



ISCC Regional
Stakeholder Meeting
North America

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November 2022

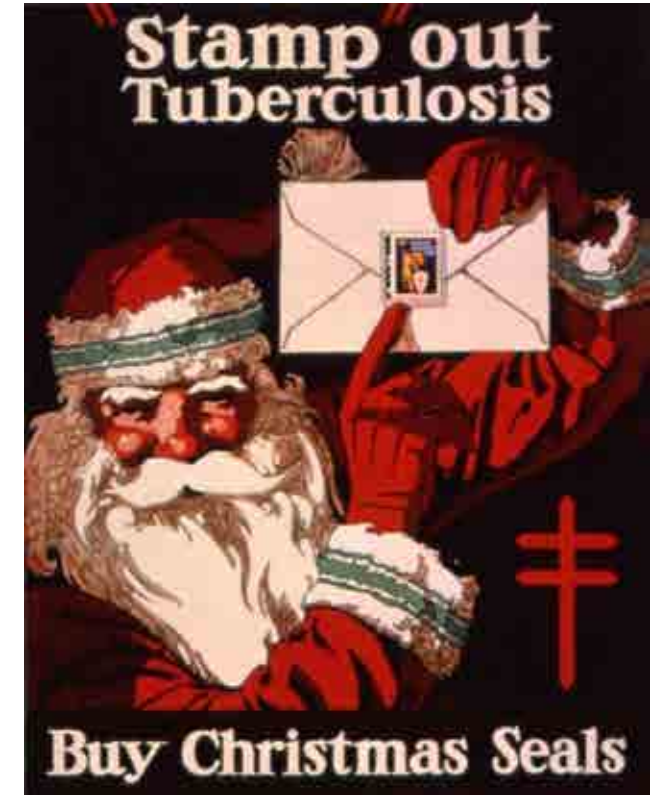


THE BEGINNING - FROM 1904 TO TODAY

- ❖ Reduce emissions from mobile sources
- ❖ Alternative renewable fuel
- ❖ Advanced vehicle technologies
- ❖ Relating environmental to health impacts

