1. WHAT IS OUR TOP-LINE MESSAGE ABOUT THE SUBSTANCE OF THE CLEAN POWER PLAN?

We support the proposed standard, and we are going to work hard to make it even stronger. This standard is a big, substantive step forward in reducing carbon emissions. It creates a framework that, once in place, could lead to even greater reductions than EPA has estimated. States must develop plans to meet the state targets (or “state goals,” as EPA calls them) through a range of compliance measures, which may include renewables and energy efficiency; states could also pledge plant retirements. The standard opens up the opportunity for every state to chart its energy future, and the Sierra Club has advocates on the ground in every state to analyze the state targets and push for a strong and just standard.

The Clean Power Plan doesn’t solve the problem of climate disruption by itself, but it gives us a framework to make significant progress in the states. It sends an important signal to the world that the United States is serious about addressing climate disruption, and it should help clear the way for further climate action, both nationally and internationally.

2. WHAT DOES THE CLEAN POWER PLAN DO?

The Clean Power Plan sets carbon dioxide emission reduction goals for each state and proposes ways that the states could reach their goal. EPA determined each state’s goal using four “building blocks.” States can use the building blocks to meet their goals through their implementation plans, but they can also rely on a different mix of carbon reduction measures than the mix that EPA used to set the goals. Here is how EPA describes the building blocks: 1) make fossil fuel power plants more efficient, 2) shift to lower-polluting power sources, 3) increase renewable energy, and 4) use electricity more efficiently. To calculate each state’s CO2 emission rate for 2030, EPA started with the 2012 emissions rate for affected electric generating units (EGUs) in each state—that is, the emissions rate in 2012 of each state’s fleet of existing fossil fuel-fired power plants—and then adjusted that rate downward by applying each of the four building blocks to the initial figure.

The standard sets goals for 2030 and for the 10-year average from 2020 to 2029. The goals are set forth in pounds of carbon pollution per megawatt hour of power (a rate-based standard). States may instead choose to use a mass-based standard, expressed in total tons of carbon pollution. The standard only applies to pollution from existing fossil power plants, but new renewable energy and energy efficiency can be used to lower the pollution rate.

Here are the four building blocks in detail (for each, EPA has put forward and modeled both a proposed and alternative option):
Building Block 1: Reducing the carbon intensity of generation at individual affected power plants through heat rate improvements;

a. Proposed – A 6% heat rate improvement in the state’s coal fleet
b. Alternative – A 4% heat rate improvement in the state’s coal fleet

Building Block 2: Reducing emissions from the most carbon-intensive affected power plants by substituting generation at those power plants with generation from less carbon-intensive affected power plants, including natural gas combined cycle (NGCC) units under construction. These capacity factor values represent NGCC utilization rates that the EPA used to calculate state goal adjustments related to redispatching coal and/or oil and gas (O/G) steam generation to the state’s NGCC capacity.

a. Proposed – a 70% capacity factor (CF) for the state’s NGCC fleet
b. Alternative – a 65% capacity factor for the state’s NGCC fleet

Building Block 3: Reducing emissions from affected power plants by substituting generation at those power plants with expanded low- or zero-carbon generation.

a. Both proposed and alternative state goals include under construction (5.5 GW) and “at-risk” nuclear capacity (~5.8% of nuclear capacity)

b. Proposed –Renewable energy at 13% by start of 2030 and thereafter

c. Alternative –Renewable energy at 9.4% by start of 2025 and thereafter

Building Block 4: Reducing emissions from affected power plants through demand-side energy efficiency.

a. Proposed – 10.7% cumulative savings by start of 2030 and each year thereafter
b. Alternative – 5.2% cumulative savings by start of 2025 and thereafter

In addition, the renewable energy estimates do not count existing hydropower generation.

3. WHY DO STATE GOALS VARY SO MUCH FROM STATE TO STATE?

The proposed goals vary by state because each state’s underlying energy mix in 2012 was different. It is important to understand the goals are end-point goals, based on what EPA determined was achievable for the state, rather than simple reductions from a 2012 “baseline.” EPA is not mandating that the states use a specific combination of the four building blocks to reach their goals—EPA has given the states the flexibility to decide how to use the building blocks to achieve the target.

