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Title: LAHS EcoClub - Overview of LANL's Commuter Emissions

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LAHS EcoClub – Overview of LANL's Commuter Emissions

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Nov 7, 2023

Agenda

About me

GHG
Emissions
Background

LANL
Commuter
Emissions

Transportation
Investments
and
Improvements



About Me



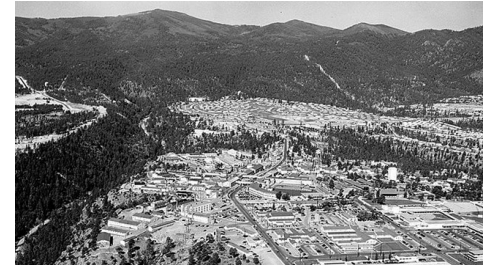
2011-2015: Whitman College, Environmental Studies & Geology



2015-2019: Lived & worked in Telluride, CO



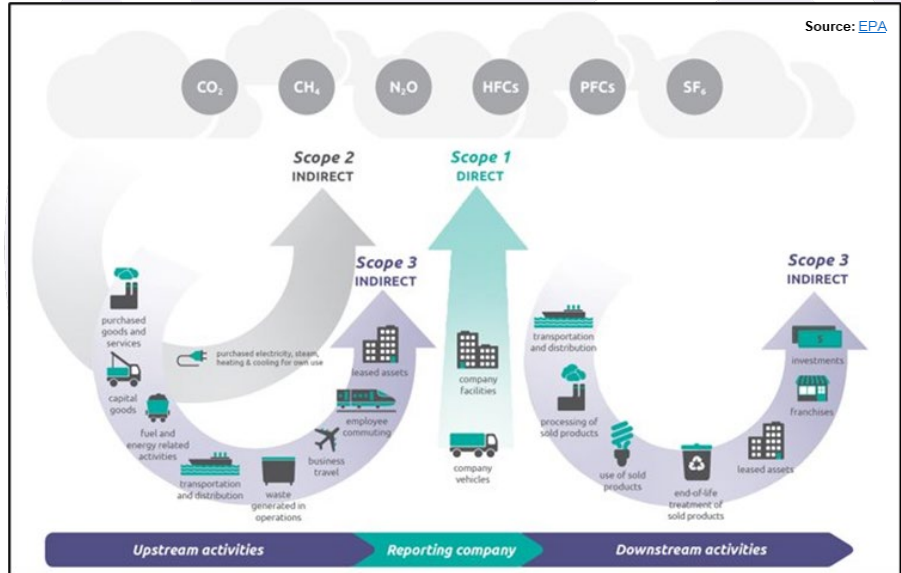
2019 - 2021: University of Michigan, School for Environment and Sustainability



Now – Sustainability Analyst at LANL

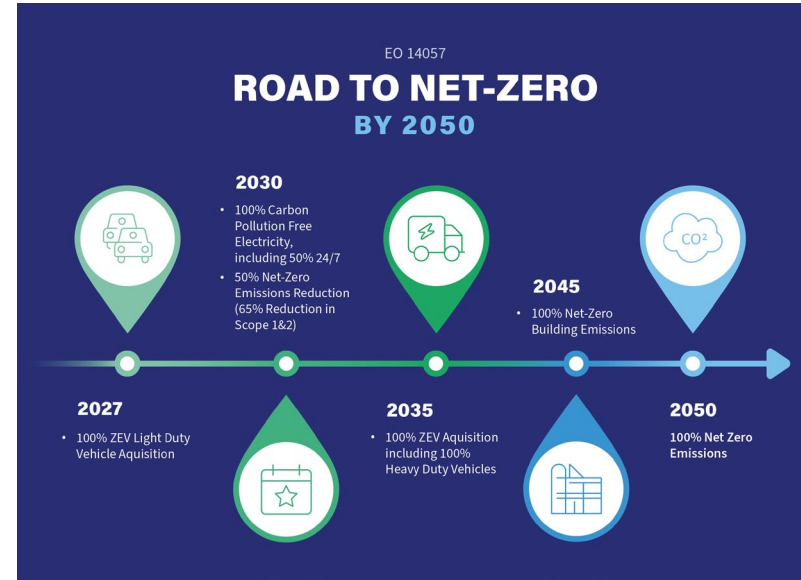
What are greenhouse gas (GHG) emissions and how do report them?

- [EPA](#): Greenhouse gases, such as carbon dioxide, methane, nitrous oxide, and certain synthetic chemicals, trap some of the Earth's outgoing energy, thus retaining heat in the atmosphere.
- Greenhouse Gas Protocol
 - 3 Scopes
 - Scope 1: Direct Emissions
 - Scope 2: Indirect - Purchased and Used Electricity
 - Scope 3: Indirect Emissions
 - ★ Commuter Emissions!



