



Greenhouse Gas Regulations Frequently Asked Questions

Explain EPA's proposed greenhouse gas rule for existing power plants.

On June 2, 2014, EPA issued a proposed rule (known as the Clean Power Plan) which would reduce nationwide CO₂ emissions rates from power plants 30% by 2030 from 2005 levels. It is one of the farthest reaching and complex rules ever proposed. It fundamentally affects every business and individual consumer and alters how electricity is generated and used in the United States. The proposal essentially sets the nation's electricity policy for decades.

How did EPA come up with the nationwide 30% reduction requirement?

In order to achieve the 30% nationwide reduction as directed by the President, EPA established CO₂ emissions rate goals for each state by using four "building blocks." The four building blocks are (1) making coal plants more efficient, (2) using existing natural gas combined-cycle plants more and existing coal plants less, (3) increasing the use of nuclear and renewable energy and (4) decreasing energy usage through consumer energy efficiency.

The first building block (making coal plants more efficient) is the type of requirement that is often referred to as "inside the fence" because it is based on actions taken to reduce emissions from a specific generating source. EPA has used an "inside the fence" approach for all of its rulemakings prior to this one. EPA believes this building block could reduce CO₂ emissions by 6%.

Building blocks two, three and four are considered "outside the fence" because they involve actions required beyond a particular plant. EPA's use of "outside the fence" methods for the remaining reductions is unprecedented and allows EPA to set much more stringent standards.

Will EPA's proposed rule have a significant impact on climate change?

Ultimately, the impact of the proposed rule on climate change is uncertain. Climate change and carbon emissions are global issues. Even if all coal plants in the United States were immediately closed, it is estimated that worldwide CO₂ emissions would be back to current levels in about a year. Unless countries such as China and India, for example, also commit to significant CO₂ reductions, it is unlikely there will be any measurable climate benefit from EPA's proposal. In the week following EPA's announcement of the proposed rule, the leaders of fossil-rich nations, Canada and Australia, reinforced their position that they would not enact policies to fight climate change if they presented any danger to their respective economies.

What has been the experience of other countries that have made significant shifts from traditional to renewable generating resources?

Germany, as an example, adopted aggressive plans to replace coal and nuclear generation with wind and solar. The result has been skyrocketing electric rates. And, it has done little to reduce carbon emissions. While the average residential electricity rate in the United States is about 12 cents per kilowatt hour, German homeowners pay two to three times that amount. In October 2013, Forbes reported Berlin residents were paying the highest electric rates in Europe at 40 cents per kilowatt hour.

In a September 2013 article titled “How Electricity Became a Luxury Good”, the German news magazine Der Spiegel noted “Germany’s aggressive and reckless expansion of wind and solar power has come with a hefty price tag for consumers, and the costs often fall disproportionately on the poor.” The article goes on to detail how German energy policy has led to numerous irrational unintended consequences. Chief among these has been the burden on low-income residents who simply cannot afford to pay their electric bills. Meanwhile, German electric utilities are desperately trying to keep both cost and reliability in balance, while remaining viable amid irrational policies that have left them with stranded assets. Power plants with many years of remaining economic life have been shut down or steeply curtailed due to arbitrary government decisions.

What are Hoosier Energy and the member systems doing to support clean energy and reduce greenhouse gas emissions?

We support a power supply mix that balances reliability, cost and environmental concerns—an “all-of-the-above” approach—because all three issues are important and focusing on any one to the exclusion of the others doesn’t provide the best result. While individuals may be on either extreme of the carbon debate, the availability and affordability of energy are greater concerns than climate change for power network members overall (based on a July 2014 Climate Change survey).

Without being “regulated” to do so, Hoosier Energy and the member systems have taken several significant actions because they were the right thing to do. In 2002, Hoosier Energy’s 1,250 MW resource portfolio was 100% owned coal. Today, our 2,100 MW resource portfolio is 58% coal (11% of which is scheduled to be idled in 2015), 31% natural gas, 2% renewable and 9% purchased.

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Also, Indiana does not have a renewable portfolio standard; however, Hoosier Energy voluntarily adopted a renewable energy program in 2006. The program targets supplying 10% of member requirements from renewable resources by 2025. Similarly, in 2008 Hoosier Energy voluntarily adopted a demand-side management/energy efficiency program which targets a 5% reduction in member demand and energy by 2018.

