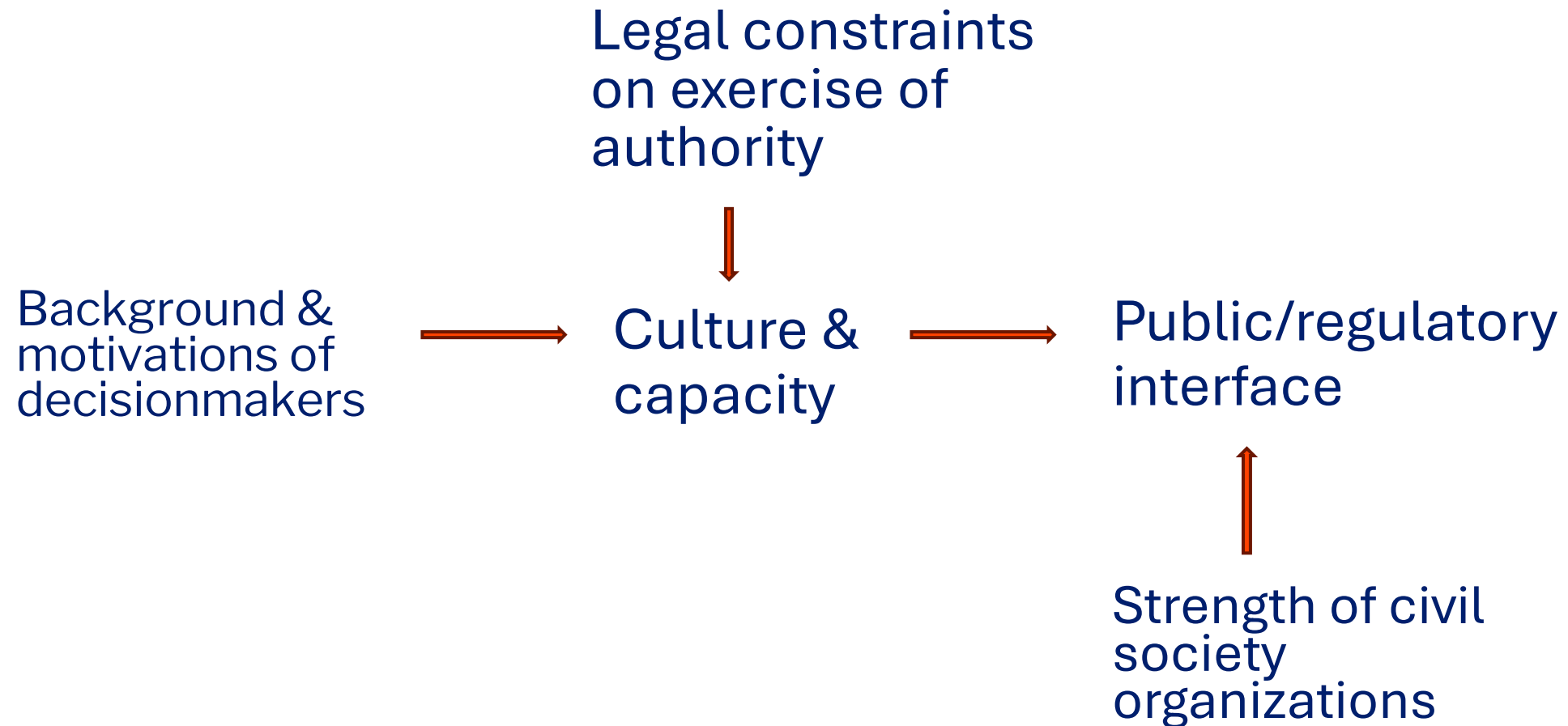
dispatch electricity, engage in long-term transmission planning, design electricity market and interconnection rules