4. HOW MUCH DOES THE STANDARD REDUCE EMISSIONS AT THE NATIONAL LEVEL, AND HOW DOES THAT STACK UP AGAINST OUR GOAL OF 17% EMISSIONS REDUCTION BY 2020 COMMITMENT THAT PRESIDENT OBAMA MADE AT THE COPENHAGEN CLIMATE NEGOTIATIONS IN 2009?

The standard proposed is for the electric sector of the economy only and the 17% Copenhagen commitment is for reductions across the entire economy. The regulation of power plants is not the only tool available to the President to meet our nation’s global commitment. That’s why President Obama’s Climate Action Plan is so important for reaching the larger climate goal, which is why we are also pushing for implementation of the remaining pieces of the Administration’s plan.

The electric sector needs to reduce emissions 35-40% below 2005 levels by 2020 to do its share needed to achieve the 17% economy-wide goal and we will be advocating more stringent emissions reductions. While we know this standard does not achieve that target, the framework that EPA developed can support much more stringent state goals, and we will be advocating more aggressive reductions.

Nationally, EPA projects that the strongest version of the standard will reduce power sector carbon emissions as follows, from 2005 levels: 27% by 2020, 29% by 2025, and 30% by 2030. The US has already reduced emissions by 12-15% from power plants since 2005. While the overarching emission reduction estimates for this rule do include reductions from 2005-2012, the actual state-based goals were derived based on each state’s energy mix and potential for emissions reductions as of 2012, the most recent year for which EPA had data.

EPA is only using 2005 carbon pollution levels to illustrate
the pollution reductions that can be achieved with the standard by 2030. It is important that we do not call the 30% by 2030 a “target”—it is simply a modeled calculation of what the standard can do in terms of emissions by 2030. It is also important that we focus on the 2020 estimate showing that the standard will achieve 27% reductions in 2020 below 2005 levels.

5. How Much Time Do States Have To Comply, And What Do We Think About The Timeline?
States are supposed to create their state implementation plans (SIPs) by June 30, 2016, thirteen months after the standard is finalized. They can request a one-year extension if they are doing individual state plans, or two years if they are part of a multi-state plan. To get that extension, states will have to submit an initial plan by the 2016 deadline, and EPA must find that the extension is justified. Once states submit their final plans, EPA will review them and determine, within 12 months, whether or not to approve the plans through a notice-and-comment rulemaking process.

States are scheduled to begin complying with the rule in 2020 and fully implement it by 2030, with a requirement that states must achieve certain reductions from 2020 to 2029 (what EPA calls the “interim goal”). We will be able to litigate if states do not meet the emissions reduction schedule set forth in their state plans necessary to meet either the 2030 goal or the interim goal.

6. What Does The Standard Mean For Natural Gas And Nuclear Power?

**Natural gas:** EPA set the standards for several states using the four building blocks. In applying building block 2, EPA assumed that generation could shift from coal to natural gas in states that have underutilized existing gas power plants. **While EPA applied the building blocks to set the state’s performance standard, the agency is not requiring states to meet the standard by using these building blocks. EPA has given the states the flexibility to use their own mix of emission reduction strategies, from within or beyond the building blocks.** Therefore, states are not required to use all of their underutilized gas to comply; they have MORE incentive to use renewables and demand-side energy efficiency rather than gas because these are zero-emitting sources. Renewables and energy efficiency can result in larger emission reductions (per megawatt hour) than does natural gas. Furthermore, because EPA acknowledged that renewables and energy efficiency can result in more potential reductions than EPA is assuming, we will be able to make the case in many states that switching to renewable energy and energy efficiency can achieve more of the reductions necessary to comply with the state goal. The rubber will meet the road in state plans, and the Sierra Club will advocate for state plans that reduce fossil fuel use across the board.

