

Welcome to this week's presentation & conversation hosted by the **Canadian Association for the Club of Rome**, a Club dedicated to intelligent debate & action on global issues.

The views and opinions expressed in this presentation are those of the speaker & do not necessarily reflect the views or positions of CACOR.

The Issues around Thacker Pass Lithium Mine and "Green Growth."

Our speaker today is Max Wilbert, a writer and biocentric community organizer. He has been part of grassroots political work for 20 years, and was the founder of Protect Thacker Pass. Max is the author of two books, most recently "Bright Green Lies: How The Environmental Movement Lost Its Way and What We Can Do About It" (Monkfish 2021). His work has been featured on CNN, The New York Times, NPR, Le Monde, BBC, and elsewhere.

DESCRIPTION: With the rapid growth in the energy storage and electric vehicle industries, demand for raw materials like lithium is rising. This is creating new frontiers of resource extraction as land that was previously uncommodified is now worth billions on the market. This presentation will build on the previous talk by another of the "Bright Green Lies" authors, Lierre Keith, based on a specific case study: the Thacker Pass lithium mine in northern Nevada. Mr. Wilbert was involved in launching a protest movement to "Protect Thacker Pass."

The presentation will be followed by a conversation, questions, & observations from the participants.

CACOR acknowledges that we all benefit from sharing the traditional territories of local Indigenous peoples (First Nations, Métis, & Inuit in Canada) and their descendants.



Website: canadiancor.com

Twitter: [@cacor1968](https://twitter.com/cacor1968)

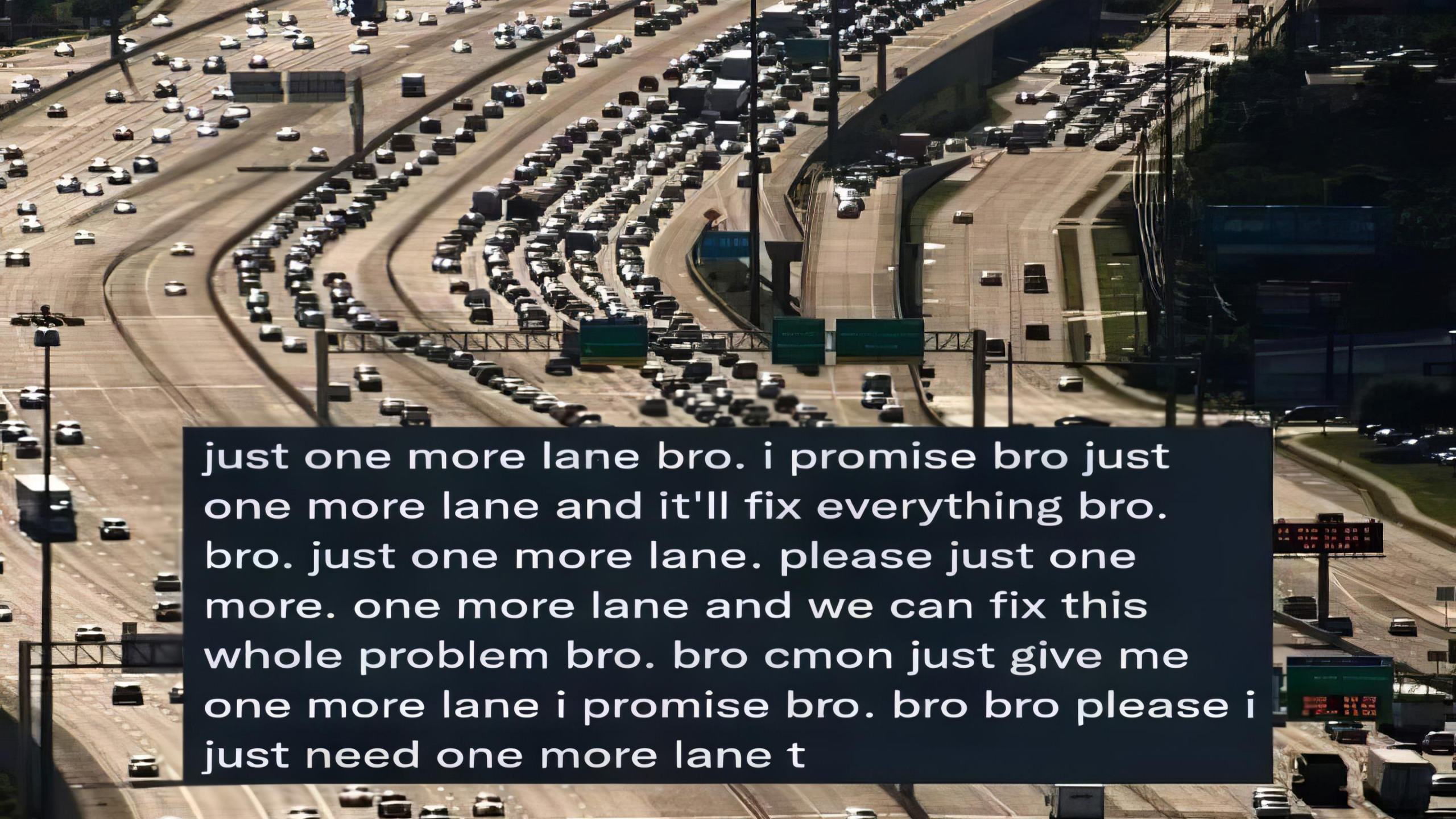
YouTube: [Canadian Association for the Club of Rome](https://www.youtube.com/channel/UC...)

2023 Sep 20 Zoom #163

A thick black L-shaped frame surrounds the text. The top-left corner is a horizontal bar extending to the right, then a vertical bar extending downwards. The bottom-right corner is a horizontal bar extending to the left, then a vertical bar extending upwards.

