

Slides for Dick Erdmann

Climate Conversations

June 10 – July 8, 2021

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6/14/2021

120813-pws-nw-im_small.jpg (580×580)

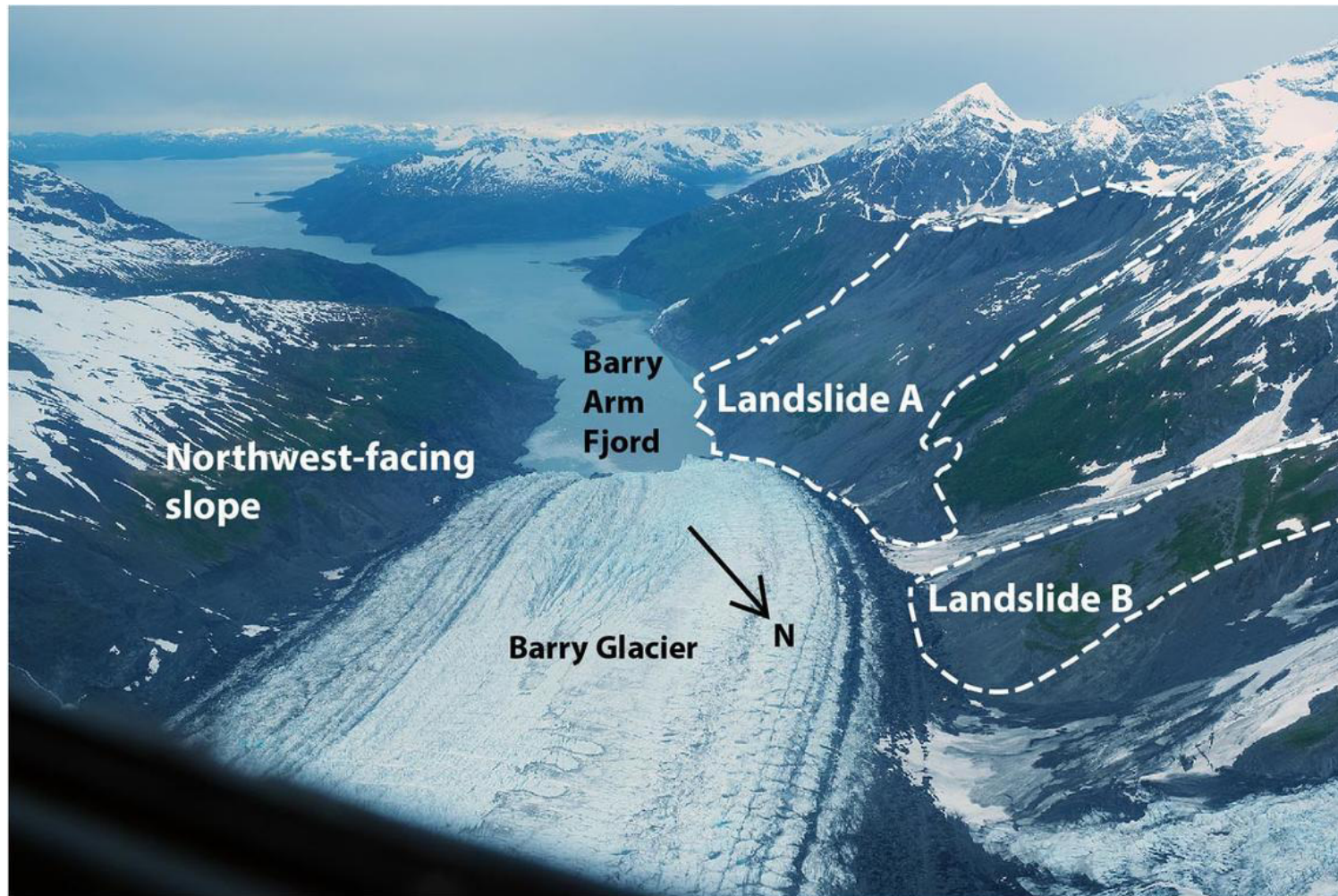


https://dec.alaska.gov/media/1900/120813-pws-nw-im_small.jpg

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BarryArm-AK.jpg (1140×798)



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Slides for JFO's article report

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Liquid Natural gas

What happened to Natural gas cars?

