About Green For All

Green For All is a national program of The Dream Corps. We work at the intersection of environmental, economic, and social justice movements to build an inclusive green economy strong enough to lift people out of poverty. Learn more at greenforall.org.

About Dream Corps

Dream Corps closes prison doors and opens doors of opportunity. We bring people together across racial, social, and partisan lines to create a future with freedom and dignity for all. Learn more at thedreamcorps.org.

About this Toolkit

This toolkit is to serve as a resource to the Transportation and Climate Initiative (TCI), a collaboration of 12 states and Washington, D.C. across the Northeast and Mid-Atlantic region.

The Transportation and Climate Initiative is designing a regional cap-and-invest program to curb transportation sector emissions across the region. This toolkit provides guidance to state agencies, legislators, advocates, community members, and other critical stakeholders to design a program that is responsive to the needs of low-income families, disproportionately pollution-impacted neighborhoods, and transit-underserved communities.

This toolkit is structured around the Policy Design Principles for an Equitable Clean Transportation Program, which were delivered to the Transportation and Climate Initiative on July 26, 2019. This toolkit builds upon those principles to provide detailed guidance and resources for developing a regional cap-and-invest policy. The principles were co-developed by national environmental equity groups and community-based organizations with input from over a dozen racial justice, economic justice, environmental justice, and transit justice organizations.

About the Author

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Executive Summary

Our transportation system – how we move people and goods – is outdated, costly, inefficient, and does not work for everyone. Low-income communities and communities of color are disproportionately impacted by climate and air pollution, pay a disproportionate amount of their incomes on transportation costs, and often lack mobility options that would help them reach jobs, medical care, and other services compared to whiter, wealthier communities.

Getting to and from basic services shouldn’t be such a challenge. It’s time to upgrade to a truly modern transportation system designed to meet the needs of everyone. If we do this the right way, we can cut carbon and cut inequality, too.

It’s time for an upgrade!

By the spring of 2020, 12 states and Washington, D.C. across the Northeast and Mid-Atlantic region have committed to finalizing the design of a regional carbon cap-and-invest policy for the transportation sector. This will be the culmination of several years of facilitated dialogue, policy modeling, stakeholder engagement, and public input.

The final program design being developed by the Transportation and Climate Initiative (TCI), will have profound implications for the state of pollution and transportation along the East Coast.

A cap-and-invest policy is a policy that sets an enforceable and declining cap on emissions while raising revenue from the sale of emission allowances under the cap. States are motivated to create the program primarily as a means to reduce carbon emissions. Transportation is now the largest source of carbon emissions in the region.

There are co-benefits that could accompany carbon emissions reductions, including improved air quality and public health, expanded access and mobility, job creation, and economic growth. But the degree to which these co-benefits are maximized, and for whom, is highly variable. Furthermore, which of these benefits are directed to which communities requires careful policy design. The details matter.
In a draft framework released in September of 2019 for feedback, the 13 TCI jurisdictions gave a glimpse into the program design questions they will be considering for the regional program. First in the list of program design elements to address was equity, broadly defined.

The framework committed the TCI jurisdictions to “embrace the goals of equity” while “seeking to improve equity... and community engagement” and “addressing equity needs and concerns.” These commitments give little specification as to how they will embrace, improve, or address equity, and whom the program will primarily serve.

In the framework, TCI jurisdictions committed to “equitable outcomes.” Achieving equitable outcomes requires meeting the needs of those who are currently disadvantaged. It also requires specific goals, metrics, and benchmarks for measuring those outcomes.

Jurisdictions, including 12 states and the District of Columbia participating in the Transportation and Climate Initiative (TCI).

Green For All hopes this toolkit provides guidance to policymakers for designing a regional program that benefits the needs of disadvantaged communities and vulnerable populations. It should inform stakeholders in their advocacy for a robust program design, adoption, and implementation. It can serve as a reference to state legislatures and agency officials in determining whether the program design should be adopted in their states, easing concerns of unintended consequences and backlash.

Karen Campblin of NAACP Virginia, Eleanor Fort of Green For All, Mari da Silva of NAACP New York, and Josh Malloy of Pittsburghers for Public Transit

This toolkit describes how these principles can be applied. It contains Green For All’s specific policy recommendations, as well as case studies, additional tools, and resources.

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These recommendations should be included in a regional policy framework to ensure the program achieves equitable outcomes.

These recommendations should be included in a regional policy framework to ensure the program meets equitable outcomes. When evaluating policy outcomes, it’s unrealistic to expect 13 jurisdictions to achieve those outcomes without some guidance on the process and implementation. While each jurisdiction is unique and the specific programs and projects within each state may vary, overarching processes and guardrails must be laid out to achieve the program’s goal of equitable outcomes.

With the right attention to detail in policy design, a regional approach to tackling transportation sector emissions offers states an opportunity to adequately address each of the following equity issues: climate impacts, public health, economic cost, mobility access, commute time. But without specific steps, metrics, guardrails, and guarantees, the program will fall short of achieving equitable outcomes.

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Introduction

Transportation is critical to our daily lives. How we move people and goods affects everyone, but it does not affect everyone equally.

Low-income families and communities of color are disproportionately negatively impacted by transportation pollution. Tailpipe emissions also contribute to climate change, which vulnerable communities will feel first and worst. Low-income families and rural communities spend a disproportionate percentage of their income on transportation costs. Meanwhile, a lack of transportation and mobility options disproportionately impacts communities of color, rural communities, and people with mobility impairments that would help them reach jobs, education, healthcare, and government services.

Twelve states and Washington, D.C. have come together to develop a regional policy to cut carbon emissions from the transportation sector and invest in a clean transportation economy across the Northeast and Mid-Atlantic regions. But this regional effort presents a unique opportunity to not only cut carbon, but to cut inequality, too.

The Impact of Transportation Pollution

Transportation is now the number one source of carbon emissions in these regions and the U.S. Carbon emissions contribute to climate change. Impacts such as extreme weather events, sea-level rise, food shortages and the spread of disease are felt hardest by vulnerable populations. The emissions reduction goals science demands to combat the worst impacts of the climate crisis cannot be achieved without decarbonizing our transportation sector.

Tailpipe pollution is not only a climate issue, it is a major public health issue with disproportionate impacts. In the U.S., there are nearly twice as many premature deaths from transportation-pollution illness than deaths from traffic accidents. Tailpipes emit soot, smog, particulate matter, carcinogens, and neurotoxins. Exposure to tailpipe exhaust leads to respiratory illness, cardiovascular disease, low birth weights, and other pollution-related illness. These illnesses often result in hospitalization or premature death. Recent studies have linked air pollution to decreased cognitive function in children and older populations.

Racial disparities far outweigh class disparities when mapping exposure to tailpipe pollution. A study from 2014 found that within urban areas exposure to nitrogen dioxide (NO2), a result of tailpipe pollution, the disparities in exposure by race after controlling for income were more than two times as large as the disparities by income after controlling for race. When comparing low-income minority neighborhoods to white, wealthier neighborhoods in the same urban areas, the metropolitan areas ranked as the highest disparities were New York/Newark, followed by Philadelphia, Bridgeport/Stamford, Boston, and Providence.

A recent analysis from the Union of Concerned Scientists found that communities of color are exposed to 66% more particulate matter from tailpipes than white communities in the Northeast and Mid-Atlantic. The average
concentrations of exposures for Latino residents are 75 percent higher, and for Asian American residents they are 73 percent higher, than they are for white residents. Exposures for African American residents are 61 percent higher than for white residents (Figure 1).

The National Academy of Sciences published a study that found most of the health impacts felt by communities of color are a result of the consumption habits of whiter, wealthier communities. A history of discriminatory land–use planning, housing policy, transportation planning, and facility siting has put communities of color near the dirtiest and worst sources of pollution. The cumulative impact of being exposed to higher levels of air pollution on a daily basis has put people of color at greater risk for many different physical and cognitive illnesses.

A recent analysis that maps these impacts at the local levels can help policymakers determine the areas that are most overburdened by tailpipe pollution or at risk for climate impacts. Using the best available science to make informed policy decisions will allow us to craft policies that specifically target the communities that are most in need of solutions.

The Role of Transportation

Transportation plays an important role in upward social and economic mobility by helping people access jobs, government services, healthcare, education, and healthy food. Our current transportation system is inadequate for struggling families in both urban and rural communities. Even in dense urban areas, lower–income communities and communities of color often have inadequate, unreliable, and inefficient transportation and mobility options available when compared to whiter, wealthier communities. Discriminatory land use and transportation planning decisions have also functioned — often purposefully — to keep people racially segregated.

Transportation funding and planning decisions tend to prioritize freeway...
expansion and similar large-scale projects that keep more cars on the road, over improving and expanding lower carbon public transit and micro transit options, including walking and biking. These variables have left low-income families dependent on cars or on an inefficient and unreliable public transit service.

Rural communities face similar transportation and mobility challenges. A personal vehicle is often the only mode of transportation for rural communities; transit is often unavailable, sparse, or inconvenient. Limited access to broadband service further restricts them from opportunities like working from home, accessing telehealth services and online educational opportunities. Expanding transit options for rural communities can help residents access education, healthcare, healthy food, and government services.

**The Cost of Transportation**

Transportation accounts for the second highest household expense for families, with low-income earners spending up to 30% of their income on transportation costs. Low-income drivers often purchase older, used vehicles, and hold onto their vehicles longer than others. Older vehicles are more likely to break down and are less efficient, costing drivers more in fuel and maintenance.

Drivers living in rural communities tend to have longer commutes and are car-dependent. Rural drivers also pay a disproportionate amount of their income on transportation costs. As housing prices skyrocket, people who have been...
displaced are forced to move further away from work to afford housing. This often comes at the expense of paying more for transportation.

For drivers that tend to spend more of their income on gasoline, price fluctuations can impact struggling families the most. Gasoline prices are volatile, and price fluctuations happen frequently at a global scale. Both low-income and rural drivers are especially vulnerable to unforeseen and sudden price spikes when they rely heavily on a gasoline powered vehicle.

The five jurisdictions with the longest average personal vehicle commute times in the U.S. are Maryland, New Jersey, Washington, D.C., Massachusetts, and Virginia. New York state has the second longest commute times when including public transit, walking, and biking. According to the National Equity Atlas, a project of PolicyLink, Black, Latino, and Asian or Pacific Islanders that use a private-vehicle have longer average commute times than whites in the U.S. (Figure 2).

Time wasted sitting in traffic is time people are not working, spending money in the local economy, or enjoying time with their families. This also means more money spent on childcare, housework, and convenient, less healthy meals and less time for family bonding. Longer commute times are also associated with higher job insecurity.

Congestion and traffic also hampers the opportunity for economic growth in the region. Traffic jams reportedly cost the U.S. $87 billion in lost economic productivity, with Boston and Washington, D.C. cited as the worst offending cities. With the right policy design, a regional approach to tackling transportation sector emissions offers states an opportunity to adequately address all of these issues at the same time: climate impacts, public health, cost, mobility access, congestion. A clean, modern transportation future that is clean, affordable, efficient, and equitable is possible. This toolkit provides guidance to policymakers for designing a regional program that meets the needs of the region’s hardest hit communities. A commitment to equity should lead to a better transportation future for all, starting with those who need it the most.
**Background**

The *Transportation and Climate Initiative* (TCI), is a regional collaboration of 12 Northeast and Mid–Atlantic states (Maine, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, and Virginia) and Washington, D.C. seeking to reduce carbon emissions in the transportation sector. The collaboration is coordinated and supported by the Georgetown Climate Center, with participation by state officials from each jurisdiction’s transportation, energy, and environmental agencies.

In 2015, Georgetown Climate Center and Cambridge Systematics released a report, *Reducing Greenhouse Gas Emissions from Transportation: Opportunities in the Northeast and Mid–Atlantic*, detailing the benefits of a regional program that could generate revenue to invest in clean transportation solutions.

The analysis examined the potential benefits of investing $3 billion a year in clean transportation technologies and programs and found that a regional clean transportation program could reduce carbon emissions between 29 to 40 percent by 2030, increase economic growth between $11.7 billion and $17.7 billion by 2030, and create between 91,000 to 125,000 jobs, and improve public health. However, the report did not detail a mechanism by which the $3 billion of funding would be raised. The more ambitious climate reduction scenarios combined a market–based approach to raising funds with a clean fuel standard and other complementary policies.

