AFFORDING OUR ENERGY FUTURE:

PERSPECTIVES TO POWER CHANGE

An Anthology of Essays

JUST SOLUTIONS

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About Just Solutions

Just Solutions drives innovative, equitable solutions to the climate crisis in support of healthy, resilient communities and accountable democratic institutions. The movement strategy of Just Solutions is grounded in a belief that the most impactful policies can be created, passed, and implemented at the state level. As a result, Just Solutions invests deeply in the leadership of state-level coalitions and organizations to spur innovation, build powerful networks, and accelerate climate solutions that protect and strengthen community health and resilience, reduce greenhouse gases as quickly as possible, and end our country's dependence on fossil fuels.

We are grateful to our many partners whose ideas, years of collaboration, and insightful questions have helped shape how we think about energy affordability impacts and policy. We are also grateful to the funders who supported our staff's and fellows' work in creating this document, creating communications content, and facilitating collaboration. Thank you to Beldon Wolson and Ania Potocki for layout and design. Any errors or omissions remain our own.

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JUST SOLUTIONS

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FOREWORD

AIKO SCHAEFER
Executive Director of Just Solutions

We are seeing a rapid increase in electricity costs, with customers experiencing sticker shock and, not surprisingly, causing rising energy insecurity across the US. Meanwhile, utilities and their shareholders continue to stuff their pockets, and tech billionaires use their influence to swiftly gain access to new energy for AI, even as the main federal energy assistance program for people with lower incomes is hobbled by staff cuts and remains vastly underfunded relative to the level of need. The heightened awareness and apprehension of rising costs, along with growing exacerbating factors like data centers, climate disasters, destabilizing US foreign policy, and utility unaccountability, provide an opportunity for us to inform and shape the debate on energy affordability and what it will take to safeguard a basic necessity in this modern age – access to reliable, affordable energy.

Right now, it can feel like everything is unraveling at a pace and scale that is hard to keep up with. Many of you are practitioners, advocates, parents, all helping in your own ways to hold communities, families, and people together. You are pissed, scared, and shocked, and most people feel disconnected. To come through the storm, we need enough of us to keep our footing and build the movement for change.

Just Solutions was created in 2021 during two social upheavals: the COVID-19 pandemic had brought a need and desire for our shared survival, and the Black Lives Matter movement elevated historic injustices. A new federal administration had brought about a moment of opportunity. The LA Times called 2021 a year of "recovery and renewal". We wanted to leverage the positive aspects of that difficult time to gain a deeper understanding of solutions and greater capacity to advance them, so more people could engage in our democracy and benefit broadly from equitable policies. Our commitment is what keeps us focused as the pendulum has swung back to an era of uncertainty and chaos.

Given the consequences of this moment, and as people are trying to make sense of the rapid and wide-reaching changes happening, Just Solutions published *Pathways for Action* and compiled and analyzed workable models and programs into a searchable library of solutions. Yet we also want to offer systemic explanations and context of why we are where we are and what we can do. In our collection of essays, we asked leaders in the environmental and climate justice movement, including

our Senior Fellows at Just Solutions, to share their thoughts on energy affordability. Together, they elevate our collective thinking by focusing our solutions on larger, more fundamental objectives, reminding us that energy unaffordability is but a symptom of a deeper problem in the US economy, politics, society, and, as one author suggests, our culture.

In a time that calls for action to fight injustices, it can feel like an unwarranted luxury to spend time on deep reflection and learning. Yet to build a broad, inclusive, grassroots movement with the juice and capacity to win and the durability to sustain systemic change, we have to advance a vision for the world in which more people's lives and the lives of their children improve, not just down the road, but now. The benefits of our actions should be equitably distributed, with opportunity and prosperity mostly accruing to those who work in lower-paying jobs that are the true backbone of our economy. These results can shift our culture to one of respect and humanity for one another.

The timely and well-thought-out essays are drawn from decades of experience and expertise of some of the climate justice movement's leading experts, advocates, and organizers. Each one, compiled together, provides insights, diverse yet aligned perspectives, suggested pathways and models, and we hope, the inspiration you need to meet these troubling times to bring forward the solutions and actions needed now more than ever to protect our communities, our democracy, and life on this planet.

INTRODUCTION

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As this series comes to publication, two great challenges have risen above many others in American and global politics. The first is affordability. Affordability is the everyday ability of working people and families to afford their essential needs, like groceries, rent or a mortgage, and utility bills. Affordability is also the feeling of being left behind or no longer able to participate in an economy and society oriented toward the upper-middle class. The second is energy. While rising electricity and gas bills had already driven energy to the top of the American public's attention, the war in Iran, the blockage of Persian Gulf oil and gas exports, and the subsequent global fossil fuel crisis have driven renewed attention to energy. This series offers ideas on the narratives, structures, and governing strategies. We need to realize an approach to energy politics and economics rooted in the values of health, safety, and shared prosperity for everyone. The essays are organized into three sections covering the interrelated elements of energy affordability: the political economy, future energy systems and structures, and governance strategies.

The Political Economy

The discipline of economics exists to understand how we manage resources in the face of scarcity, but for most of us, it comes down to how our incomes compare with our living expenses. Do we feel secure or not, in our present, for our future? For too many, the answer is no. From the cost of eggs at the grocery store to the price of "chicken over rice," affordability is driving politics. At the surface, the issue is straightforward. But there are deeper questions, like defining what needs there are, whose needs they are, and how they get met, that shape our perceptions and responses. Today, most of our politics revolve around solving for scarcity in one way or another. Supply-siders aim to boost availability through spending, productivity, or streamlining markets. They make the case that a greater supply will address affordability. Demand-siders seek to reduce wants or costs to consumers by managing prices, demand, or excluding certain people. Public sentiment data is telling a different story: it's about some people taking more than they need and others not getting enough. That scarcity is not a state of nature; it's something we create and perpetuate, and not something we must organize our politics around.

Energy Systems

While sometimes overlooked, energy drives the availability of everything else. The Energy Information Administration defines energy as the "ability to do work." We use energy for many

things, such as heat, light, transportation, and powering devices. Beyond the visibility for most, it is key to our food systems, clothing, and shelter. Energy is an essential need in the 21st century, both at the household scale - for heating, food preservation, communication - and at the level of society. Energy systems and structures drive our great global challenges, such as climate change, war and peace, health, and poverty. Like affordability, how we supply energy is a factor of our systems. Physics provides the boundaries, but since the widespread adoption of fossil fuels and centralized energy supply, who gets energy at what prices and who profits has become a contest of power, ideas, and the structures built to serve them.

Politics and Governance

The politics of energy is shifting. Energy generation and utility costs are rising to serve tech centers and get ahead of climate impacts. The federal government has pulled the rug out on the intentional energy transition, and the messaging war between renewable and fossil power rages on. Meanwhile, there are practical changes we can take advantage of in the growth of renewables and the impact of climate change that could drive energy democracy and reduce future costs for households. The solutions may lie in bringing these big questions down to the neighborhood level and responding to the basics, like how we keep the lights on in a disaster. They require us to develop new ways of contesting for power with entrenched utilities and multinational fossil fuel corporations. They require us to be effective not just in politics, but in the details of governance.

Perspectives on Affording Our Energy Future

Our political economy, energy systems, and governance structures are interdependent; they do not operate alone. Economic decisions around affordability drive electoral politics, politics drives energy decisions, and energy decisions drive the economics of affordability. Through the lens of scarcity, we know this mostly as a vicious cycle – high costs, divisive politics, and poor energy outcomes. In this collection of essays, we explore how it might become a more virtuous one. The solutions reside in an economy more oriented towards meeting needs than boosting supply, a democratic energy system that shifts power and prosperity from big corporations to households and communities, and a politics that promotes bottom-up, common-good approaches that we follow through with governance.

Just Solutions' Fellows, the Executive Director, and our colleagues are pleased to provide insights into the relationship between affordability, energy, and politics, and how we escape artificial scarcity to achieve health, safety, and security in the present and fast-arriving future. The essays include big ideas about narrative change, including how to build a **culture of energy commons** and embrace **energy sufficiency**. They include concrete ideas about how we reorganize our provision of energy to **build shared prosperity**, take advantage of a **distributed renewable future**, and **create resilience in the face of energy costs driven by climate disasters**. And they include strategies for shifting toward collective power through **bargaining for the common good, developing the**

leadership to govern, building a durable movement from **neighborhood social cohesion**, and **pivoting from profit-driven to people-driven politics**.

Through diverse perspectives, as community organizers, state legislators, poverty experts, engineers, climate wonks, and more, these essays and interviews offer reflections, ideas, and examples. This compilation is intended to help champions of climate justice and beyond to craft a path forward. This work complements Just Solutions' energy affordability *Pathways for Action policy library*, which is full of analyses of model policies and tools that turn our best thinking into tangible campaigns to realize change.

SECTION

1

THE POLITICAL ECONOMY OF AFFORDING ENERGY

ENERGY AFFORDABILITY: Building a Commons Culture

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Energy affordability is as much a feature of culture as of technology; we need a reorientation towards energy commons.

Introduction

Elections are often won or lost on pocketbook issues. The price of gas, groceries, and housing regularly dominates political debate. Utility costs—once a quieter concern—have now joined the front lines of affordability politics.

Rising energy prices are driven by many forces: aging infrastructure, grid modernization, the transition to renewable energy, growing consumer demand, the energy appetite of the AI sector, consolidation through corporate utility buyouts, and the erosion of federal assistance programs that once helped keep bills affordable. Public responses to these pressures have focused largely on technological and financial fixes—cheaper fuels, improved efficiency, and consumer subsidies.

What remains largely unexamined is the cultural dimension of energy: how our collective values, economic systems, and social norms shape energy demand—and, in turn, affordability across every sector of the economy, from housing and food to transportation and utilities.

Every major energy transition has produced not only new technologies, but profound cultural change. The shift from human and animal labor to fossil fuels transformed societies organized around sufficiency and cooperation into economies driven by mass production, consumption, and individualism. Today's affordability crisis cannot be solved without confronting this deeper cultural legacy.

Addressing energy affordability requires a reorientation—away from energy as a commodity optimized for exchange and profit, and toward energy as a shared resource designed to meet human needs. Because cultural transformation accompanies every energy transition, this moment

presents an opportunity: to reclaim energy as a commons and rebuild a culture of abundance rooted in collective well-being.

Energy Burden

Rising utility costs affect everyone, but the burden is far from evenly shared. Low-income households, rural communities, and communities of color spend a dramatically larger share of their disposable income on energy—often three to four times more than higher-income households—despite consuming less energy overall.

When families cannot afford their utility bills, the consequences are severe. Shutoffs, mounting debt, and impossible trade-offs between energy, food, housing, and healthcare are common. Many households are locked into outdated, inefficient, and polluting energy systems—"energy ghettos"—that further drive up costs while offering few opportunities for upgrades or relief.

Policy responses typically focus on technical solutions: expanding energy supply, increasing efficiency, decarbonizing fuel sources, or offering bill assistance. Utility affordability programs—such as rate restructuring, on-bill financing, demand response, or microgrids—are important and necessary. But they largely treat symptoms rather than causes.

The deeper problem is cultural. As societies have shifted toward increasingly energy-intensive systems, access to energy has become both essential and precarious. High-energy lifestyles are now normalized, even as they strain household budgets and public infrastructure.

The Cultural Dimensions of Energy

Culture shapes how societies understand the world, how they organize daily life, and how they define progress. Anthropologists have long noted that energy transitions are among the most powerful drivers of cultural change, reshaping work, gender roles, governance, education, and economic systems.

For much of the twentieth century, scholars framed rising energy use as a marker of human advancement. Increased productivity, efficiency, and output were equated with social progress. Industrialization, powered by coal and later oil, was seen as a triumph of human ingenuity.

But this narrative obscures what was lost. As energy systems became centralized, capital-intensive, and profit-driven, communal values eroded. Shared resources were privatized. People shifted from producing energy, food, and goods locally to consuming mass-produced commodities. Energy itself was transformed from a means of meeting basic needs into a driver of perpetual economic growth.

This transformation did not occur by accident. Throughout the twentieth century, governments

and corporations actively cultivated energy-intensive lifestyles through marketing, electrification campaigns, and cultural messaging that equated consumption with modernity, convenience, and success. High energy use became synonymous with status and progress.

The result is a monopolized energy system that demands ever-increasing production to sustain a consumer economy—regardless of human or ecological cost.

Energy, Culture, and Affordability

Today's affordability crisis is inseparable from this cultural framework. We are embedded in an energy system that we depend on, even as it undermines economic security.

Cultural norms shape energy demand in powerful ways. Individualist societies tend to prioritize convenience, autonomy, and private consumption—leading to higher energy use. In contrast, cultures that value collectivism, equity, and long-term planning tend to rely more on shared infrastructure and experience lower levels of energy deprivation.

Research across countries shows that more egalitarian and participatory societies—those emphasizing cooperation, gender equity, and long-term orientation—are less likely to experience severe energy poverty. Meanwhile, cultures organized around mass production and overconsumption drive demand beyond what households can sustainably afford.

Energy affordability, then, is not simply a technical problem. It is a cultural one.

Building an Energy Commons

If energy is fundamental to life, how might energy systems be designed to secure life rather than extract value? The answer lies in reimagining energy as a commons—a shared resource governed collectively to meet basic needs.

Across the country, community-based energy initiatives are already modeling alternatives. At the Energy Democracy Project, a U.S. network of over 40 organizations spanning Alaska to Puerto Rico, practitioners go beyond technological innovation to develop culturally-relevant initiatives that meet community needs. The energy democracy movement seeks to pair clean energy transitions with new ownership structures, cooperative governance, and cultural values rooted in care, stewardship, and mutual responsibility.

These typically frontline organizations are committed to a just clean energy transition, where renewable energy is accessible to communities disproportionately impacted by climate change, health, and the rising cost of the fossil fuel economy. Renewables are projected to significantly reduce wholesale electricity costs over the coming decades, but only if the transition is equitable

and politically protected. Without intentional design, the benefits risk flowing upward while costs are passed down.

Equally important is changing how energy is distributed. More decentralized systems—where households and communities become energy producers as well as consumers—can lower costs, increase resilience, and democratize access. These systems also open the door to circular economies that respect material and ecological limits.

Yet changing fuel sources and the energy system alone are not enough. Renewable energy can easily reproduce extractive, growth-driven logics if cultural values remain unchanged. The deeper shift must be ethical as well as technical—toward sufficiency, care, and shared prosperity. For this reason, local community organizing groups engage residents in stewarding shared community leadership, local business development, and innovative mutual aid efforts in cities like Detroit, Cleveland, and Santa Fe. Energy democracy policy advocates push for federal and state policies that enable more community members to hop aboard the movement for new kinds of energy systems–those that emphasize life over extraction.

