



New Anti-Smog Restrictions Could Warm Planet

by RICHARD HARRIS



Enlarge

David McNew/Getty Images

Smog shrouds the Los Angeles skyline. New ozone standards from the EPA aim to reduce smog, but may actually increase global warming.

January 25, 2010

text size **A A A**

The Environmental Protection Agency's proposal to tighten the ozone standard for smog will have an unfortunate side effect: Because of a quirk of atmospheric chemistry, those measures will hasten global warming.

There's no question that smog is a hazard that deserves attention. Lydia Wegman of the EPA says **the new ozone limits would have significant health benefits.**

Less smog means fewer asthma attacks, fewer kids in the hospital, fewer days of lost school, "and we also believe that we can reduce the risk of early death in people with heart and lung disease," she

says.

Here's the tough part: The way many states and localities will reduce smog is by cracking down on the chemicals that produce ozone. And those include nitrogen oxides, or NOx.

The Net Effect Could Make Global Warming Worse

But Jason West at the University of North Carolina in Chapel Hill says that **when you reduce NOx, you don't just reduce ozone; you change the chemistry of the atmosphere in such a way that you end up increasing the amount of methane in the air. And methane is a potent gas when it comes to global warming.**

"By reducing NOx, the net effect is you make global warming worse," West says.

In fact, you **could make warming a lot worse.** If you got rid of all NOx and a related sulfur compound, that action alone would be enough to increase the Earth's temperature by 2 degrees Celsius — and that's in the danger zone for the climate, according to many scientists and governments.

U.S. pollution control laws are moving us gradually in that direction. The EPA estimates that by 2020, when the ozone standard will start to make a real difference in air quality, the result would be the reduction of 4.3 million tons of NOx per year — a reduction in emissions of 33 to 40 percent.

"Europe's in very much the same situation we are," West says. "They're trying to control their ozone as well. So if they reduce their NOx and we reduce our NOx, suddenly we're talking about big numbers."

Finding A Holistic Approach To Air Quality Control

But Drew Shindell at NASA's Goddard Institute in New York City **cringes at the thought of simply leaving NOx in the atmosphere to counteract global warming.**

"I would have trouble with the ethics of ever saying people should be choking where these are being emitted because of the sake of global climate," he says.

Shindell argues that what's needed is a more holistic approach to the intimately linked problems of climate change and air quality. "I think we need to have policies which try to take into account both air quality and climate change. And traditionally, these have been entirely separate," he says.

In the case of smog, there's actually a fairly easy way to deal with this. West says it's true that reducing NOx will put more methane into the air, but it's not too hard to prevent emissions of methane from sources like coal mines or leaky gas pipelines.

"Reducing methane emissions looks like a pretty promising way," he says. "We know we can get some of those emissions reduced even at a cost savings. And we know it's good for climate and it's good for air quality."

To make the story even a little more twisted, methane actually reacts in the air to make ozone. The net result, then, is less ozone in urban areas, where it's worse, but a little bit more ozone spread around the world.

Fighting A Global Pollutant Requires Global Action

Unfortunately, unlike smog, which is a local problem and can be addressed with local measures, methane is a global pollutant. So the usual way of attacking air pollution, with local efforts, simply won't do the trick.

"If Los Angeles, for example, wanted to control its own methane, it would find that it would really have no effect" on air quality, says West.

So eventually, dealing with local air pollution will require global action. Lydia Wegman at the EPA says her agency is starting to move in that direction.

"We definitely think that integrating air quality and climate concerns is the best way to go," she says. And in fact, that idea is being considered in the next review of smog standards, which is now getting under way.

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Recent First



m fellion (michael1) wrote:

Perhaps, I should have added this. Climateaudit.org is not a book, it is not an opinion piece. It has the data used by Mann and company for the UN report. It is all there for you to look at. You will need a statistics book as the terms are not defined. You will have to look up the studies and understand what they are saying. When I looked I found the tree ring data was on only a small sample, actually went the wrong way in the 1990's to support global warming, the ice oxygen ratios depended on 4 samples which had numbers all over the place. The statistians smoothed the data using a number of assumptions and just left out data to arrive at global warming. NASA uses temperature data from one point in Canada for its artic pronouncements. In contrast the Canadians have hundreds of temperature measurement stations that NASA ignores. Why? is my question to NASA. The world may or may not be warming, in the 1970's the grey beards said it was cooling, the current crop say it is warming. It is very convenient for the eco freaks and have not countries to blame it on man made CO2 because that funnels vast sums to them. It helps fund scientist with their pet projects to jump aboard and ask for money. Are we lemmings, you decide.