The Thacker Pass Lithium Mine

A Case Study in the Failure of Green Growth

An aerial photograph of a multi-lane highway with heavy traffic. The highway has several lanes in each direction, with cars and trucks packed closely together. Overhead signs and a concrete barrier are visible. A large black text box is overlaid on the bottom half of the image.

just one more lane bro. i promise bro just
one more lane and it'll fix everything bro.
bro. just one more lane. please just one
more. one more lane and we can fix this
whole problem bro. bro cmon just give me
one more lane i promise bro. bro bro please i
just need one more lane t























































Two Burner
PROPANE STOVE









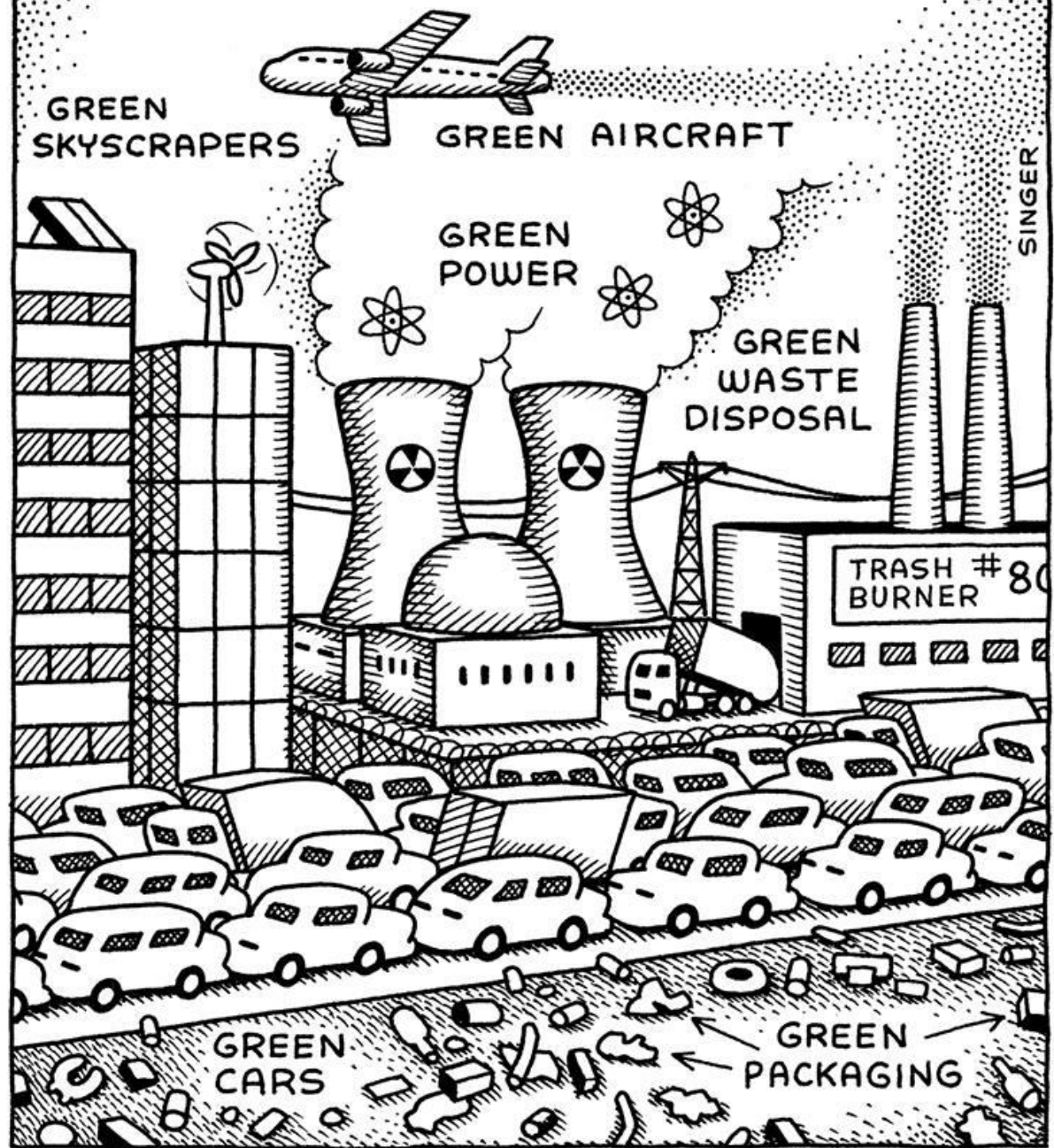








THE MAGIC OF MARKETING



GREEN
SKYSCRAPERS

GREEN AIRCRAFT

GREEN
POWER

GREEN
WASTE
DISPOSAL

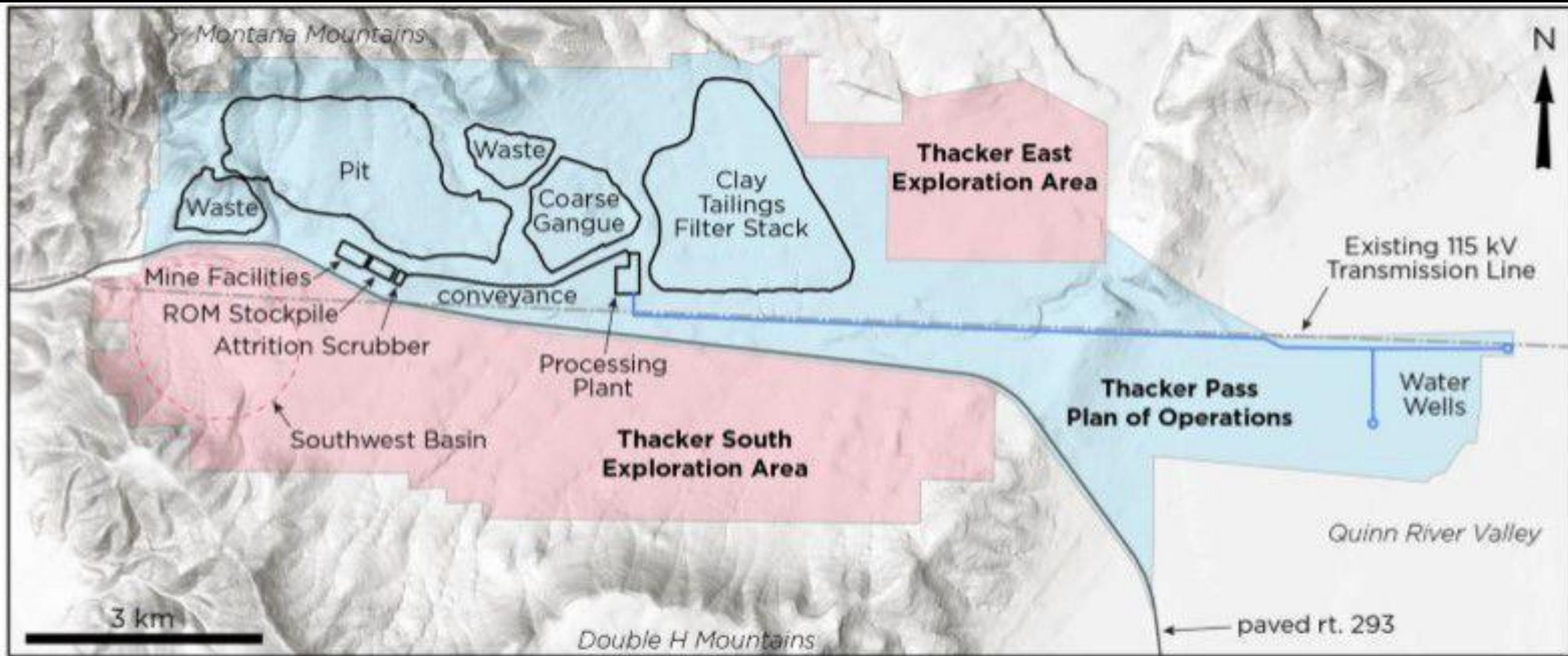
SINGER

TRASH #80
BURNER