In December 2018, nine of the states and Washington, D.C. announced they would develop a regional carbon cap–and–invest policy for transportation within a year. New York and New Hampshire were the only states participating in TCI at the time who did not join the announcement.

Over the course of 2019, TCI officials hosted three day–long sessions in Boston, MA, Newark, NJ, and Baltimore, MD focusing on the technical aspects, equity considerations, and investment strategies pertaining to a cap–and–invest program. A comment submission portal was established on Georgetown’s webpage to allow additional stakeholder input and public comments.

On September 30, 2019, TCI state officials released a *draft framework* to receive public input and stated they will release a more specific policy proposal for the regional program by the end of 2019, with the goal of finalizing the regional program by Spring 2020. At that time, participating state governors will have the opportunity to sign a joint MOU expressing their intent and commitment to join the regional program.

Some states will require subsequent legislative approval to formally adopt the program before implementation.

**What is a cap–and–invest program?**

A cap–and–invest program is a market–based mechanism for reducing emissions and generating revenue. States would set a pollution ‘cap’ which formalizes how much pollution they will allow to be emitted. That cap declines each year,
meaning the allowable amount of pollution must go down each year. This system makes the permission to pollution valuable and monetizable. Permission would be granted in the form of 'allowances' that can be bid on and bought at auction, but the amount of allowances cannot exceed the cap.

As the cap declines over time, the price of allowances is expected to increase. This process incentives big polluters to clean up their act and generates revenue that states can use to invest in making the transition to a cleaner economy.

RESOURCES: From the Georgetown Climate Center

Cap–And–Invest Factsheet (available in multiple languages)

Cap–and–invest 101 webinar recording

Cap–and–Invest in Transportation

For the transportation sector, a cap–and–invest program would cover surface vehicles (cars, trucks, buses, and rail) that use gasoline and diesel. Jet fuel for air travel is regulated federally, and would not be covered under the regional program.

The most likely group that would be regulated and need to pay for allowances is fuel distributors. Fuel distributors are a middle–man between fuel refineries, where fuel is produced, and gas stations, where fuel is sold. Their principal business is in moving, mixing, and storing fuel products, mainly petroleum products like gas and diesel, although also biofuels and other liquid alternative fuels.

There are only a few dozen of these companies operating in the Northeast and Mid–Atlantic region. All of them are currently required to report to state agencies when they bring product across state lines intended for sale. They must also include the type of product (whether gasoline and diesel) and the specific blend of fuel (levels of biofuels like ethane mixed into the product). With reporting requirements already in place it would be relatively simple for states to calculate the average carbon content of the fuel that crosses state lines that is intended for in–state sale.
Fuel distributors would then be required to purchase allowances for the carbon content of their fuel for sale. The program can provide flexibilities to fuel distributors by accounting for lower–carbon fuels. This allows fuels distributors to sell the same volume of fuel, but at less carbon–intensive levels that require fewer allowances.

The additional cost of the allowances may be passed on either upstream, to the fuel providers, or downstream, to the fuel consumers, or both. Although oil companies operating with billions of dollars of annual profit, it’s politically unlikely that fuel distributors would pass the cost onto their suppliers – the oil companies. Instead, they will pass the cost on to consumers, which could lead to higher prices at the pump.

However, it’s unlikely the price passed on to consumers at the pump will exceed the normal global market price fluctuations of gasoline and diesel on an annual basis. Furthermore, the program itself is what allows consumers to more easily escape this vulnerability. One of the benefits of the program, if designed to prioritize those who need it most, is to ensure an equitable transition off fossil fuels and their price volatility.

Community voices are not at the table

A recurring, overarching concern with carbon pricing programs is a lack of disproportionately impacted voices at the decision–making table at the beginning of the process, during conception and design, and all the way through implementation.

Community members have specific, lived experiences that makes them uniquely adept to advise on how programs must be structured to work for their community. These communities have already been disadvantaged by past policy choices; it’s imperative they are at the table to inform policy decisions to reconcile those disparities, and mitigate the risk of decisionmakers unknowingly perpetuating or exacerbating these disparate impacts.

Localized air emission reductions are not guaranteed

Cap–and–invest programs are designed to tackle greenhouse gas emissions broadly and cannot guarantee localized air emissions reduction in disproportionately impacted communities. This is a critical limitation of carbon pricing programs and a key reason why complementary policies are necessary to ensure a clean and equitable program. In some communities located near power plants where carbon pricing programs are already in place, local air quality emissions have not been reduced.

If a power plant can keep obtaining allowances, including through trades and offsets, for less money than the cost of mitigating localized air pollution, that will be the first course of action. This means the community living next to that power plant will continue to experience poor air quality and related health issues, even while wealthier, whiter communities

The price for consumers at the pump will likely be less than normal global oil price fluctuations.

Equity Concerns with Cap–and–Invest Programs

These are some of the concerns that environmental justice groups have, and why they do not support carbon pricing programs, including cap–and–invest.
become cleaner. This is also the case for communities located near ‘peaker’ power plants that generate under 25MW, often used only when there is peak demand.

Power plants are fixed sources of pollution. Although transportation is a mobile source of pollution, there is still the fear that the air quality and environmental health disparities present in disproportionately impacted communities will remain, or become exacerbated without additional measures that can guarantee localized emissions reductions.

Climate emissions reductions are not guaranteed

Another criticism is that carbon pricing programs have been an insufficient solution to the climate crisis. This can be for a number of reasons. In several existing programs, caps are too weak, technology advances faster than anticipated, or cost containment mechanisms lead to insufficient price signals to meaningfully shift the market.

Offsets allow too many ways for polluters to meet their obligations through indirect measures, rather than directly clean up their operations and reduce emissions. When allowance prices are relatively weak, states do not always raise as much money as they hoped for re-investment, curtailing some of the jobs and other co-benefits of energy efficiency or clean energy programs.

Even when an area has seen substantial reductions in climate emissions, there is skepticism that such reductions are a result of a carbon pricing program. States with carbon pricing programs may have only succeeded in achieving carbon emissions reductions because of external market forces such as the falling price of natural gas, and not because of the carbon pricing program itself.
What is Equity?

Equality means you give everyone the same thing, regardless of need. Equality is based on equal inputs. But equity is based on equal outcomes. Equity is delivering different things to different people based on what they need.

Decisionmakers commonly misunderstand this distinction, and put too much emphasis on equal inputs, and not on equal outcomes. For instance, some carbon pricing programs provide rebates back to households to help offset additional price burdens of an increase in gas prices, regardless of their household income or need. A more equitable rebate structure would use a sliding scale model that gives larger rebates to lower income households who pay a higher percentage of their incomes on transportation. Additionally, a ‘do no harm’ approach to inequality is an insufficient solution. For instance, spending some of the revenue to help offset new price burdens on low-income consumers can help families deal with the unintended consequences of a new program, but does nothing to address current disparities. At best, a ‘do no harm’—only approach keeps inequity intact and at worst, it can exacerbate inequities. A more equitable approach for funding distribution and program investments would be to prioritize funding and projects for transit-underserved and disproportionately pollution-impacted communities, and low-income families.

A ‘do no harm’ approach to equity issues is inadequate at best, and at worst can exacerbate inequities.
Progress Made the Right Way

There are some cases where programs do address both the problem of pollution and the burden on low-income communities and communities of color. These can provide guidance and serve as a model for equitable carbon pricing policy elements to incorporate.

California’s cap-and-invest program dedicates a minimum of 35 percent of its proceeds to benefit the state’s most disadvantaged communities and creates net positive environmental and economic benefits for low-income communities and communities of color. The program has invested more than $1 billion in local projects that respond to community needs.

Funds have provided free bus passes for seniors and students, electric vehicle rebates for low-income consumers, and supported electric vanpools in rural communities. They have funded urban forestry projects in pollution-burdened neighborhoods, energy efficiency and home weatherization programs for low income homeowners and renters, and transit-oriented affordable housing development, among other projects.

The project investments in disadvantaged communities have been so successful that the state regularly deploys more than 50 percent of cap-and-trade proceeds for this purpose.

Similarly, New York recently passed the Climate and Community Protection Act which will begin dedicating at least 35 percent of its climate investment dollars in projects that serve disproportionately impacted communities.

CASE STUDY: VW Settlement Funds and State Discretionary Spending

After an emissions cheating scandal, the Volkswagen (VW) settlement awarded states millions of dollars to spend on reducing air pollutants. Each state developed a Beneficiary Mitigation Plan to determine the use of funds, with up to 15% dedicated to expanding electric vehicle charging infrastructure.

Some states conducted public input sessions, followed best practices for dedicating investments in prioritized communities, or incorporated public input on what technologies to deploy in their place. Those funds were used to cover the up-front cost of electric public buses in low-income communities of color that lacked adequate and reliable transit access.

But that was not the case in every state. Other states made investment decisions with limited public input, targeted investments towards favored individuals, such as tourists, and deployed technology advanced by the fossil fuel industry, such as new diesel, natural gas, and even propane buses.

In some states, the outcome may have tilted in favor of equitable outcomes, and in others they did not. In a U.S. PIRG report, states were given a grade for their use of funds to leverage all-electric transportation technologies. The report gave only 15 states a grade C or above, while 14 states received failing scores. This report only graded on states leveraging funds for vehicle electrification, not on whether those investments were targeted to disadvantaged communities or whether there had been an adequate public engagement process within those communities. Few states would have received passing marks were other equity criteria incorporated into the grading.

This is why it is essential that TCI set regional criteria for achieving equity. Some decisions, such as the exact program investments to be made, are appropriate to make at the state or local level. Other decisions, such as whether any funds will be used to benefit disproportionately impacted communities and what indicators will be measured to evaluate the success of the program in delivering equitable outcomes, should be set at a regional level and provide a baseline for states. Regional criteria should serve as a floor, not a ceiling on state’s ability to invest in equity.
Green For All’s Approach

Green For All does not believe carbon pricing alone is a sufficient solution for delivering environmental justice. We do believe it can be a useful tool for limiting carbon pollution and raising funds to support a transition to a clean economy. Other racial, and economic, and environmental equity groups, including Green For All, have supported carbon pricing programs when certain conditions are met. Green For All’s 5 Principles of Effective Carbon Pricing help guide our evaluation of when a carbon pricing program will support equitable outcomes, and when it will not.

Whether carbon pricing works to address inequities or exacerbates existing disparities is largely dependent on the specific policy language and details of the program, as well as how it interacts with complementary policies. This toolkit offers specific policy recommendations and detailed guidance for designing a regional cap-and-invest program for the transportation sector to support equitable outcomes in conjunction with complementary approaches.

RESOURCE: Effective Carbon Pricing Policy

In 2016, Green For All released a 2-page primer on carbon pricing policy. In it, Green For All acknowledges that carbon pricing is one solution, but not the only, and that a price on carbon alone is not enough. A strong carbon pricing policy is one that provides “net positive environmental and economic benefits to those who have been and continue to be on the frontlines of pollution and climate change – people with lower-incomes, communities of color, and residents living in closer proximity to polluting facilities.”

The key elements to include for an effective price on carbon include:

1. Be responsive to the needs of frontline communities by ensuring direct emission reductions for those hit first and worst by pollution and climate change. This requires first identifying the frontlines by conducting a cumulative impacts mapping analysis that identifies disproportionate exposures to toxicities, increased levels of poverty which results in lowered ability to address disparities, and additional social or racialized factors that increases vulnerabilities to climate change problems.
2. Send a strong cap and/or price signal to polluters. This ensures that the pricing mechanism will drive down greenhouse gas emissions quickly.
3. Revenues generated must be invested to both (a) prevent additional price burdens on families; and (b) accelerate towards a 100% clean energy future for all through targeted investments in frontline communities.
4. Remain accountable to the most impacted communities during policy design and implementation. This can be achieved through a strong community engagement process. Policies should also provide language to encourage accountability and transparency in its implementation and enforcement.
5. Support a just transition for workers affected by the transition away from fossil fuels and for disadvantaged communities including job training, education and opportunities in clean energy, energy efficiency, and climate resilient infrastructure jobs with family sustaining pay and benefits.
Policy Recommendation #1

Don’t let polluters off the hook

The public has been subsidizing the cost of pollution for too long. The cost of extreme weather events and negative health impacts cost taxpayers and families money. Businesses profit by externalizing the cost of their pollution, while families and taxpayers shoulder the burden. It’s unfair, and has to be corrected.

