

# Environmental Justice and the Clean Power Plan

EPA requires states to engage vulnerable communities during plan development and encourages states to create incentives for low-income energy efficiency programs.

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The Clean Power Plan, finalized by the Environmental Protection Agency (EPA) in October 2015, will for the first time limit nationwide carbon dioxide (CO<sub>2</sub>) pollution and has the potential to reshape the U.S. electric system. It does this in part by building in environmental justice considerations from the ground up to ensure that the interests of those Americans most vulnerable to power plant pollution are safeguarded. EPA has established new environmental justice requirements and recommendations for environmental and human health effects on low-income communities and communities of color should be addressed as states develop their compliance plans. EPA also created a Clean Energy Incentive Program to provide a new source of funding for energy efficiency programs in low-income communities.



Figure 1. Global and local impacts of power plant emissions

## Incorporating EJ into State Plans

The Clean Power Plan requires states to integrate new environmental justice analyses and community outreach into their compliance planning processes. EPA recognizes that smoke stack emissions pose health and safety risks to communities in the immediate vicinity of a power plant (Figure 1). In addition, this EPA rule addresses one of the main causes of global climate change, which disproportionately affects vulnerable communities through increased incidence of severe weather events with the kind of devastating effects seen during Hurricane Katrina and Superstorm Sandy. The impacts of these events are amplified by low-income communities' lower resilience and decreased access to resources.

In developing the Clean Power Plan, EPA employed its [EJSCREEN](#) tool to give the public access to environmental justice information about their communities. The tool demonstrates that communities located near power plants tend to be disproportionately low-income and

communities of color. These neighboring populations bear the brunt of the many direct health impacts caused by power plant emissions, including asthma, lung disease, heart disease, and premature death due to high local concentrations of particulate matter, NO<sub>x</sub>, and SO<sub>2</sub>. At the same time, these communities may also be economically reliant on these power plants for jobs or tax revenues. If the Clean Power Plan results in lower utilization or the closure of some power plants, these communities may face impacts that are different from the general public.

For these reasons, EPA has directed states to make environmental justice a key part of their compliance planning processes, as summarized in Table 1. EPA encourages states to conduct analyses of the likely impacts of Clean Power Plan implementation on vulnerable communities, and to conduct outreach to involve the public in development of state plans.

<b>Phase 1: Preparation of Initial Plan</b>	States should conduct environmental justice analyses:	<ul style="list-style-type: none"> <li>✓ Air quality monitoring</li> <li>✓ Generation modeling</li> <li>✓ Health data evaluation</li> </ul>
	States must conduct outreach to vulnerable communities, including:	<ul style="list-style-type: none"> <li>✓ Information sharing</li> <li>✓ Solicitation of input on environmental justice analysis and initial plan</li> <li>✓ Sharing of financial and technical resources</li> </ul>
<b>Phase 2: Submission of Initial Plan</b>	Plans must include demonstrations of engagement:	<ul style="list-style-type: none"> <li>✓ Description of community engagement to date</li> <li>✓ Methodology for identification of vulnerable communities</li> </ul>
	Plans must report future steps and include:	<ul style="list-style-type: none"> <li>✓ Description of plan for involvement of vulnerable communities in final plan process</li> </ul>
<b>Phase 3: Preparation of Final Plan</b>	States must conduct public hearings in which:	<ul style="list-style-type: none"> <li>✓ Translators should be provided</li> <li>✓ Responses should be given to all comments</li> </ul>
	States must conduct continued outreach:	<ul style="list-style-type: none"> <li>✓ Solicitation of and response to comments on initial plan submission is required</li> <li>✓ Translation of information into appropriate languages is recommended</li> </ul>
<b>Phase 4: Submission of Final Plan</b>	Final filings must include:	<ul style="list-style-type: none"> <li>✓ Information on public hearings, and how they were made accessible</li> </ul>
	Requests for extension require:	<ul style="list-style-type: none"> <li>✓ Demonstration of meaningful engagement with vulnerable communities</li> </ul>

