

Bob Endlich and Dave Tofsted

Cruces Atmospheric Sciences Forum

Is Our Energy Future Bright & Clean? Or are we being sold a bill of goods by Environmentalist Zealots?

If the Problem is Worldwide Pollution... How is "solving it" in our country, but <u>polluting everywhere else</u> a solution?

Toxic Mines



Toxic Mines - Solar Panels

The problem with the environmentalists' solutions begins when we consider HOW their solutions to our environmental problems BEGIN to be solved...

The majority of solar panels on the planet are made in China, a nation with few pollution safeguards. <u>https://solarpowernerd.com/top-solar-panel-manufacturers/</u>

Solar panels are made mainly of Silicon (the main ingredient in Quartz), but also include Gallium and Phosphorus: https://news.energysage.com/what-are-solar-panels-made-of-list-of-solar-pv-materials/

Phosphorus has serious issues... <u>https://oursantaferiver.org/phosphorus-pollution-reaching-dangerous-levels-worldwide-new-study-finds/</u>

... as does Gallium. <u>https://www.dw.com/en/toxic-and-radioactive-the-damage-from-</u> mining-rare-elements/a-57148185

Toxic Mines - Phosphorus

Phosphorus is critical to solar panels because it is the means by which they transmit electricity.

But Phosphorus mining must be handled carefully or it will pollute rivers and is deadly to fish and crops. <u>https://medcraveonline.com/IJH/IJH-02-00106.pdf</u>

Phosphorus is a chief culprit in Algal Blooms that produced dead zones in lakes and the Gulf of Mexico off Louisiana.



https://edgeeffects.net/phosphate-mining/

Toxic Mines - Gallium

The Gallium problem is widespread because Gallium is used in many different semiconductor products. According to <u>https://www.dw.com/en/toxic-and-radioactive-the-</u> <u>damage-from-mining-rare-elements/a-57148185</u> ...

3rd World Rare Earth Mining features low wages, water shortages, and acidified landscapes. Mining critical raw materials endangers human rights and the environment. Yet the industry is expanding....

Securing just one ton of rare earth elements produces <u>2,000 tons of toxic waste</u>, and has <u>devastated large regions</u> of China... The lands where these mines operate "are no longer viable for agricultural use." "China, for example, has never really cared about human rights when it comes to achieving production targets."

One of the most <u>extreme examples is Baotou</u>, a Chinese city in Inner Mongolia, where rare earth mining poisoned surrounding farms and nearby villages.

Toxic Mines - EV's & Lithium

Lithium is THE vital ingredient in producing Electric Vehicle (EV) batteries. This is well known.

Typically ignored is the environmental damage done by Lithium mining. https://www.dw.com/en/toxic-and-radioactive-the-damage-from-mining-rareelements/a-57148185

"No one, not even within the industry, would deny that mining lithium causes enormous environmental damage," Müller explained, referencing the artificial lakes companies create when flushing the metal out of underground brine reservoirs. "The process uses vast amounts of water, so you end up with these huge flooded areas where the lithium settles."

... extensive acidic waste-water during lithium mining...

https://allthatsinteresting.com/pollution-in-china-photographs#9

As China's demand for energy has soared, the incidence of oil spills and gas-related pollution will only increase



https://allthatsinteresting.com/pollution-in-china-photographs#15



"Toxic mines" means that the people working in these mines are exposing themselves and the environment around the mines to the toxic chemicals coming out of these mines, particularly, Cobalt, Lithium, and Neodymium, all are toxic...(poisonous).

Article on Cobalt mining...

https://humantraffickingsearch.org/resource/modern-slavery-the-true-cost-of-cobaltmining/

Human trafficking? Child labor? Shorter life expectancy? Unsafe conditions? All of these, part of the drive to produce cobalt to fuel the "green" revolution.

Lithium...

In May 2016, dead fish were found in the waters of the Liqi River, where a toxic chemical leaked from the Ganzizhou Rongda Lithium mine. Cow and yak carcasses were also found floating downstream, dead from drinking contaminated water. https://www.instituteforenergyresearch.org/renewable/the-environmental-impact-of-lithium-batteries/ https://www.cbsnews.com/news/apple-google-microsoft-tesla-dell-sued-over-cobalt-mining-children-in-congo-for-batteries-2019-12-17/



https://i2.cdn.turner.com/money/dam/assets/180416120628-cobalt-mining-kids-river-780x439.jpg



Neodymium...

https://www.instituteforenergyresearch.org/renewable/wind/big-winds-dirty-little-secret-rare-earth-minerals

Most rare earth metals come from Chinese-controlled mining operations. These are among the dirtiest, most toxic mines on the planet: "As more factories sprang up, the banks grew higher, the lake grew larger, and the stench and fumes grew more overwhelming."

