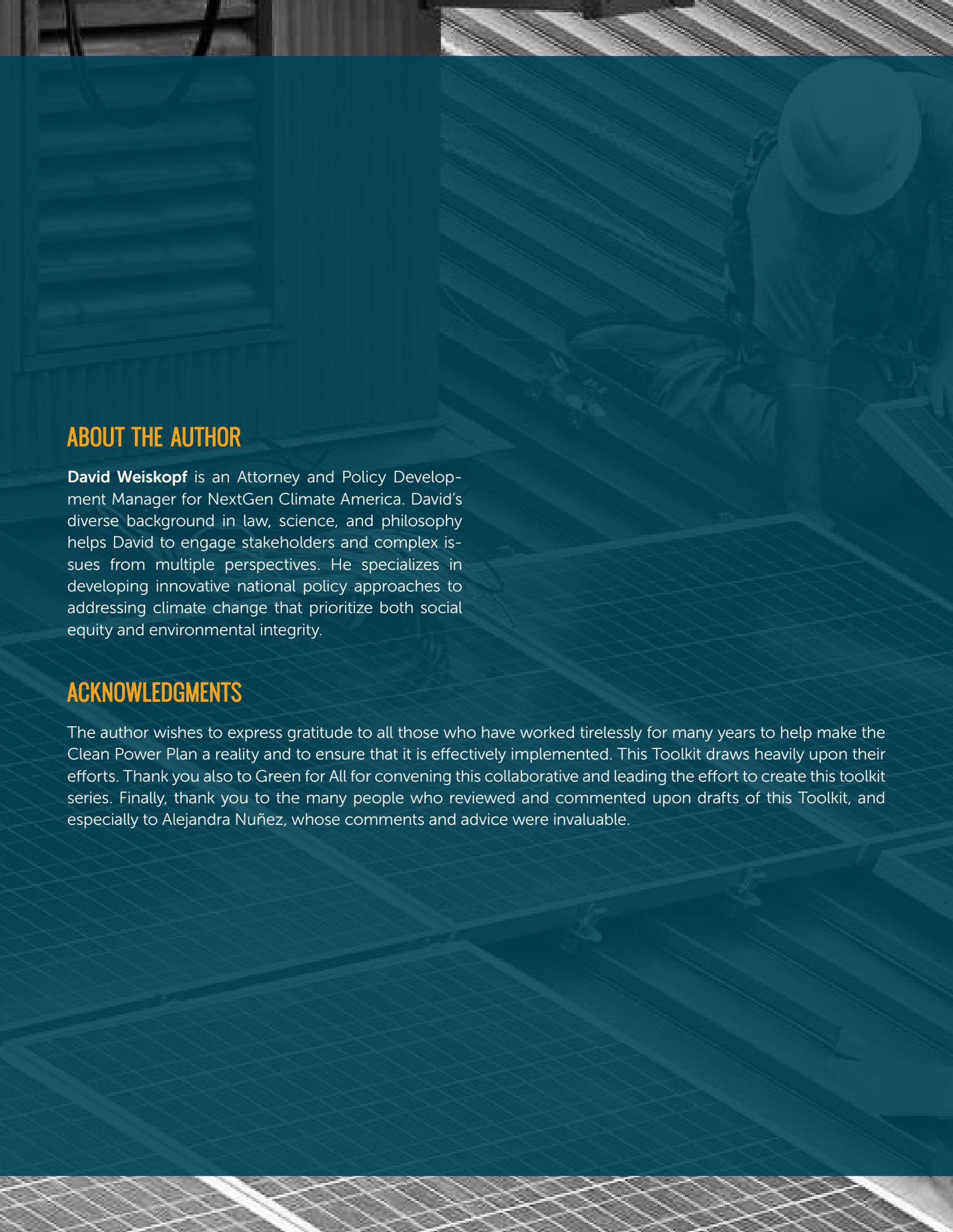




EXPOSING AND AVOIDING FALSE SOLUTIONS

Lead Author: **David Weiskopf**

A worker in a hard hat and safety vest is working on a solar panel array. The worker is positioned on the right side of the frame, leaning over the panels. The solar panels are arranged in a grid pattern, and the worker appears to be adjusting or connecting them. The background shows a building with a window and a corrugated metal roof. The entire image is overlaid with a semi-transparent teal color.