Tuesday, January 26, 2010 12:04:42 PM

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m fellion (michael1) wrote:

Making fun of someone is not science it is just plain bad manners. If you want to look at the data go to climateaudit.org. See for yourself what was done to make it look like the planet was warming from man made CO2. As to this story the earth makes a lot of NO2 all by itself, without it we would be dead since it a requirement for plant life. If we got rid of man made NO2 over our country and the world the place would a lot healthier for everybody. As just a thought, why does anybody think the world is not in a natural warming phase? Just 11000 years ago glaciers covered NY. I believe Texans wouldn't mind if NY was covered in glaciers but the rest of us probably would mind. If you are really concerned move to some spot higher than 200 feet above the current sea level as that is the highest the sea level could rise if all the ice melted which was a natural conditions for most of earth's history.

Tuesday, January 26, 2010 11:48:57 AM

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Xiaosen Xie (theblackswan) wrote:

Tom Lanzilotta (TLanz):

Educate myself? What a laugh.

Have you read this book?

<http://www.amazon.com/Natural-Capitalism-Creating-Industrial-Revolution/dp/0316353000>

No?

Have you looked at data from NASA?

<http://data.giss.nasa.gov/gistemp/2008/>

Oh and if you don't believe in global warming? You're just as smart as Sarah Palin:

<http://blogs.abcnews.com/politicalradar/2008/08/palin-global-wa.html>

Enjoy, oh and what Loren Madegan (radical_dawg) said.

Tuesday, January 26, 2010 3:10:25 AM

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Loren Madegan (radical_dawg) wrote:

These people who claim that global warming is made up remind me of the people long ago who claimed that the earth is flat and if one sails too far they will fall off the edge.

Monday, January 25, 2010 7:10:46 PM

[Recommend \(13\)](#)

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Tom Lanzilotta (TLanz) wrote:

To add to what Xiaosen Xie said

Xiaosen Xie (theblackswan) wrote:

"Let's see how many different folks with zero education in the sciences try to tell everyone else that it's a total myth, or that it's a conspiracy to make conservatives cry."

If you are going to act like you know what you are talking about then please provide some supporting documentation or links. I have seen zero from all the naysayers. Here is a link to a great free book by David MacKay. It's called Sustainable Energy – without the hot air and it has a great section on global warming. Please educate yourself.

<http://www.withouthotair.com/>

Monday, January 25, 2010 4:26:42 PM

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Xiaosen Xie (theblackswan) wrote:

Avi E (Crimanimal):

No that's not true, there's the world wars where everyone agreed to kill everyone else!

Monday, January 25, 2010 4:15:14 PM

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Xiaosen Xie (theblackswan) wrote:

Ryan Holdor (landsmatter):

Hey genius, ever heard of sarcasm? I thought I made it pretty clear but I guess for some bright crayons I have to spell it out for them:

It was S-A-R-C-A-S-M!

Monday, January 25, 2010 3:58:24 PM

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Avi E (Crimanimal) wrote:

In order to fight global pollution, everyone has to do it. When, in the history of the world, has everyone agreed to do something together?

yeah...that's what I thought.

Monday, January 25, 2010 3:27:34 PM

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Sam Abadir (Sam_in_KC) wrote:

Why does NPR talk about global warming as if it was real and a fact. Since all the 'science' that has supported global warming has proven to be made up it is terribly irresponsible for policy to be made as if it was true. To follow on with this thought it would be terribly irresponsible for 'news' groups like NPR to talk about global warming as if it was a fact and as if it was as simple as the cause and effect we have here. trying to influence people with junk science is just wrong.

Groups with an agenda (like NPR) that takes advantage of the global warming bunk would be much better off to use part one of NPRs argument that these pollutants cause health problems or are just ugly. They lose credibility when they focus on global warming.

Monday, January 25, 2010 3:21:02 PM

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Your Government (DNCandRNC) wrote:

Eugene Carroll (Eugene_C) wrote:

"Now, I know a lot of regular people who were complaining about healthcare, but I hadn't heard anyone complaining about cap and trade except the energy companies."

Good point. A recent poll showed that "Climate Change" is one of the last concerns for Americans.

Monday, January 25, 2010 3:04:21 PM

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