'It turned into a mountain that towered over us,' says Mr Su. 'Anything we planted just withered, then our animals started to sicken and die.'

"People too began to suffer. Dalahai villagers say their teeth began to fall out, their hair turned white at unusually young ages, and they suffered from severe skin and respiratory diseases. Children were born with soft bones and cancer rates rocketed.

Official studies carried out five years ago in Dalahai village confirmed there were unusually high rates of cancer along with high rates of osteoporosis and skin and respiratory diseases. The lake's radiation levels are ten times higher than in the surrounding countryside, the studies found."

STOP THESE

We're not here to debate the wind industry, we're here to DESTROY IT!

THE TRUTH ABOUT THE GREAT WIND POWER FRAUD

https://stopthesethings.com/2020/03/11/toxic-truth-millions-of-solar-panels-wind-turbineblades-destined-for-landfills/

The magnets in wind turbine generators are made from neodymium and dysprosium, rare earth minerals mined almost exclusively in China, which controls 95 percent of the world's supply of rare earth minerals...

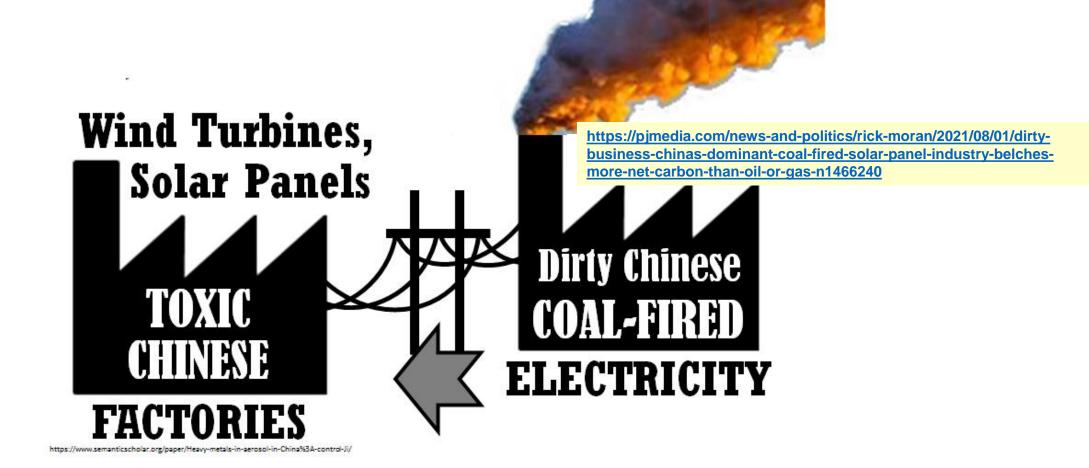
...the processing of which has covered whole tracts of China with fields of toxic waste and giant toxic lakes.



https://allthatsinteresting.com/wordpress/wp-content/uploads/2014/08/dead-fish-from-pollution.jpg