Together, these organizations at the Energy Democracy Project practice the energy commons in real time: sharing lessons learned and envisioning a collective future where zip codes across the country have local clean energy that is clean, sustainable, affordable, and able to mitigate and adapt to climate change. It's people and planet over profit.

Ultimately, a new cultural narrative is needed to build a commons future for all. Societies that romanticize individualism and private consumption tend to resist shared solutions. Those who prioritize collective well-being are more likely to support public infrastructure, cooperative ownership, and commons-based energy systems. Fighting the affordability crisis, therefore, requires redefining and re-norming notions of progress, wealth, and well-being to reduce energy production and consumption. For these reasons, a new cultural movement is emerging through the Ubuntu Climate Initiative to hack the hegemonic narratives driving the consumer economy, shifting it towards narratives that recognize the long history and ways of traditional pan-indigenous cultures that honor communal values and practices. Advocates in the energy democracy, land justice, food sovereignty, water equity, and housing justice movements are working together with cultural artists to spark a cultural reparation of beliefs and practices where mutuality replaces affordability as the energy issue of the 21st century.

The policy work in advancing energy commons and culture includes:

1. Supporting decentralized, community-driven renewable energy systems,
2. Establishing non-GDP measures of well-being at the community, state, and federal levels,

3. Establishing repairability and durability standards to reduce demand, and
4. Providing resources for communities to organize and implement cooperative clean energy systems.

Conclusion

Energy transitions have always reshaped society. The question before us is not whether change will occur, but what values will guide it. Addressing energy affordability requires more than new technologies or subsidies—it demands a cultural reckoning.

By reclaiming energy as a commons, we can move toward systems that prioritize human needs over profit, cooperation over consumption, and shared abundance over scarcity. In doing so, energy can once again serve its most essential purpose: sustaining life and community.

FROM SCARCITY TO SUFFICIENCY: Enough Energy for Everyone

DERIC GRUEN
Senior Fellow, Just Solutions

Energy affordability is not about not having enough energy, but democratically deciding how much is enough as a society.

The war in Iran led to a rapid increase in oil and gas prices. These are the direct effects, but over time, the hit to energy prices will ripple throughout the economy as fossil fuel products are in everything from fertilizers to fabrics. Costs will go up, and affordability will go down. Supply-side, substitution solutions to the affordability crisis, switching fuels, generators, and transmission systems, are critical to reducing inflationary risks and volatility. There is no affordable future for a highly centralized, fossil fuel economy. But a different discourse on what kind of energy transition we need is starting to gain traction. One that reaches for a much greater degree of agency and carries with it a greater potential to make life affordable. The approach of energy sufficiency.

Energy Sufficiency

When we leave the house, our goals are usually to get to work or school, to pick up groceries, and to visit friends and family. Yet historically our transportation systems weren't interested in getting us to our needs, they were built to move as many cars–or in the original highway system, military vehicles–as possible through a roadway. Today, transportation planners broadly acknowledge that building more roads actually induces more vehicle travel. *Supply* actually helps create *demand*. A cycle where traffic never ends, and it isn't easier to access what we need. In response, planners use Transportation Demand Management strategies, such as changes in land use and structures, and incentives to reduce vehicle trips and avoid building new highways. After all, highways come with severe costs to taxpayers, communities, historically Black and brown, and public health.

The Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) summarizes sufficiency as "avoiding the demand for materials, energy, land, water, and other natural resources while delivering a decent living standard for all within the planetary boundaries." In the energy field, it's the idea that we can meet everyone's needs while reducing the energy services required–that we

can develop democratic strategies to get what we need with less energy in absolute terms. That we don't have to just build more highways of energy.

There is no solution that is hands-down more effective at resolving current energy issues than energy sufficiency. Mining for new fuel sources and increasing dependence on new energy generation, whether dirty or clean, drive costs for all users, create land-use and property conflicts, generate pollution, create vulnerability to hazards, cause public health impacts, and create geopolitical conflict. Sufficiency doesn't change the need to decarbonize, but provides a different lever and the ability to sidestep many conflicts. Ultimately, decarbonization can happen much faster with less pressure from energy demand. Energy sufficiency is also an unsung hero for energy resilience. When we require less energy to meet our needs, we are far more likely to be able to meet them in the event of or following a disaster, whether climate-driven or geopolitical.

Energy sufficiency is about meeting our housing needs by constructing four- to six-story buildings rather than skyscrapers. While skyscrapers make the postcards, it's the modest buildings that provide the most space at the best value. Picture Paris or Washington DC. Planners in some of the best cities learned that building at a smaller scale is better at providing affordable housing, creating nice, vibrant places, and minimizing energy use. Plus, when you're in an emergency, it's a lot easier to get out when you're a few stories up rather than dozens. We must scale our energy demand for the perfectly livable mid-rise building rather than risk falling from an energy-intensive skyscraper.

Sufficiency strategies often go hand in hand with technology and production decisions. Examples of sufficiency strategies include building more modestly sized living spaces rather than McMansions; heating systems that prioritize human comfort rather than heating space; producing goods for durability, such as clothing that can be passed on and maintains quality for a decade; and aligning food systems with taste, nutrition, and access, rather than volume.

Energy Sufficiency Directly Confronts Business as Usual

Despite momentum driven by a similar conflict with Iran nearly fifty years ago, an earlier notion of sufficiency–energy conservation–faded like Jimmy Carter's cardigans. Instead, efficiency, doing more per unit of energy, took root. Efficiency may have headed off a more dire energy situation in the short term, but the economic theory of Jevons paradox suggests that it's actually efficiency that unlocks more demand in the long run, as exemplified by the induced demand phenomenon of highways filling to their capacity. Ultimately, the politics of conservation never aligned with the interests of those in power to see increased demand, but efficiency did.

While sufficiency appears to be an ideal solution to our energy issues, it's not without its conflicts. Capitalism, as we know it–using capital to make things and generate profits–requires energy.

Today, the dominant drivers of economic growth are more energy-intensive than ever, think AI or crypto. Managing energy demand in aggregate could conflict with this type of economic growth and with public spending, which depends on economic growth. Most states and nations around the world have been managing their economies to promote economic growth for at least the last fifty years. They promote aggregate production and consumption, measured by gross domestic product, to create employment and make public investments. Taken to the extreme, this pursuit of growth has led to massive deregulation, globalization, and privatization, known as neoliberalism. Neoliberalism is currently under threat from across the political spectrum, but few are ready to abandon the strategy of growth-driven provisioning, even as affordability under this model gets more precarious, and problems pile up faster than solutions.

To resolve the conflicts between energy impacts and economic growth, the "green growthers" or "eco-modernists" advocate that we substitute our way out of the fossil fuel pollution crisis with renewables and new technologies, from solar to small modular nuclear. From command-and-control strategies originating in the 1970s to the "sustainable development" path laid out in the 1990s, and most recently the green Keynesian / industrial policy path of the first half of the 2020s, this line of thinking aims to preserve growth while mitigating environmental harm. To address distribution issues, they hope a rising tide lifts all boats and that we can carve off small gains to reduce inequities or mitigate adverse impacts. Less dominant and in opposition to this thinking have been traditional and indigenous environmental leaders, some in the conservation movement, post-growth and alternative economists, and social justice rights and repair movements. These orientations emphasize attention to prevention and distribution, while forsaking the expectation of the ever-bigger tide coming in.

Energy Sufficiency Requires Aligning Macro and Micro Strategies

At the macroeconomic level, energy sufficiency today is associated with what's now called post-growth economics, which is a philosophy that challenges economic growth as the most effective strategy to ensure affordability and livelihoods, let alone a safe climate. The field has grown substantially in the past decade, appearing in global forums like the UN Sustainable Development Goals, IPCC reports, and more. The UN Secretary-General António Guterres called for moving past GDP at the UN conference Beyond GDP, alongside leading economists such as Joseph Stiglitz. There is now a UN "Roadmap for Eradicating Poverty Beyond Growth." Parliamentary groups have formed in Europe and the UK to address the "limits to growth." In the U.S., the conservative think tank American Compass has been pushing for "The Elite to Give Up Its GDP Fetish," and on the left, ideas like Doughnut Economics promote agnosticism about growth. Some of these groups intentionally seek to move beyond growth, while others see it as a backup plan if growth cannot be continued.

At the micro-level, strategies to tackle energy sufficiency mix and mingle with a broader suite of energy ideas under the label of sustainable consumption or lifestyles. This wide-ranging field is

interested in behavior change, but most people doing the work don't view behaviors as individual choices. Rather, they view consumption as a societal choice whose structures constrain and dictate our energy decisions. Recent reports like 1.5 Degree Lifestyles go deep not on technologies to produce or improve energy efficiency, but on who and what energy use serves. The goal is to better understand how we can meet our needs for food, housing, transport, goods, and services, with less energy and fewer emissions, by changing system structures, cultural norms, and individual preferences. The recent vocabulary for sustainable consumption covers a wide range of concepts that anchor this domain, from the "ecosocial contract" to the "hedonic treadmill."

Energy Sufficiency Requires Rethinking the Terms of the Affordability Debate

Sufficiency focuses on how we satisfy our needs and what is enough for a good life. Affordability considers whether households can meet essential expenses routinely and securely. To use sufficiency strategies to tackle affordability issues, we need to understand how essential needs are determined.

Spending money is how most of us think about meeting our essential needs. Limiting essential needs to prices that match our wages leads us to a particular story of affordability that needs are secured in the market, and the currency is personal income. Affordability in an era of premiumization–where more and more goods and services are tailored to luxury consumers–requires that we differentiate needs from wants and price valuation from use valuation. Today, consumer demand from the wealthiest 10% accounts for nearly half of total consumer demand in the U.S. Because energy is required for almost all consumption, energy sufficiency is disproportionately a demand for wealthier people and wealthy countries in aggregate, to reduce their energy consumption.

The well-known Maslow's Hierarchy of Human Needs is one tool for better defining our potential energy needs. It includes things like safety, love, and belonging, which don't commonly appear with a price tag or are not defined by affordability. People with lower incomes generally aren't given room to express these needs in the current political discourse. Going further, fundamental human needs may include not just "having things" but also "being," "doing," and "interacting" as Max-Neef's non-hierarchical approach proposes, in contrast to Maslow's pyramid.

However, most of us define essential needs relative to the society we live in rather than an absolute or abstract definition. To be clear, there are thresholds we all don't want to cross–like hunger, lack of permanent housing, or heating and cooling–in every society. However, we also experience and engage in the politics of affordability as a relative phenomenon, compared with our friends, family, neighbors, or co-workers. And we perhaps experience affordability the most when it changes–when prices or our income go up or down. It's those changes and our relative positions we are most acutely aware of and likely to become part of our political perspective and actions. This is how inequality intersects with affordability, often with devastating implications that aren't just economic, but also affect our health and democracy.

Applying the idea of sufficiency to affordability also invites changing how we identify as producers or consumers. While most of our material needs are met through personal income or public/nonprofit provisioning, some are also met through self-provisioning, for example, growing our own food. The labor we do, particularly women, and the labor of our family and friends, is the most common form of self-provisioning. In recent times, energy beyond our own family and friends' labor was never thought of as a good we could self-provision, but today, the supply chain of energy generation is changing. While we may never manufacture solar panels ourselves, we can install our own balcony solar panels and manage our own energy behavior, such as opening a window or spending time on the cool side of our homes instead of turning on the AC. Critical to sufficiency is our ability to satisfy essential needs with resource efficiency and resilience to commodification. This strategy for affordability may prioritize production of things that are hard to exclude people from, whose quantity is less likely to be scarce, like the power of the sun and wind, public transit, or even fishing for a meal on a public pier.

Modern attempts to articulate affordability in this broader social context of human needs and sufficiency include efforts such as Canada's "Measuring What Matters" framework and New Zealand Treasury's He Ara Waiora, which emphasizes Māori approaches to a holistic and intergenerational conception of wellbeing with water as the source of life. These echo earlier approaches, including Bolivia and Ecuador's constitutional codification of Buen Vivir, emphasizing living well, and the African concept of Ubuntu, which ties the well-being of the individual to the well-being of the many, and appear in many indigenous frameworks.

Sufficiency is a Helpful Response to Challenges to the Liberal Democratic Order

Global politics over the past decade have been gripped by the rise of illiberalism–the rejection of individual rights, rule of law, and equality–in order to prioritize a singular vision of society; most often a singular culture. In the U.S., white Christian Nationalism has been the most aggressive. The movement arose to power, in part, as a reaction to liberalism and globalization, and their negative impacts on people's sense of identity, work, and quality of life, combined dangerously with longstanding xenophobic and racist narratives wielded by political opportunists.

While illiberalism is a harmful response to deficits of liberalism, there are real issues that must be faced, including the inability of the liberal-democratic order to solve our most pressing problems today. Over time, liberalism has evolved to prioritize negative freedom–individual freedom from any limits. The western legal framework creates laws as limits–to tell us what we cannot do, and encourages us to push right up to those limits as an exercise of freedom. For sufficiency ideas to move forward, there must be a shift toward an idea of positive freedoms where self-realization becomes collective through democracy and shared provisioning. While moving in the opposite direction of illiberalism, which actively dismantles barriers to increased production and consumption, sufficiency

also challenges the current liberal order of individualism, but with a different vision for a collective society of pluralism and inclusion.

Policy is most often used to codify economic and cultural changes rather than lead them. We can run all the campaigns we want, but if there's not fertile ground for good ideas, they'll go nowhere. Ultimately, sufficiency needs a fertile economic, political, and cultural context to thrive. The countries that have had the strongest approach to sufficiency are those where the liberal policymaking apparatus is supported by a strong cultural backing, typically rooted in indigenous tradition, like New Zealand, Bolivia, and Ecuador mentioned earlier. Moving forward, we must design our energy solutions in alignment with these broader forces of societal change to achieve effective and lasting change.

SECTION

2

SYSTEMS AND STRUCTURES FOR OUR ENERGY FUTURE

FROM AFFORDABILITY TO SHARED PROSPERITY: Reimagining the Energy Transition as Economic Strategy

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Energy affordability is not just about the cost of living but also about wealth inequality, racialized exclusion, and institutional mistrust, which require a deliberate strategy toward shared prosperity.

Addressing Wealth Inequality and Building Resilience

Across the country, "affordability" has become the dominant frame for understanding public frustration with the economy, yet most of that conversation focuses narrowly on prices rather than on whether people have the resources and power to live stable, dignified lives. When we treat affordability only as a cost problem, we miss the deeper crisis of wealth inequality, racialized exclusion, and institutional mistrust that shape who can weather shocks and who is pushed into precarity with every bill, rate increase, or climate disaster. A mission worthy of this moment must start from a different premise: the goal is not generalized "abundance" for markets, but shared prosperity and resilience for people and places.