Overall, the State of Indiana reduced carbon emissions by 11% from 2005 to 2012—before EPA proposed its rule—yet EPA takes credit for these voluntary reductions in its claim that *“Nationwide, by 2030 the Clean Power Plan will help cut carbon emissions from the power sector by 30 percent from 2005 levels.”*

When does the new rule take effect?

EPA intends to issue a final rule late summer, 2015. States will then have one to two years to develop implementation plans, or if they collaborate on multi-state plans, they are allowed up to three years. So in some states it may take until June 2018 to fully understand what compliance with this proposal will mean. The proposal requires significant reductions beginning in 2020.

How will the proposed rule impact the reliability of the electric grid?

The reliability of the nation’s electric grid is of critical importance. The Polar Vortex of 2014 brought to light the importance of coal generation and the vulnerabilities associated with reliance on natural gas generation in a very real way. This past winter saw periods when natural gas was either not available for electric generation or was incredibly expensive.

The Midcontinent Independent System Operator (MISO) operates one of the world’s largest energy markets and manages reliability for a 15-state region, including Indiana, and the Canadian province of Manitoba. MISO indicates that the generation fleet in its footprint is being affected by timing, fuel prices and multiple phases of environmental regulations, including the proposed Clean Power Plan which will continue to put pressure on reserve margins and will increase dependence on natural gas. MISO concludes “These factors will culminate in the erosion of reserve margins and an increase in reliability risk.” MISO’s initial analysis of the proposed rule finds that compliance is expensive at an estimated \$80 billion and that the compliance timeline significantly challenges resource adequacy.

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What will be the cost of the proposed rule?

We are very concerned that the proposed rule will result in prematurely closing coal plants placing financial burdens on cooperative consumers that own them. Many of those plants, including Hoosier Energy's Merom station, were built when our national policy was encouraging the use of coal as a domestic resource. We have invested hundreds of millions of dollars since then upgrading Merom. By 2018, Hoosier Energy will have reduced sulfur dioxide and nitrous oxide emissions by 93% from 1983 levels. Forcing plants such as Merom to restrict operations or prematurely shut down is an unreasonable and unjustifiable outcome.

There are so many significant unknowns surrounding the proposed rule right now that no one is able to make a credible estimate as to what this rule may cost. The State Utility Forecasting Group (SUFG) in Indiana already predicted a 30% increase in electricity rates from other recent EPA regulations. The SUFG is presently studying the expected impact of this proposed regulation, and it will no doubt find that rates will increase even more. NRECA estimates that cooperatives across the country could see increases of 27% by 2025. As information becomes available that make it possible, we are committed to sharing information with members as soon as practical.

What can I do about this?

It's important to let your legislators know about concerns that co-op members have on costs, reliability and jobs.

Are all state goals the same?

No, the goal for each state is different. EPA's proposed goals are based on a consistent national formula, calculated with state and regional specific information about what states and utilities are already doing to lower carbon emissions. Tom Easterly, Commissioner, Indiana Department of Environmental Management recently testified before the U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Energy and Power that *"Indiana will be significantly impacted by EPA's proposed 111(d) regulations because we are the most manufacturing intensive state in the U.S. More than 80% of Indiana's electricity is currently produced by coal, and we have a 300 year supply of coal in our State. 28,000 Hoosiers are employed in the coal industry...IDEM's mission is to protect Hoosiers and our environment. In examining how the proposed 111(d) regulations further our mission, I have come to the conclusion that this proposal will cause significant harm to Hoosiers (and most residents of the U.S.), without providing any measurable offsetting benefits."*



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How many Indiana jobs are impacted by the proposed EPA existing plant rules?

The Indiana Chamber of Commerce estimates that up to 300,000 Hoosier jobs would be impacted by the proposed EPA rules. Indiana is the 8th largest producer of coal in the country, and many mining-related jobs primarily in southern Indiana would be lost. Other job losses would occur as manufacturing and other energy-intensive entities would see significant increases in electric bills, driving those jobs to other states or countries.

Does EPA's recent extension of the comment period give utilities more time to comply with the new rule?