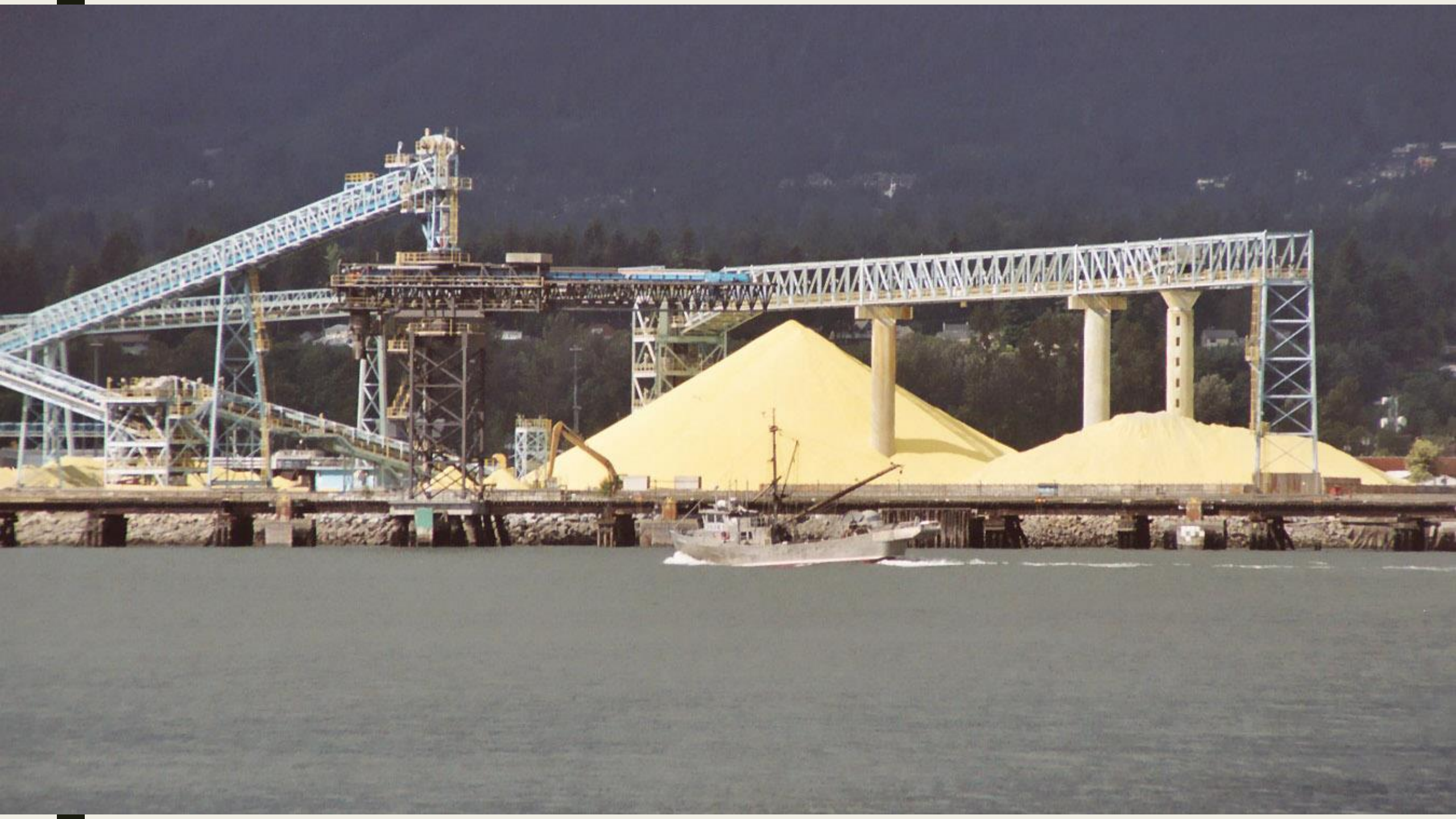
GREEN
CARS

GREEN
PACKAGING





- According to the Final Environmental Impact Statement, the proposed Thacker Pass mine would produce 5,800 tons of sulfuric acid per day for use in refining lithium. That would require importing 1,896 tons of sulfur per day. That's nearly 700,000 tons per year, roughly equivalent to the mass of two Empire State Buildings annually. This would be brought in to Thacker Pass on dozens of (diesel-fueled) semi-trucks each carrying 3,800 gallons of molten sulfur.
- Most sulfur comes from oil and gas refineries, where it's a byproduct of producing low-sulfur fuels to meet air-quality regulations. And here's the punchline: according to the U.S. Geological Survey, tar sands contain 11 times as much sulfur as conventional heavy crude oil. There are literal "mountains" of sulfur piling up in Alberta, and at other refineries which process tar sands fuel.