This mission is fundamentally about closing the racial wealth gap, accelerating climate action, and strengthening communities so that belonging and economic security are no longer mutually exclusive. It is also about rebuilding public institutions so they are capable of delivering on this promise, particularly for communities that have experienced disinvestment, environmental racism, and extractive economic practices for generations. In California, the Climate Smart Economy Initiative is one expression of this vision: an integrated strategy to align climate goals with broadly shared economic opportunity and community resilience, rather than treating climate policy as a technocratic add-on to an unchanged economic model.

At its core, this vision insists that the energy transition and the economic transition are one and the same, and that affordability can only be secured if households gain real economic power, assets, income, and decision-making power, alongside fair, well-regulated prices.

Economic Development Strategy with an Accompanying Energy Transition Strategy

A mission of shared prosperity and resilience requires an economic development strategy that is explicitly tied to the clean energy transition, not layered on after the fact. For decades, climate policy has been organized primarily around regulation and emissions reductions, leaving economic questions, who gets the jobs, who owns the assets, and which regions gain or lose power, to markets and private actors.

An integrated approach turns this logic on its head. It starts by treating public investment, procurement, and planning as tools to shape markets toward equitable outcomes, in line with Mariana Mazzucato's call for mission-oriented government that moves from "market fixing" to "market shaping." In practice, this means:

- Directing clean energy investments toward communities that have endured historic disinvestment, pollution, and climate risk, tying dollars to local hiring, community benefits, and shared ownership structures.
- Using public purchasing power to build regional clean-economy clusters, renewable generation, storage, transmission, building decarbonization, and e-transit, that anchor good jobs, small business opportunities, and community wealth in place.
- Designing industrial and workforce strategies that center workers and communities of color, addressing structural racism in labor markets and environmental decision-making at the same time.

California's Climate Smart Economy Initiative illustrates this reorientation, calling for economic development institutions with the scale and authority to match climate ambitions and for coordinated strategies that blend public and private capital to build self-sustaining clean-economy industries. This approach recognizes that reducing inequality would strengthen long-run growth by unlocking human potential, stabilizing demand, and expanding entrepreneurship.

Crucially, this is not a call to weaken environmental standards or rush implementation by cutting communities out of decision-making. Instead, it argues for pairing strong climate regulation with robust civic infrastructure and collaborative governance, so that projects move forward with clarity, legitimacy, and shared benefits. Programs like California's Transformative Climate Communities (TCC) show how this can work: bottom-up planning, multi-sector coalitions, and state support can deliver housing, transit, renewable energy, and green space while building local capacity and shifting power toward residents.

Energy Affordability = Cost Management and Ratepayer Economic Prosperity

In the energy space, affordability debates usually center on rates: how quickly they are rising, who bears which cost, and whether climate mandates are making bills too high. Those questions matter; the price of electricity and gas includes the costs of generation, transmission and distribution, grid maintenance, compliance with climate and equity policies, and returns to investors. These elements must be scrutinized to prevent unjustified profits and inequitable burdens. But focusing on prices alone accepts as given an economy in which many households simply do not have enough income, assets, or bargaining power to absorb even modest rate increases.

A more complete definition of energy affordability has two pillars: rigorous cost management and deliberate strategies to increase ratepayer economic prosperity. On the cost side, regulators and advocates must ensure that:

- Utility investments directly support reliability, decarbonization, and equity outcomes, rather than speculative projects or excessive shareholder returns.
- Climate and clean-energy obligations are implemented in ways that prioritize least-cost, high-impact solutions, including distributed resources, efficiency, and demand flexibility that can reduce long-term system costs.
- Low-income and frontline communities are protected from disproportionate burdens through progressive rate design, targeted bill support, and investments that lower energy use and exposure to extreme heat and pollution.

On the prosperity side, energy and economic development policies must be designed together so that the clean energy transition serves as a platform for building wealth, not just cutting emissions. This means tying utility and infrastructure investments to:

- Local hiring requirements, pre-apprenticeships, and union pathways that put residents into high-quality jobs created by the transition.
- Community ownership models—such as cooperatives, public power, land trusts, and community solar—so that ratepayers can hold equity stakes in the assets their bills are financing.
- Support for small and community-based businesses that deliver installation, maintenance, and resilience services in their own neighborhoods.

Seen this way, the clean energy transition is also a once-in-a-generation economic development opportunity: the same investments that could raise rates in the short term can also raise incomes, build assets, and stabilize communities, if designed with that mission in mind. When households share in the upside, higher but fair energy prices become more politically and materially sustainable because people can actually afford them and see tangible benefits in their lives.

Government Capacity to Deliver Energy Prosperity

Realizing this integrated vision requires governments that can do more than set rules and distribute grants at the margins; it requires institutions capable of leading a complex, long-term, economy-wide mission. Yet trust in government has eroded, in part because many people experience public agencies as distant, under-resourced, or captured by elite interests, and because decades of austerity have hollowed out the very capacity needed to deliver for communities. Rebuilding trust is therefore both a democratic imperative and a practical prerequisite for shared prosperity.

A new model of government for energy prosperity rests on several shifts. First, governments must embrace a mission-oriented role, explicitly committing to closing the wealth gap, decarbonizing the economy, and strengthening communities, and then organizing institutions, budgets, and partnerships around that mission. Second, it must invest in its own capacity, planning, technical expertise, community engagement, and implementation, so that agencies can move beyond project-by-project administration to strategic, integrated action.

Third, governments must deepen relationships with communities and civil society, recognizing that shared prosperity depends on civic participation and mutual accountability. Local governments, in particular, can evolve by partnering with community-based organizations that are already playing critical roles once held by public institutions, co-creating policies and projects that reflect local knowledge and priorities.

Finally, governments must reject scarcity narratives that pit climate action against affordability and public investment against fiscal responsibility. With the right revenue tools, development institutions, and accountability structures, public investment in a climate-smart economy can both reduce long-term costs and expand the economic pie in ways that are more fairly distributed.

If we align mission, economic strategy, energy policy, and government capacity around shared prosperity and resilience, affordability stops being a zero-sum fight over short-term prices and becomes part of a broader project: ensuring that everyone has the resources, power, and belonging they need to thrive in a decarbonizing world.

LEVERAGING SOLAR AND WIND VARIABILITY

To Promote Energy Affordability, Democracy, and Resilience

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The variability of wind and solar can be an advantage for energy consumers who can turn their power as energy users into savings.

A transition to a decarbonized electricity system with solar and wind as primary sources of supply implies profound changes. A principal underlying technical reason is that primary energy supply will change from mainly switchable generators to ones where supply varies according to the rhythms of the seasons and the daily uncertainties of the weather. In other words, the vast majority of the switches will be in Mother Nature's hands.

Yet, because solar and wind are lower-cost than fossil fuel and nuclear energy, the energy transition presents a major opportunity to make energy more affordable.

Surprisingly, *if approached right*, the variability of solar and wind itself could also provide a major opportunity for energy affordability and democracy by giving consumers substantial control of energy bills. The caveat is critical because the opportunity can only be realized with a specific approach to the energy transition. There is more than one way to get to a decarbonized system; the path to a democratized system in which bills are affordable and controllable by consumers is narrow, with a major role for distributed energy resources. That same path can also lead to greater resilience in the face of climate extremes, prolonged electric grid outages, and global energy and economic shocks, such as those triggered by the 2026 U.S.-Israel-Iran war. This paper explains the opportunities and the challenges involved in realizing them.

The Technical and Economic Basis of the Opportunities

A new affordability opportunity has emerged because solar photovoltaic systems have only modest economies of scale. That means small-scale systems, like residential rooftop solar, can be economically attractive if electricity pricing and grid interconnection conditions are right. For democratization, the main challenges and opportunities are also connected to solar energy.

A central challenge is that solar supply is highly variable. Yet that variability, coupled with the fact that it can be deployed on a very small scale on rooftops and balconies, also provides major opportunities for affordability and democratization.

The annual average solar generation from a solar installation is generally in the range of 12 to 25 percent of the system's maximum output when the sun is directly overhead.[1] There is no generation at night; solar availability is much lower in the winter than in the summer. Cloudy and rainy areas generate less than sunny ones. Wind supply is also very variable.[2] One result is that a decarbonized electricity system in which solar and wind play major roles has frequent gaps between supply and demand, many of them large. There are many hours of the year when the generation greatly exceeds the demand, and many when there is a significant deficit.

This is a technical challenge because electricity supply and demand must be closely balanced at all times. Deviations from balance, which occur when consumers turn switches on and off, must be small relative to system size, and brief, with balance restored rapidly. Large supply surpluses or deficits result in blackouts. The present system maintains electron balance by keeping a certain amount of excess switchable capacity in reserve, usually in the form of gas turbines, some of it as "spinning reserves." It is like an idling delivery van, ready to move. Peaking generation is expensive because the generators are shut down or idling the vast majority of the time.

A renewable system must meet the same physics imperative of supply-demand balance. But it is a much bigger challenge in solar and wind systems because the *natural surpluses and deficits of supply are very frequent and often very large*. In a realistic hourly model of a nearly completely electrified Maryland energy system over an entire year, wind and solar supply fully met the demand only about two-thirds of the time – and there were substantial surpluses in many of those hours.[3] Many of the other hours had small deficits, but the supply deficit was large some of the time. This was the case especially on winter nights when the winds were low.

These same surpluses and deficits present a large economic opportunity because consumers can close a significant portion of the gap. How much of it consumers can close will depend on the technical, economic, legislative, and regulatory parameters of the energy transition.

Demand Response and Storage

The value of electricity in hours of deficit is high because a reliable system must fill the gap and fully serve the load. The higher the deficit, the higher the value, since a failure to meet the demand at such times implies a wider blackout. At the same time, during times of surplus, the electricity is essentially free. That is, unless it is used, it would have to be curtailed – the electrical term for throwing it away. Two kinds of technical wizardry can convert the challenge into an economic benefit for households (and businesses). One is to store the surplus electrons, usually in a battery, for later automatic

recovery in times of deficit.[4] Batteries enable surplus electrons to be carried forward to times of demand deficit. The second type of investment would reduce the demand deficit by shifting energy use to times of surplus supply either forward or backward in time, usually within the same day. This second approach, called demand response, can enable consumers to reduce their bills without investing in batteries. Both together can be even more advantageous.

Demand response is already familiar in the form of "air-conditioner cycling"; it is offered in many states. For instance, Maryland utilities pay consumers who agree to have their central air conditioners cut off for short periods during peak demand times on the hottest days. The payment is in the form of a bill credit. Investment by the consumer is not required because the utility installs the necessary radio-operated cut-off switch outside the house. The system could be made more appealing to more consumers, for instance, by allowing credits for pre-cooling the home by a couple of degrees in anticipation of a peak load in the late afternoon. This option would require a programmable thermostat.[5]

Air-conditioner cycling is a demand response opportunity for a very limited number of hours, perhaps a dozen days a year, when utilities use it to cycle the air-conditioners to reduce peak load. The practice can be extended to electric water heating and space heating. Electric vehicles present an opportunity for shifting charging times. With the right equipment, they can also supply electricity to the grid–a technology known as "vehicle-to-grid" or V2G. In effect, V2G combines storage and demand shifting.

The opportunities for demand response and storage also greatly increase as solar and wind provide greater shares of supply. This is simply because there are more supply-demand gaps to fill and many more supply surpluses to fill them with.

Taken together, electrification of household energy and transportation using solar and wind as supply mainstays can provide the basis for consumers to get a significant share of electricity system revenues. Consumers become producers as well, hence the new term: "prosumers." Demand response improves affordability by better aligning electricity system economics with the rhythms of nature.

Energy Democracy, Affordability, and Distributed Resource Aggregation

Demand response and other distributed resources can provide individual control of energy bills, enhancing affordability and democracy at the same time. Aggregation of distributed resources can further expand affordability and democracy.

Today, utilities that offer air-conditioner cycling currently aggregate the demand reduction by simultaneously sending signals to subscribers' air conditioners at peak-demand times. An array

of distributed resources can be aggregated in this way. And utilities do not have to be the aggregators. Instead of utilities, third parties can aggregate consumer-supplied distributed resources. Third-party aggregators today are generally for-profit businesses that are independent of utilities.[6] But the third parties could also be public entities, like municipalities and counties, or cooperatives owned by subscribers. Such third-party aggregators could reduce cost for consumers because some of the profit that now goes to investor-owned utilities (IOUs) would either be eliminated or go to subscriber households and businesses. Demand response aggregation can also reduce the overall cost of electricity by avoiding costly investments in additional generation capacity to meet peak demand.

It has proved difficult and expensive for communities to try to wrest control of IOUs by purchasing all or part of their assets, for instance, by municipalizing distribution assets, like poles, wires, substations, and local power plants. The reason is not hard to identify. Regulated utilities generally get a very attractive rate of return; 10 percent on undepreciated assets is common. They are loath to give it up.[7]

Cooperative or municipal third-party aggregation provides the opportunity to expand energy democracy and affordability without the complexity of acquiring existing corporate-owned assets. The concept is essentially the same as "community choice aggregation" (CCA), which is already widespread across the United States. CCA is, in essence, demand aggregation. Counties and cities acquire wholesale electricity on behalf of their residents to lower costs, reduce carbon emissions, or both. Residents can opt out of this third-party aggregated supply and remain on the utility supply.[8]

Visioning a More Distributed, Decarbonized Energy System

The energy transition is usually conceptualized as an electricity system that uses a mix of large-scale low-carbon resources, including large-scale solar and wind farms, nuclear power plants, fossil fuel resources with carbon capture and sequestration (CCS), geothermal power plants, and existing hydropower resources. Leaving aside the economically and environmentally problematic aspects of nuclear power and fossil fuel plants with CCS, such modeling omits a major role for distributed resources that are integrated into the decarbonization strategy.

Beyond affordability and energy democracy, the centralized approach fails to integrate increased resilience, which is needed to maintain an uninterrupted power supply to critical community loads during outages. Distributed resources, notably solar and storage, are central to achieving decarbonization with resilience.[9] Specifically, long outages impose extraordinary costs on communities, especially on low- and moderate-income households, who cannot afford to eat out frequently, stay in hotels, or easily replace spoiled food.[10] Integrating increased resilience by ensuring uninterrupted electricity supply to critical loads with decarbonization is therefore also an aspect of affordability.

Distributed solar, storage, demand response, electrification of heating and transportation, and using the latter for V2G can also greatly mitigate the economic disruptions caused by global shocks occasioned by energy-related wars or other supply disruptions (of which the 1973 Arab oil embargo remains a prime example). The value of such resilience becomes greater in a more uncertain world. A high fraction of supply from distributed resources can create a system that is not only economical on a routine basis, but also resistant to a variety of natural and man-made upheavals.