ABOUT THE AUTHOR

David Weiskopf is an Attorney and Policy Development Manager for NextGen Climate America. David's diverse background in law, science, and philosophy helps David to engage stakeholders and complex issues from multiple perspectives. He specializes in developing innovative national policy approaches to addressing climate change that prioritize both social equity and environmental integrity.

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ABOUT THIS TOOLKIT

This toolkit is part of a series created by the Clean Power for All Collaborative convened by Green for All. The Clean Power for All Collaborative includes People's Action Institute, Center for Community Change, Clean Energy Works, Green For All, National Housing Trust, Natural Resources Defense Council, NextGen Climate America, Sierra Club, State Innovation Exchange, Union of Concerned Scientists, and U.S. Climate Action Network. The views and opinions expressed in this toolkit are those of the authors and do not necessarily reflect the endorsement of every member of the Clean Power for All Collaborative.

ABOUT THE CLEAN POWER PLAN

The CPP is the first national effort to regulate greenhouse gases from existing power plants, which account for nearly 40 percent of the greenhouse gas emissions in the United States.¹ The CPP is expected to reduce carbon pollution output by about 32 percent below 2005 levels in the electricity sector. When developing the CPP, the Environmental Protection Agency (EPA) used its authority under the Clean Air Act to derive unit-specific emission rates standards, as well as statewide pollution budgets and state average emission rates based on each state's existing energy production sources and an assessment of several available pollution reduction measures. The regulations would limit the carbon output of existing power plants, but leave plan design and implementation up to state regulators. Initially, states were required to submit an implementation plan for approval or ask for

The toolkit provides concrete solutions to state regulators and advocates for the effective implementation of the Clean Power Plan (CPP). Each toolkit in the series addresses a set of questions and concerns about equity and fairness, and provides tangible solutions to ensure that the communities hardest hit by poverty and pollution are not overlooked in the development of state plans.

To access this toolkit and other topics online, visit www.thecleanpowerplan.com.

an extension by September 6, 2016 and to submit final plan by September 6, 2018. Compliance requirements for covered power plants are set to begin in 2022 and end in 2030. On February 9, 2016, the U.S. Supreme Court placed a stay on enforcement of the CPP until the D.C. Circuit Court of Appeals rules on the merits of the Plan and the Supreme Court either rules on the merits or denies a petition to review the lower court's decision. The stay does not speak to the legal merits of the rule, and it does not prevent the EPA from continuing to accept input and develop guidance on how states may implement these life-saving standards. During the stay, states should be continuing to plan for compliance or invest in energy policies that protect people and the planet by accelerating the deployment of clean and renewable energy and energy efficiency.

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“With false solutions, carbon dioxide and other dangerous pollution may rise, even as the state or utility takes credit for cutting carbon.”

INTRODUCTION

Even in states that constructively engage in the process of developing a state plan and other measures that are meant to clean up the state’s electricity supply, there is a risk that plans could be little more than greenwashing or feel-good language that masks a failure to make real pollution reductions or to promote equitable access to the real benefits of clean energy. This section offers best practices and key issues to watch for so that your state can avoid “false solutions” that stakeholders may offer up as good pathways to Clean Power Plan implementation.

Many false solutions rely on accounting gimmicks that may enable states or utilities argue that they are complying with the requirements of the law

or otherwise cleaning up electric sector pollution, when in fact pollution reductions are much smaller than asserted. Other times, the carbon reductions are real, but the technologies deployed to achieve these reductions drive increased emissions of other pollutants. In extreme cases, carbon pollution may rise, even as the state or utility takes credit for cutting carbon.

Other false solutions may achieve pollution reductions, but do so in ways that benefit electric utilities at the expense of customers or that concentrate the economic benefits of clean energy in a few hands, rather than providing equitable access to these economic benefits to all customers.

BEST PRACTICE:

ENSURE THAT YOUR STATE PLAN RESULTS IN REAL POLLUTION REDUCTIONS, NOT ACCOUNTING GIMMICKS

Ensure carbon pollution does not “leak” to future fossil fuel-fired plants

Each state or federal implementation plan under the Clean Power Plan must achieve a level of environmental performance that is equivalent to or better than the levels of carbon pollution that would be achieved if existing coal and gas power plants met their respective targets either through direct emissions reductions or by purchasing compliance credits from new renewable energy or energy efficiency projects. Emissions above this level of performance are considered “leakage” – i.e., the “cap” that the state plan purports to place on emissions is imperfect and allows excess pollution to leak out. Communities should advocate for strong leakage protections in order to ensure meaningful pollution reductions.