Regional Transmission Organizations

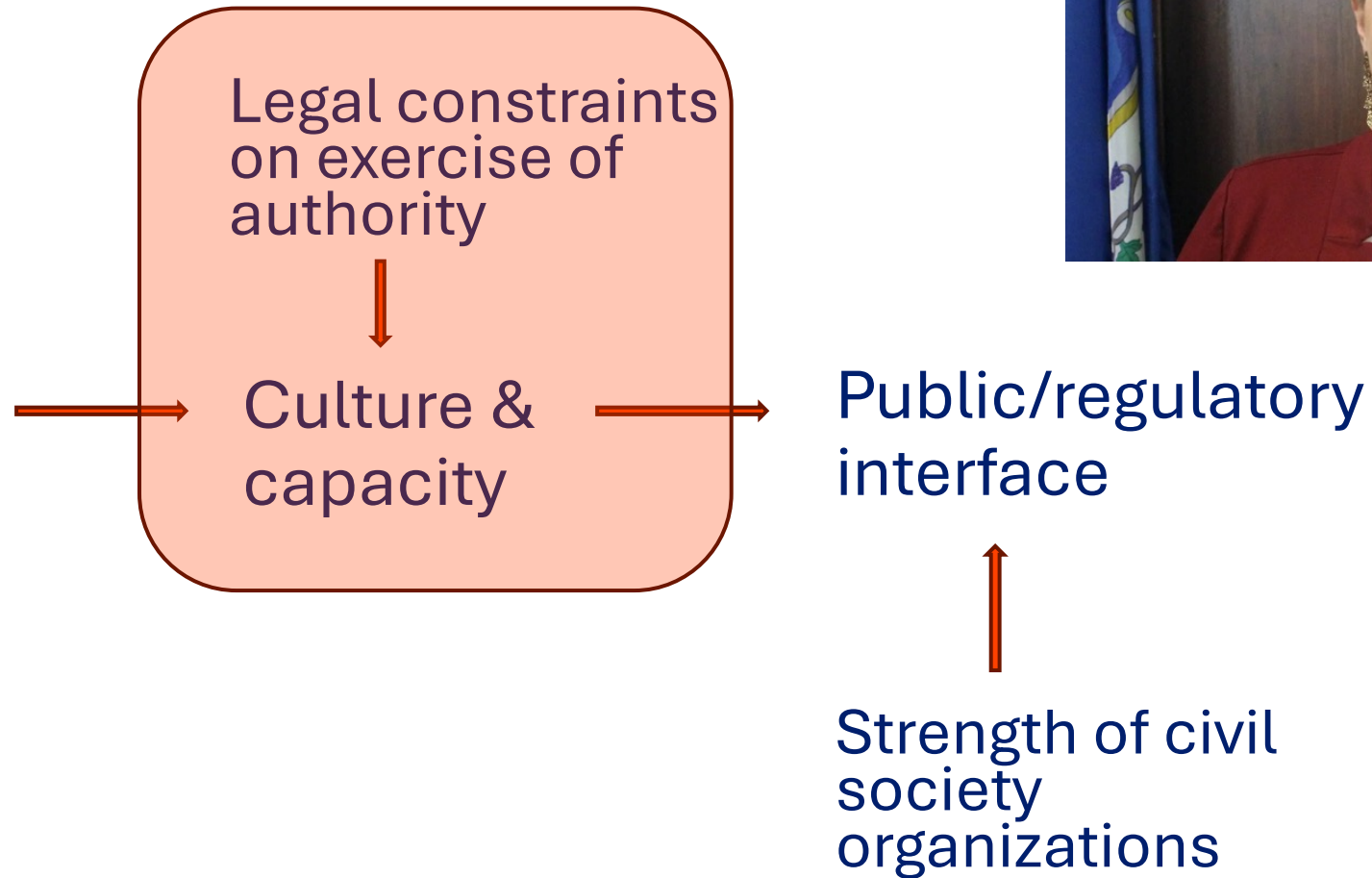
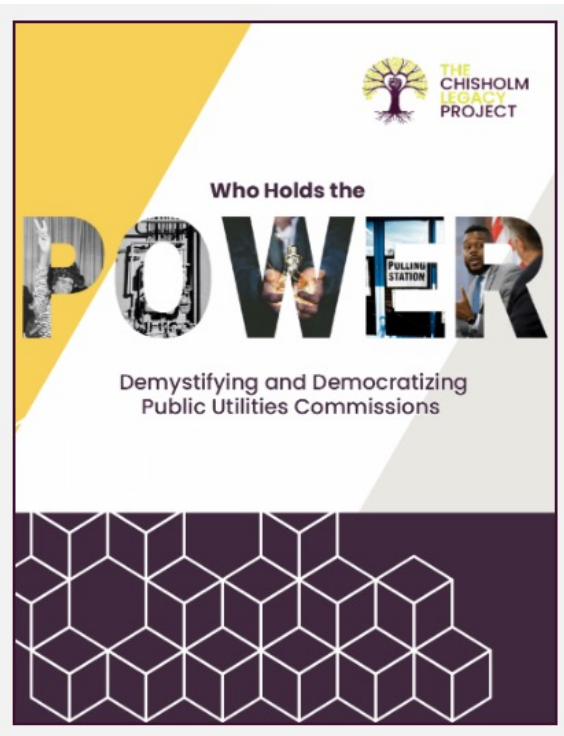
State Public Utilities Commissions

