



# Creating an Equitable and Durable US Climate Policy

## Five Key Objectives and the Tools to Accomplish them

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### Highlights

Current climate policy deepens existing environmental, health, and economic inequities of fossil production and use. This policy brief identifies five key objectives for climate policy to create an equitable and durable energy transition and proposes a suite of policy tools that build off existing programs to help meet those objectives.

1. To decrease energy burdens, tax credits should be more flexibly employable within the power sector and across other emitting industries, regardless of tax status.
2. To drive equitable economic growth, federal incentives should reward carbon productivity—the ability to produce economic goods and services while emitting less carbon.
3. To enable infrastructure transition, federal financing programs should be expanded to address transition risks and costs that impede asset owners from retiring fossil infrastructure and to help in their redevelopment.
4. To revitalize energy communities, federal funding should be increased for private reclamation of fossil fuel sites and should come with a requirement to rehire displaced energy workers or workers in environmental justice communities.
5. Climate policy should prioritize transition of assets that produce emissions that create the greatest health and economic burdens on those least able to bear them.

### Introduction

President Biden's [national target](#) to reduce greenhouse gas emissions 50%–52% from 2005 levels by 2030 is also a roadmap for economic prosperity. Massive investments in clean electricity generation, energy efficiency, and electrification technologies will create jobs across the United States while making the nation's industries and businesses more productive. Seizing this opportunity—and ensuring all Americans share its benefits—requires us to reimagine how we design climate policy.

To achieve the President's target and avoid dangerous climate change, the United States must transition much of its energy infrastructure in the next ten years. This transition will require the greatest action from the sectors and firms with large legacy investments in fossil energy infrastructure. However, under existing regulatory and policy structures, the entities that own and operate most capital-intensive fossil energy infrastructure [have largely insulated themselves](#) from the financial risk associated with such a transition.

This leaves energy customers, workers, and communities to bear the brunt of the costs of a rapid transition from fossil energy to cleaner sources, notably through regressive utility rates.

Instead of addressing the challenges faced by energy customers, workers, and communities, much of current climate policy deepens existing environmental, health, and economic inequities of fossil production and use. Doubling down on this policy approach as we enter a decade of widespread energy transition would not only reinforce unfair allocations of burdens; it

would also make it impossible to unite most Americans behind the vitally important mission of preventing dangerous climate change.

Effective climate policy needs to align incentives so that capital-intensive industries and investors can come together with energy customers, workers, and communities in support of an equitable transition. The success of the energy transition—and our long-term progress on climate change—will hinge on our ability to create common ground for these diverse stakeholders.

This policy brief identifies five key objectives for successful transition policy and proposes a suite of policy tools that build off existing programs to help meet these objectives.

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| <b>Decrease Energy Burdens</b>           | Decrease the energy burden on vulnerable populations including energy costs, induced economic effects of energy costs, and health and environmental impacts.               |
| <b>Drive Equitable Economic Growth</b>   | Provide affordable, reliable energy to drive economic growth, particularly in communities that have borne the health and environmental costs of fossil production and use. |
| <b>Enable Infrastructure Transition</b>  | Encourage investment to lower energy costs and unlock new economic opportunities for the energy workers and communities that have powered our economy.                     |
| <b>Revitalize Energy Communities</b>     | Speed up reclamation of former fossil fuel sites and provide relief and reinvestment for communities facing economic distress due to fossil fuel closures.                 |
| <b>Prioritize Assets Doing Most Harm</b> | Prioritize transition of assets that produce emissions that create the greatest health and economic burdens for those least able to bear them.                             |

## 1. Decrease Energy Burdens

Climate policy should decrease the economic, health, and environmental burdens that the modern energy system disproportionately place on vulnerable populations. Current US climate policy relies heavily on tax credits to boost clean energy deployment. However, current tax laws make it difficult to use these tax credits to alleviate burdens on energy customers and communities.

For example, although electric utilities must play a major role in decarbonizing the power sector, existing tax credits do not effectively [incentivize utilities and their customers to embrace a clean energy transition](#). The US utilities [that own 75% of the remaining coal capacity](#) either don't pay taxes at all or have accumulated enough recession-fighting tax incentives over the past two decades to not have any use for any additional tax credits for many years.

Even worse, utilities are required to use the investment tax credit (ITC) for solar and solar plus storage to benefit their investors rather than to pass the full benefit of the credit through to their customers. This is a legally mandated handicap known as "tax normalization," which makes utility-owned solar and storage more expensive for consumers than it would otherwise be. If solar and solar plus storage replace fossil generation, the adverse impact of tax normalization is especially unwelcome in the first few years after the clean asset is built, as customers will likely still be paying for the retired fossil assets in their bills.