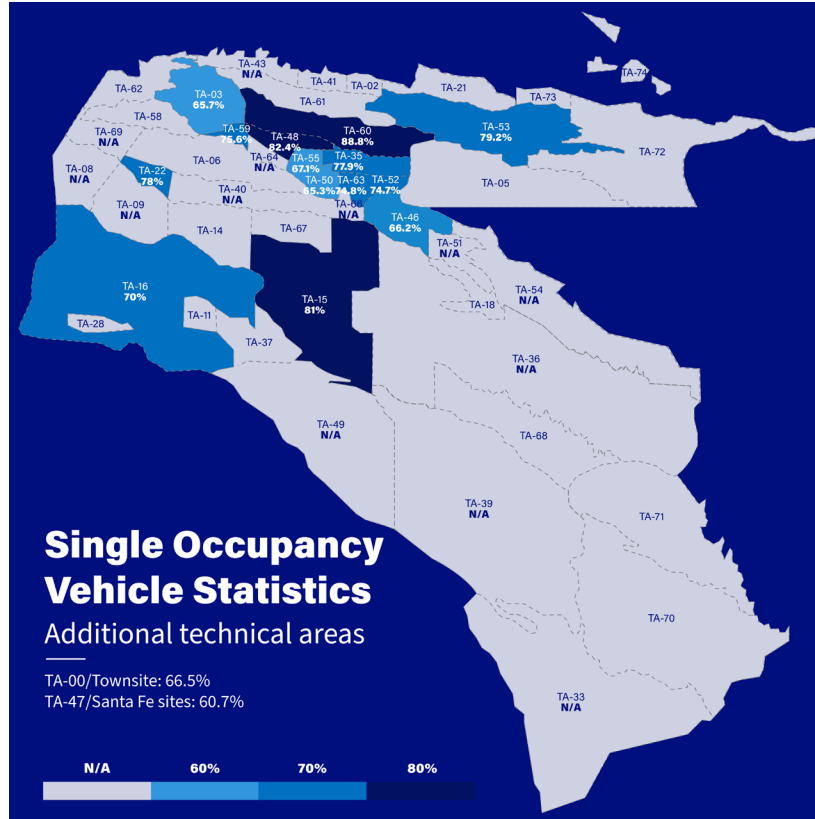
What is net-zero?

- Net zero means "cutting GHG emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere"
- Requires drastic GHG emissions cuts and likely carbon sequestration
- Cuts across all GHGs, not just Carbon Dioxide (CO₂)
 - Methane (CH₄), Nitrous Oxide (N₂O), & Sulfur Hexafluoride (SF₆)
- UN Intergovernmental Panel on Climate Change states "The global temperature will stabilize when carbon dioxide emissions reach net zero. For 1.5°C (2.7°F), this means achieving net zero carbon dioxide emissions globally in the early 2050s; for 2°C (3.6°F), it is in the early 2070s."

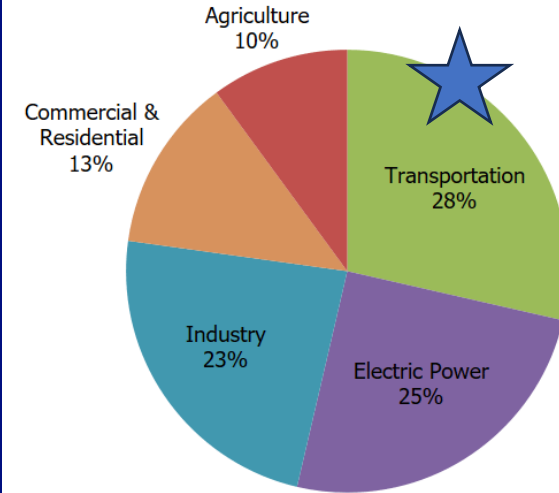


Commuter Emissions

- ~40% of employees live in LAC
- ~60% live in the surrounding communities
- ~12% of LANL's total emissions
- Yearly survey to collect commuter data
 - Single occupancy vehicles – ~70%
 - Carpool – ~11%
 - Telecommute – ~10%

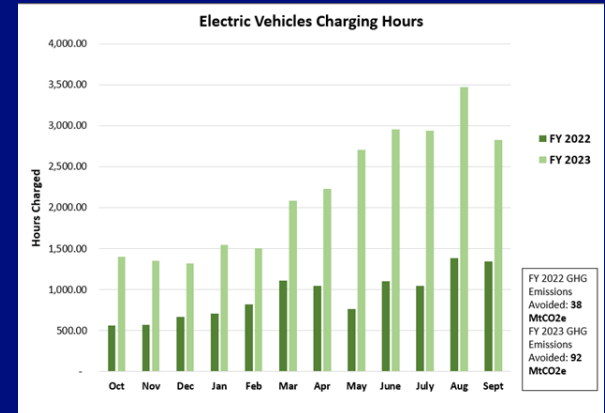


Total U.S. Greenhouse Gas Emissions by Economic Sector



Transportation Investments & Improvements

- New Parking and Transportation Services (PATs) Team
 - Transit Implementation Study with regional partners
 - Coordinate schedules to better align with employee schedules
 - Increase external/internal shuttle usage and routes
 - Explore incentives for bus/rideshare programs
 - Vanpool partnership with NMDOT vendor Commute with Enterprise
- EV Infrastructure Improvements
 - LANL's fleet will have 800 ZEVs by 2035
 - 18 New Solar Chargers
 - 73 total ports, 18 installed by end of this year



Questions?

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