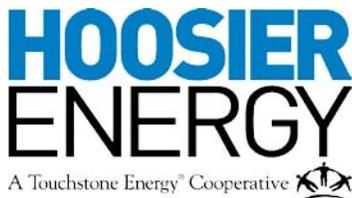
No. EPA extended the public comment period for an additional 45 days to December 1, 2014, however, EPA still plans to issue a final rule in late summer, 2015 and none of the proposed compliance dates have been extended.

Does the 15-year period between now and the 2030 compliance date give utilities adequate time to come into compliance with the proposed rule?

No. Utilities are required to meet an interim goal for 2020 through 2029 and the final goal in 2030. The interim goal would essentially require Indiana to achieve 80% of the state's 2030 goal beginning in 2020, which is just five years away. Five years does not provide adequate time to implement any of the four building blocks proposed by EPA.

EPA states that the proposed rule will decrease consumer electricity bills by 8% in 2030. How accurate is EPA's estimate?

Underlying EPA's statement that electricity bills will be 8% lower is the assumption that Indiana consumers will use 5% less electricity in 2030 than they did in 2012. An analysis by the Midcontinent Independent System Operator (MISO) on September 17th suggests that applying EPA's building blocks to achieve the required carbon reductions across MISO's 15-state footprint would cost 2 ½ times more than EPA estimated in their proposed rule. Additionally, neither EPA nor MISO analyzed or included costs needed for transmission upgrades or new gas pipeline infrastructure to support a significant shift in the region's electricity supply from coal to natural gas and intermittent renewable resources.



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What is happening with the EPA Clean Power Plan?

The comment period on the proposed Clean Power Plan for existing plants ended Dec. 1, 2014, with the media reporting that over 1.6 million consumer comments were received by the EPA. Of those, Indiana co-ops generated 90,000 comments urging the EPA to find a common sense solution that doesn't effectively remove coal from power supply choices.

Briefly describe comments submitted by Hoosier Energy

Our response questions the EPA's legal authority to enact its proposal and challenges the assumptions behind EPA's four Building Blocks and offers an alternative approach to meet greenhouse gas reductions. Hoosier Energy provided leadership in organizing the G&T Fossil Group and developing comments for that group, NRECA, MISO and IEC.

Describe the comments submitted from other utilities and trade associations

Duke Energy and Vectren echoed our comments, saying the EPA overstepped its authority with the proposed rule. Duke commented that the EPA cannot establish standards for plant performance and that the demand side management target was illegal.

Among cooperatives, Arkansas Electric Cooperative Corporation and Southern Illinois Power Cooperative followed NRECA's lead in characterizing the proposed rule as illegal, imprudent and impossible to implement. The American Public Power Association agrees that utilities need to reduce emissions but cautioned about trying to do "too much too quickly."

Describe Indiana's comments submitted to the EPA

The State of Indiana, through the Indiana Department of Environmental Management, the Indiana Office of Energy Development, the Indiana Office of the Consumer Counselor, the Indiana Utility Regulatory Commission and the Indiana Department of Natural Resources, submitted consolidated comments. The State strongly opposes the plan, saying the rules are ill-conceived, poorly constructed, illegal, and should be withdrawn for the following reasons:

- EPA lacks legal authority to regulate beyond the power plant;
- The emission standards are impossible to meet;
- The proposed plan threatens reliability; and
- The plan hurts the US economy.

Along with 10 other states, Indiana has already filed a lawsuit challenging the proposed plan.



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Describe the comments submitted by Illinois

The state of Illinois favors the Clean Power Plan with some modifications and clarifications. A group of state environmental agency leaders and public utility commissioners from 14 states including Illinois applauded EPA's proposed rule and said more could be done to achieve meaningful reductions.

Describe the comments submitted by the Sierra Club and other environmental groups

The Sierra Club supports the EPA's proposed plan, saying the combination of the four Building Blocks is cost-effective and technically achievable. The organization prefers to have emissions reductions occur on a quicker schedule than the EPA proposes. Earthjustice supports the Plan saying "global climate change is the biggest environmental, social and political challenge of our time."

Is the proposed rule legal?

Critics argue the proposed rule is unprecedented and the federal agency is violating states' rights by issuing goals that can't be met. They say EPA doesn't have jurisdiction to force states to comply with the required cuts.