The purpose of a cap-and-invest approach is to recover value for public benefit by holding polluters accountable to the cost of their pollution. The system brings a previously externalized cost of business into financial accounting.

However, political realities can overshadow that goal. Industry often asks for ‘flexibilities’ that are used to dodge or sidestep the goals of the program. Often, industry will claim these flexibilities are required for the program to be ‘feasible’. Program flexibility should only be a function of technological feasibility. When viable cost-effective technologies exist that ensure industry can comply with the program, ‘flexibilities’ are no more than corporate giveaways and loopholes.

Offsets are free allowances given to an entity that allow them to continue polluting in the covered jurisdiction in exchange for some activity they have done to reduce emissions elsewhere. A major concern with offsets is that another region of the country or globe will reap the benefits that often go hand-in-hand with carbon emission reductions, while disproportionately impacted communities within the covered jurisdiction continue to be exposed to

RECOMMENDATIONS

Set a strong cap. We urge you to set a strong cap that reduces carbon emissions in line with science-based goals. The region should maintain or exceed its commitment to the international community in line with the Paris Agreement.

No free allowances. No pollution allowances should be given away for free to polluters at any point in the program. All allowances should be sold or auctioned. This includes at the start of the program. Funds should be generated immediately at the start of the program, without delay. The sale of allowances should generate positive proceeds. During subsequent years, allowances should never be given away for free as a cost-containment measure. The purpose of a cap is to strictly enforce emissions decline. Issuing free allowances is contradictory to the purpose of the policy design.

Set a ‘floor’ for the price of allowances. We need a strong price signal to recover the true cost of pollution and harness that value for public benefit and reinvestment. Some existing carbon markets have become under-valued due to a weak price or cap. This results in lower revenues generated for investments and the jobs that come along with them. A guaranteed minimum price on allowances that rises incrementally can avoid under-valued allowances and ensure an adequate, reliable funding stream for further investment in making a just transition to a clean economy.
high levels of pollution. Planting trees in a country across the globe does not lead to air quality improvement and job creation benefits within the region, nor does it address inequality and disproportionate impacts.

**Offsets undermine the goals of the program, and can be difficult to quantify and enforce.**

Offsets are a form of market flexibility that undermines the goals of the program and the strength of the carbon market, allowing emissions covered under the program to exceed the cap.

Since the Transportation and Climate Initiative’s regional program for transportation would only cover transportation fuels, carbon emission reductions can still be achieved through offsets within the region through other sector and source investments.

For example, if a company invested in electrifying homes that use oil heating fuel within the geographic area of the program, the program could create an offset that accounts for the saved carbon emission reductions. Similarly, planting trees along roadways, turning vacant lots or parking lots into green space, or green roofs on buildings could also provide long-term carbon sequestration.

These types of projects would still provide the air quality and jobs benefits of keeping those investments in the region and ensuring that the region stays on track to hit its economy-wide carbon emission goals.

**RECOMMENDATIONS**

(continued)

Limit credit banking. Lenient credit banking policies allow polluters to purchase allowances when the cost is low at the beginning of the program, and then use those allowances years later when the costs have gone up. Investors can take advantage of longer banking times to turn a profit, while states see less revenue at auction in later years. That profit rightly deserves to be part of the revenue that is generated from the program. In order to ensure that the carbon market does not weaken over time, we suggest limiting credit banking to two years. This two–year bank will help with minor fluctuations or when there is an increase in the floor price of the allowance, but not allow for long–term profiteering off of carbon pricing programs.

Strictly limit offsets. Offsets from outside the region should be strictly prohibited. Offsets within the region should be extremely limited. Offsets must be located within the communities that are complying with the program and offer similar health and jobs co–benefits of reducing tailpipe pollution. Furthermore, no offsets should be awarded to technologies that capture, store, or sequester carbon. Trees are a natural way of sequestering carbon.

In the transportation sector, companies can also simply reduce the number of allowances they need to buy by increasing the advanced biofuel content in their fuel mix. Because there are other ways for regulated entities to reduce the carbon emissions to comply with the regional program being considered in the Northeast and Mid–Atlantic, offsets should be limited to projects within the region, and be required to carry equivalent air quality and job creation co–benefits.
CASE STUDY: Offsets in California

In California, offsets can be issued for forestry and agricultural projects, such as urban forestry or dairy farm waste methane recapture, with demonstrated emissions reductions that would not have otherwise occurred.

A problem with California’s approach to offsets is that it allows offsets to be issued for projects anywhere in the U.S. As a result, a UC Berkeley study published in 2018 concluded that in the first three years of the program, most of the benefits of the state’s cap-and-trade program occurred outside of state. Between 2013 and 2015, 75 percent of offsets were issued for projects occurring outside of the state. Now, California is making a course correction that, beginning in 2021, will require at least half of the offsets used for compliance to come from projects that have direct environmental benefits in California, although this still may not be strong enough.

Additionally, since the program began, California’s compliance has limited offsets to no more than 8% of a company’s annual compliance requirements. Limiting the percentage of compliance that offsets can count towards is a good idea to ensure companies are not using offsets as a main strategy for compliance. But California found 8% was too high of a starting point, and when reauthorizing the program through 2030, they cut that limit in half to 4% between 2021 and 2025, with the intention to bump back up to 6% between 2026 and 2030 as the cap continues to tighten.

Additionally, it is likely that many offsets are over–inflating the actual emissions reductions that a project delivers, or counting for emissions reductions that would have occurred anyway. A recent paper, also from UC Berkeley, found that the U.S. Forest Project offsets may have inflated emissions reductions by 80 million tons. This type of project is under a protocol that accounts for 80% of the offsets used to comply with the program. If offsets overestimate actual emissions reductions, our climate goals won’t be met.

Further complicating the matter, if the project would have happened regardless, then it’s not really reducing or avoiding emissions. Given that it is impossible to predict the future, accounting for the exact avoided emissions in offsets is guesswork, at best.
Policy Recommendation #2

Conduct an equity analysis

A clean, modern transportation future will leave no one behind. States should establish a process for monitoring and regularly evaluating program effectiveness against a set of equity indicators to measure how well it is serving disproportionately impacted communities. If the program is to achieve equitable outcomes, states must set goals for achieving those outcomes, and they must define how results will be measured.

Establishing metrics for evaluating program effectiveness in achieving equitable outcomes will enable states to make more informed and effective decisions that deliver better results. It will maximize the public dollars available through the program by empowering states to make decisions that can tackle poverty, pollution, and mobility access issues simultaneously. By tracking how these measures change over time, states will also better understand the impact of their decisions and make adjustments as needed.

**Establishing metrics for evaluating program effectiveness in achieving equitable outcomes will enable states to make more informed and effective decisions.**
RECOMMENDATIONS

Establish a baseline. An analysis of existing environmental, economic, health and mobility disparities will help states pinpoint the specific geographically defined communities in need of greater investment or specific complementary policy solutions. Tracking this information over time will help states evaluate the impacts of the program on disproportionately impacted communities and deliver equitable outcomes. The analysis should be conducted at the regional level and include state–by–state analysis before any sale of allowances.

Define the metrics. A comprehensive analysis should account for environmental, health, mobility access, and economic measurements. It should also consider sensitive populations like seniors, children, and people with mobility disabilities. The analysis should account for:

- Localized environmental benefits for frontline communities, including carbon emission reductions that result in decreased climate impacts, resiliency measures, and ecological restoration.
- Localized reductions in co–pollutants that impact human health, where those reductions occur, and the degree to which emissions reductions occur in communities that are already over–exposed to air pollution that impacts human health.
- Economic measurements, including the percentage of household income spent on transportation compared to use of incentives, tax credits or rebates, and other program benefits given directly back to families, broken down by household income and other socioeconomic indicators.
- Access to transportation and mobility, including but not limited to whether low–income neighborhoods and communities of color have access to public transit services compared to similarly population–dense neighborhoods, and whether there are similar commute times to work, school, and the nearest hospital compared to whiter, wealthier communities.
- Workforce opportunity metrics such as new job creation in under–employed communities, percentage of contacts that go to women, minority, and veteran–owned businesses, gender and racial makeup of employees, and job training and workforce development programs for low–income individuals and people of color.

Make informed decisions. The program must yield net environmental, health, economic, mobility, and employment outcomes for communities that are disproportionately impacted in each of these criteria. The disparities within each category should be reduced over time. Since investment decisions will occur at the state level, each state should also provide state–level data before any investment decisions are finalized.
CASE STUDY: An Equity Analysis of the Benefits of the Regional Greenhouse Gas Initiative (RGGI)

For a decade, environmental advocates have been quick to hail RGGI as a successful model for cap-and-trade programs, especially when pointing to region-wide climate emission reductions, macroeconomic benefits, and indirect public health gains. According to a 10-year review of the program by the Acadia Center:

- CO2 emissions from RGGI power plants have fallen by 47%, outpacing the rest of the country by 90%;
- Electricity prices in RGGI states have fallen by 5.7%, while prices have increased in the rest of the country by 8.6%;
- GDP of the RGGI states has grown by 47%, outpacing growth in rest of the country by 31%;
- RGGI-driven reductions in co-pollutant emissions have resulted in over $5.7 billion in health and productivity benefits.

However, macro level data may obscure the different impacts of the program at the community or local level. In the environmental justice community, RGGI is widely seen as a failure. Power sector trading of emissions allowances means the dirtiest sources of pollution, which exist in low-income communities and communities of color, can often continue to pollute at high levels even while other parts of the state or region see pollution reductions.

Knowing when program incentives are being used primarily by people of upper middle class socioeconomic status can be an important indicator that a program has design flaws, allowing states to make adjustments. We know that tax credits and rebates, especially for clean energy and building efficiency, primarily go to homeowners who tend to be a higher socioeconomic bracket. Very little revenue from the program is specifically dedicated to low-income customers and disproportionately impacted communities. In the limited instances where specific dollars are allocated to low-income consumers, they are generally in the form of rebates to help offset new cost burdens resulting from the program itself, and not deeper investments in ensuring these communities see net positive environmental and economic benefits from the program.

For years, impacted community groups have requested that states be more transparent about how they deliver benefits to different communities, including by conducting a comprehensive environmental justice analysis of the program and program investments. During the 2017 program review, environmental justice and equity advocates in Maryland, New York, and from across the region, including Green For All, urged states to revise the program by strengthening the cap, closing loopholes, and limiting offsets to better ensure local emission reductions. Green For All also asked for states to commit to a comprehensive environmental justice analysis of the program investments.

The RGGI program has yet to complete an environmental justice analysis at the local community or census tract level. This may be why statements pointing to the macro-economic benefits of the program have done little to allay concerns that the program is not serving the communities most impacted.
Policy Recommendation #3

Ensure communities are at the table

Disproportionately impacted stakeholders should be at the table and considered an integral part of the decision-making process. They must be an active voice every step of the way, including the conceptualizing and designing of the regional program to implementation. No decisions should be made without adequate input and representation. They bring invaluable expertise and perspective to the policy design and implementation process.

Any policy that authorizes adoption of the program should include formalizing a process for state spending that includes establishing a cross-agency and diverse stakeholder advisory committee. This committee should include staff from environmental, transportation, housing, public health, labor, and other relevant agencies, and include community representation from environmental justice, transit justice, disability rights, labor, workforce development, low-income consumer protection groups, and community economic development groups or ethnic small business chambers.

Often, the most impacted stakeholders do not have the capacity to engage in these decision-making processes in a meaningful way due to time and resource constraints. Community representatives should be paid for their time, as any consultant would, for participating on the advisory group. To facilitate this, states should dedicate a portion of proceeds for community partners serving disadvantaged communities to have the capacity to engage in the decision making process, as well as come together to develop and lead their own proposals for funding, and for the staff capacity to serve on the advisory committee.

States must be transparent about these investment decisions and provide opportunities for public engagement and feedback on funding proposals before awarding funds.

Any policy to adopt the program should include a diverse stakeholder advisory committee that includes impacted communities.
RECOMMENDATIONS

States should establish an advisory committee made up of representatives from diverse stakeholder groups, including members of impacted communities, along with state agency officials from environment, transportation, health, housing, and human services agencies. This committee should be tasked with overseeing requests, review, and allocation of project investment decisions as well as reporting on project outcomes.