set rates, oversee resource planning, manage affordability, set policies on community and rooftop solar

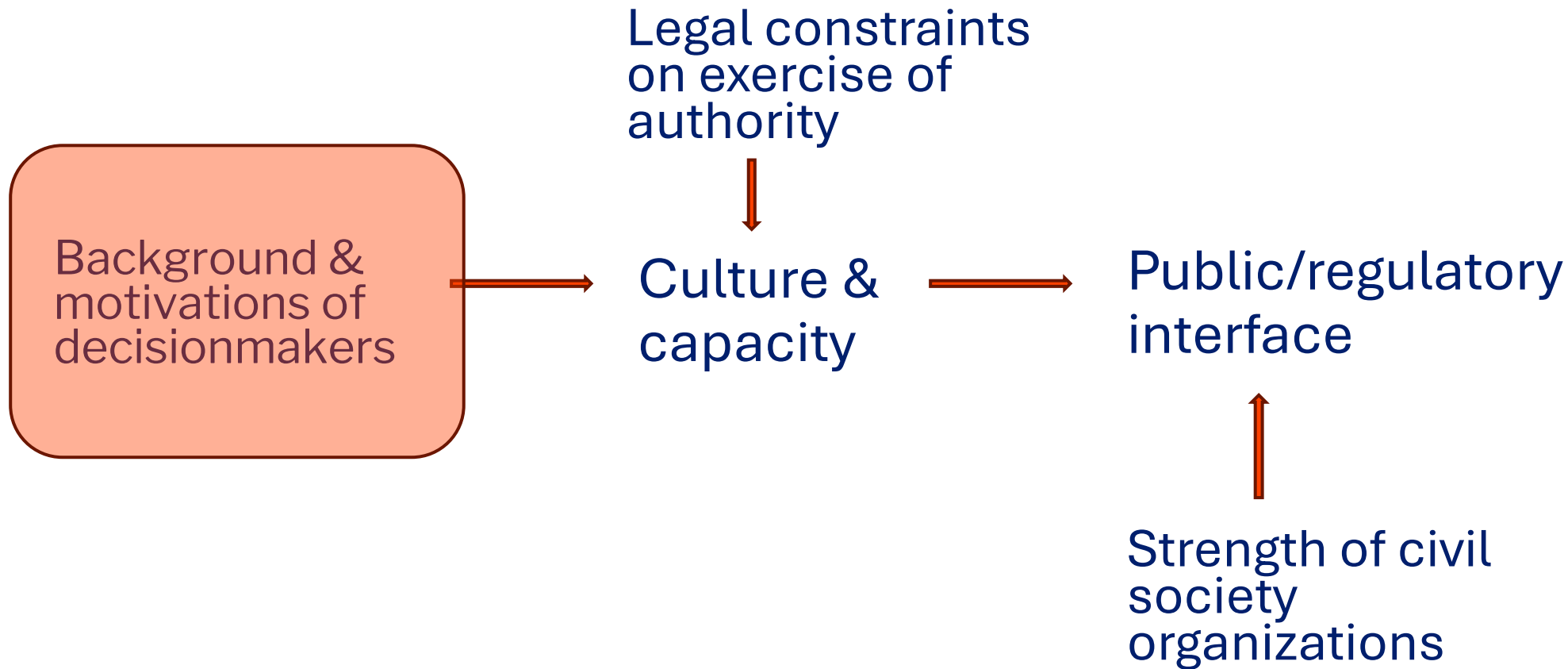
Key Design Considerations for Instantiating Clean Energy Justice



