

Clean Air Planning Act – Common Questions and Answers

Question: What are the pollutant caps and how were they developed?

Answer:

- The pollutant caps and timetables were developed to provide significant environmental benefits in an economically feasible manner.
- The initial timetables for each of the pollutants are meant to require industry to take action while still having enough time to plan compliance decisions.
- The later targets seek additional reductions based on reasonable expectations about emissions reduction technology costs and capabilities.
- The pollutant reduction targets and timetables are designed to be feasible and cost-effective, considering the current status of emissions control technology development and the option of using allowance trading as a compliance method.
- All reductions constitute a significant cut in emissions from today's levels, locking in the most significant air quality benefits in over a decade.

NO_x

- The caps on NO_x are 1.87 Mtons in 2009 and 1.7 Mtons in 2013.
- The available technology is relatively low cost and reductions sought by the proposal will reduce a variety of environmental concerns, including some of the nation's most pressing, such as smog and reduced visibility.

SO₂

- The SO₂ reduction targets are 4.45 Mtons in 2009, 3.5 Mtons in 2013, and 2.25 Mtons in 2016.
- The levels achieved will significantly reduce sulfur emissions and achieve substantial human health benefits. The legislation will provide real improvements in visibility at many of the nation's most impacted areas, such as our national parks, and improve air quality in many of our most at-risk communities. It will also result in substantial improvement in visibility and reduce the number of waterbodies plagued by acid rain

Hg

- The mercury cap levels are 24 tons in 2009 and 10 tons in 2013.
- The facility-specific reduction targets are 50 percent reduction from coal or annual emission rate (TBA) by 2009, and a 70 percent reduction from coal or annual emission rate (TBA) by 2013.
- Mercury contamination in the nation's waterways is a serious problem, placing at risk women of child-bearing age that consume fish.

CO₂

- The CO₂ provisions create a market-based approach to mitigate CO₂ emissions from the power sector by limiting emissions of CO₂ in 2009 to levels that were emitted in 2005 (to be established using EIA forecasted data) and limiting levels in 2013 to levels that were emitted in 2001.

- The targets and compliance provisions selected recognize that there is currently no technology commercially available to remove CO₂ from the stack at a reasonable cost. The program is designed to provide the necessary incentives and signals to gradually move the power sector to lower carbon-intensity.
- We have heard from many state regulators that if inaction continues at the federal level, they will feel compelled to begin to address climate change at the state-level. We have already seen this occur in several states, with many more contemplating state action.
- Flexibility mechanisms assist us in achieving emissions reductions in an economic manner.

Question: What are the economic advantages of a multi-pollutant strategy?

Answer:

- A multi-pollutant strategy will create a stable environment for capital investment by providing relatively long-term certainty about the industry's future emission reduction obligations.
- A piecemeal pollutant-by-pollutant approach to emissions reductions is costly and inefficient. Power producers must make expensive control decisions for some pollutants without knowing the requirements that will apply to other pollutants – or even to the same pollutants in the near future.
- An integrated strategy would allow electricity generators to optimize their pollution control decisions.
- Business and markets prefer certainty. A multi-pollutant strategy for emissions reduction, with a safe harbor for any future federal regulation for a defined period of time, will create a stable environment for capital investment by providing relatively long-term certainty about the industry's future emissions reduction obligations.
- With a clear understanding of future compliance obligations, companies can target investments in new and existing electric generation capacity to reduce emissions and enhance electric system reliability. Using a market-based approach to meeting these reductions, companies can optimize emission reduction strategies across their entire portfolio.

Question: How do the pollutants covered in this legislation affect public health and the environment?

Answer:

- The substantial reductions in SO₂, NO_x, mercury, and CO₂ that will occur under the legislation will give rise to a host of benefits to human health and the environment.

Health Effects

- SO₂ and NO_x emissions from power plants contribute to the creation of smog and fine particulate matter, exposure to which has been linked to respiratory and cardio-pulmonary related illnesses and premature death.
- Exposure to fine particulate matter has been linked to various human health effects including premature mortality, development of chronic respiratory disease, hospitalizations and emergency room visits for cardiovascular and respiratory illnesses, aggravation of asthma, and respiratory-related symptoms in adults and children.

