

December 4, 2018

# The ABCs of Air Quality Regulation

Presented at the 2018 ACEEE Conference on Health,  
Environment & Energy

New Orleans, LA

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# Air quality regulation acronyms...

GHG  
SIP  
NSR  
NAAQS  
Pb  
SO<sub>2</sub>  
PSD  
NO<sub>x</sub>  
Hg  
BACT  
ozone  
nonattainment  
PM2.5  
RACT



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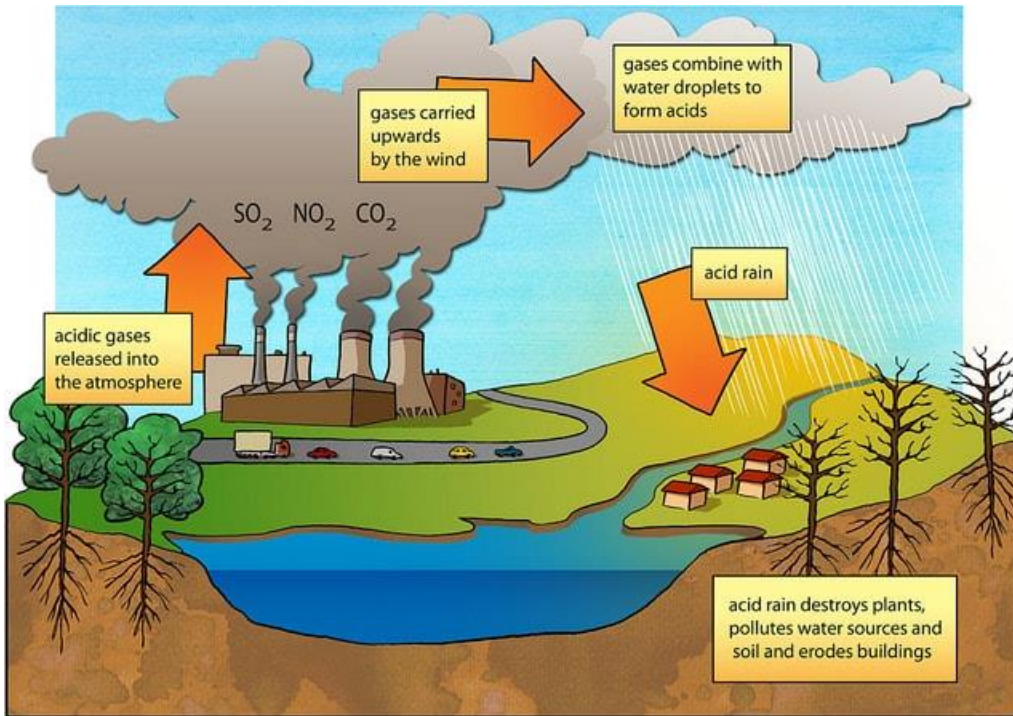
# Overview

- What are all those acronyms?
- Which pollutants matter?
- How does the regulation process work?
- What's the role of state and local agencies, and US EPA?
- Where can you make a difference?

# Which pollutants matter?



# Nitrogen Oxide impacts

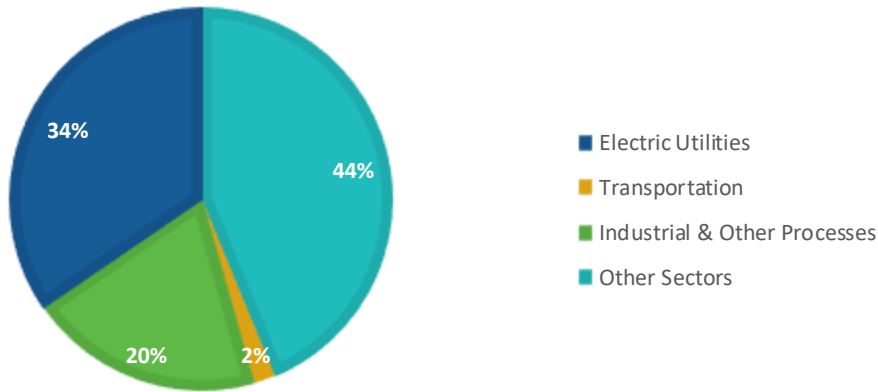


Source: flickr.com

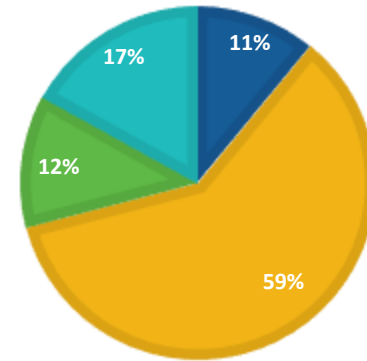
- Acid Rain and Transported Pollution
- Visibility Impairment
- Water Body Eutrophication
- Ground-level Ozone (Smog)
- Fine Particle Health Impacts

