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Energy and Policy: Who Holds the Levers of Resilience?

By Sarah Khan, Mahdis Borhani, John Rodriguez, and Hollis Belnap

Understanding Energy Policy

Energy policy is the invisible framework that shapes how we live, work, and prepare for resilience challenges. From building codes and permitting to utility regulation, these rules determine how strong—and how fair—our energy systems truly are. In the face of increasing climate disasters, policy isn't just paperwork—it's the foundation of resilience.

New technologies and clean energy projects may generate excitement, but without thoughtful policies guiding their deployment, they often fail to deliver real benefits. The energy sector is highly regulated for a reason: it powers modern life. Everything from affordability to access to reliability depends on the rules that govern it.

In the U.S. and Canada, decades of formal energy policies have built some of the most reliable power systems in the world. Agencies like NERC (North American Electric Reliability Corporation) ensure the lights stay on—but reliability is only one piece of the puzzle. Policies also shape sustainability, affordability, environmental protection, and yes, *resilience*.

Who Makes the Rules?
Federal, State, and Local Breakdown

Energy and environmental policies operate in layers—each with its own scope and influence. At the top, global organizations like the UN and IPCC set climate targets. National governments create laws and regulations to meet those goals, while provinces, states, and municipalities enforce them on the ground.

In the U.S., energy governance can be thought of as a hierarchy:

- **Federal policies** include funding programs, emissions standards, and national initiatives like the Inflation Reduction Act.
- **State-level policies** may establish renewable portfolio standards, net metering laws, or grid reliability rules.
- **Local policies** are often the most durable—covering zoning, energy efficiency standards, community protection plans, technology adoption projects, and more.

Because local policies are more likely to reflect the values and needs of a community, they can be powerful drivers of long-term change.

How Policy Shapes Daily Life and Infrastructure

Most people don't realize how deeply energy policy touches their day-to-day lives. The ability to flip a switch and expect reliable light, heat, or internet is the result of decades of policy-driven planning. So are programs that reduce cost and encourage clean energy, like electric vehicle rebates, solar panel incentives, and weatherization assistance programs.

Policies also shape the future of transportation, land use, and productivity. The cars we drive, the buildings we live in, and even the air we breathe are all influenced by decisions made at various policy levels.

Crucially, energy policies also determine who receives the support they need during emergencies. In extreme weather events like heat waves or wildfires, vulnerable populations often suffer the most. Smart policy can close those gaps. For example, by funding cooling centers in

underserved neighborhoods, expanding access to backup power, or targeting home energy upgrades in high-risk areas.

~ Policy Spotlights ~

Transmission Permitting and Resilience by Sarah Khan

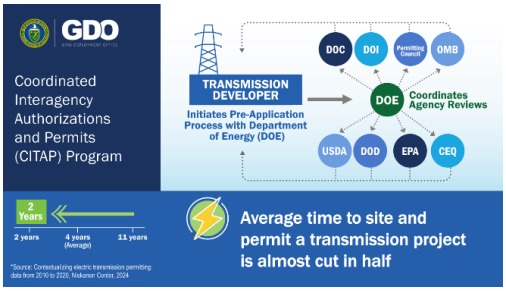
We often talk about expanding the grid to meet growing demand — and nowhere is this more urgent than with the explosive rise of data centers, which are straining local capacity and pushing us toward unprecedented electricity needs. One of the most critical pieces of this puzzle is transmission expansion. But here's the catch: building new lines doesn't just depend on engineering or financing — it depends on **permitting policy**.

At the **federal level**, policies like the National Environmental Policy Act (NEPA) set the stage with rigorous environmental reviews. At the **state level**, utility commissions weigh public interest, siting, and land use. And at the **local level**, zoning and county governments ensure that communities have a say. Each layer exists for good reason, but together they often create permitting timelines that stretch into years — or even a decade.

Public sentiment shows that people recognize the challenge. In fact, 71% of Americans agree the federal government should speed up permitting for essential grid projects — even if it reduces local control. That's a powerful signal. Support grows even stronger when benefits are clear: 94% say they'd back transmission if it lowered their electricity costs, and 93% if it made the grid more reliable in their community.

The tension is obvious: permitting ensures safety, accountability, and environmental stewardship — but slow approvals risk locking us out of the very resilience we need. For fast-growing loads like data centers, delays could mean bottlenecks that make power more expensive, less reliable, and less secure.

So how do we move forward? We don't need to abandon safeguards, but we do need to streamline. Federal coordination programs like DOE's CITAP (refer to picture below) aim to cut duplication, while early engagement with communities and tribes can resolve conflicts before they stall projects. If we can **shorten the process without compromising standards**, we'll not only keep pace with demand but also build a grid that is cleaner, stronger, and ready for the future.



Engineering Meets Psychology in Resilience by Mahdis Borhani

Energy and environment policy debates usually point to political gridlock or institutional barriers, but an equally important part of the story lies in how humans think. Three behavioral biases: present bias, the availability heuristic, and optimism bias, help explain why governments systematically underinvest in resilience even when the benefits are obvious.