**Nuclear:** The Sierra Club is working toward the systematic phase out of aging nuclear plants, and opposes construction of new nuclear generation. The standard assumes that five nuclear units currently under construction in Georgia, South Carolina, and Tennessee are built and the resulting CO2 emission reductions are reflected in the performance standard. EPA also proposes that the emission reductions resulting by retaining in operation 6% of each state historical nuclear capacity be factored into the state goals for the respective states, calling this percent of the nuclear fleet “at risk.” Sierra Club will urge states to look first to cost-effective energy efficiency and renewable energy, as well as other cost-effective carbon reducing strategies to minimize if not eliminate the need to subsidize aging nuclear plants that are no longer competitive.

7. What About Workers And Communities Affected By The Transition Away From Coal Power?
The Clean Power Plan will help strengthen our economy. Done right, making America’s power generation more efficient will create thousands of new jobs in construction, manufacturing, and other sectors. Our belief is that states can and should craft comprehensive implementation plans that will result in net job creation across the country and ensure a fair and just transition if and when power plants are retired. We will continue to engage workers, communities, and elected and business leaders to ensure that appropriate resources are available to make this happen. A fair and just transition means direct support for workers by providing wages, benefits, training and education. It also means providing communities with resources to re-develop and diversify economically and create good-paying jobs.

8. Does The Standard Require A State To Use Trading Or Offsets?
EPA is taking comment on whether to allow credit from sources outside the electric sector including industrial heat and power, and carbon sinks. Sierra Club does not believe offsets outside the electric sector should be allowed for compliance with the standard. The plan allows states to opt-in to interstate trading programs but does not require
a state to use trading. Sierra Club will continue to work with environmental justice advocates and communities disproportionately affected by pollution to ensure these standards reduce pollution in all communities. We must ensure that affected communities are engaged throughout the process. Sierra Club will work to ensure that the plan protects the most vulnerable communities, and that they have meaningful input in the standard setting process. As some communities are affected by numerous sources of pollution, EPA should ensure that this standard and state programs do not exacerbate these impacts.

9. DO WE RECOMMEND A MASS-BASED APPROACH OR A RATE-BASED APPROACH FOR STATE IMPLEMENTATION PLANS?

At this time, we are still evaluating the advantages and disadvantages to each approach. In our state-level advocacy, we will push for state implementation plans that achieve the greatest amount of emission reductions and the greatest investment in renewable energy and energy efficiency. In some states, this may entail a rate-based plan, while in others it may entail a mass-based plan. As we continue with our analysis of the rule, we will further refine our position on rate-based versus mass-based emission standards.

10. HOW DOES THE STANDARD TREAT THE SALE OF RENEWABLE ENERGY CREDITS BETWEEN THE STATES?

EPA is taking comment on how renewables are counted towards compliance. The proposal notes that there may be benefits to using the format of current renewables tracking mechanism (renewable energy certificates, or RECs) and is assessing the opportunity to expand renewables and credit them on a regional basis with EPA oversight.

11. WHAT IS OUR POSITION ON GROUPS OF STATES THAT WANT TO TAKE A REGIONAL APPROACH?

As noted, we will be advocating for a stronger standard that collectively reduces emissions by more than 25-30% below 2012 levels by 2020 (equivalent to 35-40% below 2005 levels). These expected emissions reductions are nationwide, so we would need to make relevant adjustments under a proposed regional plan.

If some states commit to develop a multi-state plan, the plan should be structured in a way that there is a penalty for backing out at the end. If the state is considering a trading plan, we need to be especially sensitive to environmental justice issues and affected communities. You should identify any plants in the region that are high EJ priorities. Special safeguards may be needed to ensure that pollution at those plants does not increase as the result of the 111(d) plan (or that other types of safeguards/resources are provided, with input from the EJ community).

Another important issue to bear in mind with regard to a regional compliance option is that (as discussed in question 8 above), EPA will not permit states to use offsets from emission reductions achieved outside the electricity sector. Because we expect the RGGI states to adopt a multi-state plan, those states will need to modify their program in a way that would ensure that the region meets its target without the use of out-of-sector offsets.