Toxic Chinese Factories fed by Dirty Coal-Fired Electric Plants



https://allthatsinteresting.com/pollution-in-china-photographs#3

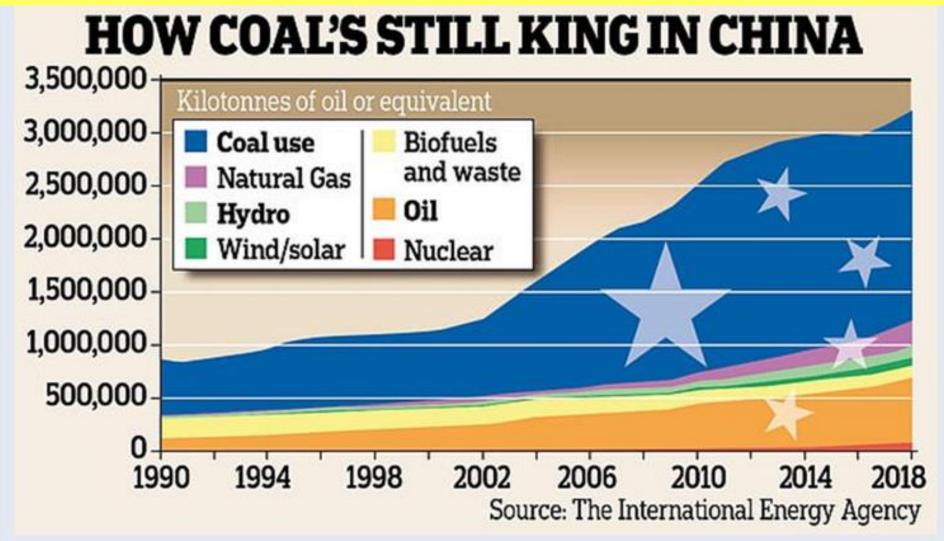


https://unearthed.greenpeace.org/2017/07/17/china-economic-growth-industry-2017/



Coal-Fired Power Plants in China The Vast Majority of Our Solar Panels and Wind Turbines are being generated by COAL-Powered Plants in China... How, Exactly, is that Saving the Planet from Coal-Powered Electric Plants?

https://www.dailymail.co.uk/news/article-10026335/Chinas-dirtiest-secret-1-000-coal-fired-power-stations-climbing.html



And the COAL-Powered Electric Plants in China DO NOT have the Scrubbers to remove Soot, Mercury, and Sulfur Dioxide like the Coal Power Plants do in the USA.

So why should we rely on Coal-Powered Electric Plants in China to make all our products, but Not Cleaner Plants in the USA?



https://www.lolwot.com/10-shocking-images-showingthe-extent-of-chinas-pollution-problem/



https://unearthed.greenpeace.org/2017/07/17/chinaeconomic-growth-industry-2017/

China makes most of the Solar Panels we install. They also control the Lithium Battery market:

March 15, 2022 - China's Share of the Lithium [main EV battery component] Market Is Staggering https://www.theepochtimes.com/chinas-share-of-the-lithium-market-is-staggering_4336477.html

Yet, despite all the pollution ALREADY coming from China, they STILL continue building MORE coal-fired electric power plants:

Feb 16, 2022 - **China puts coal plants at full capacity, even as it touts hosting a 'green' Olympics** <u>https://www.npr.org/2022/02/16/1081141189/china-coal-olympics-environment</u>

August 20, 2021 - China Is Planning to Build 43 New Coal-Fired Power Plants. Can It Still Keep Its Promises to Cut Emissions?

https://time.com/6090732/china-coal-power-plants-emissions/

March 24, 2021 - **Despite Pledges to Cut Emissions, China Goes on a Coal Spree** <u>https://e360.yale.edu/features/despite-pledges-to-cut-emissions-china-goes-on-a-coal-spree</u>

March 28, 2019 - China's power industry calls for hundreds of new coal power plants by 2030 https://unearthed.greenpeace.org/2019/03/28/china-new-coal-plants-2030-climate/

NOTE: NPR, TIME, Yale, Greenpeace ... Not exactly rightwing websites. This China Problem is REAL.

China's Toxic Cities (as long as they're not in our back yard)

But the Planet is still gets polluted...

https://www.scmp.com/news/china/policies-politics/article/2053023/how-chinas-quick-blue-sky-fixes-make-

pollution-worse



https://allthatsinteresting.com/pollution-in-china-photographs#5



https://allthatsinteresting.com/pollution-in-china-photographs#21 According to the World Bank, China is home to 20 of the world's 30 most polluted cities



https://allthatsinteresting.com/wordpress/wp-content/uploads/2014/08/china-pollution.jpg



Wind Turbines pose an **EXISTENTIAL THREAT** to APEX **ENDANGERED** BIRDS

RAPTORS KILLED



HABITATS LOST

https://windmillskill.com/blog/windfarms-kill-10-20-times-more-previously-thought

https://stopthesethings.com/2016/02/20 /rampant-wind-turbine-bird-slaughterpushes-vulnerable-species-to-the-edgeof-extinction/

February 20, 2016

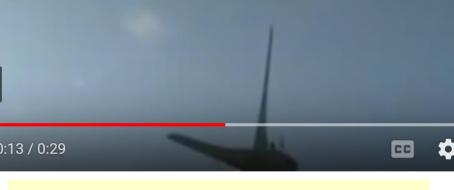
Rampant Wind Turbine Bird Slaughter Pushes Vulnerable Species to the Edge of Extinction



See also: https://casf.me/audubon-goes-over-edge-jan-feb-2016-issue-promotes-anti-science-alarmism/

Soaring Eagle killed by this wind turbine.