Proposed projects should be required to be developed with community participation and respond to community needs. The proposal should be required to begin with early community listening, engagement, and over a minimum of six months, collaboration to develop proposals. Proposals must demonstrate support from the community and address the community’s wants and needs. Approved proposals should allocate a portion of funds to the community groups engaged in the proposal for whom the project serves.

Dedicate no less than 20% of investment dollars to fund community–led groups to educate and engage under–represented voices in decision–making processes. To the degree that such programs are located within disadvantaged communities, they may also count towards other dedicated investment requirements, such as a disadvantaged community benefit requirement or a workforce development requirement.

These funds should go to providing the resources and staff capacity to participate in this process, as well as community education and outreach. Furthermore, community groups should be able to access technical support to develop and submit their own proposals that are community–led and operated by residents currently living or working in a ‘overburdened’ or ‘underserved’ area, or in collaboration with a community–based organization that represents the needs of a vulnerable population.
CASE STUDY: California’s Transformative Climate Communities

The Transformative Climate Communities program was established by AB 2722 (Burke) in 2016. The legislation took a portion of the state’s cap-and-trade dollars and leveraged it with private capital to invest into community-led initiatives in the state's three most polluted communities. The goals, strategies, and projects are developed by the residents living within a disadvantaged community. It funds development and infrastructure that leads to significant climate, environmental, health, workforce, and economic benefits to do transformative things at the community-level. Each of the projects was co-developed and proposed by a cross-sector of community partners.

CASE STUDY: Community Engagement in the Investment Proposal Process

In Durham, NC the City Council developed the Belt Line Trail Master Plan in 2018 without adequate stakeholder input, but after communities raised concerns, the project was put on hold.

The plan would have negatively impacted Black, Latinx, and low-income communities living in the surrounding neighborhoods and lead to eviction and displacement. This has been the result of similar rail-to-trails projects in New York, Atlanta, and Chicago.

"While intended to create transportation equity for those without vehicles, encourage low-carbon transportation like biking, and provide public space for recreation, this great loop will likely spark property speculation and inequity unless a coordinated equity response and plan is adopted," writes community-led group Durham Beltline for Everybody.

In response in August 2019, the City of Durham, NC developed the Equitable Community Engagement Blueprint. The Blueprint recommends that all geographically focused projects specifically aim to include participation from those representing the demographics of the community, especially those who are "most adversely impacted." and emphasized those "excluded" from decision-making processes.

Subsequently, the first step to implementing the Blueprint has been to release an RFP to fund a community-based organization representing "marginalized or under-represented peoples" to meaningfully engage the community by conducting outreach, education, listening, and communicating back to decision-makers over the coming year. The city recognized the unique role these groups plan and the value of their input in creating a more effective transportation program, and resourced them to be effective at leveraging those assets for the benefit of the city and all of its residents.

Read more about the community concerns and the city response in this news coverage of the issue.
RESOURCE: **Toolkit for Meaningful Community Engagement**

Under the EPA’s Clean Power Plan, community engagement was a requirement for states in the development of state implementation plans. The Clean Power for All coalition, led by Green For All, published a series of toolkits for developing state implementation plans. Included was a toolkit on meaningful community engagement authored by the People’s Action Institute, U.S. Climate Action Network, and the Kentucky Conservation Committee, with Sierra Club and Kentuckians for the Commonwealth as contributors. The toolkit provides best practices, a procedural checklist, and case studies from Kentucky, Illinois, and Washington.

In the final rule, the EPA defined meaningful engagement as ensuring that:
- “Potentially affected community members have an appropriate opportunity to participate in decisions about a proposed activity (i.e., rulemaking) that may affect their environment and/or health.
- The population’s contribution can influence the regulatory authority's (in this case the EPA's) rulemaking decisions.
- The concerns of all participants involved will be considered in the decision-making process.
- The decision-makers (in this case the EPA) will seek out and facilitate the involvement of those potentially affected by the rulemaking process.  

The EPA gives examples of components of meaningful engagement in the final rule, which included:
- Outreach to vulnerable communities.
- Sharing information and soliciting input on state plan development and on any accompanying assessments.
- Selecting methods for engagement to support communities’ involvement at critical junctures in plan formation and implementation.
- Providing the public the opportunity to comment and responding to significant comments received, including comments from vulnerable communities.
- Conducting a public hearing and responding to comments before a final state plan is submitted.

Concrete steps that can encourage participation by marginalized communities include, but are not limited to:
- Proactive outreach to key community leaders, community based organizations and community institutions such as schools, community centers, churches, temples and mosques.
- Choosing locations for public hearings that are accessible by public transportation and located within key neighborhoods.
- Offering hearing and information sessions at different times of the day to accommodate multiple types of schedules.
- Advertising hearings and meetings in multiple languages, offering translation services and publishing key elements of the initial and final plan in multiple languages.
- Providing childcare or holding hearings and meetings in locations that are friendly to children.
- Responding to community-based organizations and holding special meetings or hearings for their bases of members when requested.
- Creating direct positions for community representatives such as community representative slots on any planning committees, review boards or other decision-making bodies.

The toolkit notes, “It is typically the responsibility of a state agency to ensure that public participation is both effective and transparent, however, that is often not the case. The burden of ensuring a thorough participation process too often falls on the advocate community.”
Policy Recommendation #4

Dedicate investments to benefit disadvantaged communities

Green For All defines disadvantaged communities as groups of people who work or live within a specific geographic location that has historically and currently experienced disproportionate impacts, including but not limited to communities over-exposed to toxic air pollution or underserved by transit access. Other vulnerable populations, which are not confined to a geographic boundary, include individuals sensitive to air pollution, such as children and seniors.

This program must prioritize investments in disadvantaged communities and vulnerable populations. States should dedicate a significant portion of funds for projects located within disadvantaged communities to create net positive environmental, health, economic, access, and employment benefits.

The designation of these communities should be based on a range of socioeconomic, environmental, and health factors to be determined through an inclusive process that brings those impacted stakeholders to participate in the designation process.

For instance, in more rural states, the scale for what is ‘underserved’ may be very different than in states with more dense populations that lack reliable, frequent transit services. Each state should determine the criteria for targeting communities and populations in consultation with impacted community stakeholders.

We urge states to designate a minimum of 50 percent of program proceeds to disadvantaged communities, to ensure a direct net benefit to disadvantaged communities and vulnerable populations. Furthermore, states should dedicate these investment dollars first and foremost to these communities, not at a later point in the program.
RECOMMENDATIONS

Create a dedicated fund. All proceeds of allowance sales and auctions should go into a dedicated fund that is set aside for new, improved, and expanded transportation programs, incentives, and services. Funds should not be used to backfill state budgets. Carbon pricing revenues are a temporary source of revenue and should be invested by investing in making a just transition to a clean transportation future and a clean economy.

Define disadvantaged communities. In each state, the advisory group should create a legal definition, screening tool, or other mechanism to define ‘overburdened’ and ‘underserved’ communities, and vulnerable populations based on comparative data. Data used in this designation should be hyper-local, to the best extent possible, such as zip code or census track-level data, rather than county level data which is too broad to ensure direct benefits at the community-level. Impacted community stakeholders as part of the advisory group should be informing those definitions and designating the highest priority areas. This process must take place as soon as the program is authorized, and designated priority areas must be determined before program implementation or the first auction of allowances.

Designate a mandatory minimum for investment. No less than 50% of program funds across the region should go directly to provide net-positive environmental, health, and economic benefits for disadvantaged communities. To the extent that programs benefit multiple communities, only the percentage of the program that directly provides net-positive environmental, health, and economic benefits to disadvantaged communities should be accounted towards this total. States are encouraged to require an even higher carve-out of dedicated investment through authorizing legislation or executive order. In short, 50% should be a floor, not a ceiling.

Track and report on investments. As part of the comprehensive equity analysis, states should report on the percentage of proceeds that were dedicated to investments in disadvantaged communities.
Green For All defines ‘overburdened communities’ as groups of people who work or live within a specific geographic location where the cumulative air quality is the worst, often due to siting of industrial facilities, housing policy, and transportation planning. These communities disproportionately experience negative health impacts due to exposure to toxic pollution. These communities have can have higher rates of asthma, cardiovascular disease, shorter life spans, and lower birth weights compared to other areas. Proceed investments in these communities should be targeted towards projects that specifically address air quality emission reductions.

Green For All defines ‘underserved communities’ as groups of people who work or live within a specific geographic location that have historically, systemically, and chronically lack public service investments, including but not limited to public transportation. In the context of TCI, ‘under–resourced’ areas disproportionately lack reliable, affordable, accessible public transportation services that connect them to jobs, health care, and education relative to their population density. Metrics include but not limited to average commute times, frequency and reliability of transit service, and percentage of household income spent on transportation costs. Determining which communities are ‘underserved’ would then require comparing these scores with population density, as well as other vulnerability factors such as percent unemployed, low-income, elderly, or disabled. Investments in these communities should be targeted towards expanding access and mobility.

Green For All defines ‘vulnerable populations’ as individuals who are not confined to a geographic boundary are a demographic for whom negative impacts may be amplified or lack social safety nets when presented with risks. These include children, elderly, disabled, or otherwise mobility limited populations. ‘Vulnerability’ may also refer to individuals facing particular short–term or long–term challenges due to specific circumstances, such as those with housing insecurity, job insecurity, or limited English language proficiency.

There are a number of existing tools used for mapping and screening to determine ‘overburdened’, ‘underserved’, and ‘vulnerable’ communities. We offer a brief comparison of tools for ‘overburdened’ as well as some resources for data points in determining ‘under–resourced’. ‘Vulnerable’ communities are individuals who should be targeted not based on geography but on identity, personal characteristics, or personal history.

RESOURCE: Appendix A
CASE STUDY: Funding for Disadvantaged Communities in California, New York, and Oregon

In California
In 2012, California passed Senate Bill 535 (de Leon). A coalition of equity groups known as the California Climate Equity Coalition, spearheaded by The Greenlining Institute, Coalition for Clean Air, Asian Pacific Environmental Network, and Public Advocates supported the bill. SB 535 dedicated a minimum of 25 percent of California’s carbon pricing funds to benefit the most disadvantaged communities, with 10% of those projects being local in the communities. It also required that California’s Environmental Protection Agency designate ‘disadvantaged communities’. CalEPA conducted a series of public workshops as part of a robust process for designating which communities would be considered ‘disadvantaged’ and how to prioritize those communities through the development of a CalEnviroScreen with input from stakeholders.

California identifies its most “disadvantaged communities” using the CalEnviroScreen, a mapping tool that overlays indicators, including environmental indicators, health indicators, and socioeconomic data to identify the geographic areas which are disproportionately impacted, down to the census tract level. More information on CalEnviroScreen can be found in Appendix A.

SB535 has so much support, and makes so much sense, that by year three of the program in 2015, the dedicated investment was strengthened through AB 1550 (Gomez), which raised the minimum to 35 percent of funds, requiring 25% of funds be dedicated to projects that are located in communities, and an additional 10% dedicated to go to low-income households or communities.
The targeted investments have been so strong that the state now regularly invests over 50% of its cap-and-trade proceeds in communities that have been designated as “disadvantaged” by the CalEnviroScreen 3.0 tool.

In New York
In 2019, New York reached a historic moment by passing the Climate Leadership and Community Protection Act (A.8429, Englebright). With the eventual support of the Governor and at the hands of years of work by the NY Renews coalition, the legislature passed a bill that dedicates a minimum of 35% of any carbon pricing revenue go to disadvantaged communities. This includes funds generated by RGGI, future TCI revenue, or any future state economy-wide carbon price efforts on top of the price of carbon set by other regional or federal markets.

The New York legislation would also establish a Climate Justice Working Group, consisting of representatives from environmental justice communities, Department of Environmental Conservation and the Departments of Health and Labor. The working group has one year to work to identify disadvantaged communities for the purposes of reducing co-pollutant and greenhouse gas emissions and the allocation of certain investments.