“Extraction and primary processing of metals and other minerals is responsible for 20% of health impacts from air pollution and 26% of global carbon emissions... The biggest surprise to the authors was the huge climate impact of pulling materials out of the ground and preparing them for use. All the sectors combined together accounted for 53% of the world’s carbon emissions – even before accounting for any fuel that is burned.”



Created by Center for Biological Diversity tracking lithium projects across the Western United States. Click more for key: 52,766 views
Published 13 days ago
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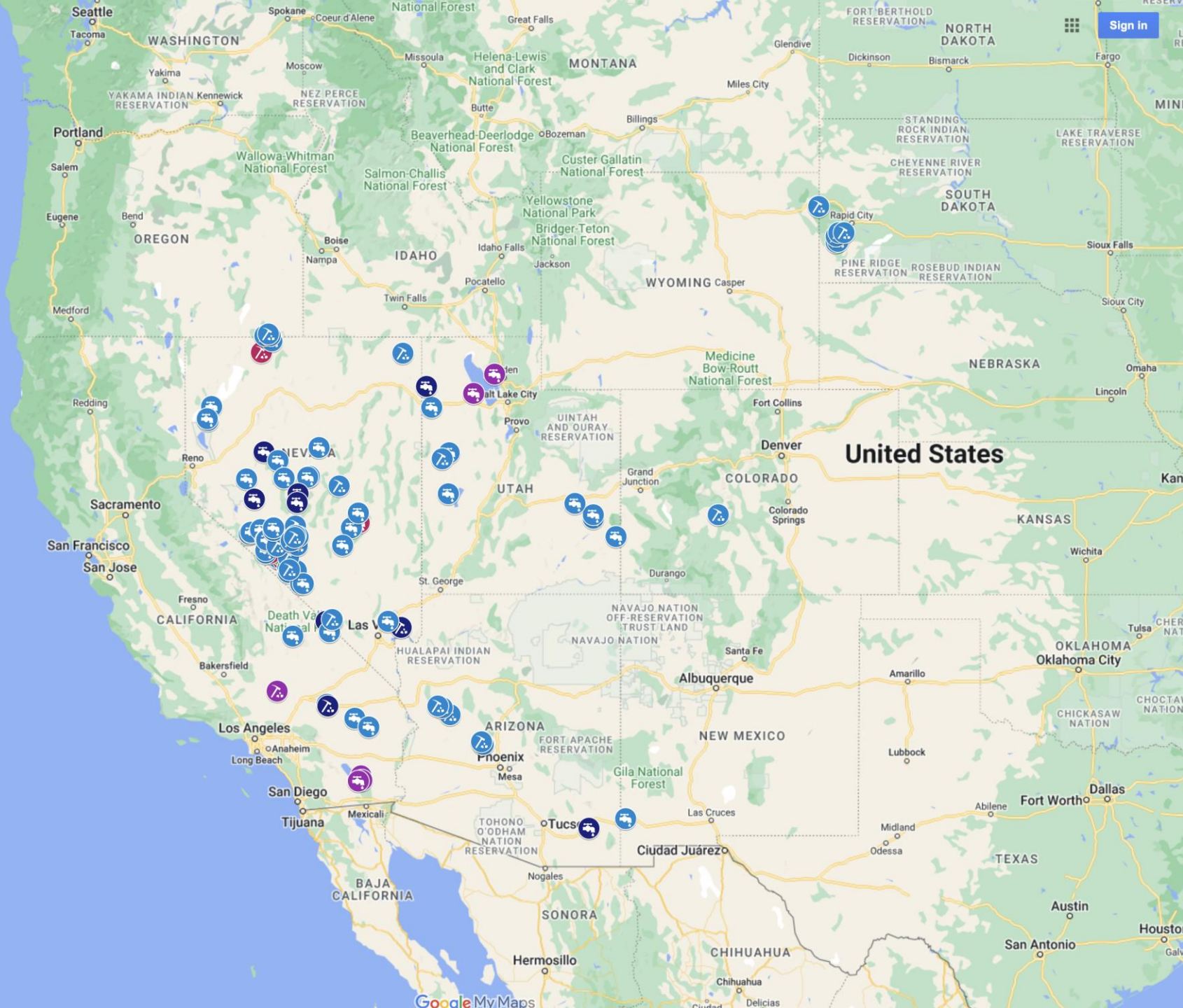
- Lithium project locations
- NV - Knoll Mountains (Elko County) - Surge B...
- NV - McDermitt Caldera - Lithium Americas - ...
- NV - McDermitt Caldera - Gold Tree Resource...