Investment, Regulatory, and Legislative Aspects

Distributed resource technologies have advanced to a stage in which they can play a role on a par with large-scale generation, like coal, gas, or nuclear plants. This reality was recognized by the Federal Energy Regulatory Commission (FERC) in 2020 when it issued FERC Order 2222.[11] It instructs regional transmission operators to accept aggregated distributed resources, including distributed generation, distributed storage, and demand response, on a par with large-scale generation. FERC Order 2222 allows third-party and utility aggregation. But it also gave states the option of banning third-party aggregation; 12 states have partial or full bans. In the future, FERC may prohibit states from enacting such bans.[12]

Creating distributed resources needs infrastructure investment. As noted, air-conditioner cycling requires radio-controlled switches or programmable thermostats. Electric space and water heating would need to be similarly equipped. Efficiency incentives can be coupled with demand response. For instance, incentives for heat pump water heaters in California require enrollment in demand response.[13] Widespread demand response aggregation would be facilitated by universal broadband access. Appropriate chargers are needed for V2G. EVs must be equipped with inverters to supply household loads directly when plugged into an outlet (known as "vehicle-to-load" or V2L). These investments can be made by non-utility parties, who also reap the economic benefits.

Owner-occupied low- and moderate-income households may have only some of the financial resources needed to make these investments. Some combination of grants and low- or zero-interest loans is needed in these cases. The investments must ensure that the overall electricity bill is lower than it would be without them. In addition, the loan repayment and electricity charges should be consolidated into a single utility bill that is guaranteed, within the parameters of the investments, to lower electricity bills. These are all aspects of state-level regulation.

Renter households can also participate in demand response. As is true for other aspects of clean energy investment, such as improving insulation, investments often require landlord permission and/or participation. This runs into the well-known "split incentive" problem, because the vast majority of renters pay their utility bills; they would benefit from reduced bills. But landlords bear the cost of the investments and thus have no incentive to make them. Remedying the split incentive problem usually requires financial incentives for landlords. But it also requires broader reform. For instance, the many non-energy benefits of improved energy affordability (such as better health) need to be integrated into the ratemaking process.[14]

Revenue Sharing

Stepping back from the details, the main issue is the structure of future supply and demand. What fraction will be distributed resources? How much will be supplied in the form of distributed resources (including aggregated demand response)? Who will own and control the distributed resources? Who will aggregate them? At what rates will consumers and third-party aggregators be compensated? The answers to these questions will determine the partition of revenues between utilities and consumers. IOUs can look forward to higher profits should resources continue to be primarily centralized and owned by them. Essentially, all present electricity system revenues go to utilities. Almost 80 percent go to IOUs; the rest go to publicly-owned utilities and cooperatives.[15] With substantial investments in distributed solar, distributed storage, and demand response, along with appropriate regulations and policies, a large fraction of electricity system revenues–potentially one-fourth or more–can flow to consumers, municipalities, and cooperatives.[16]

The average annual household electricity bill in 2024 was about $1,700.[17] It varies regionally. Bills are higher when space heating is electrified (as will be true for almost all houses in a decarbonized electrified future); lower when it is not. When household heating and road transportation are completely and efficiently electrified, the annual cost of electricity would increase in the range of $3,000 to $4,000 a year at current rates, other things being equal (that is, without uneconomical investments in nuclear power and fossil fuel generation with CCS). Of course, electrification would eliminate natural gas and gasoline costs.

Conclusion

Solar and wind electricity are the most economical approaches to decarbonization; they are cheaper than fossil fuels with carbon capture or nuclear power. The variability of solar with the seasons and daily weather presents challenges in closely matching supply and demand at all times, a technical necessity, because there would be frequent surpluses of supply and also many significant deficits. Yet, that same variability can be turned into a major opportunity for affordability and energy democracy via widespread adoption of demand response, complemented by investments in V2G, and distributed energy storage and solar generation. Consumers can become producers in a major way, and thus obtain a significant share of electricity system revenues. Cooperatives, counties, and municipalities can aggregate distributed resources, thereby furthering energy democracy while reducing cost.

Seizing these opportunities requires integrating distributed resource investments with overall decarbonization planning. This is necessary, in any case, to increase resilience in the electricity system. Today's demand response opportunities are very limited; they can reduce bills by at most a few percent. That fraction can increase greatly in an appropriately structured future renewable

system. That will mean a lower revenue share for utilities. Investor-owned utilities, which control 80 percent of the electricity market, are unlikely to cede a significant share of revenues in the absence of policies, regulations, and legislation. Communities and states will need to create their own plans and enact and implement them to achieve an affordable, resilient, and zero-emissions energy future that is also largely shielded from global energy shocks.

[1] The ratio of annual average generation to the capacity multiplied by the hours in the year is called "capacity factor".

[2] Wind energy is economical and has higher capacity factors than solar when the turbines are large (typically a megawatt or more per turbine). Wind power does not scale down as well as solar. Residential-scale wind systems are generally more expensive than comparably sized solar; they are often used in off-grid applications or for mechanical energy to directly power irrigation pumps. Alessandro Bianchini et al. (2022). Current status and grand challenges for small wind turbine technology, Wind Energy Science, Vol. 7.

[3] Arjun Makhijani (2016). Prosperous, Renewable Maryland. Institute for Energy and Environmental Research. Adding batteries and demand response enabled the entire load to be served for 98 percent of the hours. The rest was served by peaking generation using fuel cells powered by hydrogen made using renewable electricity that would otherwise be curtailed.

[4] The electricity can also be stored as coldness, for instance in ice, or heat, for instance as hot water, for seasonal or diurnal thermal storage.

[5] See, for instance, Pepco DC Energy Wise Rewards™ Program. Viewed on November 24, 2025. Consumers can choose a utility-provided smart thermostat instead of a radio-controlled switch for the cycling program.

[6] There are many such third-party aggregators in California. The California Energy Commission has compiled a list (viewed on January 15, 2026).

[7] For example, in Boulder, Colorado, residents voted to municipalize their electricity system (owned by Xcel Energy), but failed after 10 years of effort, when they voted to remain with Xcel, conditioned, among other things, on the utility meeting climate targets. The issue was again politically a live one in 2025, in part because of a shortfall in meeting decarbonization targets. Amber Carlson, Boulder Reporting Lab, April 20, 2025.

[8] Community Choice Aggregation is particularly widespread in California. See the FAQs provided by the California Public Utilities Commission.

[9] For examples of uninterrupted power supply for essential community loads, see Arjun Makhijani, Shay Banton, and Jeffrey Marqusee (2024). Storing Electrons: An Analysis of the Role of Long-Duration Energy Storage in a Decarbonized, Economical, Equitable, Resilient Electricity System. Chapter 5.

[10] Elena Krieger et al. (2025). Affording Our Clean Energy Future: Pathways for Action. Just Solutions. October.

[11] Federal Energy Regulatory Commission. (2020.) Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators, FERC Order 2222. September 17.

[12] Microgrid Knowledge. (2023) Demand Response Aggregation Bans Partially Lifted in 2 States; 10 More to Go. Microgrids, DERs Benefit. October 27.

[13] The program also requires enrollment in time-of-use rates. The process is described here. Viewed on 2026-01-15.

[14] Elena Krieger et al. (2025). Affording Our Clean Energy Future: Pathways for Action. Just Solutions. October.

[15] IOU electricity revenues were $403.4 billion in 2024 (Edison Electric Institute) out of a total including all providers of $514 billion (Energy Information Administration).

[16] The fraction of revenues that non-utility entities, including consumers, could get depends on a large number of variables, including the amount and ownership of distributed solar and storage, demand response participation, extent of V2G, and rates of compensation for aggregated distributed resources. It could be large. The total electricity storage in a fully electrified road transportation system alone could be the same order of magnitude as the average daily electricity load in the future (assuming a 100% increase in annual load and 100 kWh battery capacity per vehicle). An analysis of critical loads (such as hospitals, grocery stores, emergency response facilities, medical devices, and shelters) indicates that the needed resources correspond to about one-fourth of the residential and commercial electricity load, apart from electrified transportation. Uninterrupted supply to these loads during grid outages means that they would need to be served by distributed solar and storage. (See chapters 4 and 5 of Arjun Makhijani, Shay Banton, and Jeffrey Marqusee (2024). Storing Electrons.) On this basis, one-fourth or more of electricity system revenues could be obtained by non-utility parties, including consumers, provided rate structures are favorable, and a majority of distributed resources are owned by non-utility parties. That fraction could increase significantly if V2G is generalized. Thermal storage also has significant potential to increase the non-utility revenue fraction.

[17] Energy Information Administration, 2024 Average Monthly Bill - Residential. Viewed on 2026-01-15

THE RESILIENCE SHIFT IN AFFORDABLE ENERGY

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Energy affordability is a multi-level crisis that requires addressing systemic costs equitably through adoption of grid resilience standards and strategies, starting with the most climate-vulnerable and energy-burdened communities.

A Crisis With Roots in an Uncertain Future

Energy affordability is generally viewed as an issue individual households face as they struggle with rising utility bills, but it's often unclear how rising bills are connected with other energy costs—systemic and collective (social) costs—which are not regulated or controlled in the same way that electricity prices are. How we address the sharp rise in energy system costs suggests the need for a transformative shift not only in how we regulate (and limit) basic energy costs but in how we decide upon appropriate goals and means for ensuring a more affordable energy future—and a future that's more affordable not in spite of, but precisely *because of*, addressing climate change.

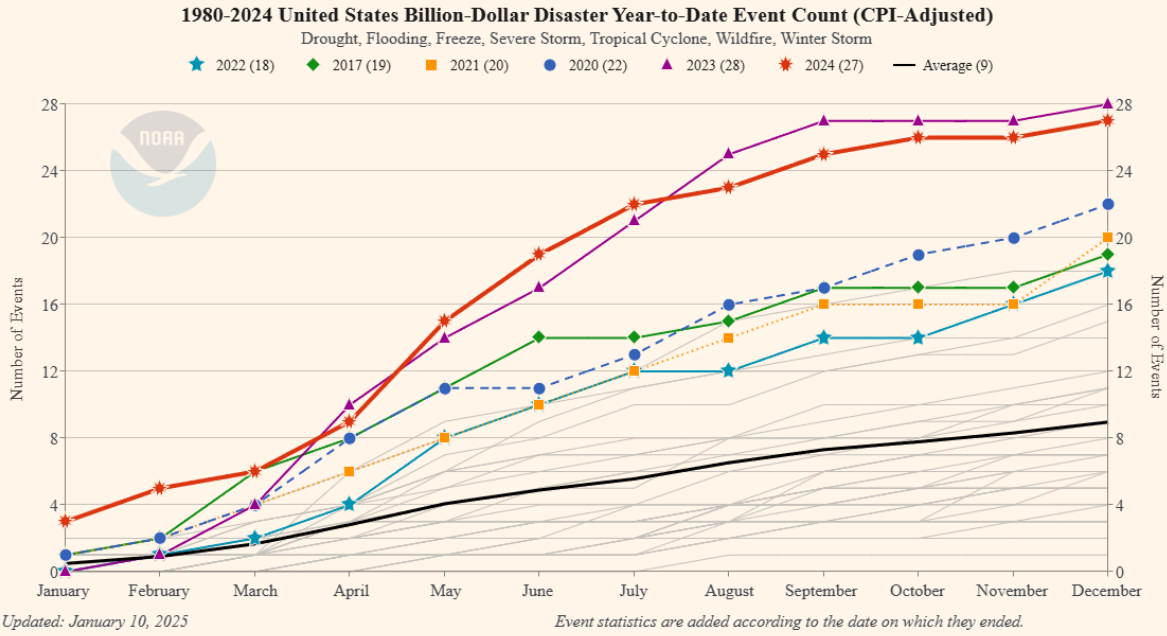
The destructive impacts of climate change are already part of any crisis of affordability that households face. To keep costs down, we have to set new standards for, *and equalize access to*, energy protection and recovery as disasters mount and the cascading effects of more frequent large-scale outages threaten to alter the fabric of our society. The most critical basic question is how energy *resilience* for communities is linked to energy *affordability* for households as overall system costs rise.

With energy resilience, the focus turns to withstanding, absorbing, and recovering from systemic shocks; and if affordability and resilience are not only linked but on something of a collision course—as is suggested in much new data—so, too, should individual and community energy needs be linked as a matter of policy. Especially for the least well off, achieving affordability depends on a better-designed, more equitable system equipped to limit the impacts of climate change. Transformative change then starts with the question of how energy affordability depends on, and can be enabled by, energy resilience investments in the most climate-vulnerable places.

Affordability Colliding with Climate Change

In looking toward a better energy future, certain patterns already increasingly clear in the data should give us pause. As seen in Figure 1, disasters costing at least $1 billion in damages have been piling up in recent years. Between 1980 and 2024 in the US and territories, the six most hazardous years by number of billion-dollar disasters have occurred since 2017, including 28 hurricanes that caused more than $800 billion in damages and thousands of fatalities. In 2024 (Figure 2), there were 27 billion-dollar disasters—including hurricanes Milton and Helene—as compared to an average of only nine per year since 1980.

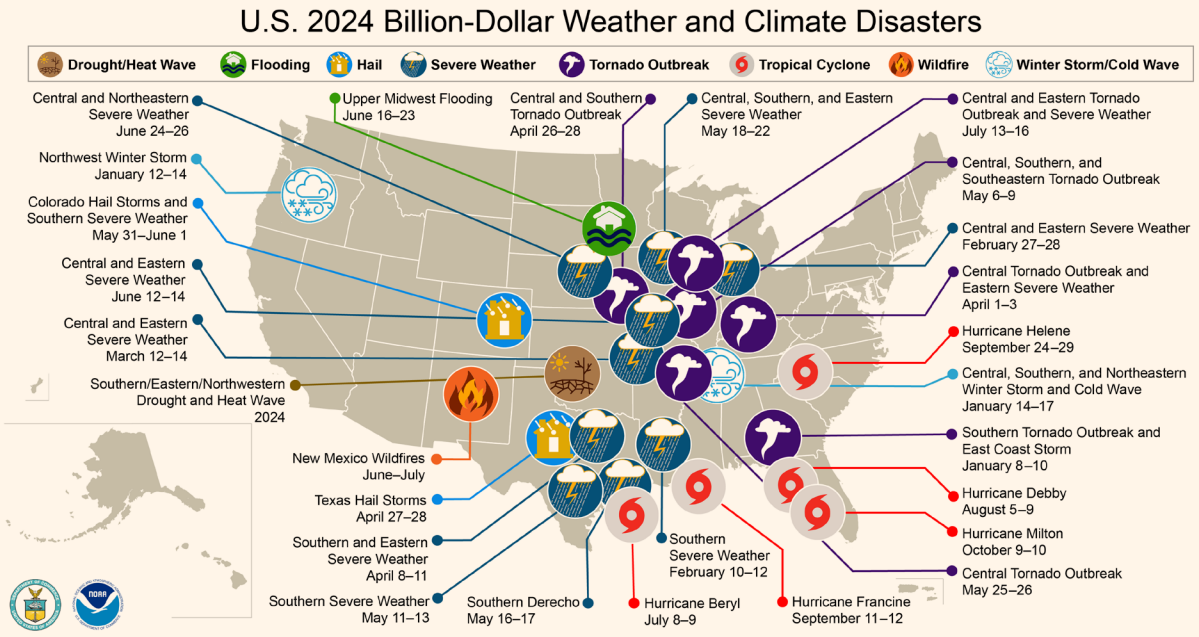
Figure 1: US Billion-Dollar Disasters since 1980



Source:
National Oceanic and Atmospheric Administration, National Centers for Environmental Information:
Billion-Dollar Weather and Climate Disasters: United States Summary.