The Environmental Protection Agency and others have modeled this environmental outcome with sophisticated electrical system models. These models show that EPA’s targets would result in significant pollution reductions across the entire electrical system: existing power plants cut pollution, new clean resources come

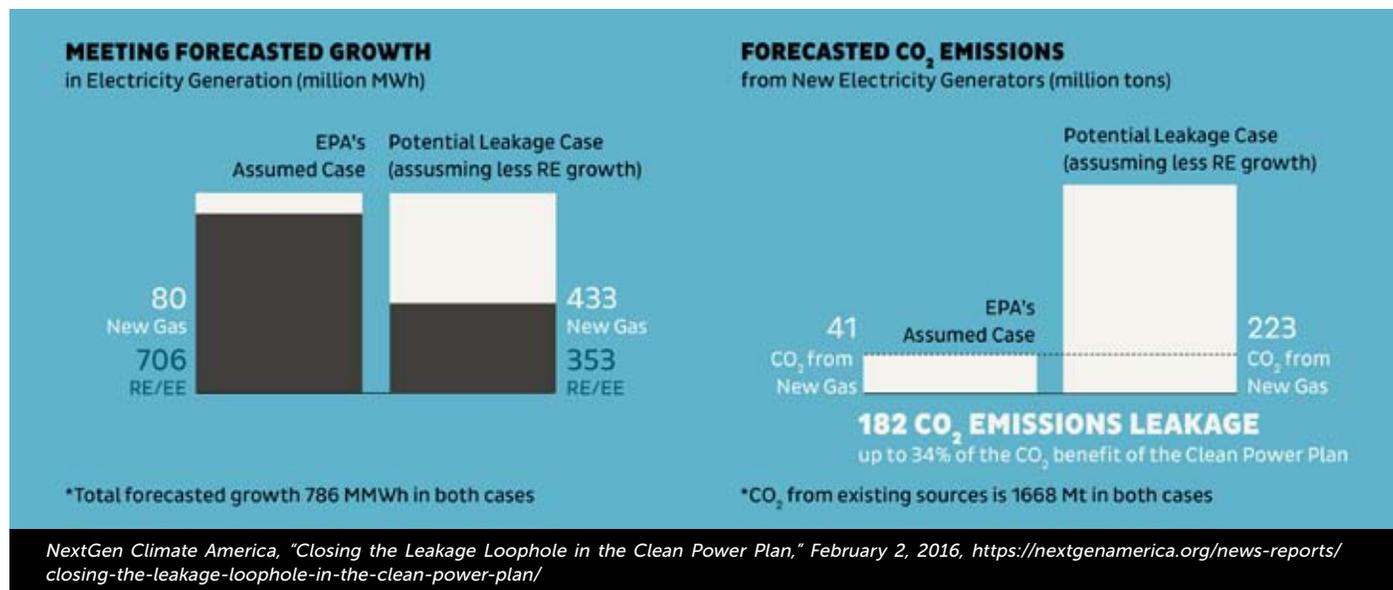
online, and very few new polluting sources are built to erode the benefits of these reductions.²

In practice, though, electrical utilities and generators do not always behave as rationally as the models predict. There are often strong political and financial incentives to build new polluting power plants, even though these plants are often not the most economical approach to meeting customers’ electricity service needs, and the construction of these plants may cause serious increases in pollution.

Pollution from yet-to-be constructed power plants is a source of confusion for many Clean Power Plan stakeholders. The Clean Power Plan limits pollution from existing power plants. This has led some stakeholders to incorrectly assert that pollution from new fossil fuel-fired power plants can be ignored for the purposes of the state planning process.

The Clean Power Plan requires states to implement a plan that does not result in a worse environmental outcome than the rule contemplates – which means that the state plan may not allow overall emissions to increase, even if the increase is due to pollution from new fossil fuel power plants.

Where pollution from new power plants erodes the overall effectiveness of the state plan, a phenomenon known as “leakage” occurs. In the Clean Power Plan, EPA is requiring states that wish to adopt mass-based programs to address leakage, so as to ensure that those plans will result in emissions reductions equivalent to the targets set forth by the agency.



BEST PRACTICE TO PREVENT LEAKAGE

1

States should adopt a mass-based plan that includes the “new source complement.”

EPA has given states the option to cover all of their power plants – both existing and future plants – under a single pollution budget in their implementation plans.