Total projects: 113
NV: 74; CA: 11; UT: 11; AZ: 6; SD: 6; OR: 3; CO: 1; NM: 1

- Green icon - projects in production (1)
- Red icon - projects in development/permitting /pilot (4)
- Purple icon - projects taking lithium extraction onto existing industrial processes (6)
- Light blue icon - exploration projects (93)
- Dark blue icon - mothballed projects (9)

- Hammer icon - hard or soft rock resource (54)
- Spigot icon - brine resource (59)

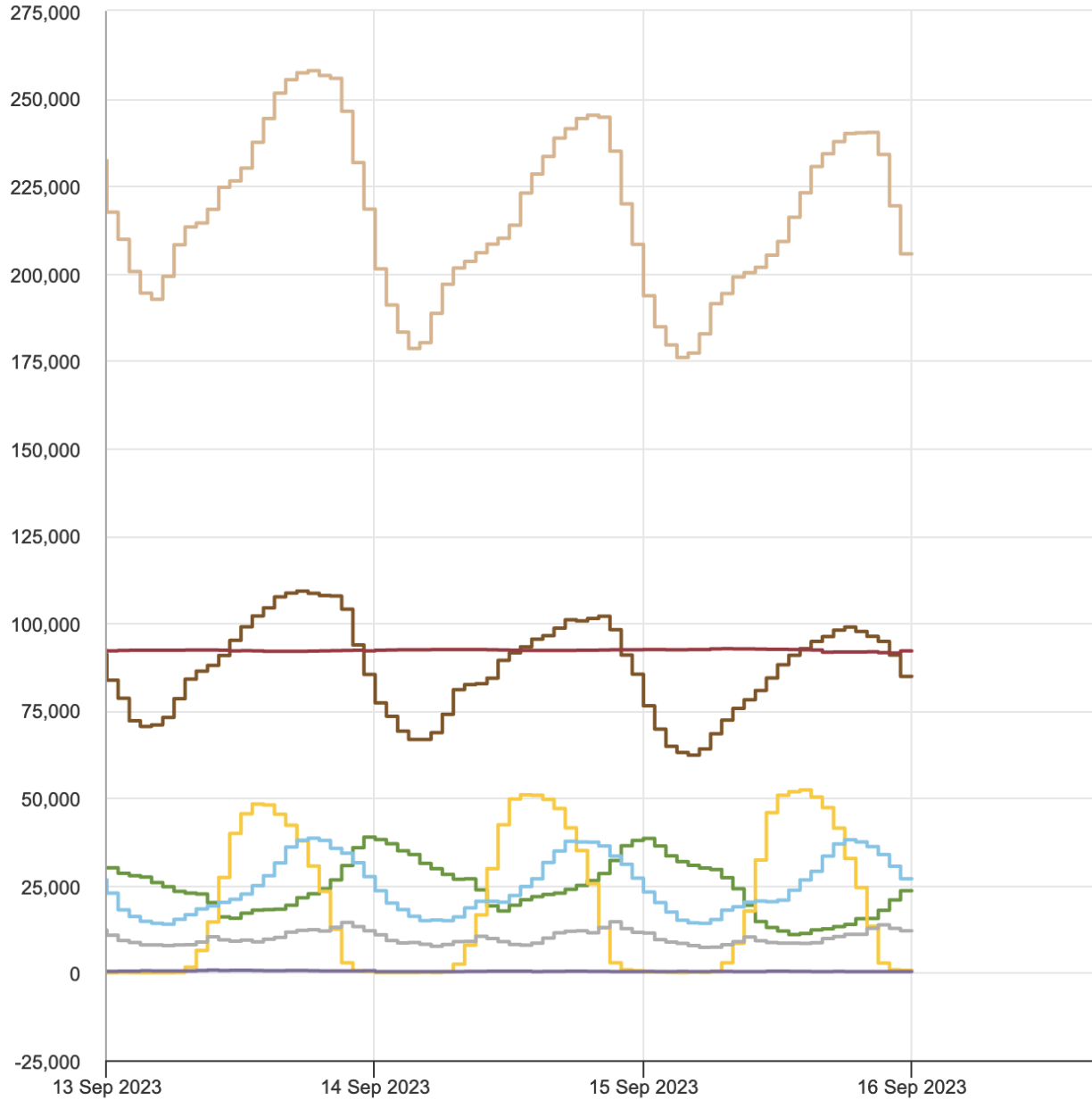
- NV - Tonopah Area - American Lithium Corp - ...
- NV - Tonopah Area - American Battery Techn...
- NV - Southern Big Smoky Valley - Victory Res...
- NV - Southern Big Smoky Valley - Arbor Metal...
- NV - Southern Big Smoky Valley - Jindalee Re...