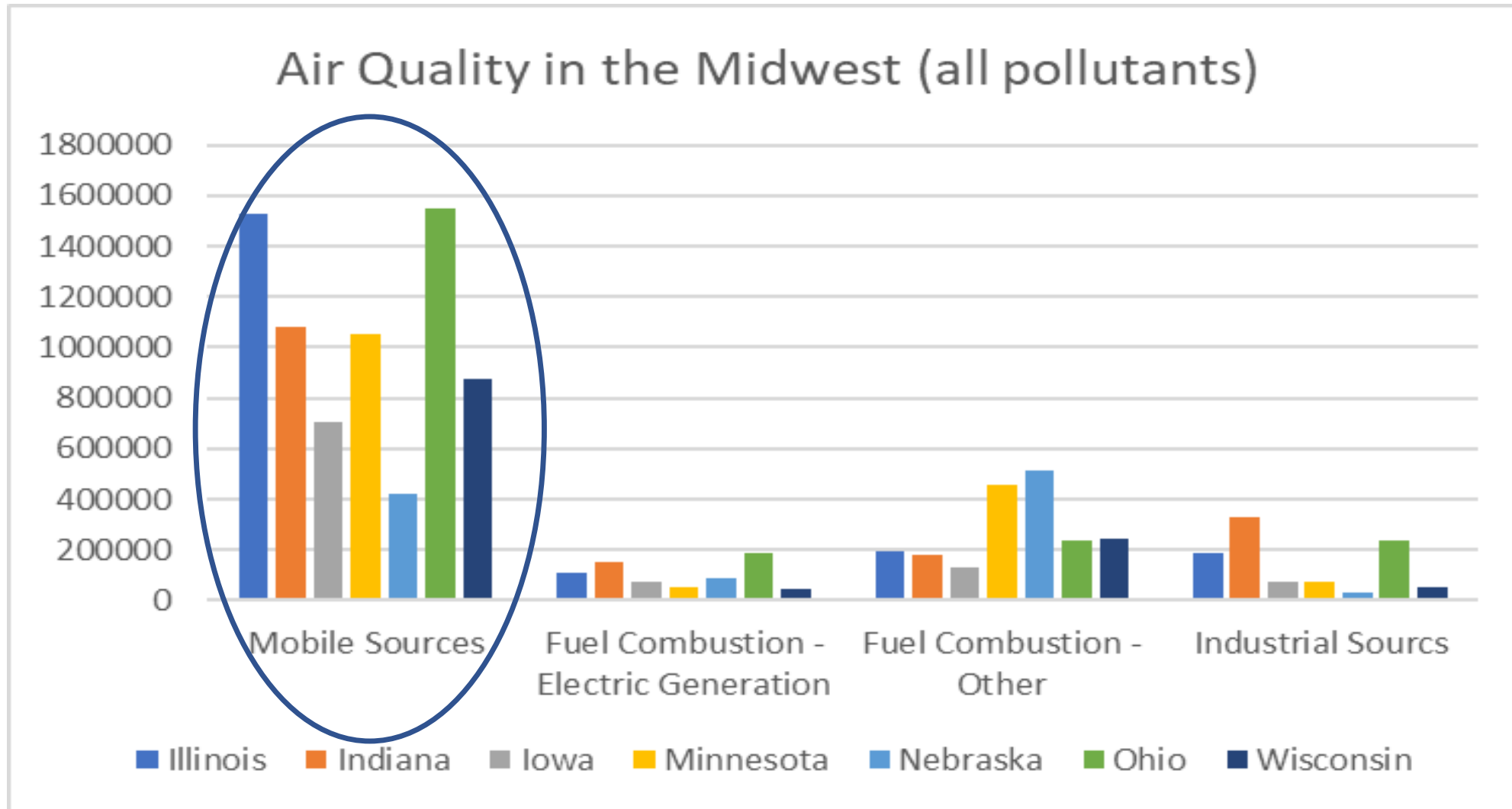


<https://chicagocleancities.org/>



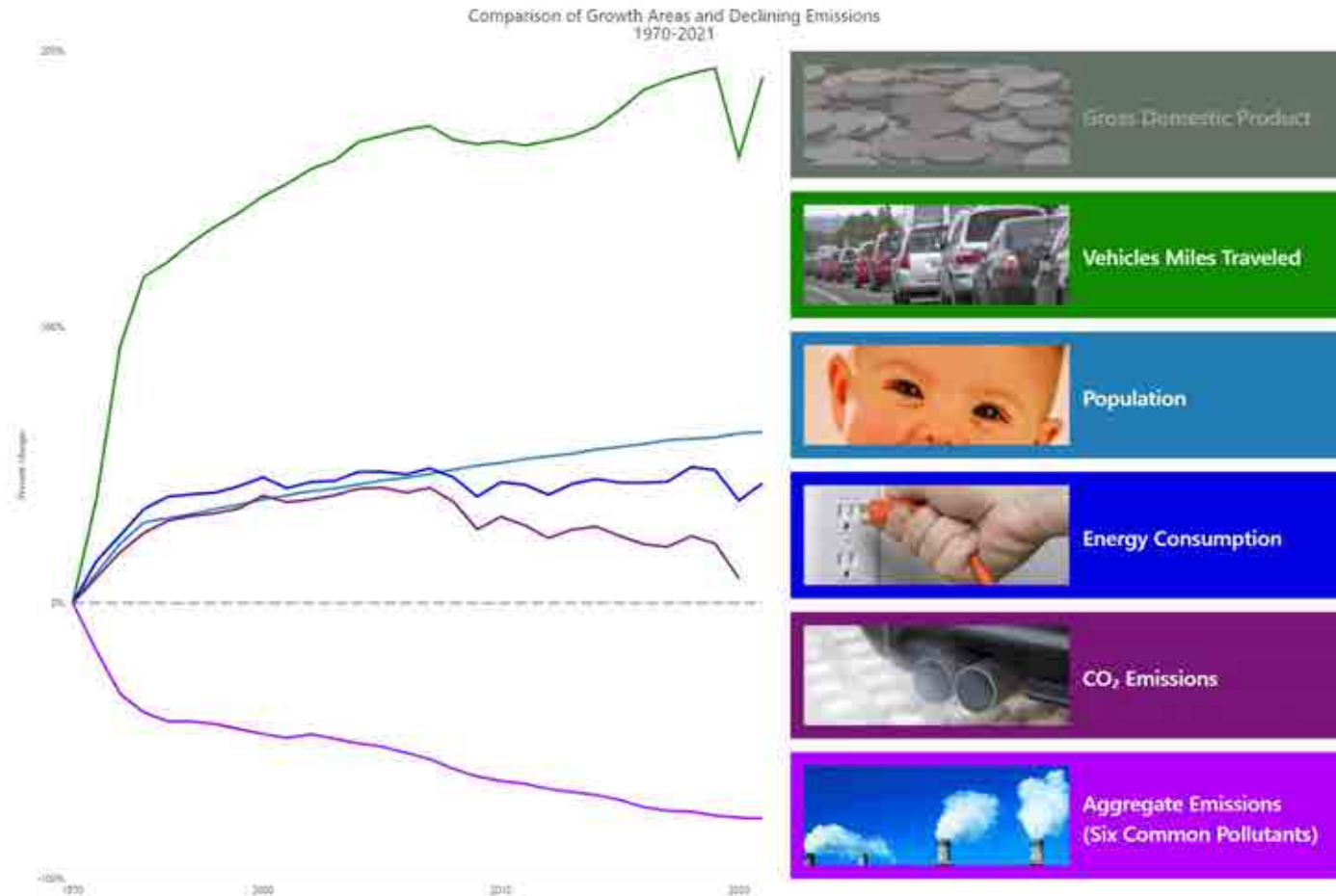
<https://www.cleanairchoice.org/>

MOBILE SOURCES CAUSE THE MOST AIR POLLUTION



<https://www.epa.gov/air-emissions-inventories>

CLEAN AIR ACT – REGULATORY APPROACHES



- ❖ Ethanol
- ❖ Biodiesel
- ❖ Biobased products
- ❖ Clean diesel
- ❖ Electric vehicles