This pollution budget includes a fixed tonnage pollution limit based primarily on what existing plants may have emitted if the state adopted a rate standard, plus a cushion of additional allowable emissions based on a generous estimate of likely increase in electric

cal demand in each state that would be met with future fossil fuel-fired plants. This additional amount is called the New Source Complement. Added to an already generous cap, the New Source Complement should afford a state room for growth while reducing air pollution. The mass plan with a new source complement, which would cover both existing and new sources, is the fairest, most transparent, simplest, and surest way to prevent leakage due to the construction of new plants.

2

Second-best Option (For States that come under a Federal Plan): Ensure sufficient incentives for Renewable Energy and Energy Efficiency Exist in the Plan and Complementary Measures

- In states where EPA issues a federal plan, communities may need to rely on more indirect means of controlling leakage. This is because EPA’s proposed model rule, which may provide the basis for a federal plan, would not cover all power plants under a mass standard. Rather, it would cover only existing plants under a mass standard, and include modest and potentially inadequate safeguards against leakage to power plants not covered by this plan. To prevent increases of pollution from new power plants where they are not included in the same mass budget as existing plants it is necessary that at least enough energy efficiency and renewables come on line that there is no reason for companies to build new fossil fuel plants. EPA’s proposed model rule contains measures that are intended to promote new clean energy and energy efficiency, but the measures contained in the model rule, as proposed, are inadequate to achieve this outcome. For this reason, it will also be necessary for community members to challenge companies that seek to build new polluting power plants through all available legal and administrative avenues, including Utility Commission proceedings and litigation where appropriate. Community organizing, information sharing, and public campaigns can also be very valuable in preventing pollution increases from new power plants.
- Communities in states subject to a federal plan should also speak directly with federal and regional EPA offices, reiterating the legal requirement that EPA’s federal plan must achieve an environmental outcome no worse than can be achieved through EPA’s targets. In the federal plan context, EPA must show that such a plan meets this standard through robust modeling and community engagement. The proposed federal plan contains insufficient leakage protections. Communities should speak up now to urge EPA to respond to comments from many citizens suggesting revisions to the proposed federal plan that will provide better protections against leakage.³

Do not assume biomass and waste incineration are clean or low-carbon electricity for Clean Power Plan compliance

Electricity from biomass and waste incineration may carry significant carbon impacts and impacts from other pollutants. Efforts to characterize electricity from these sources as “carbon neutral” or “clean” are, at best, vast oversimplifications. In many cases, biomass can have global warming impacts as bad as or worse than coal. State plans should therefore avoid promoting high-polluting biomass and should reject efforts to designate all biomass as a single form of clean or carbon-free source of energy.

At the power plant stack, burning biomass generates more carbon dioxide emissions than even coal combustion. Utility-scale biomass boilers are also less efficient than either average coal or gas boilers. Likewise, co-firing of biomass with coal decreases a facility’s overall efficiency. Therefore, when considering only carbon emissions at the stack, biomass is far from zero emitting. The claims made in favor of biomass as a zero-carbon resource depend on the life-cycle carbon balance of biomass combustion, namely that the growing of biomass sequesters carbon from the atmosphere. However, given that forest regrowth takes several decades, it is highly unlikely that carbon emissions from biomass will be offset by the growth of new trees within the timeframe of the Clean Power Plan.

States should not allow biomass and waste incineration as compliance measures under state plans by default. In limited instances, some forms of biomass combustion may help to avoid higher global warming pollution emissions from burning fossil fuels or from methane emissions that may occur if the biomass is improperly composted or moved to landfills. However, these cases represent the exception, rather than the rule in industrial biomass combustion. Parties that wish to demonstrate that their biomass process helps to avoid the emissions of greenhouse gases or other pollution should therefore bear the burden of providing rigorous evidence

of these claims. EPA is currently in the process of finalizing a framework for accounting biogenic emissions from stationary sources, and states should rely on this framework. In all cases, forest biomass consumption should be excluded by state plans due to the significant global warming pollution it creates and the other damaging environmental effects of burning whole trees in power plants.

Similarly, burning municipal waste is a highly carbon intensive form of energy generation, producing over twice the amount of CO₂ per unit of energy than coal plants. While burning municipal waste may in some cases help to reduce the global warming impact that may result from poorly-managed landfill operations, cleaner and safer means of cutting landfill methane pollution exist that do not carry the same risks as burning municipal waste in power plants.