Supporters of the rule say EPA carefully constructed the Plan with strong legal foundation, taking into consideration years of precedents affirming the agency's right to regulate greenhouse gases. They say the standards for cutting emissions are based on proven methods that the energy industry has pursued around the country.

What is clear is that challenges to the Clean Power Plan will end up in court.

What is the timeline for legal challenges to EPA's proposal?

The timeline for federal and state legal challenges will coincide with key deadlines for the Clean Power Plan:

- Late summer, 2015-Clean Power Plan finalized by EPA
- June 2016-17-First State plans due
- June 2017-18-Multi-state plans due
- 2015-2019-Litigation and legal challenges on final rule and EPA approval or denial of state plans.

What options do the states have as they prepare their compliance plans?

States have three options:

- Submit a fully compliant implementation plan. Once EPA approves, the state would be required to fully meet emission reduction targets since the state voluntarily adopted those targets.
- Submit no plan. EPA will then issue a federal implementation plan that the state may not like. The state would need to comply even if the federal rule is being challenged in court.
- Submit a plan that only applies to heat rate improvements (Building Block #1). This strategy allows a state to claim a basis for compliance while legal challenges to the Plan play out in court.

What was the outcome of the UN Climate Change Conference held in December?

U.N. Secretary-General Ban Ki-moon urged leaders at the United Nations Climate Change Conference held Dec. 1-12, 2014, in Lima, Peru, to increase momentum toward a new universal treaty that fully tackles the impacts of man-made climate. His urging fell on deaf ears as delegates salvaged a weak emissions reductions agreement which barely keeps hopes alive for a meaningful global agreement next year in Paris.

Post-2020 targets are likely to take center stage when global climate negotiators meet in Paris in December 2015.

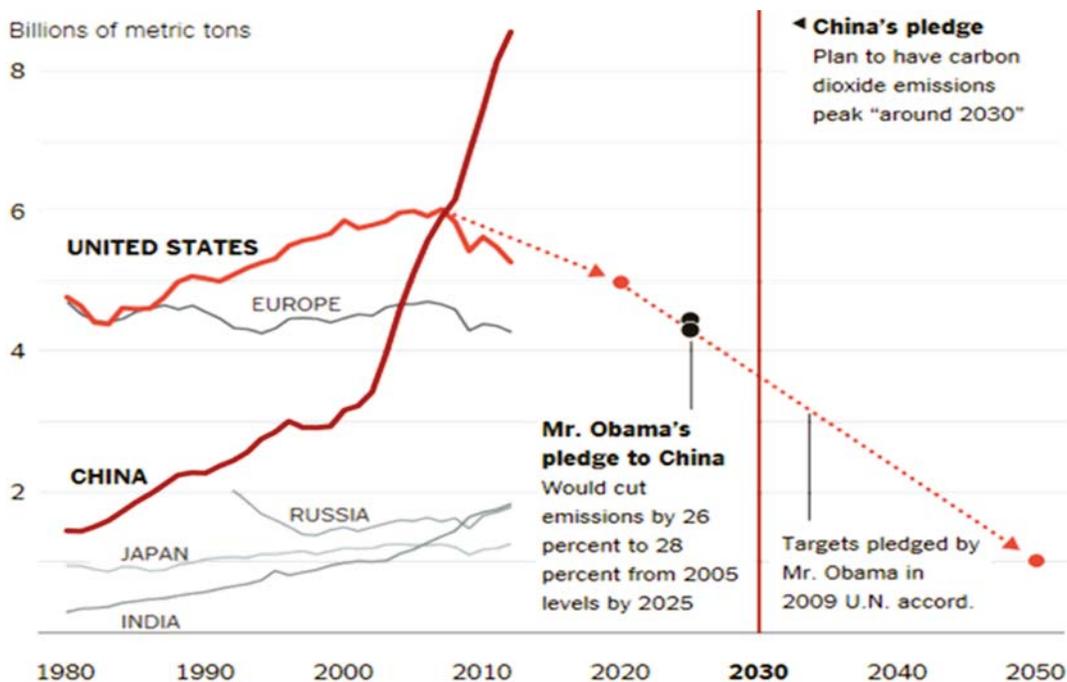
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What else is happening globally on climate change?