In Oregon
State legislation introduced in Oregon, known as the Clean Energy Jobs bill, which would create a cap-and-invest program for the state, includes language detailing the first-in—the—nation 10% carve out for investment in tribal communities, 40% to benefit frontline communities impacted by climate change and communities whose economies are impacted by the transition away from fossil fuels, and 20% to promoting projects in natural and working lands, including agriculture and forestry. A dedicated fund of $10 million would be allocated every two years to a Just Transition Fund to assist dislocated workers. The proposal had a companion bill that would dedicate $100 million raised from the program to provide rebates for qualifying households who opted in to receive them.31
Policy Recommendation #5

Set funding criteria to maximize co–benefits

Projects should be evaluated not on what is most cost–effective to achieve one narrow carbon emission reduction outcome, but rather on a set of criteria for equitable investment. Investments should seek to maximize co–benefits of human health, good jobs, reduced transportation costs for low-income families, and increased mobility for isolated communities and constituents.

The advisory committee described previously should also help establish a set of criteria for equitable investment and the metrics and weights of such criteria through the ‘best–value’ analysis of each proposal.

As part of the best–value analysis, proposals should include a community engagement component that details efforts made to include residents who would be beneficiaries of the program in the conceptualization and design, or through a community benefits agreement that has been drafted between a developer and community partners.

Investment decisions should be made using a best–value analysis that incorporates criteria for environmental justice, worker wellbeing, job creation, resilience, access, affordability, and inclusivity. Investments must be made in a way that maximizes human health and wellbeing as well as broadly shared economic prosperity.

RECOMMENDATIONS

Use ‘best-value’ analysis to make funding decisions.

States should commit to establishing a task force or working group of stakeholders that is charged with developing a set of criteria for equitable investment and procurement. Each state can determine the criteria that are most relevant for their residents. There are three main steps for using a best-value analysis in making program investment and procurement decisions.

1. States should each establish a working group of stakeholders to define the state’s desired co–benefits.
2. Once those co–benefits are decided, systems for measuring those criteria should be established.
3. The working group should then determine how to weigh different co–benefits for the purpose of evaluating those proposals.

Investments should maximize co–benefits of human health, good jobs, reduced transportation costs for low–income families, and increased mobility for isolated communities.

RESOURCE: Appendix B
**RESOURCE:** The Institute for Public Procurement Provides a Detailed Guide on what goes into a Best-Value Approach

What is a best-value policy?
A Best-Value Policy is intended to provide a framework that guides appropriate decision making; it is not a step-by-step prescription that program and procurement staff will follow and automatically achieve best value.

What, then, should a best-value policy contain? Because of the danger in oversimplifying all the variables, in policy situations like this where one size does not fit all, the policy defines a process for making decisions and includes standards for accountability. It contains statements that answer: what must be considered, who decides, how much explanation must be provided, and what oversight and audit requirements must be evidenced.

When addressing these questions, the government entity will match them to its strategic plan and its institutional values. Ideally, organizations will consult with their stakeholders when identifying top level organizational values. Those values may shape formation of standard guidelines for documenting the decision making and justification process, and also inform procurement staff’s choice of information to gather and the selection criteria to use for specific procurements or categories of procurement.

Government entities adopting best-value procurement policies should be prepared for scrutiny of their policies and how they are applied in specific procurements. Agency constituents, stakeholders and participants in the process may all express, from time to time, keen interest in the specifics of a given policy in action. ‘Keeping the process as open as possible, and clearly communicating how the process will work, should be a guiding principle throughout. The best way to maintain the trust of the public is to have a process that, though it may include some subjectivity, is still one that is difficult to influence.’

**SAMPLE LANGUAGE: Putting Best-Value Analysis into Policy**

Federal legislation recently introduced by Sens. Gillibrand and Rep. Bass has language on the practice of best-value procurement. Find a factsheet summary of the Build Local Hire Local Act [here](#). The bill defines best value practices as:

“Use of best-value contracting framework: The use of a best-value contracting framework would be encouraged, allowing project bids to be evaluated based not just on price, but also on factors like equity, environmental and climate justice, resilience, safety, and high-quality job and business opportunities for disadvantaged or underrepresented individuals or businesses.”
Policy Recommendation #6

Protect against discrimination

Civil rights laws prohibit discrimination, directly or indirectly, intentionally or unintentionally, in the quantity, quality, or timeliness of program services, aids and benefits. The Civil Rights Act of 1964 states that no person shall be subject to discrimination on the bases of race, color, or national origin under any program or activity receiving federal financial assistance. Other federal discrimination laws prohibit discrimination on the basis of disability, sex, and age.

**Title VI of the Civil Rights Act** requires that any jurisdiction, including states and state agencies, that receive federal assistance or funding must adhere to the federal anti-discrimination policy. If your state, public or private agency, company, institution or organization administers, oversees, or operates any federally assisted program or activity for the public, then Title VI of the Civil Rights Act of 1964 (Title VI) applies to your operations. Furthermore, this applies to all operations, not just those that are specific to the federal funds received, if you are “principally engaged in the business of providing social services.” All states receive some sort of federal financial assistance. Federal dollars also go to states to administer public education, public transportation, and public health services. All states are principally engaged in providing those services for the residents of that state.

**RECOMMENDATIONS**

States should include explicit language that prohibits discrimination on the basis of race, color, national origin, religion, disability, age, gender identity, sexual orientation, citizenship status, or criminal background in any program or activity that receives program funds, such as contractors, or other program benefits, including companies receiving rebates or tax credits. Persons with limited English proficiency must be afforded a meaningful opportunity to participate in programs that receive funds or other program benefits.

**CASE STUDY: Anti-discrimination in Prince George’s County, MD**

Prince George’s County is already host to three fossil fuel power plants, mining operations, a sludge lagoon, a superfund site, and other toxic heavy industrial facilities. The county is also home to multiple industrial sites, heavy truck traffic, and a long history of air quality that is worse than U.S. Environmental Protection Agency standards.

In Brandywine, which is a 72% Black community, a community-led citizen science project found dangerous levels of ozone and counted more than 3,500 diesel trucks passing through the neighborhood on a daily basis. That’s why community leaders like the Brandywine TB Southern Region Neighborhood Coalition (BTB Coalition) are advocating for solutions to the air quality and public health issues they continue to face.

The BTB Coalition recently won a groundbreaking informal resolution after filing an administrative complaint for siting a third industrial facility that disproportionately impacted Brandywine, MD, but these tactics should be the last line of defense. State policymakers must partner with community-based groups earlier in the process to ensure their needs are met as a policy moves forward. The state of Maryland is now required to enact Title VI policies to protect communities from disproportionate risks prior to project implementation.
Policy Recommendation #7

Guarantee local emission reductions in fenceline communities

Communities most affected by cumulative exposure to toxins and pollutants that impact human health must have special assurances that air pollution will be reduced in their neighborhoods.

Fenceline communities are those who are located near polluting sources of industry. These neighborhoods are located just across the ‘fence’ next to highways, ports, and distribution centers. They bear the burdens of noise, air pollution, and traffic.

In authorizing the program, states should include mandatory emission reductions in fenceline communities with immediate support for air quality monitoring.

Mandatory emission reductions can be achieved through targeted and strategic investments from the program, regulations that require the adoption of best–practice technologies, or other complementary policies that guarantee emissions reductions in fenceline communities. States should work with community–based organizations in overburdened areas to craft specific air quality mitigation plans.

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Complementary policies that protect fenceline communities are a prerequisite to the start of any cap–and–invest program.

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RECOMMENDATIONS

States should adopt complimentary policies to achieve localized emission reductions in fenceline communities prior to the start of, or in conjunction with the adoption of a cap-and-invest program.

States should provide air quality grants to procure and install air quality monitors along pollution hot–spot border areas, as well as around schools, health care facilities, and elderly residences. States should work with community groups, departments of education, health, and human services to locate and install air quality monitors that are operational within one year of authorizing state program adoption, before any program implementation.

State agencies should use the data collected and work with communities directly impacted to establish policies for localized emissions reductions in overburdened communities. This should occur at or before, and no later than, the time of implementation of the program or the sale of any allowances.

This data should be included in documents required by the National Environmental Policy Act (NEPA), including environmental impact assessments (EIS) and health impact assessments (HIS), and used in decision–making processes to mitigate and eliminate pollution burden and impacts.
Complementary policies should be developed and determined jointly working alongside communities to ensure they meet community needs, and ensure localized air emissions reductions. We provide a few examples of potential complementary policies that could be adopted in Appendix C. This list is not meant to be exhaustive of the possibilities.

**RESOURCE: Appendix C**

Complementary policies are a prerequisite to the start of any cap-and-invest program. They must be established during the time states are authorized to join the program, and implemented at or before the start of program. The requirement for state agencies to develop these complementary policies must be authorized by state legislatures simultaneous to the authorization for the state to adopt the program.

**CASE STUDY: California’s Community Air Protection Program**

States can look towards California’s AB 617 (De Leon, 2017) Community Air Protection Program as a model. In June 2017, the California legislature passed AB 617 (Garcia) requiring the Air Resources Board to establish the Community Air Protection Program (CAPP). The program’s focus is to reduce exposure in communities most impacted by air pollution. The program directly engages community groups from areas heavily impacted by air pollution from multiple sources and currently experiencing high levels of poverty and unemployment on top of health-related effects from air pollution. The program establishes community air pollution monitoring systems, and works with community groups to develop community Air Quality Mitigation Plans focused on cutting emissions from local pollution sources. The air quality plans also require implementation of best available technology to mitigate pollution sources.
Policy Recommendation #8

Ensure fairness for workers and communities

The transition to a clean economy presents an opportunity to connect low-income people to jobs and careers in a growing economic sector. The jobs created through procurement, infrastructure projects, and direct investments of proceeds should create a pathway out of poverty, with family sustaining wages and benefits. The contract opportunities should advance women, minority, and veteran-owned businesses.

Supplier diversity requirements as a funding criteria could bolster women, minority, and veteran-owned businesses.

The state can reduce barriers to employment for people, including people returning home from prisons, by ensuring that discriminatory employment practices and broad criminal background exclusions with no relevance to the job do not prevent individuals from accessing opportunities in the clean economy.
RECOMMENDATIONS

Funding for projects and programs should be tied to enforcing fair labor standards, diversifying the workforce, and supporting women, minority, and veteran-owned businesses. Workers must be paid a prevailing wage, receive good benefits, and be assured union neutrality. Seasonal, temporary, and part-time work that does not ensure employment and benefit stability should be minimal.

Local economies should be supported by hiring members of the communities themselves when new jobs and opportunities are created, which has the dual benefit of reducing unnecessary emissions due to long commutes. Women, minority, and veteran–owned businesses should be prioritized.

States should fund projects and programs that directly recruit, train, and retain those underrepresented in the workforce, including women, people of color, veterans, formerly incarcerated, and people living with disabilities. Job training and apprenticeships should be created and designed to diversify the workforce and safeguard against worker displacement.

No less than 20% of investment dollars should fund job training, workforce development, and diversity programs. To the degree that such programs are located within disadvantaged communities, they may also count towards other dedicated investment requirements. Dedicated funds should provide for job training to underrepresented groups, including women, people of color, veterans, formerly incarcerated individuals, people with limited English proficiency, the homeless, and people who have not received education that exceeds a high school diploma. Funds may also go to supporting workers whose livelihoods have been impacted by the transition away from fossil fuels, including job retraining and other supplemental unemployment benefits.

CASE STUDY: Clean Energy Works in Oregon

Portland, Oregon successfully modeled workforce development as part of a program funded by the Recovery Act that created high–quality jobs for people who really need them. By also leveraging private financing, the program was sustainable. The Clean Energy Works Portland pilot, launched in 2010, and successfully served as a model program for weatherizing homes while also creating new jobs and training workers. The city of Portland worked with partner organizations including Green For All, as well as contractors, unions, and community groups to develop a high–roads agreement, which was described in a previous section on maximizing co–benefits.

Early on, the City invited those stakeholders to craft an Agreement on high–road goals and strategies. This Agreement lays out how the program will create jobs while providing high–quality employment and access for those in the community who have been historically left out of new economic opportunities. The Mayor subsequently appointed a Stakeholder Committee to provide ongoing community input on implementation, monitoring, and evaluation.