Burning waste-derived fuel may create disproportionate impacts by exposing communities to mercury and other toxic pollution. A great number of these facilities are sited in communities of color and low-income communities. New incinerators are extremely expensive forms of energy generation in the U.S., and many existing incinerators have also required hundreds of millions of additional dollars spent on upgrades for the latest pollution control technologies. On a level playing field, these technologies cannot compete against cleaner, cheaper resources such as energy efficiency, wind, and solar.

If a state plan treats these resources as low-carbon or carbon-free, there is a risk of increasing a state’s reliance on fossil fuel infrastructure and slowing the transition to clean energy resources. Because both biomass and municipal waste combustion are often combined with fossil fuel combustion for power generation, incentivizing the adoption of these fuels may prolong the life of some heavy-polluting fossil fuel plants. Incentivizing any form of fossil fuel-based combustion, whether from coal, gas, trash, or biomass, raises serious concerns about increased public health impacts, especially in communities that are already overburdened by industrial pollution.

BEST PRACTICE:

ENSURE ECONOMIC BENEFITS OF LIMITING POLLUTION ARE INVESTED IN COMMUNITIES THAT HAVE HISTORICALLY BORNE THE GREATEST BURDENS FROM POLLUTION

Ensure that “low cost” means low cost to consumers -- not just utilities

Many stakeholders, including in some instances state legislatures, are advancing policies or even statutes that may require that state environmental agencies implement “least cost” compliance plans. “Least cost” may be defined in a number of ways. In order to ensure genuine pollution reductions, states should include the following provisions in their definition of “least cost” compliance:

- Least cost plans must explicitly include analyses indicating that cost savings will not occur as a result of leakage or of increasing pollution in hot spots.
- Least cost must refer to costs to residential utility customers, rather than to utility profits.
- Least cost plans must prioritize least cost energy resources, including traditionally under-utilized resources such as energy efficiency for multifamily dwellings and rooftop solar incentives, for which the the full range of economic benefits is often excluded from characterizations of their cost.

Weatherization programs, especially those targeted to make major improvements to the heating, insulation, and water heating systems in low-income and multifamily housing, pay major dividends in terms of the pollution reductions they create. They also provide valuable bill savings and increased economic security for families living in these dwellings. These programs can help improve health by reducing asthma triggers, such as mold, that are common in poorly insulated homes, and they reduce exposure

to extreme temperature swings, which can improve health conditions especially for young children and elderly occupants. These programs should be prioritized among clean energy options.

Some electric utilities seek to justify new investments in nuclear energy on the grounds that nuclear power plants do not emit carbon pollution during operation. However, nuclear power plants are fueled by uranium, which is dangerous and difficult to handle and which is mined in an energy-intensive process that causes substantial damage to land and water. Moreover, new nuclear power facilities are generally the most expensive electricity generation technology. Energy efficiency and renewables such as wind and solar are far less expensive and carry far fewer risks to our communities.

States have the ability to ensure that clean energy resources are prioritized in state plans. In the Toolkit *Making Polluters Pay: Harnessing Value for Public Benefit*, we have identified several key aspects of carbon pollution allowance allocation and investment of any revenue generated through a potential auction of those allowances that can help to prioritize clean energy resources and promote equitable access to the benefits of clean energy.

In states where an auction of allowances is not available, states should set aside allowances to directly allocate to community weatherization agencies, shared solar providers, and other community groups and entities that are not non-fossil fuel generators.

These groups can then sell allowances on to fossil fuel generators who must purchase allowances in order to comply with the Clean Power Plan, driving needed revenue to the weatherization and clean energy groups who received the initial allocation.

States that auction allowances will have access to a substantial stream of revenue from polluting power plants. States may be tempted to direct all revenues to the state's general fund. This stream of revenue should, to the maximum extent possible, be directed towards providing restorative justice to communities that have historically borne disproportionate economic and health impacts from the operation of fossil fuel power plants. This may include investment in clean energy, weatherization, energy efficiency projects, and other

efforts in these communities, but the process for determining precise expenditures should be decided by a community-driven process.

California's groundbreaking Global Warming Solutions Act of 2006 (AB32) places a limit on greenhouse gases in the state, and it charges polluters for their emissions. The money goes into a Greenhouse Gas Reduction Fund (GGRF) that is designated for purposes that further help to fight the effects of climate change. States implementing a mass-based plan for the CPP may consider a similar mechanism for limiting and pricing pollution. But states that derive revenue from sales of CPP allowances for carbon pollution should proactively learn from lessons learned in California and the measures taken to benefit vulnerable communities as California's carbon market implementation developed over time.