**Table 1. Steps states must take to include environmental justice considerations in compliance planning process**

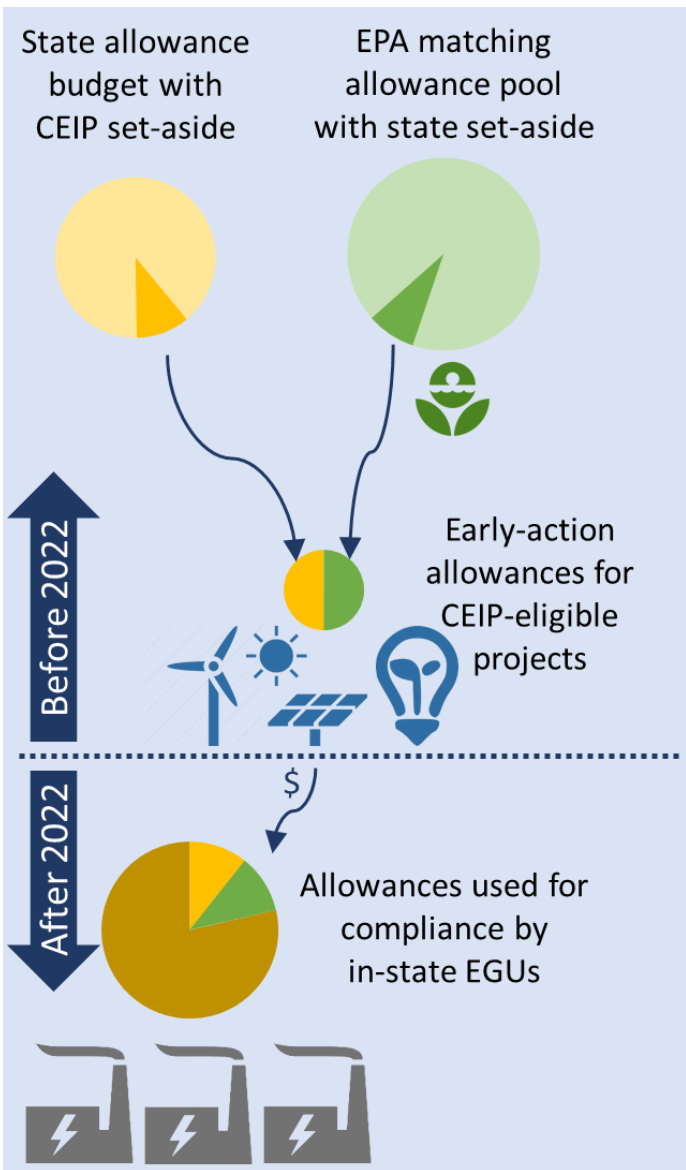
The purpose of these outreach efforts is both to ensure that states hear and respond to the concerns of vulnerable communities during the formation of their implementation plans, as well as to share resources with vulnerable and underserved communities. States are urged to provide low-income communities and communities of color with financial and technical assistance towards the development of energy efficiency and renewable energy projects, such as through the Clean Energy Incentive Program (as discussed below).

Moreover, states will be required to demonstrate to EPA that they made outreach efforts during their planning and that plan formation processes were open and accessible to members of vulnerable communities. States that conduct environmental justice outreach processes that meet all of EPA’s recommendations will be considered by the agency to have fulfilled their obligation of public participation.

## Clean Energy Incentive Program

Environmental justice is a key aspect of the Clean Power Plan’s Clean Energy Incentive Program. The program was designed to encourage states to take early actions to reduce emissions and to reward actions that may already be in the planning stages. During the Clean Power Plan compliance periods, CO<sub>2</sub>-emitting power plants must acquire allowances (for mass-based compliance) or emission rate credits (for rate-based compliance) to continue operating. Each state has a specific total allowance budget or credit goal that its electric generating units must abide by to achieve compliance.

To give states an incentive to take early action, EPA will permit states to allocate a small percentage of their allowance budget early to qualifying renewable energy and energy efficiency programs. A certain amount of each state’s allowance budget has been “set aside” for participation in the Clean Energy Incentive Program, with



**Figure 2. Distribution of CEIP allowances or credits**

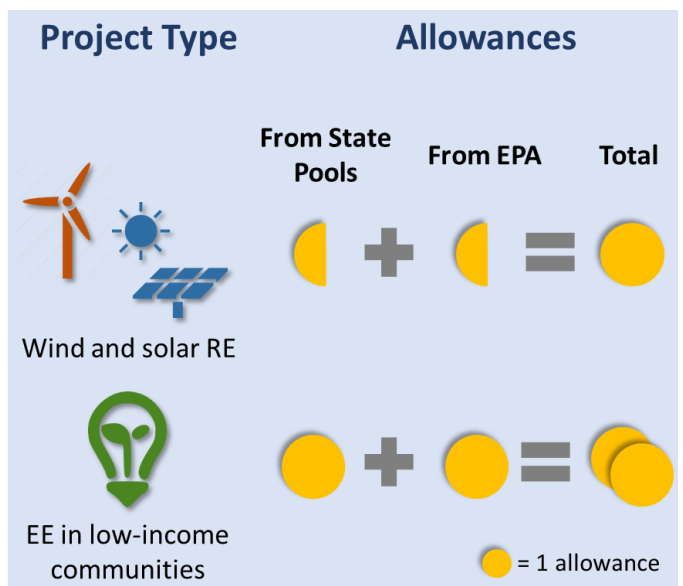
an equal amount reserved for that state in a federal matching pool worth 300 million short tons of CO<sub>2</sub>. The size of each state’s set-aside in the federal pool is based on that state’s share of potential electric-sector emission reductions. If states choose not to participate in the program, their matching allowances will be redistributed among the states that are taking part.