Note: as of 2026, NCEI states that "in alignment with evolving priorities, statutory mandates, and staffing changes, NOAA's National Centers for Environmental Information (NCEI) will no longer be updating the Billion Dollar Weather and Climate Disasters product."

Figure 2: 2024 Billion-Dollar Disaster Map



Source:
National Oceanic and Atmospheric Administration, National Centers for Environmental Information: Billion-Dollar Weather & Climate Disasters

Federally calculated disaster costs are divided roughly equally between physical property damage (buildings, vehicles, public infrastructure) and power outage cost impacts such as commercial time loss and hotel costs, which averaged about $67 billion annually between 2018 and 2024, when power outage costs rose to more than $120 billion. However, these estimates do not account for physical- and mental health-related costs or other potentially long-term costs related to population displacement. The adverse health impacts of disasters, in large part due to power outages, include carbon monoxide poisoning (from toxic backup heat and power sources), medical needs stemming from inoperable home health equipment, and medical prescription interruptions, among other things. Hurricane Maria's destruction of Puerto Rico's electricity grid in 2017 put a spotlight on the health and mortality impacts of long-term power outages, with resulting direct health stressors and barriers to medical attention disproportionately affecting less healthy and under-resourced populations.

Disaster Disparities

Home energy burden, as measured by the percentage of household income spent on electricity, heating, and cooling, is naturally a focal point in the energy affordability debate. But energy burden and climate vulnerability often go hand in hand for the same people: States where low-income households bear the highest energy burdens also rank high for cumulative power outage impacts in recent decades. For example, between 2003 and 2023, severe weather-related power outages in the Gulf South states affected approximately 44 million customers. The average home energy burden for low-income households (<60% of area median income) in these states is approximately 10%, compared to a national average of about 3% for all households (and a standard threshold of 6% percent for being counted as energy-burdened). These same climate-vulnerable states were also home to tens of millions of people reporting, at one point in 2024, that they couldn't pay an energy bill (~27%), had difficulty paying for usual household expenses (~43.4%), or faced eviction or foreclosure (~29%).

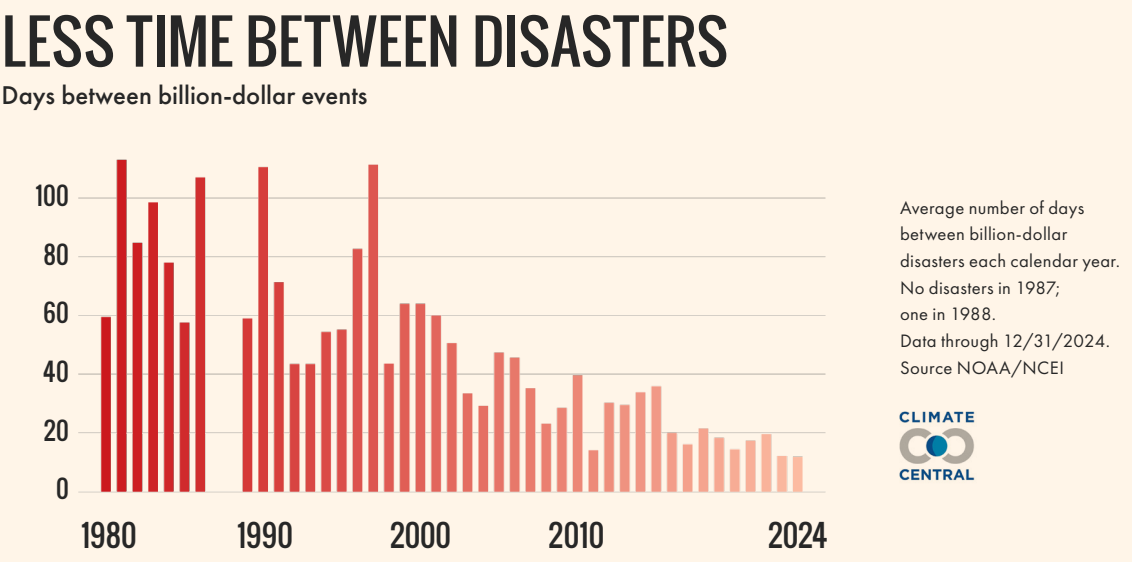
In many disasters, the distribution of power outages reflects disparities in grid resilience by race and ethnicity. During Winter Storm Uri in 2021, satellite data of street lamp outages show that majority-minority census blocks in the storm were 1.5-to-3.3 times more likely to have lost power than majority-white census blocks, while the presence of critical facilities such as hospitals and police stations correlated with only a 16% reduction in outage occurrence and could not otherwise explain the blackout disparities. Climate-related hazard risk has also been linked with longer-term trends such as growing inequality, as recurring disasters reinforce and compound the racial wealth gap through disparate impacts of property damage, population displacement, inequitable recovery aid, and rising insurance premiums or limitations of coverage.

Fighting Climate Change Actually Brings New Grid Threats

The climate blackouts of recent years likely add up to only a fraction of the challenges we will face in the future. As seen in Figure 3, disaster intermittency dropped to an average of 12 days in 2024, as compared to roughly 80 days in the early 1980s. Thus, disaster recovery effectiveness could itself be increasingly compromised as recovery and rebuilding timelines shrink and public assistance is increasingly spread thin.

But even more concerning, if less well understood, is the fact that meeting the challenges of climate change will make the energy system itself more climate-vulnerable. As the scale and complexity of the energy system evolve with load growth, short of a dramatic pivot toward a more distributed energy system, *more energy infrastructure* will be potentially exposed to the impacts of climate change. Further, with economy-wide electrification as a goal, our society will have more *dependency on the grid* for basic needs such as heating and mobility, as well as for many industrial and agricultural activities. In this light, any path forward for the energy system that does not prioritize grid resilience will only increase climate vulnerability in our society, even as we may be making progress in decarbonizing the energy grid.

Figure 3: Time Between Disasters in Days, 1980-2024



Source: National Oceanic and Atmospheric Administration, National Centers for Environmental Information/Climate Central.

Affordability and Grid Development in Utility Spending

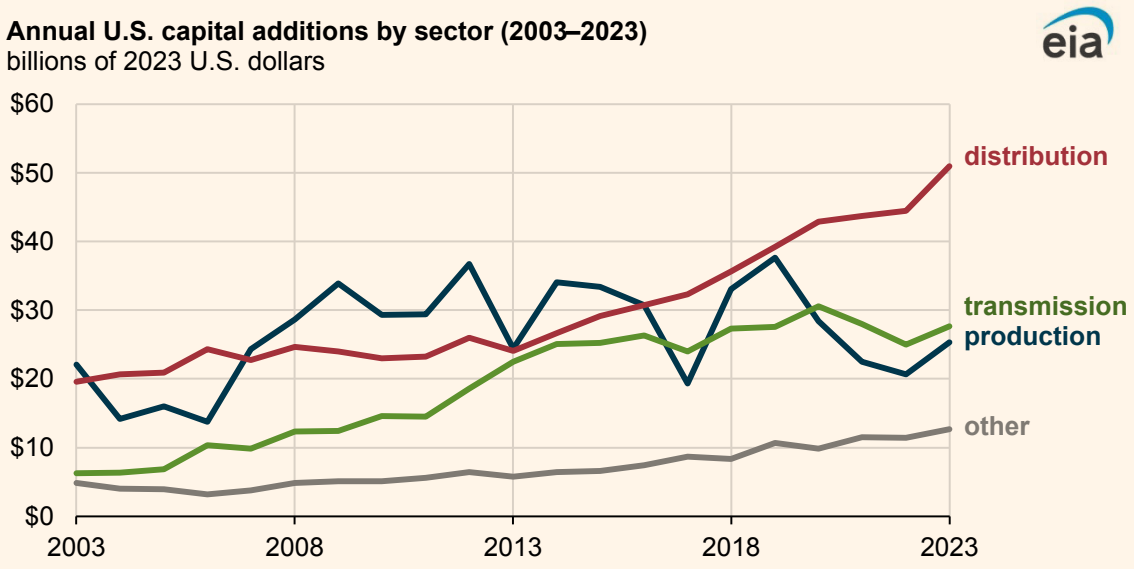
For ratepayers, the growing nexus of affordability and resilience challenges is evident in the trend data on utility spending. As we can see in Figure 4, whereas capital spending on electricity production fell by 24% between 2003 and 2023, capital spending on distribution grids—which harbor the lion's share of climate-related energy resiliency risk, historic damages, and likely future threats and impacts—rose by 160% over the same period.

Between 2019 and 2023, combined operations & maintenance and capital spending on production shrank while distribution spending rose by more than 20% for operations & maintenance and by roughly 50% for capital costs. Why are these data points telling? Because:

1. Under the traditional "cost-of-service" utility business model, electricity rates are directly tied to utility spending in the form of an authorized "revenue requirement," and
2. Distribution grid upgrades, increasingly targeted for energy resilience needs, have become a major driver of utility spending growth in recent years and this may be a continuing trend.

In a nutshell, electricity is becoming less affordable because, in no small part, the costs—and risks—of climate change are driving prices up.

Figure 4: Utility Capital Spending Breakdown, 2003-2023



Source:
US Energy Information Administration. 2024.
Grid Infrastructure Investments Drive Increase in Utility Spending Over the Last Two Decades.

The Resilience Shift in Affordability

The once-distant and now recurring threat of major power disruptions brings additional urgency to addressing an energy affordability crisis that will only worsen as disaster costs mount. As the inequitable track record of disaster protection and recovery clearly shows, climate risks in the energy system pose the greatest threat to the very households already most energy-burdened.

Meeting such challenges requires new thinking that links energy affordability with climate protection by fostering *grid resilience* for communities, defined as the effectiveness of the grid in preventing, absorbing/managing, or quickly recovering from power outages caused by climate-fueled disasters and potentially other disruptive events.

It's important to put this in context, where, traditionally, utility regulation has revolved around two primary goals: universal access and reliability of service. We have largely achieved universal access in terms of the reach of energy infrastructure and service, but now we must turn our attention toward maintaining the reliability of a system that can only continue to be reliable *if it becomes more resilient.*

What this means today is that resilience, like reliability and universal access in the past, must be treated—in concept, in value, in planning, and ultimately in law and policy—as a basic, non-discretionary good. In terms of execution, we also have to recognize that climate impacts in the energy system are highly variable by factors of frequency, intensity, and range, and so, at the *human and social scale* of climate reality, resilience will need to be adapted to different communities as shaped by their specific needs and vulnerabilities. Ultimately, however, we have to strive for energy resilience on a scale commensurate with the added risks that climate change may bring, and this has to start in the places where climate change poses the greatest risks to the least well-off people.

Utilities' Role in Energy Resilience

We must re-conceptualize energy affordability as a crisis not only for ratepayers and households, but for the communities where the most vulnerable people live. We must incorporate resilience goals in utility resource planning, including measurement and valuation of resilience for investment and cost distribution, as well as performance accountability. There is not enough space here for even a basic overview of the challenges involved in measuring and valuing energy resilience. Just to *define* resilience, to set the parameters for what we then need to measure, can be complicated by, among other things, distinguishing outage "prevention" from outage "recovery," with the former entailing much greater costs (and potential liability) as compared to the latter. Either way, on a per kilowatt hour basis, the cost of power outages greatly exceeds the price of electricity, which means that the value of resilience should rise as disaster risks mount. But utility resource planning is typically based on considering future demand, changing supply, technological change, etc., rather than assessing the highly uncertain but potentially massive risks and impacts of climate change. So, even starting to define resilience and account for its costs and benefits for regulatory purposes presents many challenges. Some utilities, such as ComEd and Ameren in Illinois, have adopted performance incentive mechanisms (PIMs) that reward or penalize the utility based on alternative metrics that better track resilience in grid design and operations for environmental justice communities. But the goal of such resilience PIMs is typically limited to identifying reliability issues that may not be captured in conventional measures and might warrant specific maintenance or capital investment changes to prevent further or broader reliability problems in the future. This is a welcome step forward for improving reliability and potentially fixing equity gaps in day-to-day service. But it falls well short of equitably ensuring grid preparedness for potentially prolonged and deadly disruptions caused by major events.

For advocates and policymakers, a particularly thorny challenge arises with the question of who among energy stakeholders is responsible for energy resilience? Much of the upward trend in electric utility capital spending discussed above appears to be earmarked for resilience investments such as undergrounding or otherwise "hardening" of electricity delivery circuits. Yet, the most cost-effective resilience investments, and the most affordable for ratepayers, are likely to involve distributed energy

resources (DERs). DERs may not be profitable for utilities, may require utility payments to DER owners, or even hybrid control of distribution assets that might be needed to support operations, say, of a local or larger-area nested microgrid network. What, then, toward fostering energy resilience, should be required of a utility if its customers are better served by distributed solutions that it does not own or control and cannot book in its rate base?

Building Energy Resilience From the Bottom Up

With disasters now making headlines roughly every other week, concerns about grid resilience are neither hard to justify nor easy to ignore in addressing today's rapidly escalating energy affordability crisis. So I want to conclude these reflections on an aspirational note, by way of example. It's called the Tribal Energy Resilience and Sovereignty Project (TERAS), and it will serve three tribal communities in Eastern Humboldt County in Northern California—including 2,220 members of the Hoopa Valley, Yurok, and Karuk peoples who live along one of Pacific Gas & Electric's worst-performing electricity circuits, with over 100 hours of power blackouts annually.

The project is extremely innovative in the distributed energy field, with three nested front-of-meter microgrids designed to create a network of self-sufficient electricity supply for the three member communities along a roughly 26-mile circuit. Essentially, "nested" microgrids work by connecting separate DER systems into a single independent circuit when the main grid goes down. This idea and the TERAS example point to the possibility of creating larger, semi-autonomous area grids by connecting multiple microgrids between several communities or developments, or across a small city or even a larger region.

TERAS is 100% renewable, with a 20MW solar system and battery storage, and with capabilities to not only provide back-up power when the main grid goes down but also to reduce customer utility bills and to generate revenue for the community by exporting excess power to the grid and/or providing load-shifting services to relieve peak demand. Notably, the project is not utility-owned or publicly-owned but rather community-owned and operated by the three member tribes; the innovative governance stands out against a backdrop of long and bitter challenges for tribal sovereignty and survival in the region, with the timber industry, the US Forest Service, and the now-removed Klamath River Dams, among other non-Native forces, historically arrayed against the tribes.

