



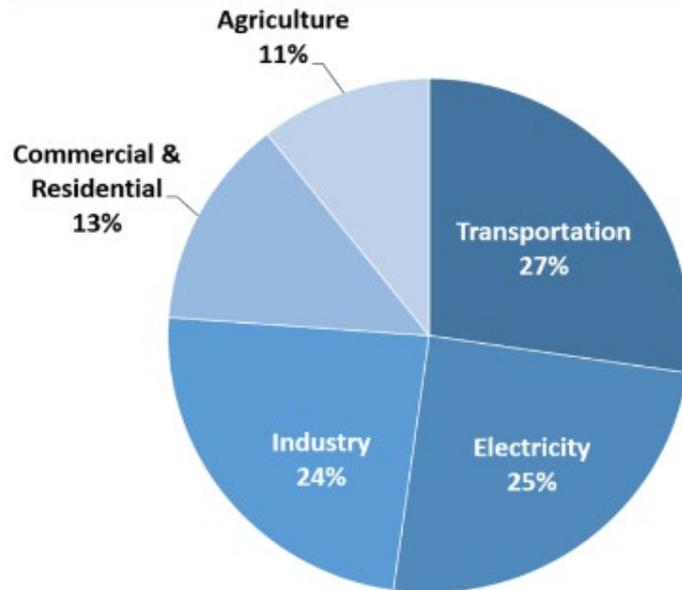
Indiana Environmental Stewardship Program 2022 Annual Meeting

ESP Members Roundtable





Total U.S. Greenhouse Gas Emissions by Economic Sector in 2020



- Greenhouse gas emissions from transportation primarily come from burning fossil fuel for our cars, trucks, ships, trains, and planes.
- Electricity production generates the second largest share of greenhouse gas emissions.

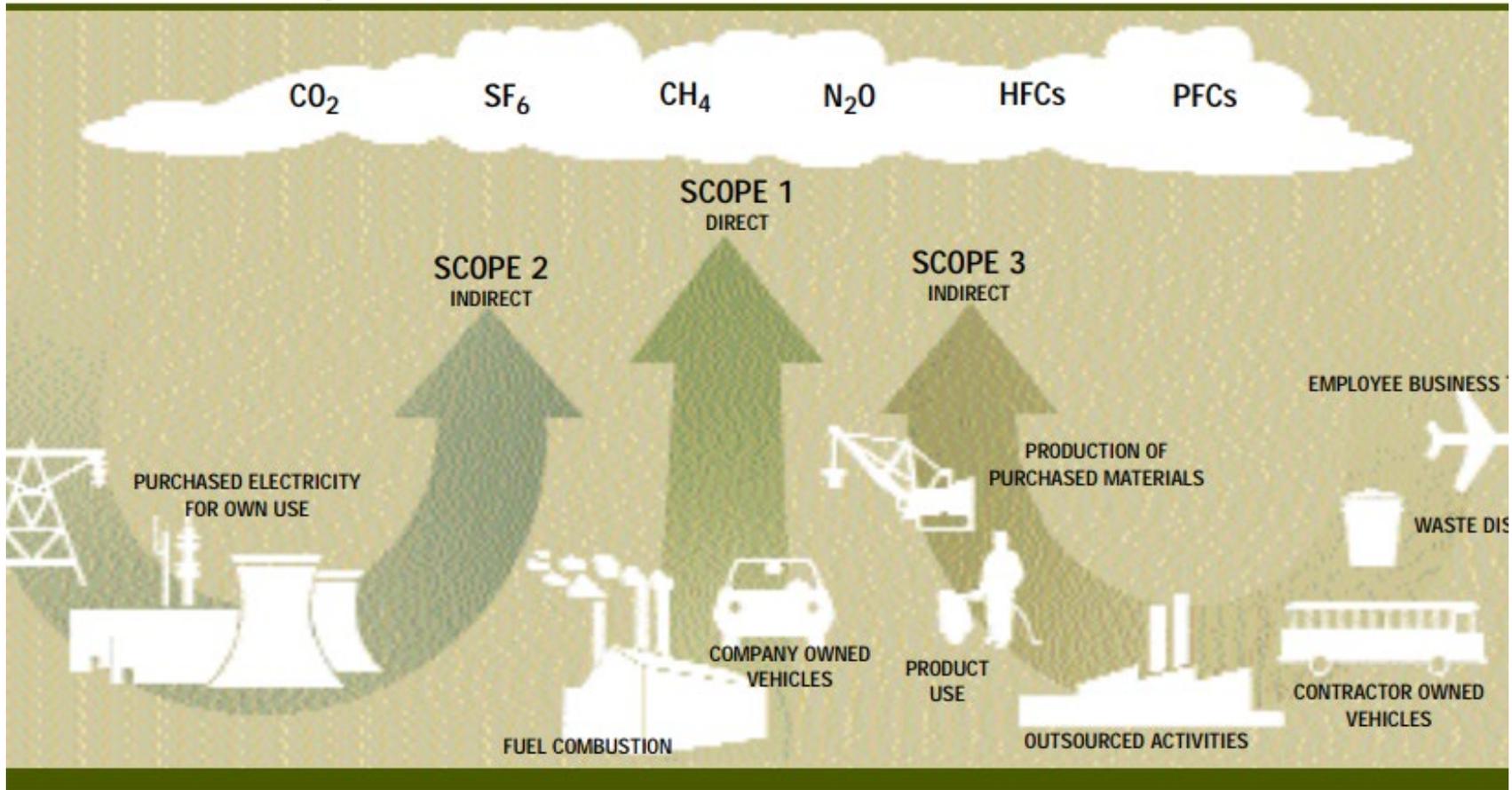
Supreme Court has announced that EPA does not have regulatory authority over power plant GHG reductions.