State Public Utilities Commissions

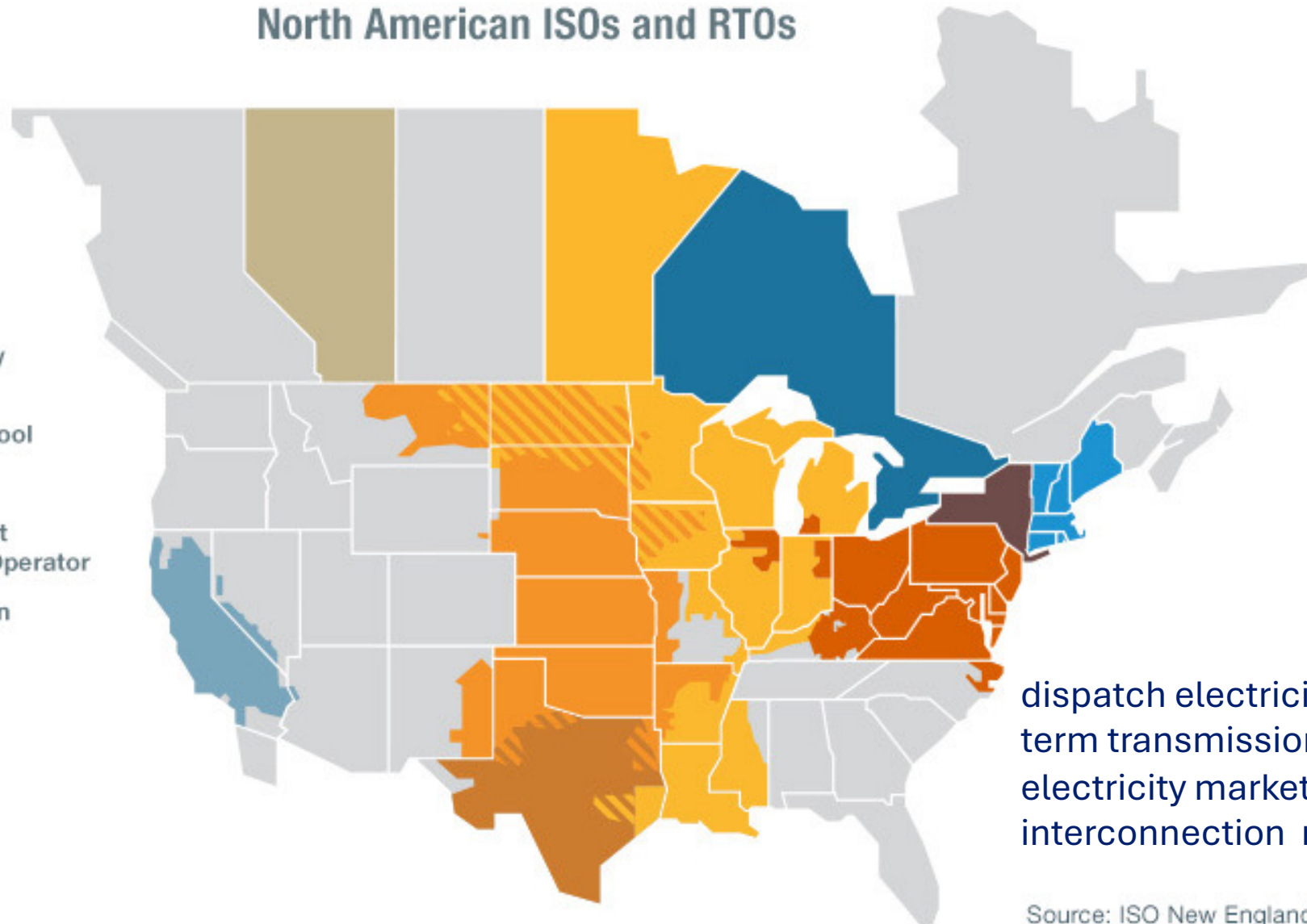


Regional Transmission Organizations



North American ISOs and RTOs

- California ISO
- Alberta Electric System Operator
- Electricity Reliability Council of Texas
- Southwest Power Pool
- Midcontinent ISO
- Ontario Independent Electricity System Operator
- PJM Interconnection
- New York ISO
- ISO New England