Present bias pushes both voters and policymakers to favor short-term gains over long-term preparedness. Disaster relief gets attention because it is immediate and visible, while investments in prevention are delayed, even though they save far more money in the long run. Election cycles and political turnover reinforce this bias, creating a cycle where resilience is always someone else's responsibility.

The availability heuristic skews our perception of risk toward what is vivid and recent. After 9/11, terrorism dominated U.S. funding priorities for years, even as climate risks posed greater long-term danger. Climate change feels abstract until a flood, fire, or storm brings it to life. Policy follows this salience: resources surge after disasters but taper off once memories fade.

Optimism bias adds another obstacle. Many people believe that disasters are more likely to affect others than themselves. This reduces pressure on politicians to make forward-looking investments, sustaining a policy cycle dominated by short-term relief. Optimism bias also helps

explain why momentum for climate adaptation often fades soon after a disaster, as communities return to a false sense of security.

The implication for climate policy is clear: addressing institutional barriers is not enough. Effective resilience strategies must be designed with these behavioral tendencies in mind, making preparedness visible, framing risks in concrete terms, and communicating in ways that motivate rather than alienate. By working with, rather than against, human psychology, policy can finally start to match what engineering and science already make possible.

Power Struggle: An Assessment of Utah's Renewable Portfolio Standard by Hollis Belnap

Utah's renewable portfolio standard, S.B. 202, was passed in 2008 as the Energy Resource and Carbon Emission Reduction Initiative. It set a goal for utilities to supply 20% of adjusted retail sales from renewable sources by 2025, but only if doing so was deemed *cost-effective*. Though the policy has prompted some renewable integration, its meager target remains far below that of most states and underestimates Utah's abundant renewable potential.

The law is voluntary and unenforceable. It outlines no penalties for non-compliance, relies on self-reported progress, and does not require utilities to make their reports public. PacifiCorp, Utah's dominant utility, has not been compelled to release progress toward the target, leaving little transparency or accountability. This lack of monitoring makes it difficult to assess whether the policy has had any real effect.

In addition to its weak enforcement, S.B. 202 relies on problematic rhetoric that frames renewable development as a cost burden. The bill explicitly conditions renewable adoption on whether it is "cost-effective," reinforcing misconceptions that economic growth and renewable integration are at odds. In reality, current energy economics and technologies strongly favor renewables, and Utah's inexpensive electricity could be preserved even while scaling up renewable adoption.

Utah's own Renewable Energy Zones Task Force identified more than 6,300 square miles of solar zones capable of producing 826 gigawatts of power—greater than the peak demand of the entire United States. The state also possesses significant wind and geothermal potential. These resources demonstrate that S.B. 202's 20% target was not only unambitious but also disconnected from the state's actual capacity for renewable development.

To be effective, the standard should be reformed into a mandatory, enforceable policy with higher targets, public reporting requirements, and penalties for non-compliance. Built-in ratcheting mechanisms could automatically adjust goals as technology and economics evolve, ensuring the standard remains relevant beyond 2025. Without such updates, S.B. 202 will remain an outdated statute that symbolizes progress without delivering it.

Salt Lake Preservation: Beginning of good efforts by John Rodriguez

In February 2024, the Utah representatives passed a bill which addressed actions that affect the Great Salt Lake. This bill HB 453, is designed to address mineral taxes and water rights in regards to mining resources essential to power production in the U.S. such as lithium and magnesium. This bill sets a standard of the taxes that are levied against groups who mine the lake as well as the sale of such minerals. The bill also establishes responsibility on the Utah State Engineer for developing a plan to govern water distribution rights for mineral extraction. This bill has been celebrated by some conservation groups, but still leaves some believing more should have been done.

The HEAL Utah group and the National Audubon Society supported the bill for its regulation of mineral extraction as well its promotion of water-friendly technologies and a water distribution plan to protect the lake's water during low years. Not every group supported the bill though. There were calls that stated not enough was being done to set an elevation range but no specific groups were openly opposed to the bill.

This bill uses the measure of salinity for a lot of its limits instead of a water level. As salinity reaches a certain level, the Division of forestry, Fire and State Lands has the power to curtail mineral extraction. The movable causeway that separates the North and South arm of the lake, helps stabilize the salinity when levels.

Could there be more done to stabilize the Great Salt Lake and establish more protections for it? Yes of course, but this bill has set good standards for preventing industry from depleting it as much as they would like for the sole purpose of mineral extraction. More can be done to incentivize industry to use more water friendly practices and ensure that the lake level never reaches a critical point.

❓ Questions to Ponder:

How can communities influence the policy levers that most affect their resilience?

What balance should exist between federal oversight and local autonomy in resilience adaptation?

How do we ensure policies serve vulnerable populations rather than leaving them behind?

How can we infuse policy with good science?

For further reading:

Energy resource and carbon emission reduction initiative (No. S.B. 202). (Utah 2008). Retrieved from https://le.utah.gov/2008/bills//sbillint/sb0202.htm