Once awarded to qualifying programs, these early-action allowances can be made available for purchase by power plants during the first compliance period (Figure 2). Proceeds from the sale of early-action allowances or credits can then provide revenue for the developers or administrators of eligible projects.

Many of the details of implementing the Clean Energy Incentive Program have yet to be decided and are available for public comment. Most notably, the relative values of mass-based allowances and rate-based emission rate credits are still uncertain as of now, as is the expected relationship between avoided electric generation and avoided emissions.

Two types of projects are eligible to receive early-action allowances through the Clean Energy Incentive Program: (1) wind and solar renewable energy projects; and (2) energy efficiency projects in low-income communities (Figure 3). To be eligible, both types of programs must commence construction or operation after states submit their final compliance plans to EPA and both must result in generated or saved energy in years 2020 and 2021.

Renewable energy projects can receive only one early-action allowance per MWh of energy generated (one-half allowance from the state set-aside and one-half allowance match from the EPA). Qualifying energy efficiency programs in low-income communities will receive two early-action allowances per MWh of energy avoided (one full allowance from the state set-aside and one full allowance match from the EPA). This double incentive provides added motivation for states to invest in energy efficiency in low-income communities.



**Figure 3. Projects eligible for the Clean Energy Incentive Program**

## Why Energy Efficiency in Low-Income Communities?

Energy efficiency can have particularly great benefits for vulnerable populations by reducing consumption (and thus lowering utility bills) for those customers least able to afford high monthly charges while maintaining consumers' access to essential energy services. In addition to contributing to environmental justice and public policy goals, this also lowers electric system costs for all users by reducing the number of unpaid utility bills, which increase rates paid by consumers at large. Energy efficiency in low-income communities may also help to improve the quality of life, both financially and through more reliable access to energy services such as home heating in the winter time.

While energy efficiency programs in low-income communities may be cost-effective when all system benefits are taken into account, they most directly benefit consumers that have difficulty paying the up-front costs of such investments. In addition, low-income communities tend to have a high proportion of renters and multi-family housing, complicating efforts to align incentives for both property owners and residents. As a result, there are often barriers to implementing energy efficiency programs in low-income communities. EPA's inclusion of such programs in the Clean Energy Incentive Program provides an important motivation for states to take action towards achieving the benefits provided by energy efficiency programs in low-income communities to vulnerable populations and electricity consumers at large.

## Resource List

- **Clean Power Plan Handbook**, a Synapse guide to navigating the final rule for state consumer advocates, available at: [www.synapse-energy.com/CPPHandbook](http://www.synapse-energy.com/CPPHandbook).
- **Information about the Clean Energy Incentive Program**, including a factsheet summarizing the program and EPA's list of next steps and requests for input, can be found at: <http://www2.epa.gov/cleanpowerplan/clean-energy-incentive-program>.
- **A list of Clean Energy Incentive Program stakeholder calls and docket information** can be found at: <http://www2.epa.gov/cleanpowerplan/ceip-stakeholder-calls-november-2015>. EPA also held a series of webinars elaborating on portions of the Clean Power Plan, including the Clean Energy Incentive Program, the slides of which can be found here: <http://www2.epa.gov/cleanpowerplan/clean-power-plan-overview-webinar>.
- **Synapse's Clean Power Plan Planning Tool (CP3T)**, an Excel-based spreadsheet tool for performing first-pass planning of statewide compliance with EPA's final Clean Power Plan that includes calculation of CEIP credits, can be downloaded at: [www.cp3t.com](http://www.cp3t.com).
- **The EPA's Environmental Justice Screening Report for the Clean Power Plan**, describing the methodology and results of the proximity analysis the agency conducted using its EJSCREEN tool, can be found at: <http://www3.epa.gov/airquality/cppcommunity/ejscreencpp.pdf>.

### ABOUT SYNAPSE

Synapse Energy Economics, Inc. is a research and consulting firm specializing in energy, economic, and environmental topics. Since the Clean Power Plan was proposed in June 2014, Synapse staff have been actively analyzing and modeling the impacts of the rule. This work includes analyzing state-specific compliance options and providing planning support and resources to non-governmental organizations and state agencies. Synapse developed its open-source Clean Power Plan Planning Tool, or CP3T, to assist state agencies and other stakeholders in planning for compliance ([www.cp3t.com](http://www.cp3t.com)).

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