# US pollutants of concern

SULFUR DIOXIDE, 2017

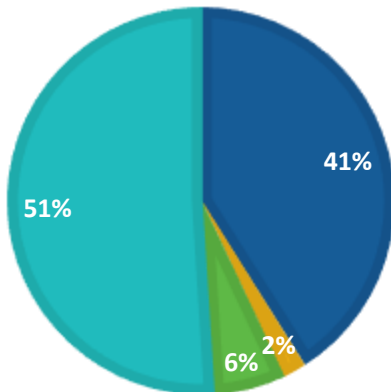


NITROGEN OXIDES, 2017



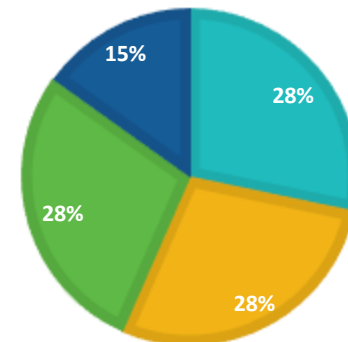
MERCURY, 2014

Utility Boilers Mobile Sources C&I Boilers/Heaters All Other Sectors

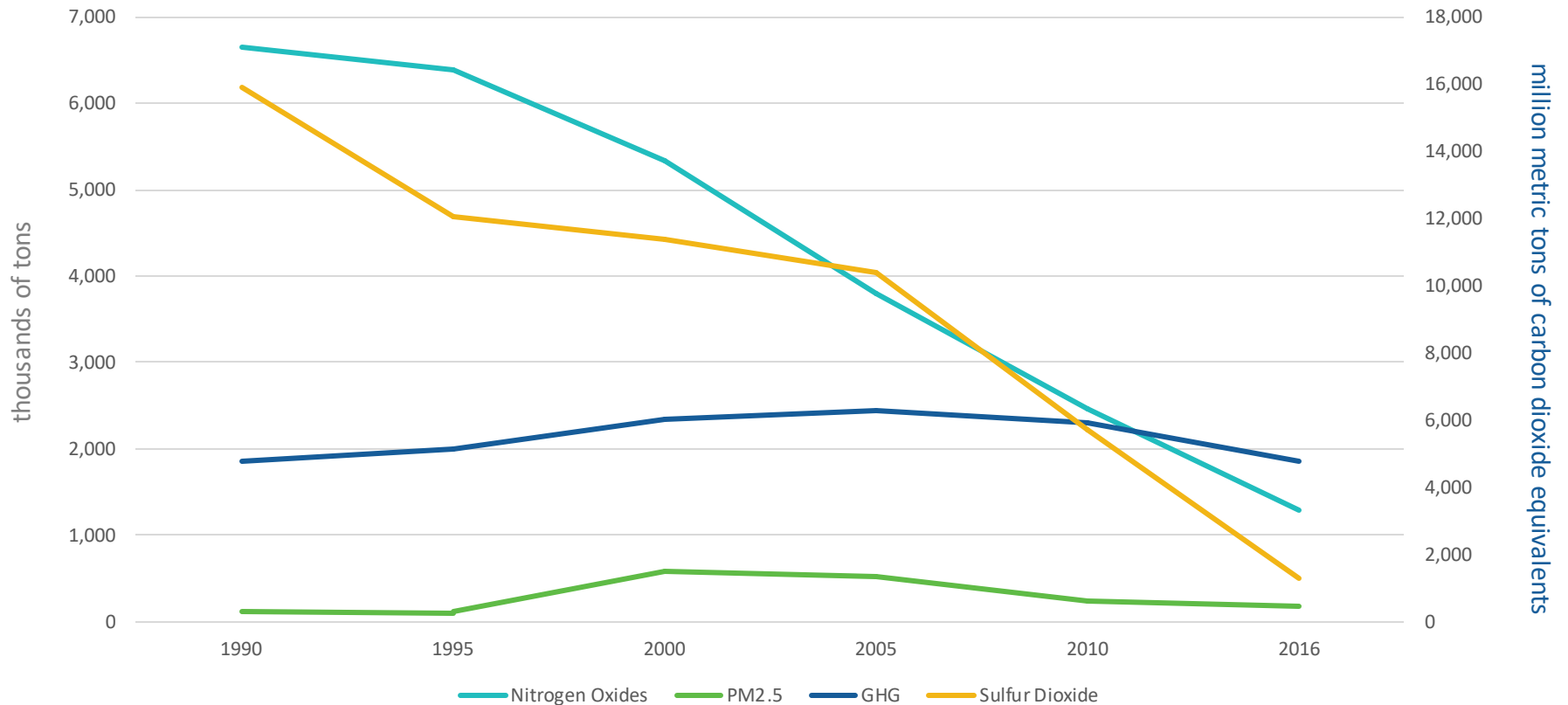


GREENHOUSE GAS, 2016

Electric Power Industry Transportation Commercial & Industrial Other Sectors