- Greenhouse gas emissions from industry primarily come from burning fossil fuels for energy, as well as greenhouse gas emissions from certain chemical reactions necessary to produce goods from raw materials.
- Land areas can act as a sink (absorbing CO₂ from the atmosphere) or a source of greenhouse gas emissions. In the United States, since 1990, managed forests and other lands are a net sink, i.e., they have absorbed more CO₂ from the atmosphere than they emit.



GHG Emissions and Carbon Footprint

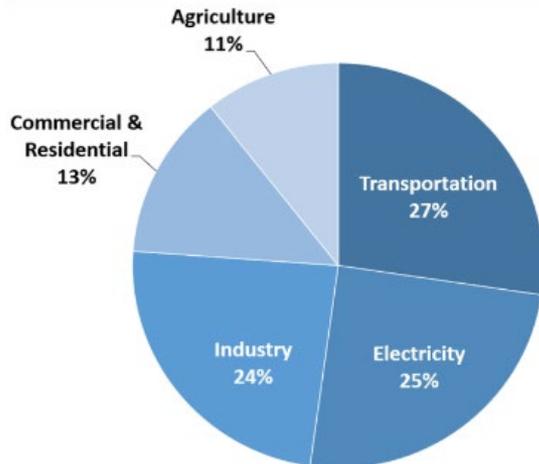
3. Overview of scopes and emissions across a value chain



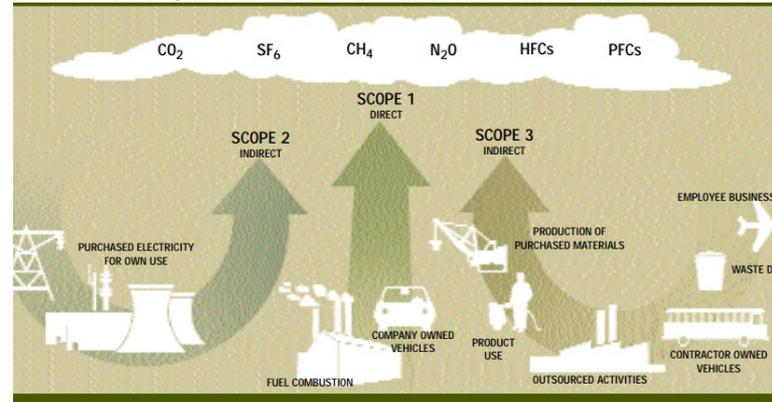
GHG Categories

1. Alt. Energy/Fuel
2. Energy Efficiency

Total U.S. Greenhouse Gas Emissions by Economic Sector in 2020



3. Overview of scopes and emissions across a value chain



3. Recycling/Zero Waste
4. Training/outreach
5. Land Conservation



GHG Categories

Alternative Energy/Fuels

Fossil Fuel reduction

- Roche: electric fleet, heaters, air handlers, 100% renewable energy certificate
- Samtec: electric car charging stations
- Toyota Material Handling: Wind energy
- AstraZeneca: solar fields
- Caterpillar Lafayette: researching hydrogen fuel
- Mead Johnson: renewable energy scope 1, 2 & 3 study



GHG Categories

Energy Efficiency

Upgrading to more efficient technology

- Cummins MEP: ISO50001 certification
- Caterpillar Reman, Electro-Spec, GM Marion Metal, many others: LED lighting
- Depuy: natural refrigerant systems
- Uniseal, Toyota Material Handling, many others: compressed air leak study and repair, VFD motors, pneumatic tools replacement
- Carrier, DePuy, many others: air makeup and roof top unit replacements
- Caterpillar Lafayette: hazardous waste solvent still
- Cummins CEP: sludge reduction project
- Cummins Seymour, Allison Transmission: test cell operations diesel fuel reductions