TERAS will cost about $177 million, compared to an estimated $1 billion for conventional hardening of the adjacent, unreliable utility circuit. The project received an $88 million grant from the Grid Resilience and Innovation Partnerships Program of the Department of Energy in 2024; the grant appears to have been rescinded by the Trump Administration in 2025, but its status is currently unresolved. TERAS may also be supported by incentives from Pacific Gas & Electric's Community Microgrid Enablement Program.

The Horizon for Action is Already Here

TERAS is notable as a largely publicly funded, community-owned alternative to the utility grid, and whether it could be replicable for dozens or hundreds of other highly vulnerable communities is a pressing and pivotal question. But it also leaves open the question of utility obligations to ensure grid resilience in their service areas, especially for customers living on the most vulnerable utility circuits. One step forward could be requiring utilities to conduct in-depth studies of energy resilience needs in their service areas, with critical input from climate-vulnerable communities. This can serve as a basis for community-directed resource planning and capital spending targeted for the most vulnerable people and places. But the likely significant costs of resilience investments at a meaningful scale should not simply be passed through to electricity rates, unless the rate effects can be structured in a highly progressive manner. Hybrid approaches could also be feasible, for example, with a mix of public funding (grants and tax credits), utility incentives or compensation for microgrid exports and grid services, and a risk-reduction premium added from related public funding streams such as carbon pricing or "polluter pays" revenues. Whatever the path forward, we can expect system costs to compound and affordability to worsen without a strategic shift toward resilience in grid development. In this light, what we have to gain from de-risking the grid should be a guiding and motivating question for policymakers and communities alike.

SECTION

3

GOVERNANCE STRATEGIES TO POWER CHANGE

THE ARCHITECTURE OF RESILIENCE: How the Buffalo Neighborhood Hubs Project is Building Social Cohesion as a Direct Response to Extreme Events

RAHWA GHIRMATZION
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People who can turn to each other for support, even in the poorest neighborhoods, can create a powerful buffer against energy and climate disruptions and build political power.

For decades, the city of Buffalo has been defined by a paradox. It is known as the "City of Good Neighbors," a place where a stranger will shovel your driveway before you even wake up. Yet, we are also the 3rd-poorest city in the nation, where systemic inequality, segregation, disinvestment, aging infrastructure, and the increasing volatility of the climate have left certain neighborhoods dangerously vulnerable. We have seen what happens when the systems we rely on, such as infrastructure, emergency services, and global supply chains, reach their breaking point.

The Buffalo Neighborhood Hubs Project (BNHP) was born as a direct response to this paradox. The project is not a traditional nonprofit initiative; it is a declaration of both independence and interdependence. These "hubs" represent both physical spaces, whether a designated community center or an informal neighborhood gathering spot, as well as the network of trained neighborhood Community Responders (CRs) who mobilize when needed. By training together, the hub leaders and CRs create a resilient web of support within and between Buffalo's neighborhoods.

Following the loss of over $20 million in federal funding due to the termination of the Environmental Protection Agency's environmental justice programs, the project evolved from a citywide plan spanning many different neighborhoods into a focused, agile, and independent pilot across six neighborhoods. I led a team of community experts in partnership with local community-based organizations, including the Clean Air Coalition of NY, Erie County Restorative Justice Coalition, and PUSH Buffalo. The BNHP is building exactly what we need, right where we live.

The cornerstone of this project is how we build collective solidarity through social cohesion, which better prepares us to be resilient in the face of overlapping crises. The act of being my neighbor's keeper is a shift in practice, a move from passive citizenship to active, block-level stewardship. In most urban environments, the fence has become a symbol of isolation. We stay within our boundaries, assuming that if a crisis hits, a distant government agency will arrive to save us.

But extreme weather events and the ongoing challenges of the climate crisis are teaching us different lessons. Buffalo is home to legendary tales of record-breaking snowfall. In fact, up until the bomb cyclone–a new term to us that is now known as the Buffalo Blizzard of 2022–in which 47 members of our community died, there was nowhere I'd rather be but Buffalo during any snowstorms. That is because we know how to not only mobilize but also make it an impromptu good time.

In these current times, we know that in the first 72 hours of a disaster, your most important resource is the person living next door. By embracing the role of keeper, we are reclaiming the ancient tradition of mutual aid. Unlike charity, which is top-down, mutual aid is horizontal. It assumes that everyone has something to give and something they need. We are weaving a network of "we," a web of interconnected neighborhoods where no one is a stranger.

The BNHP ethos is clear: when systems fail, and agencies retreat, we stand our ground. As climate change accelerates, cascading crises from extreme heat to historic snowfall become the new normal. These crises often overwhelm municipal resources.

The BNHP addresses systemic vulnerabilities by cultivating Community Responders (CRs), residents equipped with the technical skills, resources, and wisdom to navigate a crisis. CRs are trained in a diverse range of essential disciplines, including disaster response, CPR, overdose prevention, fire safety, community organizing, and restorative justice, to name a few.

Beyond physical safety, CRs serve as community tech stewards. Each neighborhood hub will build and maintain a Portable Network Kit (PNK), providing free community Wi-Fi and ensuring intranet connectivity remains active during power outages. This is place-based resilience, grown from the soil of our own streets. By decentralizing power, we ensure that even if the city's central nervous system is paralyzed, the limbs that are our neighborhoods remain functional and empowered.

This project is not built on theory alone. It is a direct response to the stated needs of Buffalo residents. The 2025 BNHP aggregated household survey data we collected from 310 residents with our academic partner, the University at Buffalo, highlights the critical gaps we are filling. The primary concerns that were expressed by residents are: 1) significant concern about blizzards and power outages, citing past experiences where they were left without heat and electricity. The power gap showed the lack of backup energy systems. Many households reported having no backup power,

which is life-threatening for those relying on medical devices like continuous positive airway pressure (CPAP) machines or nebulizers; 2) ensuring that people can access essential needs during emergencies such as food, water, backup generators, and snow removal; 3) residents indicated the neighborhood hubs can be a lifeline during emergencies if it provided food, water, a place to sleep, and device charging. There is a clear mandate for neighborhood block clubs, community centers, or one to two designated houses to be equipped with emergency generators, portable network kits, and snow removal equipment; and 4) translation services and more accessible communication from emergency system providers before, during, and after extreme emergency events.

The BNHP is currently proving its model in six demonstration neighborhoods, all in low- to moderate-income areas, each with unique challenges and pre-existing strengths. We are creating individualized neighborhood profiles for each neighborhood, highlighting differences and similarities between the hubs. This is their roadmap for resilience. We then connect each neighborhood leader and community responder with one another through collective training and peer education. This is the lattice, or network of collective infrastructure that scales resilience across our neighborhoods.

Each of our resilience hubs brings together diverse people with different needs:

1. The 14th Street Block Club (West Side)

This Hub is one of our most diverse, with residents speaking Spanish, Burmese, Karen, Arabic, Swahili, Bengali, and Dari. Census data show that over 40 languages are spoken. Key needs include adequate language access, backup electricity for medical devices, and solutions for homes without basements that suffered catastrophic pipe freezes in 2022.

2. Winslow Avenue FK Block Club (East Side)

Characterized by multigenerational family homeownership, this Hub has a strong history of elders looking out for each other. Key needs include backup generators for residents with motorized wheelchairs, access to fresh, affordable food, and access to culturally competent services that address kidney/dementia-related health concerns, especially care that keeps them at home, in proximity to their trusted community.

3. Northland Beltline Taxpayers Association (East Side)

Home to many long-term homeowners of over 50 years, this neighborhood saw a staggering 95% of households lose power during the 2022 blizzard. The Northland Workforce Training Center, which has a backup generator, served as a physical location where people could charge phones during the storm. Their main concerns are a more reliable grid infrastructure and overall safety. This neighborhood has a large elderly population and lacks access to resources, such as proximity to a grocery store, etc.

4. Olmsted Islands Block Club (South Buffalo)

Defined by "island" streets that make traditional snow plowing difficult, this neighborhood has a high percentage of elders who are often isolated. The anchor community center at Our Lady of Charity Parish provides a vital resource for emergency parking and communication networks. South Buffalo also has old grid infrastructure, and they get the snowstorm twice due to their proximity to Lake Erie. They often experience bigger storms that cause extended power outages and wreak havoc on roofs.

5. Seneca Babcock Community Association (South Buffalo)

This area boasts incredible lifelong neighborhood loyalty. However, proximity to industrial sites like the PVS Chemical plant poses specific environmental risks. The Seneca Babcock Community Center is being equipped as a primary anchor to combat frequent brownouts and provide a heated shelter.

6. Renovation 14207 Hub (Riverside/Black Rock)

A high-poverty area with a large population of youth and renters, this Hub serves a diverse community including Burmese and Spanish speakers. Renovation Church serves as the physical point of coordination, providing essential resources like AEDs, cots, and blankets for emergency sheltering.

Standard governance is often distant and bureaucratic. The BNHP proposes a governance of care that is anchored in mutual love and collective healing. Every action we take, from providing technical skills to deepening individual and collective relationships to civic engagement, is anchored in this philosophy.

This is deep Democracy in action. It means decisions about neighborhood safety and resource allocation are made by the people living there. It is a decentralized model where the "Hub" acts as a kitchen table for the community, a place for civic engagement that starts with a meal and ends with a plan of action. We are the living proof that we see no strangers in our neighborhoods.

The Buffalo Neighborhood Hubs Project offers a blueprint for meeting the moment in a time of compounding crises. For the climate movement, it shows that adaptation is a social process as much as a technical one. For policymakers, it demonstrates the power of decentralization and the necessity of funding block-level infrastructure. For philanthropy, it is an invitation to invest in the people who are already doing the work and support place-based work in the ways it is needed and wanted by the people.

The loss of $20 million in federal funding early in the project was a challenge, but it forced a return to our roots. It proved that resilience isn't bought. It is built.

The BNHP is an invitation to stop being a spectator in our own survival. We are building exactly what we need, right where we live. In the golden light of sunny days, our neighborhood hubs are centers of joy, places for gardens and youth mentorship. In the teeth of a storm, they are command centers for emergency response.

For this new organizing model to work, we must first unlearn the divisive habits of the political mainstream. We do not approach our neighbors as demographic data points or ideological cutouts; we meet them on a human level, beginning with deep listening without judgment as a radical act. By prioritizing authentic relationships over ideological purity, we create a space where the escalating divisions of the outside world lose their grip. Our relationships are not built on a platform of rhetoric, but on the trust forged when a Community Responder checks on a senior during a power outage or coordinates a grocery run for a family in isolation. In these moments, we are not just solving a logistical problem. We are weaving a social fabric that is strong enough to eventually carry the weight of our collective political demands.

The Hubs are not merely a defensive posture against the next blizzard. They are the foundational infrastructure for a new kind of civic power. By centering emergency preparedness, we meet the immediate, material needs of our neighbors, proving that the network is reliable when the stakes are highest. The pilot is a demonstration of reimagined base-building that moves beyond traditional canvassing. We aren't just asking for a vote or a signature; we are building the literal capacity to keep one another alive. This shared labor transforms a neighborhood from a collection of households into a coordinated, organized base with a common language of stewardship.

As these networks mature, the focus shifts from emergency preparedness to the long-term policy landscape. Once a neighborhood has mastered the art of mutual aid, it naturally begins to question the systemic failures and root causes. These hubs become the incubators for community-led policy demands that meet their needs. Whether it's advocating for decentralized energy grids, equitable infrastructure reinvestment, or participatory budgeting. By first securing our material safety, we earn the right and the collective strength to move from responding to crises to dictating the terms of our neighborhood's future.

Together, we are empowered. Together, we are unshakable. For our neighbors, for Buffalo, and for the generations to come.

BARGAINING FOR THE COMMON GOOD: A Labor Leader's Lessons for Energy Affordability

FAYE GUENTHER
President, United Food & Commercial Workers (UFCW) Local 3000

Unions, bargaining for the common good, can be a powerful actor and a model for others to organize to reclaim decision-making over energy prices and systems.

Workers across the United States are having a hard time making ends meet. And it is getting worse. We are getting squeezed on both ends–for many, wages have been effectively flat for decades, and basic necessities are costing more. This unaffordability crisis is running rampant through every aspect of our lives–healthcare, housing, food, childcare, gas, electricity, and water are more expensive and less accessible. Despite all the bad news, there are solutions.

Labor unions, at our best, are a place where working people can come together and collectively decide to take action to improve their lives. The intentional and coordinated power of people at work can counter the unbridled greed of corporations, wealthy CEOs, and Wall Street.

The first step to harnessing this potential is to believe in the power of regular working people and communities taking collective action. Wealthy CEOs and bankers know this and have vehemently opposed unions for the past century because of the power workers have when they take action for a common goal. Now the allies of the extremely wealthy control the White House, Congress, and the Supreme Court. But if organized and unleashed, the sheer mass of workers and community acting in solidarity can be unstoppable.

Unions need to step up too. To rebuild a new labor movement, we must do two things:

1. Organize tens of millions of workers who want a union at work but don't yet have one, and,
2. Use our leverage in collective bargaining to go beyond the traditional fights for better wages and benefits and push for policies and accountability that help working families, for example, to have affordable, safe, and reliable heat, electricity, and water.

The term for this big picture strategy is "Bargaining for the Common Good." It leverages our collective voice to effect positive changes in social, economic, climate, and racial justice, community safety, public health, democratic freedom, and election protection, at work *AND* in our communities. All of these and more are proposals we can make in contract negotiations with employers and in coordination with our communities. And we can make these same demands in the halls of government. By doing this effectively, we will begin to wear away the perverse forces that have created the unaffordability crisis and that drive the extreme income inequalities of our society.

Let me provide some examples to show how bargaining for the common good works. Back in 2010, we were negotiating a new contract for over 10,000 of our grocery store members working at large and small unionized grocery stores in twelve Puget Sound-area counties in Washington state. We had fought for many years to get those employers to agree to provide paid sick days and to significantly boost the pay rate for the lowest-paid workers. They had largely refused, over and over, on both counts. We took our concerns to the public with store-level actions and held a press briefing for reporters where workers explained the impact of low pay and no paid sick days on their lives. We shifted the narrative in mainstream media coverage in columns like this one, "Grocery Store Workers' Sick Deal," and started to make headway in certain local policy corners.

In 2011, working side by side in partnership with many others, we organized and got the Seattle City Council to pass Paid Sick Days into law. A couple of years later, together with other community members, we helped pass a citizen initiative to raise the minimum wage and paid sick days in the community of SeaTac, just south of Seattle. Again, our efforts to get the grocery store employers to agree to our proposal for paid sick days and a big boost to the wages of the lowest-paid workers were denied, but we built power between workers and the community, nearly went on a massive strike, and made other gains in our contract.

Then, in 2014, we got the City Council of Seattle to pass a higher minimum wage, not just for grocery store workers but for other industries as well, which to this day remains one of the highest in the nation.