<https://gispub.epa.gov/air/trendsreport/2022/#home>

https://gispub.epa.gov/air/trendsreport/2022/documentation/AirTrends_Flyer.pdf

ETHANOL

- Federal infrastructure grants - refueling stations
- State and private infrastructure grants
- Station marketing platform
- Outreach on environmental and health benefits
 - ✓ Aromatics from PM
 - ✓ Substitute ethanol to reduce PM
 - ✓ Sustainable / certifiable source of ethanol
 - ✓ Conservation practices – equipment & field
 - ✓ Field residue into ethanol



BIODIESEL

- Voluntary B20 Club Members, have consumed more than 82 million gallons of cleaner-burning B20 and higher blends since 2016.
- Biodiesel feedstocks that do not cause deforestation
- Land clearing practices cause air quality emissions
- Sustainable feedstock
- Certifying origin of feedstocks



Funded by the Illinois soybean checkoff

[Biodiesel Success | Illinois Soybean Association \(ilsoy.org\)](https://b20clubindiana.org/)

<https://b20clubindiana.org/>

BIODIESEL

Biodiesel, n. – a biodegradable and renewable alternative fuel comprised of mono-alkyl esters of long chain fatty acids derived from lipids, meeting ASTM D6751, designated B100, and produced through transesterification. Biodiesel blends of B6-B20 meet ASTM 7467. Blends of B5 or lower meet the ASTM D975 standard for diesel fuel and renewable diesel.

Additional Benefits:

- Safer to handle (higher flash point)
- Reduces harmful emissions (ex. PM, CO)
- Lowers lifecycle carbon emissions (i.e. CO₂)
- Biodegradable (as fast as sugar)
- Non-toxic (less toxic than table salt)



LEGACY DIESEL ENGINES

- New diesel engines 60 times cleaner
- 10 M legacy diesel engines still in use
- Goods movement / Vulnerable populations / Adverse air quality areas
- Singular voluntary replacement program
 - ✓ Engine or vehicle (destruction)
 - ✓ Electric – concerns about coal or biomass boilers
 - ✓ Certifying energy source for sustainability important concern

National DERA Totals (2008-2016)

- \$629 M dollars awarded
- 67,300 vehicles retrofitted or replaced
- 472,700 tons of NOx reduced
- 15,490 tons of PM reduced
- 17,700 tons of HC reduced
- 61,550 tons of CO reduced
- 5,089,170 tons of CO₂ reduced
- 19 B monetized health benefits



<https://www.epa.gov/dera>











BIOBASED PRODUCTS

Biobased products made from waste or sustainably produced materials can drastically reduce, eliminate (i.e., net zero), or sequester (i.e., net negative) carbon emissions when compared to petroleum counterparts.

Biobased products are also often:

- Safer to handle
- Reduce or eliminate fumes (ex. VOCs)
- Readily biodegradable or biodegradable
- Non-toxic or significantly less toxic



Biobased Academy Fleet Training Program – sustainable, certifiable materials

PRODUCT EXAMPLES: FLEETS



Hydraulic Fluids



Tires



Lubricants, Oils, &
Greases



Lubricants Oils &
Lubricants



Seat & Headliner
Foams (Ford)



Biomass-based Fuels



Fuel Additives



Car & Truck Wash



Absorbents



Decal & Graffiti
Removers

PRODUCT EXAMPLES: HOMES/BUILDINGS



Stains & Sealers



Paints



Insulation



Roof Coatings



Carpet/Rugs



Adhesives



Cabinets/Shelving/Composite Boards



Furniture



Paint/Stain Stripper



Synthetic Lawn/Turf

PRODUCT EXAMPLES: INDUSTRIAL/OPERATIONS



Surface Paving & Repair Products



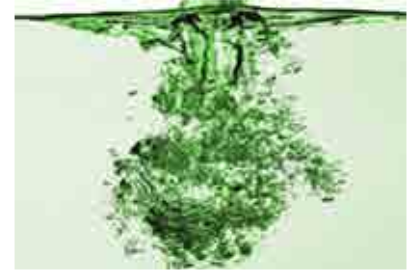
Concrete & Asphalt Cleaners



Dust Suppressants



Concrete Release Agents



Transformer Fluid



STAINLESS STEEL CLEANERS



Graffiti Remover



Food Grade Industrial Greases & Lubricants for Kitchen Equipment



Food Grade Industrial Grill & Oven Cleaners



General Household and Office Cleaners



INDUSTRIAL CLEANERS & DEGREASERS

Our Vision

A World Free of Lung Disease

If you can't breathe; nothing else matters!