GHG Categories

Recycling/Zero waste to landfill

Zero waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing zero waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal or plant health. (Definition from the [Zero Waste International Alliance](#))

- Cummins MEP: 100% landfill free
- DePuy: Kimberly Clark Rightcycle program
- Carrier: zero waste certified
- **Issues:**
 - Nishikawa Cooper: lost rubber recycling supplier
 - NSK: long crates too large, working with vendor to crush
 - Mead Johnson: supply chain issues



GHG Categories

Training/Awareness/Outreach

Staff and community involvement

- Elanco Clinton, Grede: staff recycling - boards, email messaging, proper signage, designated bins
- GM Kokomo/Marion, Toyota Material Handling: equipment shutdowns shift/weekends, breaks
- Roche, Cummins: recycling events
- GM, Toyota Material Handling: tree giveaways, Earth Day, Green theme staff activities, river monitoring event



GHG Categories

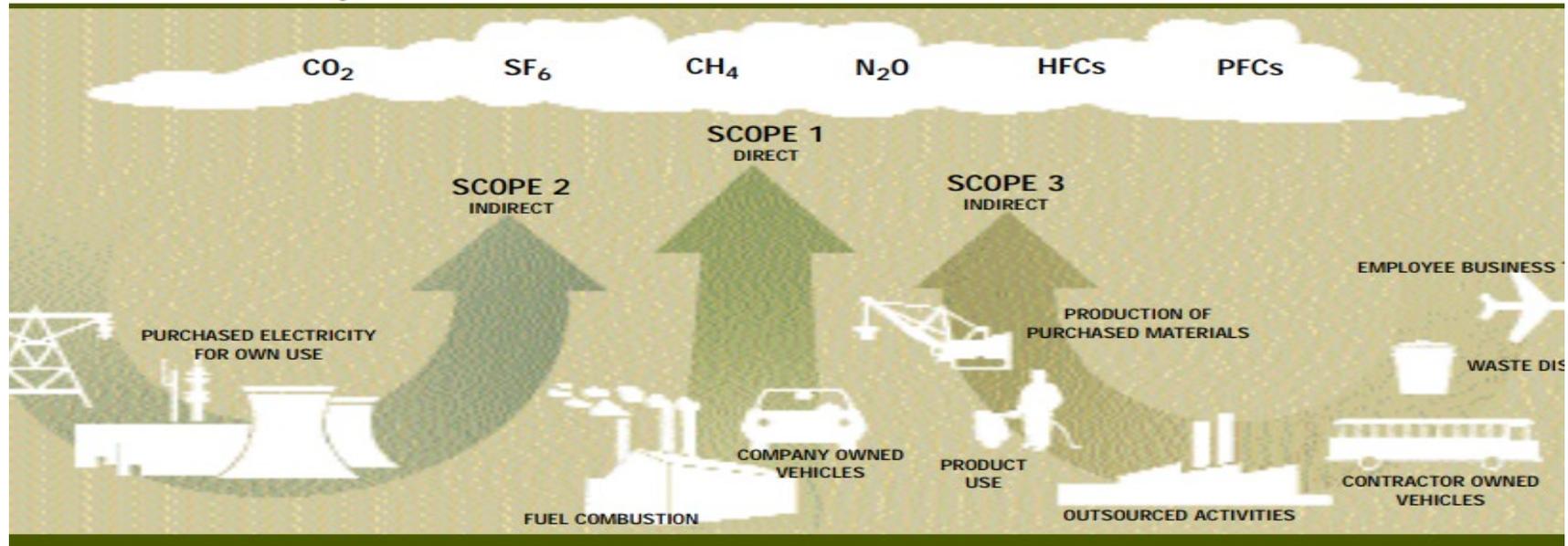
Land Conservation

Habitat restoration

- DePuy, GM Kokomo/Marion, Toyota MMI, AstraZeneca: Wildlife Habitat Council certified
- Elanco Clinton: Healthy River Initiative
- Allegion: pollinator habitat garden
- AstraZeneca: Grasslands of the Future project
- Samtec: purchased 20 acres for preservation

GHG Scopes

3. Overview of scopes and emissions across a value chain



- Alt. Energy/Fuel
- Energy Efficiency
- Recycling/zero waste
- Training/outreach
- Land Conservation



Evaluation Form

- Please take a moment to answer all questions and submit the evaluation form.



Office of Program Support



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Indiana Department of Environmental Management