Initially, funds from California's GGRF were not allocated in a way that prioritized investments that would benefit communities that suffer the greatest impacts from pollution and climate change. After significant public outcry and organizing efforts, legislation was developed to address the need to allocate carbon market funds to disadvantaged communities: SB 535.

SB 535 requires that at least 25% of the funds in the GGRF go to projects that benefit disadvantaged communities, with at least 10% going to projects located within these communities. This means hundreds of millions of dollars in investments that promote clean air, jobs, transportation and energy efficiency, all targeted to benefit the communities hit first and worst by climate change.

California communities were actively engaged in every step of the process that determined the details of what communities would be benefited under SB 535 and how the funds would be spent in these communities. States seeking to benefit vulnerable communities through the CPP planning and implementation process should develop a comprehensive framework for establishing the criteria by which vulnerable communities are identified. States should engage these communities at a personal and local level, and they should prioritize the needs community members express for how they would like to see any proceeds from potential CPP carbon pollution permitting invested in their communities.



CASE STUDY:

CALIFORNIA'S S.B. 535

KEY TERMS

Emissions Leakage: Increases in pollution that are not accounted for in a State Plan

New Source Complement: Supplemental allowances in a mass-based plan that covers pollution from all power plants, including plants that have not yet been built.

KEY RESOURCES

For more information about California's SB 535, please see the following resources:

- SB 535 Fact Sheet: <http://greenlining.org/wp-content/uploads/2014/12/SB535-Fact-Sheet-Final.pdf>;
- Climate Investment Case Studies Report: <http://greenlining.org/issues/2015/climate-investments-case-studies-report/>;
- "Addressing Poverty and Pollution: California's SB 535 Greenhouse Gas Reduction Fund" by Vien Truong: http://harvardcrcl.org/wp-content/uploads/2011/09/493_Truong.pdf

For approaches to addressing leakage, please see:

- NextGen Climate America, "Closing the Leakage Loophole in the Clean Power Plan," February 2, 2016, https://nextgenamerica.org/wp-content/uploads/2016/02/EPA_LeakageLoophole_PB2016-1-1.pdf.
- M. J. Bradley & Associates, "EPA's Clean Power Plan, Summary of IPM Modeling Results With ITC/PTC Extension." June 1, 2016, http://www.mjbradley.com/sites/default/files/MJBA_CPP_IPM_Report_III_2016-06-01_final.pdf
- Dallas Burtraw, Karen Palmer, Anthony Paul, and Hang Yin, Resources for the Future, "Approaches to Address Potential CO2 Emissions Leakage to New Sources under the Clean Power Plan," January 19, 2016, http://www.rff.org/files/RFF-CPP_Technical-Background.pdf;

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- ¹ “What is the Clean Power Plan,” Union of Concerned Scientists, available at: <http://www.ucsusa.org/our-work/global-warming/reduce-emissions/what-is-the-clean-power-plan#.VxUPOdYTXds>
- ² EPA’s Regulatory Impact Assessment estimates that power sector CO2 emissions under the Clean Power Plan will be approximately 598-610 million tons below 2005 levels in 2020, and 869-871 million tons below 2005 levels in 2030. (<https://www.epa.gov/sites/production/files/2015-08/documents/cpp-final-rule-ria.pdf>, p. ES-8). These projections are based on outputs from ICF International’s Integrated Planning Model, which is also used by electric utilities for planning power plant construction and retirement scenarios.
- ³ See NextGen Climate America, “Closing the Leakage Loophole in the Clean Power Plan,” Feb. 2, 2016, https://nextgenamerica.org/wp-content/uploads/2016/02/EPA_LeakageLoophole_PB2016-1-1.pdf. EPA’s proposed federal plan ignores important differences in incentives to build renewable energy and energy efficiency resources under a mass plan that does not cover all power plants, compared to one that does cover all plants. In order to remedy this deficiency in EPA’s proposed plan, NextGen Climate America has proposed revisions that would help to address the potential leakage. These include increasing EPA’s proposed renewable/efficiency set-aside, so that a larger percentage of allowances are designated specifically for these clean resources, rather than fossil generators; holding some allowances back from the initial allowance distribution, and releasing these allowances only if new power plants do not exceed leakage thresholds; and allocating allowances to power plants, including clean electricity generation resources and energy efficiency providers, based on their electricity generation, not just to fossil generators based on their past pollution levels, as the plan currently proposes to do with the vast majority of allowances.

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