In 2016, we opted to use our energy and collective power to run a statewide ballot measure to achieve those benefits for all workers in the state. In partnership with dozens of other community organizations, we helped pass the initiative by a huge margin.

This was a game-changer. Workers across the state now had a significantly higher minimum wage and paid sick days. And we no longer needed to attempt to bargain for these benefits in contract negotiations. They were the law. This change allowed workers in our union, as well as hundreds of thousands of workers outside our union, to better care for themselves, their families, and the community. After this 2016 success, we, along with a stellar coalition, decided in 2017 to push for a new Paid Family Leave law. Because powerful business interests in the state knew we could run

another ballot initiative and win, they decided to negotiate with us in the legislature instead. We passed a best-in-the-nation Paid Family Leave law.

More recently, in October of 2022, Kroger and Albertsons, two of the largest grocery store chains in America, announced their plans to merge. Recognizing that this proposed merger risked the loss of hundreds of thousands of jobs, the closure of hundreds of stores, and higher prices for millions of customers, a handful of UFCW locals immediately announced our opposition. We reached out to the media, informed state and federal regulators, and built a campaign with top-notch communications, research, legal, and action teams. We built a national network of over 100 organizations, including food rights groups, labor unions, farmers, consumer rights groups, and more. And we were dogged, keeping up these efforts, month after month, all the time centering the campaign on workers speaking of the impact that the proposed mega merger would have on them, their stores, and their community.

We ultimately won the day in two separate legal cases – one in federal court in Oregon by the US Federal Trade Commission, and the other by the Washington State Attorney General in King County court. In the end, our scrappy coalition helped block the largest proposed grocery store merger in U.S. history, and a couple of months later, the CEO of Kroger was forced out. This happened not just in the name of workers, but also in the name of food availability and affordability for our communities. As Margaret Mead said, "Never doubt that a small group of thoughtful and committed people can change the world. Indeed, it's the only thing that ever has."

In all these examples, from contract fights to union organizing to public policy fights in local city councils and state legislatures, workers taking collective action and speaking out about their experiences with the community and to the media was a way to build a broader movement, push for change, and win.

These same strategies and tactics can be replicated to address rising energy costs in Washington and other states across the nation. While our energy costs are increasing, just one oil company (Exxon Mobil) made over $25 billion in profit in 2025 alone. Oil and gas companies post their profits of tens of billions of dollars while exploiting workers and communities with destructive drilling and refineries. Then the burning of these fuels drives climate change that threatens our homes, health, farms, forests, and economy.

Downstream, families are facing electricity and utility bills that are rising sky-high. How? Utilities are often monopolies whose requests to raise rates by huge amounts are rubber-stamped by state and local commissions. Rate cases, where prices are often set, are limited to official "parties" and outside the public's visibility. Adding insult to injury, in most states, these companies use the money we pay them in our utility bills to lobby state lawmakers for more power and influence. It's a perverse cycle of greed feeding greed. And it should and can be outlawed like it was recently in California.

A bargaining for the common good strategy could help disrupt the business model that limits the issues and parties involved and burdens low-income billpayers with higher costs, all for the sake of shareholder benefit. Unions, ratepayers, renters, and homeowners alike, we all have a stake in winning the fight for affordable, reliable, safe energy and deserve transparency and accountability from the corporations that control our access and the price we pay.

There is reason for hope. Taxation without representation fueled the American Revolution 250 years ago, and it can fuel our revolution today. We can choose a path that is lit by the ideals of independence, sustainability, self-determination, and resilience. We won't get there without organizing and leveraging our power as workers, consumers, and community members, for the larger good.

Our work doesn't have to be limited to the price we pay for energy from large corporations that control our fuel sources. We can also push to restructure our energy system away from fossil fuels and toward sources like wind and solar that are not controlled, owned, mined, or sold. Wind and solar power are renewable and regenerative and should be commonly accessible for all. By bargaining for the common good, we don't have to make false tradeoffs like reducing fossil fuels in exchange for nuclear power. Nuclear power has its own problems of massive costs, destructive and harmful uranium mining impacts, safety concerns, and the ongoing creation of radioactive waste, for which we have no real plan for how to deal with.

All this can change with a move toward renewable, sustainable energy and high energy efficiency.

Renters are another area where the power of collective organizing for the common good also applies. Renters typically pay utility costs directly. This means the landlord has little to no incentive to invest in the weatherization, efficient windows and appliances, or solar panels that would lower our energy bills and make our homes more climate-friendly. And most renters lack the capital to make these investments themselves. Advocating to create financial means and incentives for renters and landlords to take action that would reduce utility payments and create efficient, sustainable rental units would benefit renters. Union members who pay rent and are subject to the double-digit rate increases would be better off, as would all the other renters in the community who are not unionized workers.

Unless forced to change, the rigged, polluting, and unsustainable system that benefits just those who make money from it will stay the same. Only when working people, our unions, and our communities come together and collectively demand change can we bust the systems of monopoly and greed, and set a course of resilient, local decision-making that improves people's lives and the places we call home. Unions and communities coming together and utilizing bargaining for the common good strategies provide a model for how we can organize to achieve broad-based benefits, whether it's higher wages, food security, affordable clean energy, or something else.

GOVERNING FOR ENERGY AFFORDABILITY AND JUSTICE

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Senior Fellow
at Just Solutions

speaking with:

DERIC GRUEN
Anthology Editor
Senior Fellow, Just Solutions

"If we're not prepared to govern, we're not prepared to win."
- Movement Generation

Deric Gruen: Khanh, part of governing is leading through narrative. How do you communicate your approach to climate issues and energy as a determinant of affordability, justice, and well-being in the political realm? How do you defend against attacks?

We're at a moment where opponents of clean energy are using rising energy costs as an opportunity to scapegoat and blame our clean energy laws. Oregon has one of the most aggressive clean energy targets in the country, and even though our utility companies have barely started working towards meeting those milestones, which aim to get us to 100% renewable by 2040, those targets are being blamed for rising costs.

The current moment in clean energy politics and energy affordability is very tenuous. While certain fossil fuel interests blame clean energy mandates for rising energy costs, the general public is also starting to connect the rise of data centers, their voracious energy use, and US wars in the Middle East as key drivers of rising energy costs. Elected leaders are, by and large, not experts on climate, and so it is incumbent on clean energy advocates to be able to spread compelling messages and narratives explaining why renewable, distributed, and community-owned power is cheaper, healthier, and more resilient in the face of climate, economic, and political shocks. The current war (as of this printing) underlines that renewable energy is not just good for the climate and public health, it's also good for global peace and a stable world order.

It's not just about messaging by a few elected leaders or spokespeople. It's a larger cultural project. I heard Bill McKibben recently at a conference, and he paints a really compelling picture and story through anecdotes and actual concrete examples. We need all kinds of leaders and cultural workers,

including musicians, poets, and filmmakers, to articulate a clear vision about how the clean energy transition is also a cheaper, healthier, more peaceful, and reliable future.

Deric Gruen: What are the key issues you're facing that really define the struggle right now? What is the larger force you see driving these issues?

Data centers are a real flashpoint across the country right now. They're often located in rural counties, whose local residents often lack the political power to resist. These data centers are driving up energy costs due to the enormous amounts of energy generation and new transmission infrastructure they require.

The common theme in all of this is the consolidation of corporate power and the ways this concentration of wealth corrupts our political process and government.

During our campaign for the Portland Clean Energy Fund (PCEF) ballot measure initiative in 2018, people really resonated with the idea of holding billion-dollar corporations accountable to pay their fair share (1% of their gross revenue). Only mega-corporations that make over $1 billion in annual sales have to pay, so small businesses and medium-sized local businesses, which we want to support, aren't impacted. And we use this money to fund clean energy projects prioritizing low-income communities and communities of color.

These questions about how to win a just transition are ultimately about democracy. The questions I constantly ask myself are: Who benefits? And who has to bear the burden? And how do we make sure that the voices of the people most impacted are at the table and ideally are the ones shaping the decisions? It's usually shareholders and a few mega-corporations who benefit. The people who suffer are the communities living around industrial or nuclear waste sites, as well as their future generations who bear the cost of our insatiable demand for energy.

In a healthy democracy, we'd have a public discussion about whether to invest in artificial intelligence before we let it unleash on the population with very few guardrails. Without AI, we could be focusing on energy efficiency. Our energy demand would be going down, and we wouldn't be reviving all these aging nuclear and coal-powered plants and building new ones.

Yet our elected leaders have, by and large, been passively accepting that these new data centers are the future, whether we like it or not. A lot of people don't even know what AI is, and yet we're already accepting a future in which it eliminates millions of jobs and unleashes massive economic and societal disruption, without being given a chance to make a decision ourselves. Elected leaders

and policies haven't caught up with the pace of technological change, and we're mostly letting the tech industry regulate itself in the name of economic competitiveness. We have to move beyond this mindset of growth at any cost, towards a vision of resilience, equity, and sufficiency.

Deric Gruen: Affordability and clean energy solutions are often wrapped up in broader ideas about scarcity. If scarcity is the problem, then we should focus on supply - to build more stuff. The abundance narrative has popularized this focus on supply-side solutions. Do you think this is where we need to be focused, or is it a distraction from the distributional issues you mentioned?

When I ran on an Oregon Green New Deal platform, which I think is a left version of abundance, I was talking about how we can build tens of thousands of new homes in Oregon, make them green, run them on 100% clean electricity, and create good-paying union jobs building them. That's abundance to me. If we decide that's our goal, we can then work backward to figure out how to get there.

I think there are ways we could paint a picture of equitable, climate-friendly abundance that would be exciting. But it's a nuanced thing. I support broad permitting and code reforms for housing and renewable energy infrastructure, but it is often conflated with a broader deregulatory approach to shrink government. Abundance for progressives is about trying to strengthen and expand state capacity and show that the state is capable of doing big things, as we did during the New Deal. We can create public entities like the Tennessee Valley Authority, but the time for clean, renewable energy and affordable housing is right now. People don't really believe that government can be a powerful force for good, and we don't have much state capacity. Our government has just been defunded and hamstrung by many well-intentioned processes and policies we've passed.

We've made it really hard for people with ideas, passion, and vision to work quickly to address problems. As a legislator, I'm supposed to provide oversight and accountability to state agencies. Now that I'm a Housing committee chair, I'm learning how our building codes–from plumbing to elevators to staircases–have made it much harder and more expensive to build the multi-story affordable housing our communities need.

I think the abundance folks need to address the distributional questions of how we're going to protect marginalized communities and make sure they really benefit. Abundance without an equity and distributional strategy can be problematic. But, I mean, you go to Texas, which has some of the most renewable energy in the country. They're out-producing California with all its clean energy mandates. They've produced way more solar energy because there is less regulation and zoning. A lot of Californians, including BIPOC and lower-income folks, are moving to these states because

their housing and cost of living are cheaper, so they can afford to live there. That's the contradiction that we on the pro-regulatory side have to navigate.

Deric Gruen: How do we build what we really need when states are facing budget crises and a lack of trust in their ability to deliver?

The question of state capacity is one that many sectors and stakeholders are grappling with right now, whether in the renewable energy sector or the energy sector at large. They're talking about the huge backload and the need to build energy transmission and distribution systems, as well as generation, to meet our demands, particularly in the face of data centers. How do we help our institutions operate more effectively at this moment, when our communities, now more than ever, really need us to be effective? We're going to have fewer dollars, and as the climate disasters keep hitting harder, I worry about our state's capacity to support communities in responding.

The Oregon Department of Transportation (ODOT) is a good example. Decades of disinvestment have left ODOT without the budget to pay the salaries needed to retain experienced staff. Transportation mega-projects are now outsourced to 3rd-party consultants who don't have a vested interest in keeping costs down. Many of our peer countries don't outsource all their transportation mega-projects. They have in-house engineers and others with the experience to do these projects, which has kept project costs lower because they have the expertise to manage those projects themselves. Counterintuitively, one of the best things you can do to keep costs down is to invest more in internal staff capacity. In this way, the constant budget cuts to these agencies can actually end up costing us more in the long run.

The Right has had an effective multi-decade campaign to really undermine trust in governments, which leads to people refusing to pay taxes for things that only the state can do cheaply and effectively at scale. I'm concerned that, as a social justice movement, we don't have a coherent vision of what state capacity looks like, and if anything, I sometimes hear a lot of anti-state rhetoric that money should all go to communities. "Communities" is a slippery term that is often used interchangeably with a few nonprofits, but unfortunately, this rhetoric might actually serve to justify a kind of privatization of services.

Deric Gruen: You've spent a lot of your career figuring out how to make structural change, as an advocate and now as a legislator. What needs to change in how we govern to meet the climate and affordability crises?

At this moment, our democratic structures and systems are really weak. We have citizens who feel really disempowered and unheard. They don't know who their representatives are, how the government works, which levers are available to pull, and they don't feel they have a voice. I think we need a fundamental overhaul and transformation of our democracy.

Movement Generation taught me, "If we're not prepared to govern, we're not prepared to win." I spent many years working in community, but was scared to engage in electoral politics, preferring to be righteous and pure in my own micro-community, instead of engaging in the messy work of engaging with a much broader population and actually contesting for power. But if we as a movement are serious about wanting structural change, we need to actually develop people who have the skills to govern if and when we are able to become the decision-makers.

The role of a state legislator like me is to remain a community organizer and to continue convening and bringing more community members and organizations into the legislative process. I took that for granted until I realized that, actually, most legislators don't have those connections and think the role of a state legislator is to use our position to share information and serve as a conduit between communities and elected decision-makers. I'm one of 90 legislators, and I can use that access to power to influence my elected colleagues and push them towards the real solutions that our communities need instead of the false promises that corporations and fascists are consistently pushing forward.

For movement organizers, I think it starts with supporting our member leaders in participating in local governance while staying connected to more radical groups with a transformative agenda. We need to develop effective models of co-governance.

The Portland Clean Energy Fund ballot measure initiative is a good example. Through our campaign, we were able to develop leaders who were grounded in the needs of the community and more accountable to communities than to corporations. The Portland Clean Energy Fund campaign was, in a way, a very long multi-year leadership development program. Many of the people involved, whether peripherally or on the core steering committee, developed their skills. I certainly learned a lot in that process. We learned about how to write a ballot title, how to build a coalition, how to engage different stakeholders, how to write voter pamphlet statements, how to organize volunteers to collect 65,000 signatures in seven weeks, how to recruit and keep volunteers, how to do door knocking, how to do paid ads, how to do mailers, how to be media spokespeople. And by the end, I definitely felt much more knowledgeable about the electoral process. So when the State Representative seat opened up in my district, and my community asked me to run, I felt a lot more confident, having had the experience with the Portland Clean Energy Fund, and was eventually able to say yes.