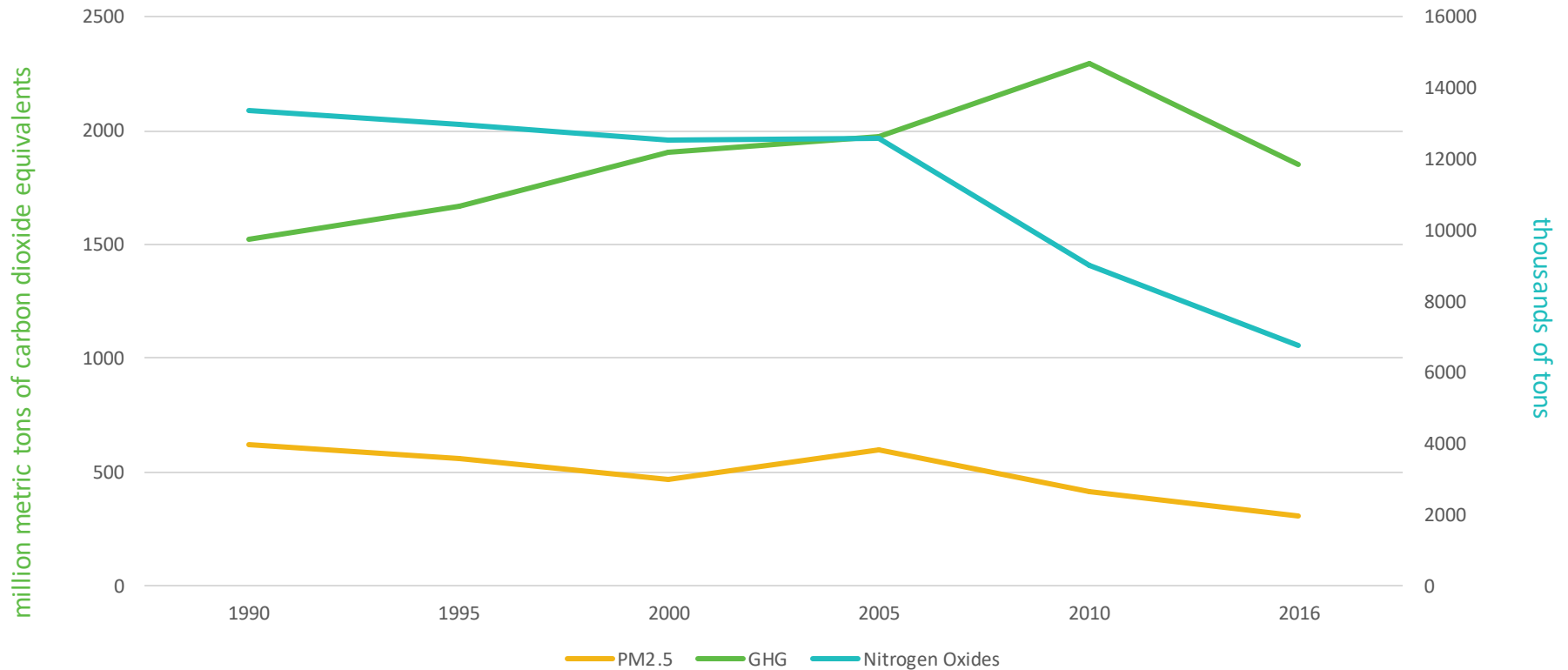


# Electric sector emissions



Sources: U.S. EPA National Emissions Inventory, 2017, [https://www.epa.gov/sites/production/files/2018-01/documents/2018\\_executive\\_summary.pdf](https://www.epa.gov/sites/production/files/2018-01/documents/2018_executive_summary.pdf)