- Not less expensive than gas
- No fueling network
- Better for trucks and buses
- Cleaner than gasoline
- Can convert gasoline car to LNG

**Why not? Marketplace issues for cars.
Government regulations inhibiting??
Environmentalists want zero carbon.**

Thanks Clark

- Extensive article in Wall St. Journal about the Japanese commitment to hydrogen as a fuel.
- Alternate technologies for reaching zero carbon are welcome. The commitment supports the goal and is accompanied by investment monies.

Green Energy Is a Waste of Human Life, Freedom, and the Environment

H. STERLING BURNETT



The Democratic Party is going back to its old ways. Democrats were the party of slavery before they were against it. Now they're the party of slavery again. They also support

child labor.

In the Democrats' inane obsession to control the weather 80 years from now, to fight the totally nonexistent threat that is modest climate change, they're pushing ever greater amounts of green energy technologies, which are built on human misery and literally mountains of toxic waste.

Asians and Africans, many of them children, are being enslaved and dying in mines, refineries, and factories to obtain the minerals and metals required for the green energy technologies Democrats are mandating. Yet, the politicians and their supporters don't seem to care.

Amnesty International and numerous media outlets have conducted research and reported stories showing most of the cobalt required for the batteries needed for President Joe Biden's big electric vehicle push comes from small mines in the Democratic Republic of Congo (DRC). Cobalt is a necessary metal in the rechargeable batteries that power almost every electronic device in the world today, including cellphones, laptop computers, tablets, electric vehicles, and the magnets used in wind turbines.

The DRC produces more than half of the cobalt used today—more than all the other countries in the world combined.



A woman and a man separate cobalt from mud and rocks near a mine between Lubumbashi and Kolwezi, Democratic Republic of the Congo, on May 31, 2015.

cars and battery backup for solar and wind industrial facilities that are built on slavery and human misery. Research from Sheffield Hallam University in the United Kingdom reports that a single province in China produces 45 percent of the polysilicon that makes up solar panels, the majority of which are assembled in China. The polysilicon and solar panels are produced by Uyghur Muslims under a huge forced-labor regime.

"Solar panels are in huge demand because of climate change," reports the BBC,

pends on these minerals and elements.

Then there's the huge waste problem being created by the push for green energy.

Huge amounts of earth must be mined to extract the sparsely spaced minerals and elements needed to create the batteries powering electric cars, as well as providing supplementary power when the wind isn't blowing or the sun not shining. The refining of these minerals produces a toxic sludge that poisons adjacent and downstream peoples and environments.

Vast amounts of land, most often prime view areas, wildlife habitat, and migratory corridors, are transformed into energy-producing industrial parks when wind "farms" and vast solar arrays are erected.

And the results are huge piles of toxic trash when batteries, wind turbines, and solar panels fall prematurely or simply cease working at the end of their anticipated useful lives, which are difficult to process, recycle, or dispose of. Because of the way they're assembled and the materials they're made with, lithium-ion batteries are difficult to recycle. Attempting to disassemble a battery for recycling can result in a short-circuit, explosion, and fire that releases toxic fumes.

Yet, absent recycling, the millions of electric vehicle batteries that manufacturers expect to produce over the next few decades will wind up in landfills, taking up huge amounts of space in conditions that can result in the release of toxins, including heavy metals.

Even before Biden began his big push to expand the use of electric vehicles and wind and solar industrial energy facilities, cities and states were already struggling to deal with the mounting waste from disabled wind turbines and solar panels.

Municipalities running certified landfills are increasingly rejecting wind turbine blades, even when they can charge double the amount per ton for accepting them, because they take up tremendous amounts of space, must be crushed at considerable expense, require hundreds of years to break down, and often release methane and volatile organic compounds

Setting aside the polemics, which limit the article's audience

- Child labor in Democratic Republic of the Congo (DRC) to mine cobalt, Co, for Li-ion batteries is intolerable. 60% of Co comes from the DRC.
 - Battery fabricators are working to reduce the requirement for cobalt and having some success

Downsides of technology

- Chinese polysilicon for solar cells is mined by Uyghur slave labor. About 45% of world's supply comes from China.

"We can't be sure, no matter where we live, that the green energy that we so want to promote is not also at the same time promoting massive human rights violations,"

said Laura Murphy, a professor of Human Rights and Contemporary Slavery.....