- Not only will reducing emissions of these pollutants reduce these occurrences of these health effects, but it will also help to control rising health care costs by reducing the need for emergency room visits, reducing the need for the purchase of asthma fighting drugs, and shortening or eliminating some hospital stays.
- Mercury is a neurotoxin that accumulates in the body. Several states have issued warnings to anglers about the consumption of mercury-tainted fish. Pregnant women and people that rely on fish for subsistence are particularly at risk.

Environmental Benefits

In addition to the major health benefits that would be derived from 4-P legislation, there are a number of environmental benefits that will occur as well, including:

- recovery of acidified waters from acid deposition and restoration of fish and other aquatic organisms;
- recovery of high elevation forests that are being adversely affected by acid deposition;
- reductions in damage to buildings, monuments, and cultural resources from acid deposition;
- reductions in regional haze, which significantly reduces visibility in wilderness and other areas where aesthetical factors are important;
- reduction in harmful nitrification of many of our important waterways;
- reduction in number of waterways that have warnings related to fish consumption due to mercury contamination; and
- reductions in the build-up of CO₂ emissions in the atmosphere that contribute to climate change.

Question: Why does the legislation employ a cap-and-trade approach?

Answer:

- The legislation takes a market-based approach to mitigating these emissions.
- This is a proven approach, as seen in the current Acid Rain program, where the amount of targeted reductions was exceeded, the cost of the program was several billion dollars less than contemplated, and the predicted job losses were not realized.
- This approach delivers assured environmental benefits and takes advantage of market forces to minimize compliance costs. Trading directs capital to the least-cost control opportunities and minimizes total pollution abatement costs across all regulated sources.
- Emissions trading provide an incentive for the technological advancement of pollution control technology. Sources that are able to over-control are rewarded because they can sell the excess allowances they generate.
- Trading and banking of allowances foster innovative compliance solutions by allowing a full range of compliance options, from technical to operational strategies.
- Achieving emissions reductions through this type of approach allows regulated sources the flexibility to choose the manner in which they comply with the caps.

Question: What are flexibility mechanisms in the CO₂ provisions and how are they used in this legislation?

- Flexibility mechanisms are devices that allow industry to receive credit for emissions reductions without achieving those reductions “on-system.” In other words, industry can choose their method of compliance by finding other methods of reducing total CO₂ emissions.
- The legislation proposes a host of CO₂ compliance options: early credit program, CO₂ allowance trading, domestic and international projects that effectively sequester carbon – through planting trees, saving forests, saving cropland or plains -- and credit for greenhouse gas reductions outside of the electric industry.
- This compliance flexibility will insure cost effective emission reductions and a smooth transition to a less carbon intensive electric generating fleet.
- Reducing overall CO₂ levels will involve a host of mechanisms, which may not involve reductions at the point of generation.
- Achieving a less carbon-intensive future should be a long-term goal, and the sooner we get started the better. Incentives for early CO₂ emissions reduction in the legislation address these circumstances.

Question: What does the legislation propose to do to New Source Review (NSR)?

Answer:

- As it applies to modifications of existing sources, NSR as it currently stands has few proponents in industry or in EPA. It is enormously unwieldy and expensive. EPA has been trying to reform NSR for a decade without success.
- Under the legislation, NSR would not be applicable to modifications as readily as it now is. On the one hand, industry would be agreeing under the legislation to the imposition of strict emission caps; on the other hand, industry would benefit from the relaxation of NSR requirements, which were supposedly designed to achieve these types of reductions.
- The legislation would revise the test for NSR applicability as it applies to modified sources. (Applicability for modifications at existing units is changed to an increase in the emission rate on a lb/Mwh basis.)
- At the heart of NSR is the provision that facilities that become subject to its requirements apply updated air pollution controls. In areas that are in attainment of Clean Air Act standards, this means Best Available Control Technology (BACT), the standard that is generally in use in new construction. In non-attainment areas, it means Lowest Available Emissions Rate (LAER), which prohibits consideration of cost factors and is thus more stringent than BACT. The legislation revises the definition of what constitutes BACT/LAER technology, such that clean sources would not be required to make disproportionately large investments in pollution control equipment to generate only small incremental emission reductions.
- Under the legislation, state and local agencies retain full-authority for managing the impacts of sources that undergo permitting