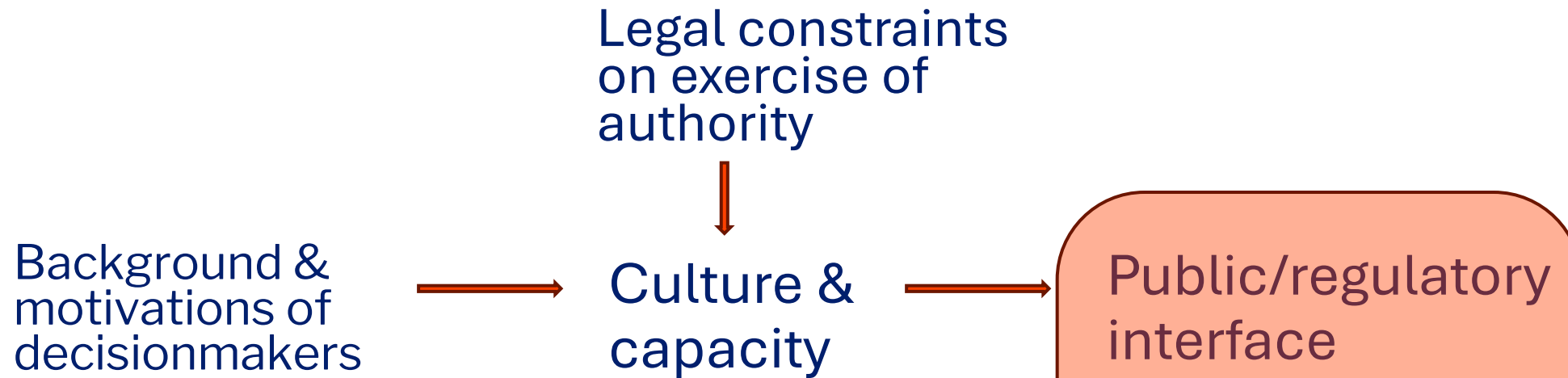
dispatch electricity, engage in long-term transmission planning, design electricity market and interconnection rules

Source: ISO New England

One 2020 study found that a comprehensive approach to building transmission in just the eastern half of the United States could produce consumer savings of \$100 billion through 2050, **decreasing the average bill rate by more than one-third.**

Christopher T.M. Clack, Michael Goggin, Aditya Choukulkar, Brianna Cote, and Sarah McKee, *Consumer, Employment, and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S.* (Washington, DC: Americans for a Clean Energy Grid, 2020).

Federal Energy Regulatory Commission



Procedure Fetish?

Administrative law is shot through with arguably counterproductive procedural rules. . . . Along the way, a positive vision of the administrative state—one in which its legitimacy is measured not by the stringency of the constraints under which it labors, but by how well it advances our collective goals—has been shoved to the side. . . . It's well past time for more skepticism about procedure.

Nicholas Bagley, *The Procedure Fetish*, 118 Mich. L. Rev. 345 (2019)



Closing the Energy Democracy Gap

Concerns and hopes articulated by households, communities, & workers

Reclaim “**public** utility law”