# Transportation sector emissions



Sources: U.S. EPA National Emissions Inventory, 2017, [https://www.epa.gov/sites/production/files/2018-01/documents/2018\\_executive\\_summary.pdf](https://www.epa.gov/sites/production/files/2018-01/documents/2018_executive_summary.pdf)



# The Regulatory Process



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# Roles and responsibilities

- EPA
- State and local agencies
- National ambient air quality standards (NAAQS)
- Nonattainment
- State Implementation Plan (SIP)
- Plan, monitor, enforce, revise

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# Steps in the regulatory process

- Stakeholder group(s)
- Proposal
- Comment period
- Final regulation
- Implementation
- Review and revision

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# What can you do?

- Learn more about air pollution in your area
  - E.g., [4cleanair.org](http://4cleanair.org), [Airnow.gov](http://Airnow.gov)
- Participate in regulatory processes & comment periods
- Collaborate with others

# 4cleanair.org – National Assoc. of Clean Air Agencies

The screenshot shows the NACAA website homepage. At the top left is the NACAA logo with the tagline "national association of clean air agencies". To the right are links for "Member Login" and a search bar. Below the logo is a navigation menu with "Clean Air Topics", "State & Local Agencies", "Policy", and "Stakeholders". The main banner features a large image of a green field with the text "EXPLORE CLEAN AIR TOPICS" and navigation arrows. Below the banner are four featured sections: "EXPLORE CLEAN AIR", "FIND STATE & LOCAL", "READ ABOUT OUR", and "LEARN ABOUT NACAA".

**CLEAN AIR NEWS** [Back](#) [Next](#)

- [NACAA Comments on Proposed Affordable Clean Energy Rule](#)
- [NACAA Comments on EPA-NHTSA Proposed SAFE Vehicles Rule](#)
- [NACAA Comments on EPA FY 2020-21 National Program Guidance](#)

[View All](#)

**WHAT'S HAPPENING IN CONGRESS**

- [CLEAN AIR ACT AND RELATED ISSUES - 115TH CONGRESS \(2017-2018\)](#)
- [CLEAN AIR ACT AND RELATED ISSUES - 114TH CONGRESS \(2015-2016\)](#)
- [APPROPRIATIONS](#)
- [CLIMATE CHANGE](#)
- [TRANSPORTATION REAUTHORIZATION](#)