Portland’s High Road Agreement ensures high–quality jobs with good wages, benefits, and training. While some high–road practices are non–negotiable (e.g., paying living wages, hiring from designated training programs) the program incentivizes other community workforce objectives (e.g., providing health care insurance, employing a diverse workforce, being or contracting with a historically underutilized business, forming mentor–sub relationships). The program also offers a suite of business support services designed to increase capacity among local contractors.34
CASE STUDY: Clean Energy Works in Oregon (continued)

The key benchmarks against which High Road success and progress are measured included:

- 30% of all trade and technical hours worked by historically underrepresented and economically disadvantaged people, including people of color, women, low-income residents and veterans.
- 20% of total project dollars to diverse businesses—those owned by historically disadvantaged or underrepresented people.
- At least 80% of workers participating are residents of their own communities. Local is defined as within a 50-mile radius of the project, unless otherwise defined by the community.
- 180% of Oregon state minimum wage or Clean Energy Works’ established wage minimum (250% for specialized work in the Metro area and 200% for specialized work in rural areas) paid to workers participating in our projects.
- 100% of workers receive either health insurance coverage or additional wages at no less than $2.50 per hour in lieu of coverage, which is allowed for up to 6 months, after which health care coverage should be provided.
- Resources for continuing education and certification are available to those coming into the home performance industry and to those ready for opportunities for promotion and upward mobility through career pathways and training in entrepreneurship.35

As part of the agreement, all contractors must make 100% of new entry-level hires from a designated training program. Additionally, 80% must be a local hire, or living within a 50-mile radius. The designated training programs partner with community-based pre-apprenticeship programs, often run out of local community centers in disadvantaged neighborhoods. The designated training programs ensure that a majority of the trainees are women, people of color, residents of low-income communities, or other historically disadvantaged people. This ensures a highly-skilled workforce and access to jobs for historically disadvantaged or underrepresented people from the local community.

As of March 1, 2011, there had been five hundred homes enrolled in the program, 29 new construction hires, and 381 workers who received paychecks they otherwise would not have.36 These projects amounted to 48,047 construction hours worked, which equates to 23 full-time job years.37

In March of 2011, the program was expanded to communities across the state, and renamed called Clean Energy Works Oregon (CEWO), while leveraging private financing and additional state funds.38

By June of 2012, the CEWO program has completed nearly 1,700 home energy projects, spurred more than $24 million in economic development, and created 175 new construction jobs.

In 2019, the program is now part of Enhabit, a 501 c(3) nonprofit based out of Portland, Oregon. Since 2009, the evolving effort has expanded the home weatherization market in Oregon by 8 times, served 20,000 families, including deep retrofits to 5,000 homes, saved consumers more than 30% per household, generated over $100 million in economic development, and created 500 new living-wage jobs.

Read more about this case study from Green For All, including interviews with contractors and workers about the success of the program. Read a review of the program after one year by Clean Energy Works Oregon. Read successes of the program today on the Enhabit website.

While this is a case of workforce development with a focus on home weatherization jobs, important lessons learned from the development of the High Road Agreement to the expanding success of the program, to the metrics for workforce development and high-quality jobs serve as valuable highlights to consider for similar clean transportation workforce development.
RESOURCE: **High Roads Agreements: A Best Practice Brief**

Green For All’s previous toolkit on High Road Agreements focused on workforce standards, but the steps in developing those standards are remarkably similar to those used for what is also known as a Best-Value analysis. The general process for establishing and implementing High Road Agreements is remarkably straightforward, as long as you focus on a specific program or investment. Here is an overview of the major steps:

1. Assemble a diverse group of stakeholders.
2. Agree on High Roads Outcomes (or goals) Ask and answer: “What will we have achieved when the program or investment is successfully implemented?”
3. Agree on strategies that will help achieve those goals Strategies usually include a combination of requirements, incentives, and supporters.
4. Agree on metrics and a process to collect and report data regularly.
5. Agree on a process to improve progress toward goals by reviewing data, evaluating strategies and implementing changes.

Ongoing stakeholder engagement is essential to problem-solving, innovation, and ensuring mutual accountability.

RESOURCE: **Green Pathways Out Of Poverty: Workforce Development Initiatives**

Every program or organization engaged in sector–based workforce development serves two clients: the workers it trains, and the industry in which it aims to place those workers (in this case, businesses or contractors in transportation). To serve both clients well, a program needs a foundation in the industry it is targeting and deeply rooted in knowledge of the population it seeks to serve. That means developing competencies in the following five areas:

1. Understanding the populations they are serving, from high school students to immigrants who speak little English, to the formerly incarcerated;
2. Building strong relationships with the industry and its representatives to help the industry grow and connect graduates to good jobs;
3. Providing education, skills, and industry certifications to effectively prepare workers for jobs and careers in the industry with the tools they need to succeed;
4. Meaningfully measuring and reporting success; and designing, redesigning, or improving to enhance these metrics;
5. Diversifying its funding, with earned income, private foundations, and government funding;

Workforce development organizations should determine both where they are strong and where they need to improve in these five areas. This evaluation must be based on the need to serve both the target population of worker/trainees and the target industry.
Everyone relies on transportation systems. Roads, bridges, and other forms of transportation infrastructure are part of a public domain. It is the singular and unique role of government to ensure that the system is optimized to work for residents, businesses, and government alike.

Government has a responsibility to serve the public good, and the public has a voice in government. The role of government is to ensure private enterprise is operating in accordance with a common good, and protecting and serving those who are most vulnerable who may otherwise be left behind. Companies are not beholden to the public good. Privatizing transportation services weakens the public’s voice in determining their own transportation future. States have an important role to play in ensuring that moving people in ways that are affordable and efficient, is given at least as much attention as moving goods.

Program revenues recover a cost for pollution that, for decades, the public has been paying. Proceeds should be invested where they will create a positive return for the public good. When government chooses to privatize public transportation infrastructure, it is turning a public service into a private privilege that disproportionately impacts marginalized communities.

Private interests are not always the same as public interests, and can create massive costs and repercussions for taxpayers and residents. The government needs to look out for public interests.

**RECOMMENDATIONS**

Public transportation should stay public. Transportation services should not be privatized.

Companies that are seeking to replicate, supplant, or displace public transportation, including private ride hailing services in areas where public transportation services are already available, should not receive any public dollars to incentivize their enterprises as it undermines the people’s investment in public transportation.

Within major urban areas where there may be a concern that ride-hailing services are increasing congestion or decreasing public transit ridership, jurisdictions could consider requiring additional data sharing. This information can inform policymakers about the efficacy of leveraging limitations or fees to adequately incentivize the use of public transit.
CASE STUDY: A Cautionary Tale - Koch Brothers Oppose Public Transportation, Communities Fight Back

In communities across the country, the Charles G. and David H. Koch, billionaire brothers who have made their wealth on fossil fuel interests, funded local groups in opposing public transportation projects, including light-rail and expanded bus service.

In 2018, the New York Times broke the story of a coordinated effort to oppose public transportation services from Nashville to Little Rock to Phoenix, and communities in Utah and Michigan. Streetsblog gives an overview of varying ways that Koch-affiliated groups have worked to erode support for public transportation in other cities like Indianapolis, L.A., and Boston, as well as areas of Florida, and Virginia. The efforts are well-documented, but not always successful.

In Phoenix during August 2019, voters overwhelmingly defeated a ballot initiative that would have halted the light-rail construction project. The project is funded by a sales tax, also approved at the ballot by voters in 2015, which Koch-funded affiliates had also opposed.

Phoenix is ranked as one of the fastest growing and least sustainable cities in the U.S. The light-rail project was planned to expand transit service to parts of the city with lower-income neighborhoods and with higher black and Latinx populations. Proponents said the light-rail project would reduce toxic air pollution as well as carbon emissions and make the city center, where jobs and other services are available, more accessible to minority communities.

Photo courtesy David Wilson / Flickr
CASE STUDY: Recovering Value from Ride–Hailing for Public Good

Ride–hailing services, also known as transportation network companies (TNCs), such as Uber and Lyft, have increased congestion in many major urban areas and decreased public ridership.

In Boston, TNCs were found to have contributed to an additional 7.7% vehicle–miles traveled (VMT) in the core county, Suffolk, while in Washington, D.C., they contributed 6.9% of VMT. In Manhattan, 29% of all traffic is for–hire vehicles, and those cars spend 41% percent of their time empty as they pick up or wait for fares.

Another study found that about 60% of TNC users in large, dense cities would have taken public transportation, walked, biked, or not made the trip if TNCs had not been available for the trip, while 40 percent would have used their own car or a taxi.

In NYC, for–hire vehicles including taxis and those used by drivers using apps like Uber and Lyft must be registered with the city. In 2018, the city council froze the number of for–hire registered vehicles at around 100,000, with 80% of those vehicles working for app–based ride hailing. The freeze prevents any new vehicles from registering for one year. De Blasio says he plans to extend the freeze. New York has also added a $2.75 surcharge to any ride–hail trip that begins, passes through, or ends below Manhattan’s 96th Street, the most congested part of the city. (Taxis got an extra $2.50 fee.) The city also passed a law requiring ride–hail companies pay drivers a minimum wage of at least $17.22 per hour, which has netted them an estimated $172 million extra in pay since that rule went into effect in February.

Soon, the New York and New Jersey Port Authority is expected to place a $4 surcharge on any hailed ride picking up or dropping off a passenger at the region’s three major airports.

Several states already require ride–hailing companies to share limited data and meet safety requirements, such as background checks. In Massachusetts, a new proposal from Governor Baker will require companies disclose much more anonymized data, including trip times, distances, and locations within 110 yards that trips originate and end. It would also require data on the vehicle type and age, and time spent waiting for a new passenger.

Ride–hailing services can be valuable when transit services are unavailable or inadequate, but states and cities are increasingly looking to regulate these services in urban areas where transit is available in order to recuperate value for the public good.
Policy Recommendation #10

Protect against displacement

Nearly half of renters in the U.S. are cost-burdened, spending more than the recommended 30% of income on housing costs. Philadelphia, Boston, New York, and Baltimore are all within the top 10 U.S. cities with the highest housing cost-burden. To combat this disparity, we must ensure that incomes rise faster than housing costs. Displacement undermines the goals of a transportation emissions reduction program when people are forced to travel more vehicle miles to reach jobs and services.

At the community level, we must also protect communities against gentrification and displacement. As previously under-invested and under-served neighborhoods receive new economic revitalization projects and expanded public transit infrastructure and services, those neighborhoods become more attractive to those in higher-income brackets. Development can lead to displacement if not centered in the community needs.

When urban renters get pushed out due to rising costs, they often end up moving further away from jobs to a suburban ring of gateway communities. While housing costs may be cheaper, this increases transportation costs. Protecting families from displacement and housing insecurity is key to ensuring equitable access to mobility.

RECOMMENDATIONS

Protect renters with tenants’ rights, right to counsel, and other measures. Establish limits on the maximum annual rent increase percentage.

Invest substantially in low-income and subsidized affordable housing located near transit hubs. Ensure the number of units in these buildings matches the units of surrounding buildings. Encourage mixed-income neighborhood development.

Require new large developments to dedicate a minimum percentage of units for affordable housing.

Require new major office buildings that contribute to displacement to pay toward the creation of affordable housing.

When expanding transit services or infrastructure to a neighborhood, engage the community as a stakeholder in the proposal.
CASE STUDY: New York State Passes Historic Tenant Protections

On June 14, 2019, Governor Andrew M. Cuomo signed into law the Housing Stability and Tenant Protection Act of 2019, which Cuomo called “the most sweeping, aggressive protections in state history.” The bill protects more than one million tenants in and around New York City. It also gives every municipality in New York State the authority to regulate rents.

The legislation made existing rent regulations permanent. Previously, the laws had expired every few years. It limits rent-controlled rent increases to 7.5%, requires landlords to give any tenant, regardless of rent-controlled status, notice if they plan to increase rent more than 5% or do not intend to renew the lease, limits security deposits to one month’s rent, strengthens protections against retaliatory evictions, and provides other tenant protections such as more time in eviction proceedings to get a lawyer.

To read the full list of changes under the new law and statements by legislators and advocacy groups who supported the new law, click here and here.

To read the text of the bill, click here.

CASE STUDY: How Inclusionary Zoning Can Address Housing Vulnerability and Displacement

Vulnerable communities can also include areas where transit is accessible, but housing is unaffordable, or areas where increased access to transit may lead to displacement. Ensuring affordable housing, not just market rate, in areas around transit centers, higher education, and job centers is necessary to provide equal access to jobs and housing. Ensuring that communities that get new and expanded services are capable of staying in the community to benefit from those services is necessary.