U.S. electricity generation by energy source 9/13/2023 – 9/20/2023, Eastern Time

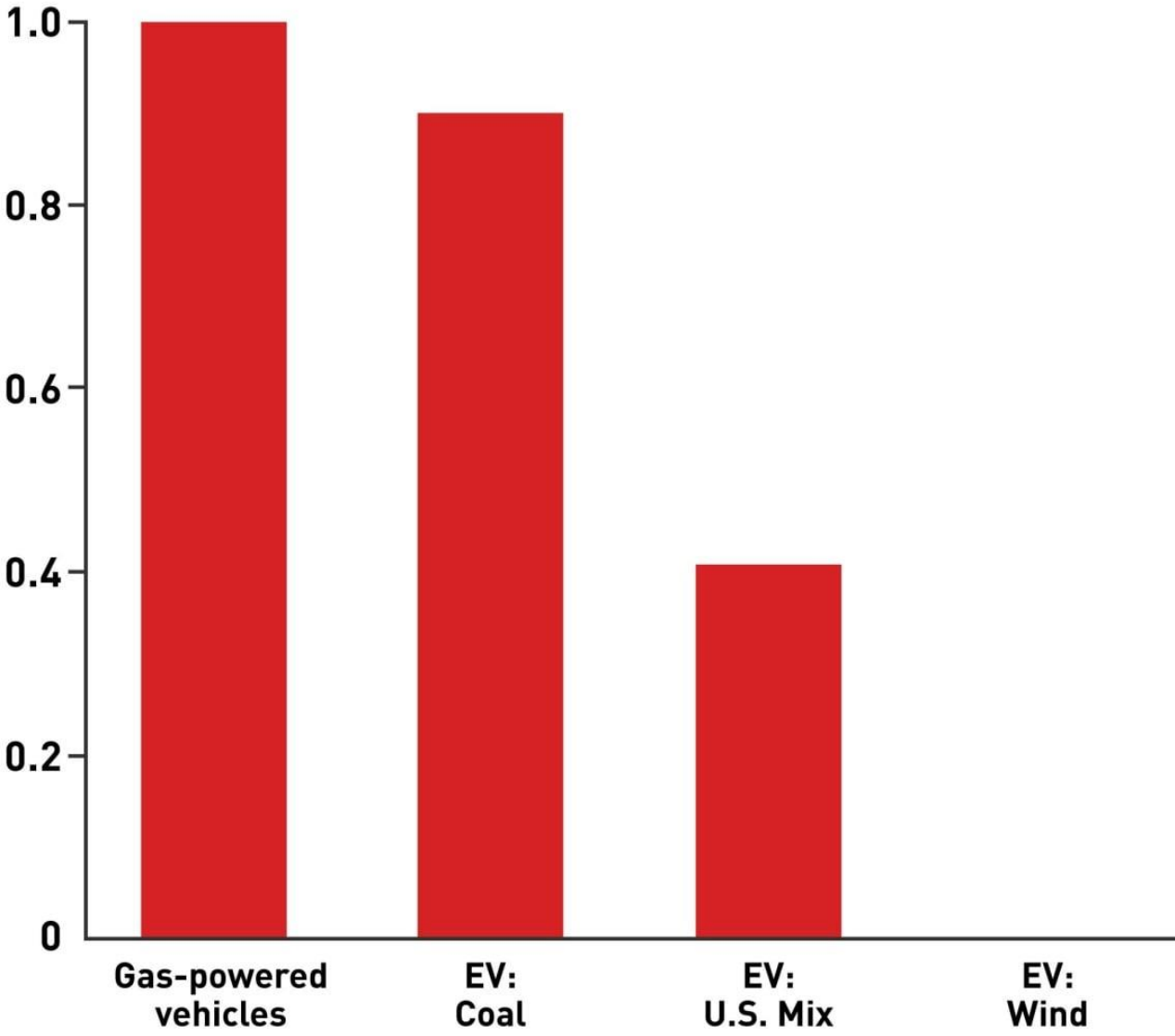
megawatthours



Wind Solar Hydro Other Petroleum Natural gas Coal Nuclear

Relative life-cycle GHG emissions

Relative GHG emissions compared to U.S. gasoline (E10) powered car







CBC NEWS

Source: GREET model

Total lifetime CO2 emissions

Over the life of the vehicle*

-  = battery manufacture
-  = manufacture, maintenance, and end-of-life recovery
-  = fuel production
-  = vehicle use



⚡ **Electric car**

Standard NL electricity mix:



100% renewable electricity:



💧 **Gasoline car**



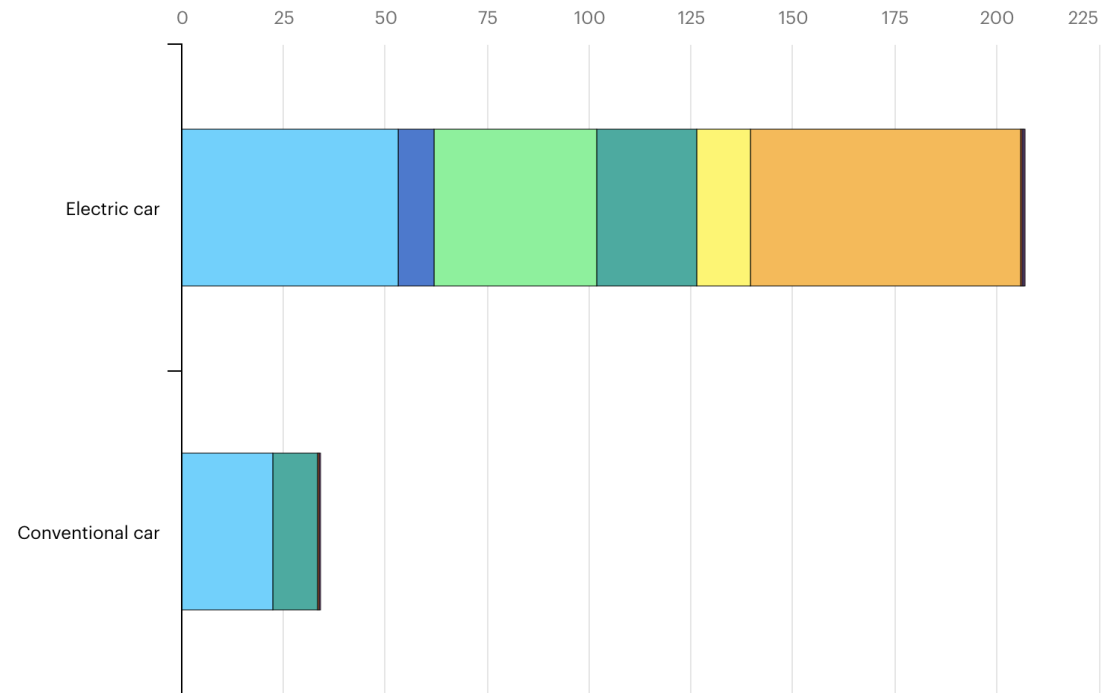
Minerals used in electric cars compared to conventional cars

Last updated 5 May 2021

Download chart ↓

Cite Share

kg/vehicle



IEA. Licence: CC BY 4.0

● Copper ● Lithium ● Nickel ● Manganese ● Cobalt ● Graphite ● Zinc ● Rare earths ● Others