Reorient understandings of “expertise” in the transition

Think beyond traditional ratemaking & market design

Bolster institutional capacity

Relinquish control



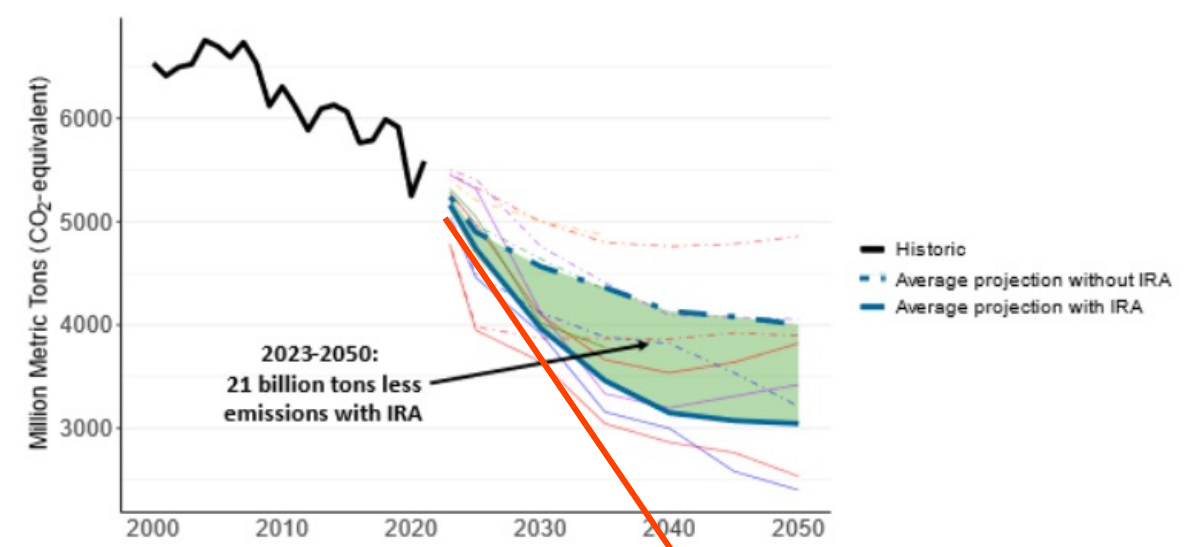
Discussions, metrics, & decisions in energy institutions





Does the Inflation Reduction Act “mind the gap”?

Figure 1. Projected Greenhouse Gas Emissions Reductions



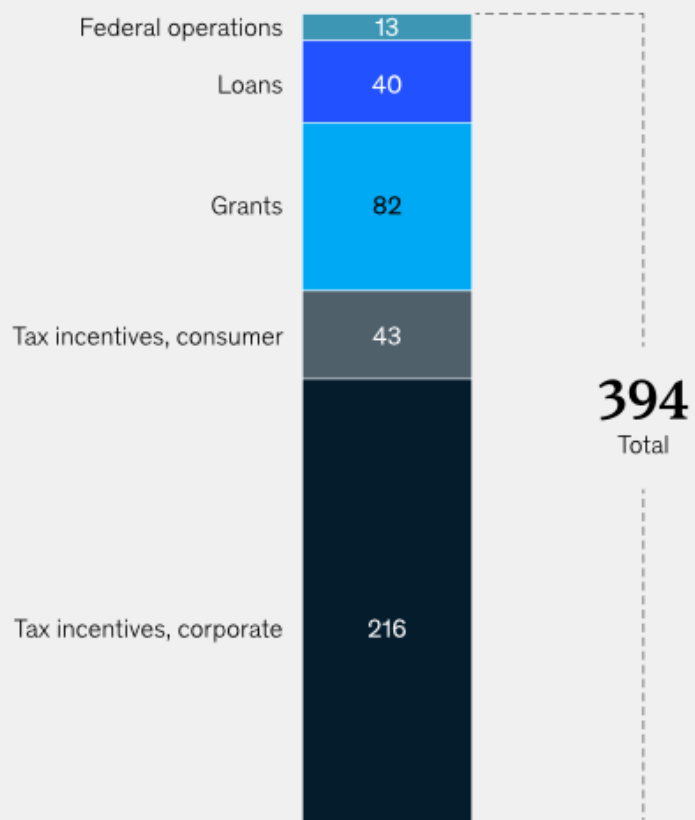
Source: Historic net emissions for 2000-2021 from [EPA Emissions Inventory \(2022\)](#). Projected future emissions based on [Bistline et al. \(2023\)](#). Each pair of dashed and solid lines represents the projections from one of the six models, with and without the IRA. The thick lines represent the simple averages of the six.





Corporations, individuals, and state and local governments are all eligible to receive funding in the energy portion of the Inflation Reduction Act.

Energy and climate change funding in the Inflation Reduction Act, \$ billion



Note: This exhibit reflects analysis of the appropriation figures contained in the Inflation Reduction Act, as well as those reported by the Congressional Budget Office and Joint Committee on Taxation. This analysis may differ from other analyses due to differences in methodology.
Source: Inflation Reduction Act of 2022, H.R. 5376, 117th Cong. (2021–22)

- (1) Who pays?
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“Across the country and world, community by community, people are building microcosms of the systems and societies we need to reverse the tide of catastrophic climate change and become a world that respects rights for all people, in harmony with Mother Earth In short, resistance is rising and systems are changing.”



Jacqui Patterson

“At the Intersections” in All We Can Save (2020)