To transition from fossil energy to clean energy resources that include solar and storage, utilities are faced with two unappealing choices. They must accept lower earnings and a shrinking business by relying on third-party power producers

that can use the ITC to offer better prices. Or they must try to convince regulators that ratepayers should pay more so that the company and its shareholders can own the solar and storage.

To avoid these outcomes, utilities have slow-walked the clean transition—especially the transition to solar—despite the compelling economics of renewables. The result is that millions of utility customers, including low-income customers that pay disproportionately high shares of their income to electricity bills, are deprived of the financial and health benefits of affordable clean energy, thwarting the policy objective of clean energy tax credits.

If tax credits remain a major lever of climate policy, they should be more flexibly employable within the power sector and across other emitting industries, regardless of tax status. Eliminating the ITC normalization requirement, making the ITC and PTC available as direct-pay programs, and designing new programs that directly incentivize the retirement of polluting assets can help ensure that the energy transition proceeds at the pace called for by President Biden while also delivering cost savings to consumers regardless of the tax status of their energy provider.

Further details explaining ways to make tax credits more flexibly employable can be found in our blog titled [“Simple Tax Changes Can Unleash Clean Energy Deployment.”](#)

## 2. Drive Equitable Economic Growth

Climate policy should provide affordable, reliable energy to drive growth across the economy, particularly in communities that have borne the health and environmental costs of fossil production and use. While the ITC and the production tax credit (PTC) for wind have supported significant levels of clean energy deployment, neither policy optimizes for climate, public health, or economic equity outcomes. Building new renewables does not necessarily [displace or replace carbon-intensive generation](#), and in no way requires support for the workers and communities that face job losses and local revenue shortages from the energy transition.

Federal incentives should support a bolder goal: carbon productivity—the ability to produce economic goods and services while emitting less carbon. A tax credit that targets carbon productivity can allow flexibility for businesses to innovate and grow, while reducing their emissions. Targeting carbon productivity will also direct federal dollars to the most carbon-intensive sectors and firms, supporting the consumers who face the highest transition costs.

RMI has a plan for this new type of tax credit. We call it the transition tax credit (TTC), and it is intended to reward entity-level carbon productivity gains over a 12-year transition period to a low-carbon economy. Claimants will submit economic and emissions data annually to [EPA’s existing Greenhouse Gas Reporting Program \(GHGRP\)](#) to verify they are delivering a greater value of goods and services with less direct carbon emissions relative to a baseline year.

The EPA rules will establish the GHGRP certification and tracking system for the verification and retirement of eligible emissions reductions as well as additional program design requirements. The sole responsibility of the IRS will be to credit the benefit—either as a reduction in tax liability or a direct-pay cash refund—of the carbon productivity improvements certified and inventoried by the EPA.

Truly technology neutral, the TTC will support a broad suite of emissions reduction measures in all economic sectors, privileging least-cost carbon abatements. Regulated utilities will be required to pass tax benefits through in full to customers in the form of lower rates, providing consumers with immediate benefits. Unregulated entities will face competitive pressure to improve carbon productivity and then pass the resultant tax credits through to consumers by means of lower prices, lest they risk loss of market share to firms that do.

### 3. Enable Infrastructure Transition

Over the past decade, the reduction of coal power generation in the US power sector has meaningfully lowered carbon, NO<sub>x</sub>, and SO<sub>x</sub> emissions. At the same time, utilities have made significant investments, including for pollution controls, in remaining fossil fuel infrastructure. As a result, the net book value of a typical coal plant has [more than doubled since 2005](#). This means the cost of retiring a gigawatt of coal today is more than twice what it was in 2005.

Today, 80% of US coal generation has no retirement date or is scheduled to retire after 2030. The book value of these assets, which are concentrated in just a handful of states, totals \$129 billion. Progress toward climate goals will be slowed—with potentially tragic consequences—if the transition threatens utilities with the loss of their fossil investments, or if financial recovery of investments in retired plants places high near-term and regressively distributed cost on consumers.

Currently, federal authorities like the Department of Energy's Loan Programs Office (LPO) have a remit that is limited to commercializing new technologies and cannot address the risks and costs of transitioning legacy fossil energy investments. RMI believes the LPO's financing mission should be expanded to address transition risks and costs that impede asset owners from retiring fossil infrastructure and to work with communities, investors, and entrepreneurs to enable their redevelopment. Doing so would grow local jobs and lower consumer costs.