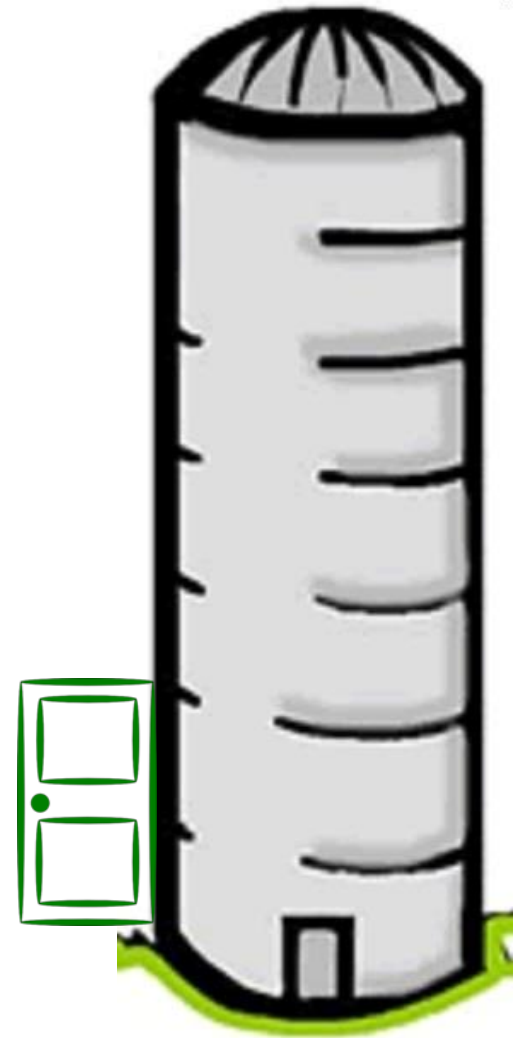
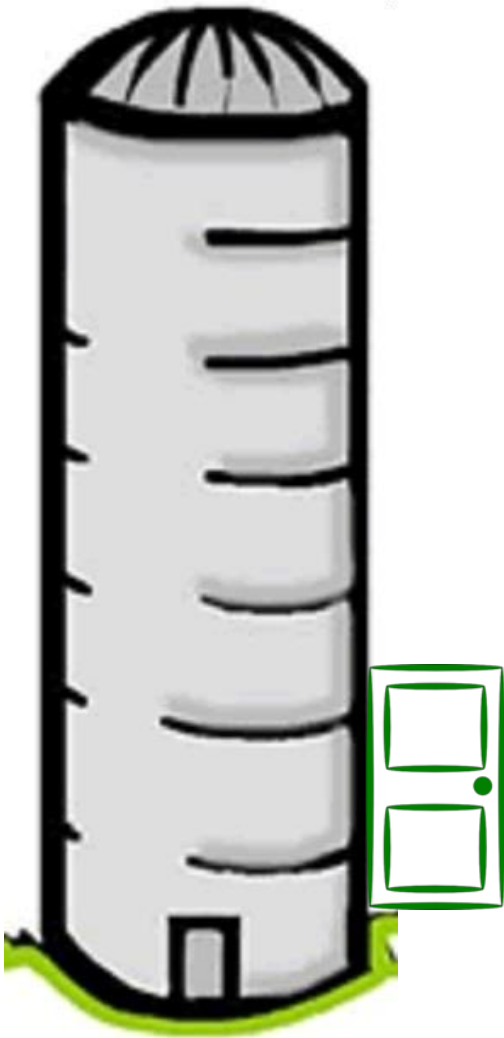
**AIRNOW** Check your air quality in real-time.  [GO](#) +

**EDUCATIONAL TOOLS**  
Want some interesting ways to learn about air pollution and how to clean it up? Check out these games, videos and resources. Then put your knowledge to work!

**DID YOU KNOW?**  
The top 50 dirtiest power plants in the U.S. account for 41.5 percent of nitrogen oxide emissions but only generate 28.7 percent of the net electricity.

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# The power of collaboration



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# Resources from RAP

- [Beneficial Electrification: Ensuring Electrification in the Public Interest](#)
- [Quantifying the Air Quality Impacts of Energy Efficiency Policies and Programs](#)
- [Purple Haze or Purple Mountain Majesties? How Energy Efficiency Can Reduce Regional Haze](#) (*blog post*)
- [Recognizing the Full Value of Energy Efficiency](#)
- [Using Energy Efficiency to Advance Air Quality Compliance](#)

# About RAP

The Regulatory Assistance Project (RAP)® is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

Learn more about our work at [raponline.org](https://raponline.org)



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# EPA's AirNow website

The screenshot displays the EPA's AirNow website interface. At the top left is the AirNow logo. To its right is a search bar with the text "Search..." and a "GO!" button. Below the search bar is a section for "Local Air Quality Conditions" with input fields for "Zip Code" (containing "Zip Co") and "State" (containing "Alabama"), each with a "Go" button. A "My Current Location" button is also present. The main content area features a navigation bar with tabs for "Current AQI", "Forecast", "AQI Loop", and "More Maps". The "Current AQI" tab is active, showing a map of the United States titled "Current AQI (Combined PM and O<sub>3</sub>)" for "Wednesday, November 14, 2018 1:00 PM EST". The map uses a color scale from green (good) to red (unhealthy) to indicate air quality levels. Below the map are small maps for Alaska, Hawaii, Mexico, and Puerto Rico. A timestamp "Generated: 2018-11-14 18:27:50Z" is visible at the bottom right of the map. To the right of the map is a sidebar with several sections: "Fires: Current Conditions" with a "Click to see map" link; "U.S. Embassies and Consulates" with a link to "Data from air quality monitors at select U.S. embassies and consulates around the world"; "Announcements" with a paragraph about EPA's website update and a "more announcements" link; and "Air Quality Basics" with a dropdown menu containing links for "Air Quality Index", "Ozone", "Particle Pollution", "Smoke from fires", and "What You Can Do". Below these are buttons for "Health" and "Learning Center".