In November, China and the United States – the world’s two largest carbon emitters – made headlines when they agreed to limit greenhouse gases. China, until now unwilling to join climate change efforts, agreed to cap carbon emissions by 2030 and at the same time increase use of non-fossil fuels by 20 percent.

For its part, the United States unveiled a plan for deeper U.S. emissions reductions through 2025, targeting a 26 to 28 percent reduction below 2005 levels.

Some argue the agreements send an important message that both countries are serious about enforcing climate change mandates. But others say the agreement is unrealistic and will lead to higher energy prices in the U.S. Also note that China’s agreement to stop increasing emissions by 2030 is hardly a match for the U.S. commitment to make even deeper reductions by 2025.



Sources: Energy Information Administration (historical emissions); World Bank (population); BP Statistical Review of World Energy, June 2014 (energy sources)
Climate Goals Pledged by China and the U.S., New York Times November 12, 2014



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EPA's proposed Clean Power Plan (CPP) rules will likely be challenged in court. Why is it important for cooperatives to remain engaged in other fronts on this proposed rule?

EPA is considering all the comments it has received and is working towards a final rule and federal implementation plan. States have already filed lawsuits to challenge the CPP. When the EPA issues its final rules later this summer, we can expect additional challenges as to the legality and “reach” of the EPA.

Cooperatives need to remain vigilant on this rule on all fronts. Under the proposed rules, individual states must develop implementation plans or be subject to federal implementation plans from EPA. Even as legal challenges play out in court, states are active in developing their implementation plans in case the CPP passes legal and political challenges. Consumer voices need to be heard as states develop their plans to preserve our ability to provide reliable electric service at reasonable costs.

Public opinion will influence federal and state plans and cooperatives have the opportunity to keep consumers informed on rate and reliability impacts caused by the CPP. It is important to communicate your cooperative's position on the CPP and encourage members to voice their concerns.

Briefly describe the alternative Hoosier Energy offered in its comments to the EPA.

Hoosier Energy's alternative recognizes remaining useful life of existing generation resources. Units online before 1978 would be phased out in 2030 and those online starting in 1978 would phase out in 2050 unless they meet new source performance standards. Pre-1978 units that added significant upgrades to pollution control equipment since 2003 could be considered with the units from 1978 and beyond.

This alternative recognizes that billions of dollars have been invested by the industry in recent years to comply with multiple EPA regulations with expectations of 33 years or more of continued operation. The alternative reduces the burden on consumers to pay for these investments and new replacement generation at the same time. The alternative design is also consistent with DOE timelines that consider more advanced and cost effective carbon capture technologies that may be developed beyond 2035.



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What feedback has Hoosier Energy received regarding its alternative plan?

Hoosier Energy met with EPA staff on February 2, 2015 to present its alternative plan. While it is impossible to predict whether the EPA will adopt some or the entire alternative plan, EPA seemed interested in its simplicity and its 2030 impact on CO₂ reductions. Ongoing conversations between the EPA and Hoosier Energy staffs allow us the opportunity to influence the final rulemaking.

Hoosier Energy has distributed its alternative plan to the G&T and Midwest-based IOU utilities in an attempt to drum up support to this plan. Responses to this effort have generally been slow in coming but Hoosier Energy remains committed to advancing the plan. Hoosier Energy continues active engagement with the Governor's office as the state develops its implementation plan required by the EPA proposal. It is Hoosier Energy's view to be proactive in advancing an alternative plan with various stakeholders to ensure reasonable future rates and continued reliability of the grid.

An early March meeting with Illinois statewide and other G&Ts provided Hoosier Energy the opportunity to present the alternative plan. The simplicity and viability of our alternative was voiced from participants.

The Illinois EPA spoke positively about the proposed alternative. IEPA urged Hoosier Energy to share the plan with other Illinois stakeholders and characterized the plan as a "straightforward approach" to meet EPA CO₂ reduction goals.

While the Indiana Department of Environmental Management (IDEM) has been very clear in its opposition to the proposed Clean Power Plan, they supported our alternative in recent meetings. IDEM urged Hoosier to seek support from other Indiana utilities and suggested contacting the Indiana Chamber of Commerce and Indiana Manufacturing Association to share our proposal.