This article is more than 1 year old

Renewable energy 'simply won't work': Top Google engineers

Windmills, solar, tidal - all a 'false hope', say Stanford PhDs

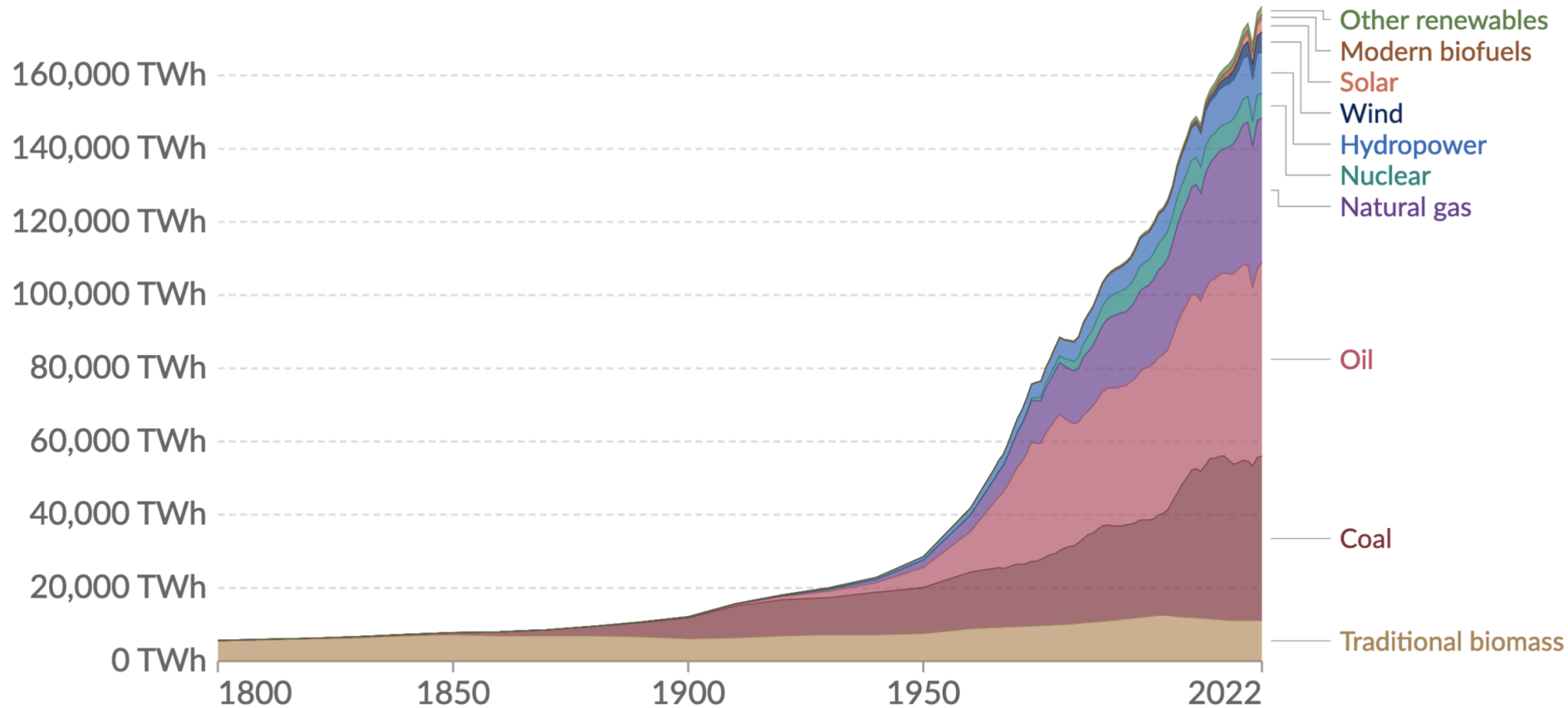
“Even if one were to electrify all of transport, industry, heating and so on, so much renewable generation and balancing/storage equipment would be needed to power it that astronomical new requirements for steel, concrete, copper, glass, carbon fibre, neodymium, shipping and haulage etc etc would appear. All these things are made using mammoth amounts of energy: far from achieving massive energy savings, which most plans for a renewables future rely on implicitly, we would wind up needing far *more* energy, which would mean even *more* vast renewables farms - and even more materials and energy to make and maintain them and so on. The scale of the building would be like nothing ever attempted by the human race.”

Global primary energy consumption by source

Primary energy is calculated based on the 'substitution method' which takes account of the inefficiencies in fossil fuel production by converting non-fossil energy into the energy inputs required if they had the same conversion losses as fossil fuels.

All together ▾

Relative



Source: Energy Institute Statistical Review of World Energy (2023); Vaclav Smil (2017)

OurWorldInData.org/energy • CC BY

| | Fossil Fuels | “Green Technologies” |
|----------------------------|--|---|
| <i>Extraction</i> | Requires large-scale unsustainable extraction of metals and other resources. | Requires large-scale unsustainable extraction of metals and other resources. |
| <i>Production</i> | Globalized industrial production process requiring energy-intensive technologies. | Globalized industrial production process requiring energy-intensive technologies. |
| <i>Pollution</i> | Extreme pollution released from initial exploration through extraction and consumption. Pollution often <i>visible</i> at site of consumption. | Extreme pollution released from initial exploration through extraction and disposal. Pollution often <i>invisible</i> at site of consumption. |
| <i>Human Rights</i> | Contributes to resource conflicts, exploitation of labor, and human rights violations worldwide. | Contributes to resource conflicts, exploitation of labor, and human rights violations worldwide. |
| <i>Democracy</i> | Technologies largely controlled by multinational corporations. Massive capital required. Community implementation largely impossible. | Technologies largely controlled by multinational corporations. Massive capital required. Community implementation largely impossible. |







PROTECT

Sage Grouse Desert Horned Lizard Crashy's buckwheat

THACKER PASS .ORG

LITHIUM LIES







NO LITHIUM
MINES!