This year in Pittsburgh, the City Council approved a location–specific ordinance to ensure affordable housing in a neighborhood experiencing rapid development leading to housing displacement. Over the past five years, the neighborhood of Lawrenceville has lost about 300 Somalian immigrants, 150 residents who owned homes for 30 years or more, and many low-income residents, including about a third of the neighborhood’s black population mainly because of soaring housing costs.

Under the bill, developers must make 10 percent of any project involving 20 or more units affordable for people earning at least 50 percent of Allegheny County’s area mean income, which is $38,000 for a family of four. The bill was a major win for affordable housing advocates and community–based organizations in Lawrenceville.

Other potential solutions for addressing rising housing costs with expanded public transportation access could be to encourage development within walking distance of transit stops for the purpose of affordable, transit–oriented, energy efficient multi–family housing. Another strategy is passing a complimentary ordinance that limits rent increases in areas within walking distance that are getting new or expanded transit services.
Concluding Summary

Our transportation system – how we move people and goods from point A to point B – should work for everyone. It’s how we connect to jobs, health services, and opportunity. It directly impacts our quality of life on a daily basis.

But our transportation system today is old, outdated, and unfair. A century of transportation policies that center on private vehicle ownership and the combustion engine have led to challenges that no longer serve our communities. Poor air quality, climate impacts, costs to families and businesses, lack of access to opportunity, and congestion are all hampering our shared prosperity. These issues affect every one of us, but they affect some more than others. Communities of color and low–income communities are shouldering the largest burden for these negative impacts.

A modern transportation vision

We have the opportunity to modernize our transportation system for the 21st century. By upgrading our transportation system, we can address these challenges and build a transportation system that is clean, affordable, accessible, and efficient for those who need it the most. A truly modern transportation system will leave behind the antiquated historic disparities in our current transportation system.

We must actively invest in zero–emission cars, trucks, and buses that are connected to a resilient electric grid that runs on clean renewable power. The policies that accelerate transportation electrification must ensure that communities who stand to benefit most from this transition are the first to have access. That will require increasing affordability and access with programs designed to reach and serve those communities.

We must expand access to public transportation, van pools, and first and last mile multi–modal transportation to connect people to jobs and services even when they do not have access to a personal vehicle. Shared mobility will reduce congestion and improve system efficiencies and transportation demand management. We should ensure that the cost to use these mobility services are affordable, and remain in the public domain.

We should ensure that affordable housing, land use, and active transportation such as walking and biking play a prominent role in designing the policies for our transportation future. Encouraging living near work, services, and shopping will revitalize local economies, support small businesses, and increase the diversity of our communities. It will also preserve and restore natural habitats for recreation and climate resilience.

The economic benefits of equitable transportation

Investing in an equitable transportation system now will pay dividends for the future. For climate change impacts, the cost of inaction in future damages far outweighs the cost of action now. In a study by the U.S. EPA, scientists found that climate damages would cost the U.S. economy over $500 billion a year if we do nothing to reduce emissions. However, reducing emissions now could save the U.S. up to $220 billion a year by 2090 in avoided costs.

Costs can also be saved through public health improvements. According to the American Public Health Association, the
health costs of transportation–related air pollution in the U.S. are between $50 and $80 billion a year. Reducing traffic–related air pollution will save families and taxpayers money by avoiding medical bills and hospital visits.

Providing good stable jobs through direct investments and procurement will increase the tax base, provide families with disposable incomes that boost consumer economy. It also lifts families out of poverty, no longer relying on the social safety net funded by taxpayers. Providing jobs for those who are already unemployed and in communities experiencing economic distress doubles the economic benefits of job creation.

When major businesses look to expand, they look for a location that will support their growth and attract employees. Potential recruits, especially younger employees, will be looking for shorter commute times, ample housing, and access to public transit. Building more affordable housing, encouraging transit oriented development, and supporting accessible and reliable transit will attract businesses looking to grow. When Amazon conducted a nation–wide search for its second headquarters, a robust public transportation system that could support an influx of employees was a requirement.

Improving transportation equity, whether through reducing climate and air emissions, creating good jobs, or attracting business has multiple benefits, not only for those who are most directly served and impacted, but also for our taxpayers, small businesses, and overall economy.

**The policy pathway to a modern transportation system**

Carbon pricing is one policy mechanism that we have at our disposal to fund this transition. While not the only policy tool, its strengths are the guarantee of emissions reductions under the cap and generating a source of proceeds for investment through the auction of allowances. The market determines the price, but like any market, the parameters are set through public policy.

Our country has been subsidizing fossil fuels for over a century. In 2015 alone, the International Monetary Fund (IMF) found the U.S. directly and indirectly subsidized fossil fuel industry by $649 billion. Dirty energy has been kept artificially cheap through subsidies and passing the cost of their pollution on to the public. When we account for the externalities of the fossil fuel industry, we set a much more even playing field for competition. We can restructure the energy market to accelerate a transition to newer, cleaner, cheaper, better technologies. However, the market alone will not address the disparities that exist currently in our transportation system.

TCI jurisdictions have made commitments to design the program with equity in mind. But the details matter. Oftentimes, cap–and–invest programs unintentionally exacerbate existing environmental and economic disparities among low–income communities and communities of color. An investment plan that uses program revenues to invest in clean transportation solutions broadly, without paying attention to where is the greatest need for transit service and mobility options, does nothing to ensure access to clean transportation in underserved communities. A strategy for addressing equity that purely considers how to offset new cost burdens on low–
income consumers may do no harm, but also does no good.

The same consideration, analysis, stakeholder engagement, and level of policy specificity must go towards addressing equity as much as it does to cutting emissions or generating proceeds for investment. Equity cannot be an afterthought or a late-addition add-on. It must be incorporated into the program from the beginning to ensure the program does not perpetuate undue harm at the onset. It must apply to each jurisdiction that participates in the program, as well. This can be accomplished with guidelines, guardrails, prerequisites, and the addition of complementary policies. Without these criteria in place, communities have no assurances that a carbon pricing program will address their needs.

These principles and policy recommendations should be included as guidance in an MOU under the design of a regional program, and applicable to every state that adopts and implements the program. The program cannot be equitable in some states and fall short in others while still expecting the support of equity advocates. Nor can it be left up to individual jurisdictions to what degree equity will be considered in the program.

Green For All encourages states to use this toolkit to its fullest extent to design a regional program that delivers equitable outcomes. TCI states’ verbal commitments to equity to date are encouraging, and will ultimately be meaningless without enforceable policy language guaranteeing results.
The words we choose to use matter, especially when used to describe communities, groups of people, or individuals. It’s important to clarify some of the common terms used in this toolkit. These definitions are not universal. For the purposes of this toolkit, they operate as working definitions meant to help clarify Green for All’s meaning. We respect the right to self-identification and self-definition for any community, group, or individual to decide what words are appropriate for them.

**Community of color** – A community, geographically defined, which is comprised of primarily residents who identify as people of color. In the United States, people of color refers to anyone who is non-white, and emphasizes a common experience of racism. This term is not a replacement for identifying specific racial groups (Black, Latino, Asian American, etc), nor should it be used to generalize unique community experiences.

**Disproportionately impacted** – A legal term which describes when a statute or policy affects one race or ethnicity more so than other races or ethnicities. It can also apply to a policy affecting people differently based on gender, age, or disability. When using this term, it is important to clarify who is impacted and how they are impacted.

**Disadvantaged** – A person or community that is lacking in the basic resources or conditions (such as housing, medical care, educational opportunity, and access to jobs) believed to be necessary for an equal position in society. Alternatively, a person or community who is exposed to substantial negative conditions that may impede their ability to achieve, often due to an unequal position in society.

**Frontline** – Communities who will experience climate change impacts first, such as sea-level rise, flooding, heat island effect, wildfires, etc. It also applies to communities on the frontline of the extractive fossil fuel economy, and the workers who work on the frontline of that industry.

**Fenceline** – Communities located near or next to stationary sources of air pollution or permanent infrastructure that brings consistent mobile source pollution (highways, ports, truck depots). It is the neighborhood that is immediately adjacent to a company’s operations and is directly affected by the noise, odors, chemical emissions, traffic, parking, and operations of the company.

**Low income** – A community, family, or person whose income is not sufficient to cover the expenses of basic life necessities, including safe housing, nutritious food, adequate clothing, utility bills, necessary medications, and transportation to and from work, school, medical care, and other services.

**Marginalized** – A community or individual who lacks adequate representation in public life and policy decision-making spaces, and those for whom access to capital and financial opportunity has impeded in development. Those who are historically under-represented include women, people of color, people with disabilities, and others.
**Mobility Limited** – An individual for whom driving a personally owned vehicle is not possible while living in an area that does not have alternatives. This includes people with disabilities that inhibit their ability to drive oneself, elderly for whom driving is no longer a possibility, and children under the legal age of 16. It can also mean a person who is temporarily unable to drive, whether because of lack of access to a driver’s license because of immigration status, a revoked driver’s license, medications that prohibit them from operating a vehicle, or because they do not own or cannot borrow a vehicle.

**Overburdened** – A community that has an excessive negative circumstance, such as exposure to tailpipe emissions, especially when that negative circumstance is not of their own making but instead benefits others who do not share in the negative consequences. Those who carry more than their fair share of weight.

**Transit-underserved** – Communities that have systematically lacked investment of public dollars for basic transit infrastructure and services, especially based on the population density of the area, often historically motivated by racial discrimination.

**Transit desert** – Community that lacks public transit service surrounded by communities that have adequate transit service, especially when those communities are disproportionately transit-dependent.

**Underserved** – Communities that have systematically lacked investment of public dollars for service needs, including schools, hospitals, and other services, especially when compared to similarly dense communities.
Appendix A

Defining Disadvantaged Communities

There are many existing mapping tools to help define 'overburdened communities,' 'underserved communities,' and 'vulnerable populations.'

Overburdened communities could be defined as:

- Any community that does not meet National Ambient Air Quality Standards (NAAQS). Data is available through the U.S. EPA Green Book.
- **EPA EJ Screen** – EPA developed a new environmental justice (EJ) mapping and screening tool called EJSCREEN. It is based on nationally consistent data and an approach that combines environmental and demographic indicators in maps and reports.
  - Environmental indicators include PM2.5, diesel particulate matter, ozone, traffic proximity and volume, lead paint indicator, air toxics respiratory hazard index level, lifetime air toxics inhalation cancer risk level, proximity to hazardous waste, toxic chemical, or wastewater discharge.
  - Demographic indicators for a census block include the percent low-income, defined as a household income that is less than or equal to twice the federal poverty level, percent identifying as non-white non-Hispanic, percent of people age 25 or older whose educational attainment is less than a high school diploma, percent of households where no one over the age of 14 speaks English less than 'very well,' percent of people under the age of 5, and percent of people over the age of 65.
- **CalEnviroScreen 3.0** – California’s Air Resources Board has developed a screening tool using indicators fall into four broad groups—Exposures, environmental effects, sensitive populations, and socioeconomic factors.
  - Exposure indicators are based on measurements of different types of pollution that people may come into contact with including: Ozone, PM2.5, Diesel particulate matter, traffic density, as well as pesticide use, drinking water contaminants, and toxic release from facilities.
  - Environmental effects indicators are based on the locations of toxic chemicals in or near communities including clean up sites, groundwater threats, hazardous waste generators or facilities, solid waste sites or facilities, and impaired water bodies.
  - Sensitive population indicators measure the number of people in a community who may be more severely affected by pollution because of their age or health, including asthma, cardiovascular disease, and low birth weight in infants.
  - Socioeconomic factor indicators are conditions that may increase people’s stress or make healthy living difficult and cause them to be more sensitive to pollution’s effects, including educational attainment, housing burden, unemployment, poverty, or linguistic isolation.
• **Massachusetts EJ Viewer** is an interactive map that shows which Census 2010 block groups are classified as environmental populations (EJ) according to the 2017 EJ Policy identifying geographic areas with substantial concentrations of people of color, low-income residents, and English-isolation areas.

• Census block group whose annual median household income is equal to or less than 65 percent of the statewide median ($62,072 in 2010); or
  - 25% or more of the residents identify as a race other than white; or
  - 25% or more of households have no one over the age of 14 who speaks English only or very well.