Our plan calls for giving the LPO flexibility to provide far higher levels of total financial support utilizing a larger portfolio of financial tools to assist a broader range of public and private entities. Direct loans, letters of credit, loan guarantees, and other credit enhancement could go a long way toward easing transition burdens that have been underappreciated by a federal climate policy too narrowly focused on new technology deployments. For instance, by guaranteeing ratepayer-backed coal transition bonds, LPO could allow utilities across the country to retire fossil plants and refinance any unrecovered investment balances using extremely low-cost debt, similar to [state-level securitization](#).

### 4. Revitalize Energy Communities

The transition from fossil fuels will place concentrated burdens on workers and communities whose economies depend on fossil energy industries. Workers face the losses of dependable, high-paying jobs, and communities risk losing key public services as local revenues plummet.

Climate policy must address these burdens in fossil communities to avoid short-term shocks, long-term economic stagnation, and lingering environmental contamination after fossil sites close. In addition to providing relief for job and revenue losses and incentivizing reinvestment into fossil communities, climate policy should also center reclamation as a health and economic development tool.

Reclamation can be [a critical tool for revitalization](#), first, by cleaning up environmental hazards and second, by enabling redevelopment of valuable remaining infrastructure and other assets, such as transmission lines and switchyards, rail and water access, and land. However, existing federal reclamation programs are vastly underfunded and inadequately incentivize reuse of reclaimed infrastructure. Reclamation obligations for asset owners, such as fees assessed through the Abandoned Mine Land reclamation program, [often fail to ensure adequate funding](#) for cleanup, but asset owners are generally barred from applying for federal reclamation support. As a result, contaminated sites may remain idle and dirty for years.

The reclamation effort will require major funding increases for federal programs, as well as unlocking private-sector investment in cleanup and site redevelopment. Providing matching federal funding for private reclamation of fossil fuel sites or expanding financing options in DOE's LPO can help deploy much-needed private dollars to ensure swift and safe reclamation. Federal funding can also come with a requirement to rehire displaced energy workers or workers in environmental justice communities. This can also include wage and local benefits standards, to ensure that these communities stand to gain—not lose—from the clean energy transition.

## 5. Prioritize Assets Doing the Most Harm

Climate policy should prioritize transition of assets that produce emissions that create the greatest health and economic burdens on those least able to bear them.

The ongoing health burden of coal plant operation falls [disproportionately on vulnerable communities](#). Fossil fuels have direct morbidity and mortality impacts resulting in 10.2 million premature deaths per year globally. Many of these same communities also shoulder the financial cost and economic toll of retiring polluting power plants as ratepayers, with impacts magnified through regressive electric rate structures.

Transition policy should account for fossil harms, reflecting the full range of benefits from reducing fossil pollution and rewarding all parties able to contribute benefits. These benefits can be monetized, for instance by incentivizing clean energy investments with a share of healthcare benefits using a preventative healthcare/accountable outcomes approach or by adding such benefits directly to the TTC.

### Effective and Equitable Climate Policy

The window for action on climate has narrowed. While the transition to clean energy is likely to create broad net benefits in the long run, the rapid implementation made necessary by decades of delay will have significant near-term costs. With conventional climate policy tools, those costs and risks will be borne by vulnerable populations least prepared to manage them. In addition to being unjust, the unequal cost burden is likely to render the politics of a rapid transition unworkable. To be effective, we need a new approach to climate policy that puts an equitable transition at the focus.

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| <b>Decrease Energy Burdens</b>           | <b>Tool 1:</b> Fix tax normalization and provide the ITC and PTC as direct-pay. Expand PTC to include solar and solar + storage. |
| <b>Drive Equitable Economic Growth</b>   | <b>Tool 2:</b> Expand \$45 tax credits to reward improvements in carbon productivity while encouraging job growth.               |
| <b>Enable Infrastructure Transition</b>  | <b>Tool 3:</b> Expand DOE LPO financing to lower transition costs and risks for energy customers, workers, and communities.      |
| <b>Revitalize Energy Communities</b>     | <b>Tool 4:</b> Fund and coordinate EPA, DOI, DOC EDA, HUD, and USDA programs to revitalize energy communities.                   |
| <b>Prioritize Assets Doing Most Harm</b> | <b>Tool 5:</b> Credit environmental quality improvements as preventive healthcare rewarded through the ACA.                      |

Climate and clean energy policy must be designed to ease the costs and health burdens on the most vulnerable while orienting asset owners completely toward pro-growth decarbonization. The federal government is uniquely positioned to enable these efforts and support communities through the transition to a cleaner more prosperous future.