PROTECT the
LAND

BRUCE R. THOMPSON
UNITED STATES
COURTHOUSE & FEDERAL
BUILDING

400

First of All
Protect the
Lithium
Production
Protect the
Production

PROTECT THE
LITHIUM
PRODUCTION

Life
over
Lithium









Goals and Strategies

- Goal 1: Stop any destruction of Thacker Pass
 - *Strategy A: Stand physically against the mine, and be prepared for direct action.*
 - *Strategy B: Build a moral case against the mine, through outreach, interviews, etc.*
 - *Strategy C: Put pressure on LAC, associated companies, investors, agencies, and politicians.*
 - *Strategy D: Put pressure on investors by highlights doubt and uncertainty.*
 - *Strategy E: Build pressure through the legal/administrative system*
 - *Strategy F: Build the strength of our movement*
- Goal 2: Build public awareness of and opposition to greenwashing

Ecological Crisis

- 200 species per day driven to extinction.
- 30% of all species may face extinction by 2050.
- We've lost half of all forest cover
- 3% of original forest left in Philippines, 2% in USA
- 40% of all deaths are due to water, soil, and air pollution (Pimentel et. al., 1998)
- Plankton populations have declined 40% since 1950 (Worldwatch Institute, 2009) — produce 2/3 of our oxygen
- More than 75% of topsoil has been lost since ~1500 CE

Start Thinking Like a Resistance Movement

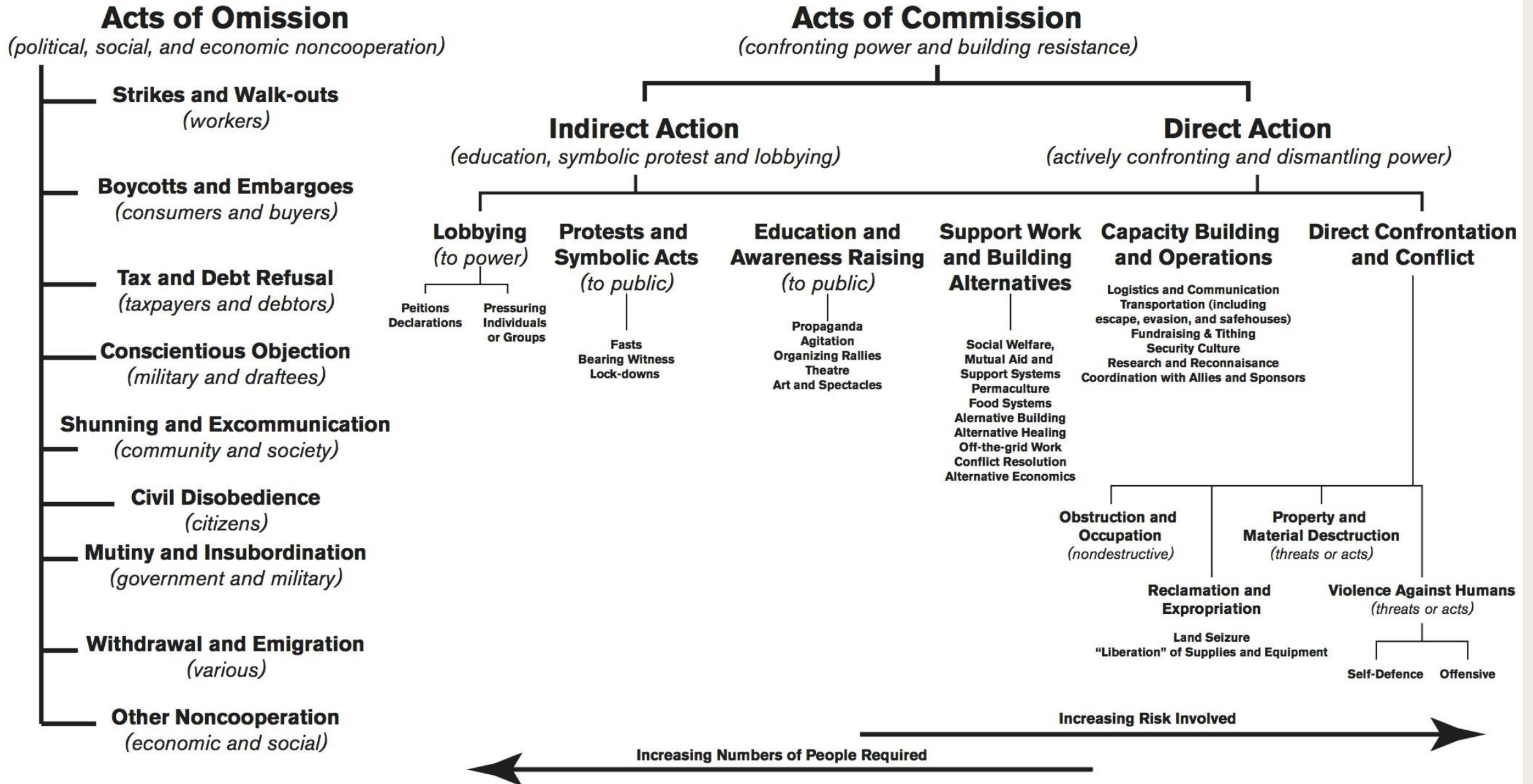
Shaping, Sustaining, Decisive

- Shaping: create the conditions for eventual victory
- Sustaining: keep the movement fed, clean, organized, funded, necessary equipment, etc.
- Decisive: direct achieve primary goal (stop the mine).



A TAXONOMY OF ACTION

From *Deep Green Resistance: Strategy to Save the Planet*
by Aric McBay, Lierre Keith, and Derrick Jensen



Our Generational Task

- Challenge false solutions and greenwashing
- Advocate for policies of degrowth that reduce consumption. “Power down” our society
- Re-localize sustainable food systems and other necessities
- Address overpopulation in humane ways
- Stop destructive projects & businesses by any means necessary
- Support the land in healing (“get out of the way”)

Bring the Salmon HOME

Leave the gas ALONE!!

NO PIPELINES!!!



**WE ARE NOT
RESOURCES**

Learn More

- *“Bright Green Lies: How The Environmental Movement Lost Its Way and What We Can Do About It”*
- *MaxWilbert.org (newsletter)*
- *ProtectThackerPass.org*
- *DeepGreenResistance.org*