• **NY Climate Leadership & Community Protection Act** – the legislation included language put together with input from EJ leaders who are part of the NYRenews coalition.
  - Establishes Environmental Justice Working Group within 6 months of the bill being signed made up of 6 representatives of environmental justice communities, communities of color, low-income communities, communities bearing environmental burdens, or advocates from organizations that have a history of environmental justice advocacy. The EJ Working Group will reconvene annually to review and make modifications.
  - Directs DEC, Labor, Public Health agencies to work with the EJ Working Group to establish a definition of ‘disadvantaged communities’ – establish criteria for communities burdened by health effects, environmental pollution, socioeconomic indicators. Draft definition to be shared with communities with public input and regional public hearings to make modifications.

**Underserved communities**: By comparing relative transit, walking, and biking mobility across areas with population density, car ownership, household income, or under-employment, one can determine the areas that are relatively under-resourced compared to areas that are transit, bike, and walking infrastructure–rich.

Could be defined using comparisons relative to population density using data from:

- **MobilityScore** from [TransitScreen](https://www.transitscreen.com) ranks every address (for certain metro areas) on a scale of 1–100, and breaks down each score based on the modes of transit available, including public transit, car sharing, bike sharing, and ride hailing.

- **Redfin** uses a 1–100 scale for a Walk Score, which measure distance to common amenities, Transit Score, based on common data released by transit agencies for routes, type of service, service frequency, and distance to a transit stop, and Bike Score, based on availability of bike infrastructure, road connectivity to common destinations, and the number of bike commuters.

- **Walkscore** – A tool that assigns every address between 1–100 that shows how far an average, able–bodied person can walk to access common neighborhood amenities such as grocery stores. to identify underserved areas.
• **TransitScore** – Similar to WalkScore, a tool that assigns every address a 1–100 score based on common data released by transit agencies for routes, type of service, service frequency, and distance to a transit stop.

• **BikeScore** – Also developed by WalkScore, a tool that assigns every address a 1–100 score based on availability of bike infrastructure, road connectivity to common destinations, and the number of bike commuters.

• States could work with the [National Center for Smart Growth](https://www.umd.edu/research/national-center-smart-growth) within the University of Maryland, or another academic institution, to identify specific targeted areas of need, and model program benefits with investments in transit access, housing, and land-use decisions.

• Additional Resources:
  - [Mobility Equity Framework](https://www.greenlining.org/mobility-equity) from Greenlining Institute.
  - [Center for Mobility Equity](https://www.centerformobilityequity.org) works to expand access for mobility–limited populations, including elderly, disabled, and low-income.

**Vulnerable Populations:** Not restricted to a specific geographic boundary, but managed on eligibility based on status or identity for individual persons, households, or families. Individuals who are disproportionately impacted in terms of:

- Particularly susceptible to damaging health impacts from air pollution, either because of prolonged exposure, including those who work in already ‘overburdened’ areas but do not live in those areas, or because of weakened physical health that amplify impacts of air pollution, such as children, the elderly, and those who are already sick.

- Financial burdens of higher fuel costs, including low-income families, rural communities, people who drive further for employment for whom there is no other mobility option, and people who own older, less fuel efficient vehicles.

- Limited access to alternative mobility options, who live in rural areas and lack access to a personally operated vehicle or have a driver’s license. This includes elderly who can no longer drive, certain disabled persons such as those who are physically or visually impaired, those who have had their licenses revoked, those who do not qualify for a driver’s license due to immigration status, or youth under the age of 16 who have a parent or guardian who meets any of these qualifications.

- Housing instability, marginalization, or displacement, especially around transit hubs and job centers, due to conditions that include homeownership is unattainable for working class families, lack of availability of rental housing, housing rental costs are unaffordable for minimum wage workers, high–proportion of low–income renters, or high levels of unemployment.
Appendix B

Possible Categories for a ‘Best-Value’ Analysis for Program Investments

**Greenhouse gas emissions reductions** – Ensure that proceed dollars from the program fund the deployment of technologies and services that will meaningfully contribute to reducing greenhouse gas emissions. Investments should be evaluated based on the greenhouse gas emissions reductions that those investments will yield, over the timeframe of the technology’s use. Funds should only be spent on technologies that offer maximum greenhouse gas emission reduction when accounting for the lifecycle emissions of producing petroleum products. No dollars should go to subsidize fossil-fuel based infrastructure or technologies. All incentives and programs should go to zero-emission vehicles.

**Improved public health and air quality** – Prioritize emissions reductions in ‘hotspot’ areas, areas where air does not meet federal standards, areas where health impacts associated with tailpipe emissions are disproportionately highest, and areas with a close proximity to stationary transportation pollution sources – such as ports, distribution centers, and bus depots. Prioritize those investments to areas or for populations that have the worst rates of negative health impacts. Prioritize investments to reducing air emissions that impact particularly vulnerable populations, such as children and the elderly. Ensure that proceed dollars are spent on programs, infrastructure, and technologies that offer maximum health benefits from improved air quality, including reducing ozone, Nox, Sox, diesel particulate matter, PM2.5, and other criteria pollutants.

**Expand Access** – People in all neighborhoods, including low income communities and communities of color, should have fair and equal access to jobs, education, nutrition, and healthcare services. Investments should be evaluated based on how well they address reduced commute times in areas where commute times are the highest in densely populated urban areas, expanded access to jobs, education, and services within 30 minutes of travel. Evaluate whether the investment expands access to jobs, education, nutrition, health services, or removes social isolation for targeted vulnerable populations such as elderly, disabled, low-income communities, and drivers who have had their licenses revoked.

**Economic Opportunity** – Funding for projects/programs should be tied to fair labor and workforce standards. Investments should be prioritized to maximize job creation within the region, and further prioritized to job creation in areas where there is chronic underemployment through new investments and programs. Projects should be evaluated based on the number of jobs they create, the permanence of those jobs, whether they offer a prevailing wage, and come with requirements for local hire, job training, and apprenticeships for people underrepresented in the workforce. All contractors must have union neutrality and should be required to report on worker safety, wellbeing, and working conditions. Businesses receiving benefits from the program should be prioritized for small businesses, and businesses owned or led by women and people of color.

**Affordability** – Investments should be prioritized, and programs structured in a way that ensures affordability and a reduced cost of living of transportation expense for low-income
households. Through clean transportation and expanded mobility options, the cost of living should go down for low to moderate income households. These incentives and programs will need to be in place first and foremost, before the cost of fuel increases, to ensure those who spend the highest percentage of their income on transportation aren’t disproportionately impacted. These programs can help ensure people of all incomes can take advantage of clean transportation options. Evaluate whether there are barriers to the people who would benefit financially from the program. Ensure that tax credits and rebates are structured to be discounts directly at the time of purchase. Create tiered pricing or sliding scales for incentives. Establish programs for whom low-income households are uniquely qualified. Establish an income level cap or annual net revenue threshold to qualify for financial incentives.

**Inclusivity** – These programs and services should not be restricted to U.S. citizens. Anyone who can demonstrate that they reside or work within a state, and who has or plans to pay taxes, regardless of citizenship status, should be eligible. These programs should ensure fair and equal access for people with disabilities and restricted mobility, including elderly and youth who do not drive. New transit infrastructure should be designed to be wheelchair accessible.

**Resilience** – Capital investments projects should be resilient to the impacts of a changing climate and climate–related weather events. Infrastructure should be built to be resilient and use green building, supply, and maintenance technologies. Rising sea levels, flooding, and heavy rainfall as well as increased heat waves should be considered when designing new infrastructure projects.

**Obsolescence** – Funds should not go to technologies that provide only short–term gains but will become obsolete as we transition away from fossil fuels. For instance, new procurements should not go to new diesel vehicles, propane, natural gas, or other ‘cleaner’ sources when it is anticipated that battery technology for these same vehicles will be cost effective before the vehicle’s life expectancy.

Other benefits could include timeliness or readiness of project, state agency staff time to implement or oversee, possible costs outside of the contract.
Appendix C

Complementary policies that set additional legal requirements could include:

**Install air quality monitors** and ensure adequate monitoring on fence–line communities around airports, ports, highways, distribution centers, and bus depots. Regulate the number of trucks and buses that can travel in and through these areas to ensure air pollution that impact human health stay within federally recognized public health levels.

**Adopt an environmental rights amendment.** Maryland is currently working on an environmental rights constitutional amendment that gives every individual a right to “clean air, pure water, a healthful environment, ecosystems that sustain the state’s natural resources, and the preservation of the natural, scenic, historic, and aesthetic values of the environment.”

**Pass legally enforceable GHG reduction goals.** Massachusetts’ Global Warming Solutions Act is an example of such an enforceable economy–wide greenhouse gas reduction goal. Other states should also adopt binding, enforceable greenhouse gas reduction goals that are consistent with climate science and require action plans that lay out specific targets for each sector and how to achieve those targets through policy incentives, regulations, or other programs.

**Greening the electricity grid.** Set 100% renewable energy goals. Encourage distributed renewable energy resources such as rooftop solar and storage. Require that utilities use smart rate structuring for charging electrified transportation in a way that bolsters the efficiency, resiliency, greening of the grid, and consumer rate savings. Reinvest those rate savings in expanded charging infrastructure and networks.

**Policies that could raise additional revenue for investment:**

**Low– or zero–emission zones.** A specific designated area where access from more polluting vehicles is banned (ticketed) or deterred through pricing (tolled). For example, diesel trucks that were manufactured before 2010 could be charged an extra sur–charge to enter a designated zone. Cleaner vehicles won’t be charged. The boundaries of the zone are marked with signs and monitored by automated number plate reading (ANPR) cameras. London has enacted a low–emission zone that charges an increased cost for commercial vehicles based on their emissions.

**Congestion pricing.** Where other modes of transit exist, increase tolling prices on highways at peak traffic times. This incentives ride–sharing and alternative modes of transit, reduces the number of vehicles traveling, keeps traffic flowing smoothly to reduce stop–and–go or idling, which increases air pollution in communities located directly next to highways. Washington, D.C. has enacted congestion pricing on some highways.

**Ride hailing fees.** Private ride hailing app services, also known as a Transportation Network Company (TNC), have increased the number of vehicles on the road and decreased public transit ridership. But they perform an important service, especially in last–mile connection, late–night and early–morning service, and where and whenever public transit is not an
option. Ride hailing fees can be enacted at the county or municipal level as a surcharge added to trips within a geographic boundary. They can be structured to encourage passengers to opt to share their ride, drivers to switch to electric vehicles, and trips to start or end at major transit hubs if nearby.

Policies that could use proceed investments and create a return:

100% public fleet electrification. Commit to 100% state, city, and public fleet vehicle electrification. Replace existing public transit buses, school buses, and emergency vehicles with a non-emitting vehicles. Reinvest the cost savings from operating and maintaining those vehicles into expanded services and new green infrastructure, such as expanded charging networks.

Electrify ports. Enact requirements for port authorities to transition towards electrifying drayage trucks and other cargo-handling equipment. Offset the cost of procurement and installation of new equipment with a loan. Require port authorities repay the up-front investment as they save on fuel costs.

Policies to ensure no undue burden:

Adopt specific programs to increase access to EVs. Target increased affordability for low to moderate income people to access to used EVs or hybrids. Programs should be developed with the target population they are meant to serve involved, so as to identify unique barriers and understand effective outreach and education. Offer a discount price up front rather than a tax credit or rebate. Use proceeds to offer zero-interest loans. Waive state vehicle registration fees. Such a program may include a vehicle buy-back for older, less efficient combustion vehicles. Install charging infrastructure, especially in multi-family units, workplaces, and public areas in communities that already are overburdened by transportation pollution.

Rebates, or direct benefits that can serve as rebates, for low-income households to offset the price increase of fuel. Incentives for anyone who qualifies for low-income social services (58edicaid, SNAP, home heating assistance, unemployment benefits), as well as for seniors and students could include: a) free, discounted, or credit towards transit passes, b) vouchers to help low and moderate income households afford to trade in an inefficient car for a hybrid or electric vehicle, c) reduced tolling or vehicle registration fees for rural low-income residents, or d) a credit towards ride hailing services for elderly, mobility limited, rural, or low-income families that do not have access to transit.