Those are the kind of bold, visionary, inspiring campaigns that our movement needs to be running, finding those people who are out there but need to be developed as leaders. Volunteer-driven

campaigns are difficult but also more nimble, and can really galvanize people and respond to a particular political moment. Unfortunately, the non-profit philanthropy model has funded a shift away from volunteer-driven movements toward staff-driven advocacy models. Grounding ourselves in a grassroots volunteer model of movement-building is key. I mean, there will always be a role for non-profit organizers, but the movement can't be dependent on well-meaning wealthy people. Newer organizers also need to be taught the skills of organizing and coalition-building. As a movement, we need to remember and continually build our skills in how to basebuild and engage new constituencies outside of our social circles. These are really important skills that we need to strengthen to build a bigger tent, a bigger "We" against fascism and for a livable future.

Deric Gruen: For folks reading this out there - where do you think we need to be focused to build the governing power you're talking about?

I would start where you are, whether at a workplace, a faith group, a Parent Teacher Association, or maybe you're a young person wanting to organize with other young people. In a time when people are so disconnected from the government and social movements, it's critical to teach about civics, the history of mass movements, and what it means to engage, use your voice, and organize collectively to make change.

Much of public engagement is superficial in a way that doesn't allow participants to grapple with the complexities and trade-offs of decisions. It takes time to really get people to a place where they can meaningfully shape policy and expand what's politically possible. It's not easy.

In many cities, there are local bodies that you can join that are volunteer advisory committees. These committees allow you to begin engaging with some of the complexities of governing. I encourage people to get on these volunteer boards and commissions. We should be preparing our folks to govern because we actually want to be the ones in charge. Whatever board or commission you join, whether it's the city's transportation advisory committee or the school board, it's an eye-opening experience. It'll teach you to grapple with the hard questions and trade-offs of real decisions, and you have to be accountable to people in a much more democratic way. Then you'll be ready to take the next step when another seat opens up. In this way, our movements can train up people who can later govern. That's what I'm seeing the Right do really effectively, with their Project 2025 civil service directories of people with experience ready to take over agencies. Again, I return to Movement Generation's wisdom: "If we're not prepared to govern, we're not prepared to win."

GETTING BACK ON TARGET: The Climate Movement Needs to Shift to Centering People

AIKO SCHAEFER
Executive Director of Just Solutions

The energy strategy centering corporate profit-making has failed, but we can turn the tide and create a people-centered politics for the public good as a pathway to affordability.

Climate change, data centers, the war in Iran, and more are all contributing to the energy affordability crisis. As these problems deepen, we cannot help but wonder "what if." What if we, as a culture and as an economy, had made different and deep investments in renewable clean energy in ways that reduced pollution and brought broad economic prosperity to communities that historically shoulder the greatest burdens of our addiction to fossil fuels? Unfortunately, we did not. And now we're stuck in an energy, political, and economic system that incentivizes corporate profit-making while perpetuating our current energy crisis. We must do something radically different. The answers lie not in technology or tax breaks, but in connecting people to politics, public provisioning, and a transformation in our mindset towards a reverence for the gifts of Mother Nature and collaboration across differences.

In 2015, I was asked by mainstream green groups in the Pacific Northwest to help build a broader, more inclusive climate movement. The stated motivation was to build the political strength needed to win, but at the time, we were also witnessing a public fight in California between environmental groups and environmental justice groups over the creation of a new carbon market. The Pacific Northwest's mainstream environmental movement, like pretty much everywhere, was largely white, affluent, and politically connected. Yet the voter demographic represented by environmental justice organizations - Black and brown - was growing in numbers and in some ways political strength, especially in states like California. Working across race and class differences was becoming necessary.

A very short version of a very long story - we created a large table of the most diverse set of organizations and interests Washington state had ever seen. Then we spent two years developing

a broad-based, equitable climate policy and put it on the ballot. We got handily defeated at the polls because of a record-setting $30 million campaign of lies by Big Oil. It did not take long for the political calculations of mainstream environmental groups to pivot toward policy designs more palatable to business interests investing large sums of money in elections and lobbying, and who had a stake in controlling climate policy. This partnership between green groups and businesses was fundamentally at odds with the interests of environmental justice communities hit hardest by climate change and pollution caused by large corporate polluters. Yet the promise of carbon revenue that could be "invested" in disadvantaged communities was the ticket to establish and justify a carbon market.

Albert Einstein said, "We can't solve problems by using the same kind of thinking we used when we created them." Our climate crisis is caused by and continues to be driven by corporate interests, excessive profits, and disregard for near- and long-term harm to people, communities, and the planet.

The modern environmental movement began in the 1960s and 70s by organizing regular people on college campuses and in communities, fueled by science, including Rachel Carson's *Silent Spring*, and often driven by people who were directly impacted, like Lois Gibbs, a resident of Love Canal. They successfully overcame strident opposition by industry and passed federal landmark policies to protect the public interest, including the Clean Water Act and the Clean Air Act, which established foundational protections for the public interest and helped build a powerful movement for change.

By the 1990s, however, the mainstream environmental movement was on its heels and began to move away from regulation and from curtailing or punishing detrimental corporate actions. They had largely abandoned deep and broad community organizing. They had shifted, aligning with the Democrats' political flank toward a neoliberal orientation that emphasized subsidies for corporations. The message was that we cannot be successful in passing policy without business support.

Environmental groups brought corporate leaders and other wealthy and disassociated people onto their Boards of Directors. The motivation was to raise funds to sustain their organizations, but intentionally or not, this culture and internal power shift also facilitated a pivot toward capitalistic growth that viewed "clean energy economy" as the pathway for addressing climate change. The approach had shifted from corporate accountability and regulation to market incentives to reduce pollution. It worked. Rich celebrities became big proponents. Billionaires like Musk grew their wealth by selling luxury, high-priced cars to those who could afford them, while he received federal and state taxpayer-funded incentives.

A flagship incentive approach is the policy "cap and trade", a market-driven approach to reducing greenhouse gas emissions. Another was the federal Inflation Reduction Act (IRA), a centerpiece

of President Biden's agenda, heralded as a pinnacle of success by the big green groups, but it further advanced the corporate-interest model. While the IRA did provide funding for lower-income communities on a historic scale, the fundamental strategy was to place faith in corporations' profit motive to solve our climate crisis. The near-complete and total dismantling of that policy by President Trump was a great loss, to be sure, and it is still too soon to do a post-mortem on the IRA. But we must consider how the ease and speed with which the IRA was dismantled showcases how mainstream environmental organizations mistakenly confuse "access"–a feel-good-about yourself notion that your seat at the table is power, with "real power"–a much deeper ability to control the agenda at the table others sit at.

We are witnessing a swift and shocking erosion of climate and environmental policy, and a rudderless and stunned climate movement, with little effective, visible, public opposition to the actions of President Trump. Even the opposition from Democratic governors and legislators is not only muted, but these elected Democrats are also pulling away from their support for climate action and policies they previously supported. Many have accepted the false narrative that strong climate action is at odds with affordability. They have adopted a policy approach that prioritizes corporate interests and, in turn, the interests of the wealthiest few over the needs of regular working people. It is a trickle-down economics approach applied to climate policy that has failed to create the durable public support needed to sustain policies against political wind shifts. It has also failed to generate direct, universal, and targeted economic opportunity.

A challenge is that from the very beginning, electricity was not typically provided through a publicly owned system like water, roadways, or general infrastructure. For the most part, private interests used electricity as a source of generating and concentrating wealth. In the early days of bringing electricity into homes, the novelty of this new technology advanced the interests of investors and those who could afford it. While electricity is more widely available, investor-owned utilities still provide most of our service, motivated by profits with insufficient regard for those who cannot afford it.

Utility customers with lower incomes often have to go to extreme lengths to keep their lights on, forgoing other necessities, driving a debt spiral. While we widely accept the necessity of electricity. During the COVID-19 pandemic, federal, state, and local governments went to extraordinary lengths to keep people connected, especially amid remote learning, work, and critical medical needs. The pandemic forgotten, every day, many thousands of customers are routinely shut off from electricity service.

Our need for energy is growing exponentially, and current federal policies stand to further drive an overreliance on fossil fuels that has propelled climate change and shortened the lives of frontline communities living nearest to the pollution they create. The addiction also drives our foreign policy toward conflicts and war. It is not sustainable. Tech corporations are exacerbating the energy

demand crisis by fast-tracking the domination of AI, a sort of technological revolution synonymous with the industrial revolution. It is once again driving a prioritization for corporate interests and profit over the public's, with promises to policymakers of state revenue and jobs, while omitting the massive job losses in other sectors and likely revenue losses.

People are beginning to have enough with technology billionaires and are seeing that corporations and utilities are not good actors. Corporate promises do not deliver on jobs, and the corporate polluters strap ratepayers with costs, while directing excessive profits to a few, mostly white, wealthy men. The political left, however, has been reticent to accept the real experience and feeling of the electorate that the "system is rigged" against them; a sentiment that Trump successfully co-opted to blame the Democrats, while he also joins in the lining of his pockets and tech billionaires cozying up to him.

So what is the strategy? A comparison of the healthcare organizing that brought us the Affordable Care Act (or ObamaCare) is an important case study of both investing in community organizing led by those directly impacted and acknowledging the immediate threat to people's health and economic security with a targeted, universalistic solution. It's connecting people to politics. For more than a decade, ObamaCare's central policies had the durability to withstand countless attacks by Republicans in Congress, Trump's first full term in office, and, in many cases, the conservative majority of the US Supreme Court.

We have to stop putting all our faith in privately owned technology to save us, when their motivation is to make billions. Advancing the continued privatization of our energy systems will enrich a few and allow a status quo of power and influence in the political systems to maintain all the control. It is antithetical to the caring and nurturing required when we broadly agree that access to reliable and affordable energy is a fundamental need. What we know from looking at other systems focused on the common good–public education, space exploration, public health–is that when they are adequately funded, and owned by us, the public, we get closer to reliable and broadly shared benefits. Not coincidentally, those three historically honored public goods have also been increasingly co-opted by extremely wealthy private interests for profit while compromising public benefit.

We also have to stop fearmongering or driving a scarcity mindset. Fear and disconnection foster a public culture for paternalism and authoritarianism to protect and "save us". We are witnessing over the past decade Trump's rise to, and ongoing, stronghold of political power and a cult-like control over much of Congress, the media, and the judicial branch.

We can and must offer a vision for a transformational future. One that can break through the noise and inspire. All around us are sources of energy that Mother Nature gives freely, democratically,

and in abundance. Wind, solar, wave, motion, the rhythms of nature are truly limitless. Coupled with equitable and community-based uses of proper technologies, we can break free from our reliance on fossil fuels and foster decentralized, cheaper, locally owned and controlled electricity, building wealth and prosperity for everyone.

Finally, we have to be able to work across differences, not just some days when it is expedient, but every day, especially when it is inconvenient. It's the toughest work there is, but it is where we make true and resilient change. It is worth giving up some of your access and power. We must learn about each other's cultures and how they meet and make decisions differently, and get new ideas to solve our pressing problems. The possibility of people coming together across identity and class scares the crap out of corporations and the right wing. It always has. It is why they have historically worked so hard to divide us, and still do today. It does not really matter if you are unsure if this strategy is for you; the reality is that the U.S. has always been, and is becoming more diverse every day. So, even for the sake of relevance and effecting change, the climate movement needs to get with the program and better safeguard and leverage our democracy because our lives depend on it.

CONTRIBUTORS

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Aiko Schaefer's essay is written from her personal perspective and experience. She is the Founder and Executive Director of Just Solutions. Aiko has over 30 years of experience running national and state legislative and partisan campaigns across the US, and has held many director and executive positions. She spent her early professional life working for a mainstream environmental organization. She spent most of her career working on economic and climate justice issues, including as the founder and director of Washington State's first and largest justice-centered climate coalition, Front and Centered. In that role, she served as the co-chair of the statewide coalition of labor, greens, Tribal Nations, and community-based non-profits that put a climate ballot measure before voters in 2018, drawing a record-setting amount of spending from the fossil fuel industry that led to its defeat.

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Denise G. Fairchild, PhD, is a nationally recognized activist-scholar in sustainable and community development with over 40 years of experience advancing environmental, economic, and social justice. She is currently a 2021 Climate Breakthrough Awardee, the largest global climate award granted to an individual, and the second U.S. awardee. Dr. Fairchild's work focuses on energy democracy, and she co-edited a book by that title that identifies community-based and cultural solutions to climate change and sustainable development. Dr. Fairchild retired in 2022 after a dozen years as the inaugural president/CEO of Emerald Cities Collaborative (ECC), a national nonprofit organization dedicated to greening cities across the U.S. that creates resilient local economies and ensures equity and inclusion in both the process and the outcomes of a green and healthy economy. In that role, she built community-led partnerships with labor, environmental, and business organizations to increase energy efficiency, clean energy, sustainable foods, and clean water, and circular economies with a focus on low-income and communities of color across the country. She currently serves in an emerita status and works on the cultural and economic underpinnings of climate Change. Denise is a proud graduate of an HBCU - Fisk University in Nashville, TN. - and earned a graduate degree and a doctorate in urban planning from the University of Pennsylvania and U.C.L.A., respectively. She currently lives and works in South Los Angeles.

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State Senator for Oregon Senate District 23

Khanh Pham first joined the Oregon State House in 2021 and was the first Vietnamese American legislator in Oregon's history. In her time in the legislature, she championed and won one of the nation's strongest 100% clean energy policies, the COAL Act to divest Oregon Treasury investments from coal, SB 686 for Performance-Based Ratemaking, and a number of bills to support immigrant rights and racial equity. She continues to fight for climate justice, economic justice, and a healthy, inclusive democracy.

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Lew Daly is a Senior Fellow focusing on climate justice policies and strategy. He previously served as Deputy Director of Climate Policy at the Roosevelt Institute, and as Director of Policy and Research and Senior Policy Analyst at Demos. Lew was a member of the steering committee of NY Renews and helped develop and advance the state's groundbreaking Climate Leadership and Community Protection Act. In 2022-2023, he was a member of New York City's Offshore Wind Advisory Council, and he was previously a member of the Global Well-Being Lab. His articles and opinion pieces have appeared in The New York Times, The Washington Post, The New Republic, Democracy, Grist, and many other publications. Lew was born and raised in Central New York State, and he has lived with his family in West Harlem, New York City, since 1999.

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In collaboration with energy justice organizers and advocates from Alaska to Puerto Rico, she reimagines and realizes energy futures that are decentralized, democratized, and decolonized. Selena has been active in collectives over the last decade, facilitating space for groups to collaborate, identify edges, and develop solutions for cooperatives, climate justice groups, public agencies, and more. She serves as an Environmental Justice Advisor with the SF Bay Conservation and Development Commission (BCDC) and Board Member with Cycles of Change, a Bay Area-based cycling organization rooted in environmental and transportation justice. Previously, she held board roles with People Power Solar Cooperative and the California Alliance for Community Energy (CACE). A climate activist at heart, Selena weaves music, theatre, and bicycle-powered movement as an extension of her work. Find out more at selenafeliciano.com.