Left to right, the last seconds of this magnificent Eagle.



1. Eagle soaring, unaware of danger.



2. Four seconds later, struck by the blade.

http://www.savemarinwood.org/2014/08/ eagle-killing-rule-almost-done.html 17 / 0:29

3. A second later, fatally injured, plunging to Earth

http://raptorpolitics.org.uk/wp-content/uploads/2013/01/Smola-334_520x412_dead_white-tailed_eagle-500.jpg



https://stopthesethings.files.wordpress.com/2013/07/eagle-at-waterloo-e1401764281447.jpg

Just ONE such example would have environmentalists on the warpath IF this was due to the Gas and Oil industry, but because it was caused by a Wind Turbine the Obama Administration was willing to give the owners waivers.

http://www.savemarinwood.org/2014/08/eagle-killing-rule-almost-done.html



Eagle-killing rule almost done

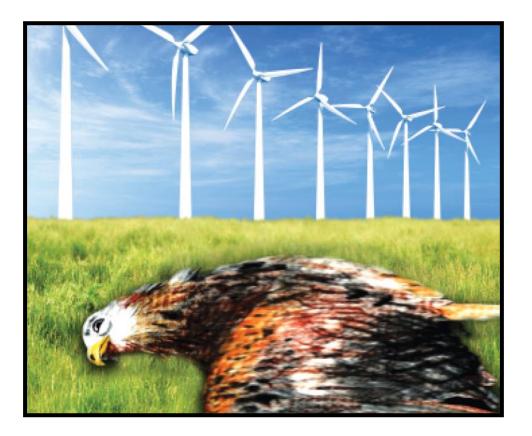
By Laura Barron-Lopez

The Obama administration has nearly finalized a rule that would give energy companies lengthy permits for wind farms that end up killing bald and golden eagles.

Truth in Advertising: Is It Live or Is It Memorex?

Due to copyright concerns, we used a "fake" dead bird image on Lindmark's Billboard.

However, below right is the original Kite death image found at many sites on the web. This raptor was killed at a wind farm in Spain.





http://www.epaw.org/fb5/vindkraftfagel2-jpg.jpg



Sweden : Expert alarm: Wind turbines massacre raptors | EPAW - European Platform Against Windfarms

Excuses: Windows, Cars, etc.

Those looking to excuse the Wind Turbine industry will claim that many more birds are killed by colliding with windows and cars.

While this is true, such collisions to not apply to raptors. Raptors are APEX hunters. There are many fewer raptors than (for example) pigeons.

While solutions may be available (painting blades different colors), they have not been implemented.

It's one thing to claim a solution, it's another to implement it. Meanwhile, tens of thousands of endangered raptors are killed every year.



https://stopthesethings.com/2019/08/10/ wedge-tail-wipeout-tasmanian-wind-farms -threaten-eagle-extinction/ European citizens also are taking action against wind turbines which are killing birds. In Spain, wind turbines in the foreground and on the ridge in the background are killing Black Storks.

Picture courtesy Colectivo Ornitológico Cigüeña Negra (COCN), Cadiz.

This is only at 5% Renewables Level What happens when we reach 60%?

It's Not Just Raptors - Insects Crushed Too

The World's Bee Population is already experiencing problems due to colony collapse syndrome.

This problem is also exacerbated due to the Wind Turbines.

https://stopthesethings.com/2019/05/2 3/busted-bugs-german-wind-turbinesdemolishing-1200-tonnes-of-insectseach-year/



and Bats Too.

Photo by Boris Smokrovic on Unsplash

Despite Problems Aren't Wind Turbines a KEY part of an overall Solution? NO! Maybe a Part, but Not KEY.

Mark Mills explains in "The "New Energy Economy": An Exercise in Magical Thinking," https://media4.manhattan-institute.org/sites/default/files/R-0319-MM.pdf

"Transforming the energy economy is not like putting a few people on the moon a few times. It is like putting all of humanity on the moon—permanently."

The real costs of building a Green Grid involves **not merely generating power**, but **providing** enough **power when users need it**. And not merely WHENEVER the skies are clear enough and the sun is out, or when the wind is blowing.

Dead or Dying Wind Turbines Littering the Landscape

25-Years Later UN-RECYCLABLE

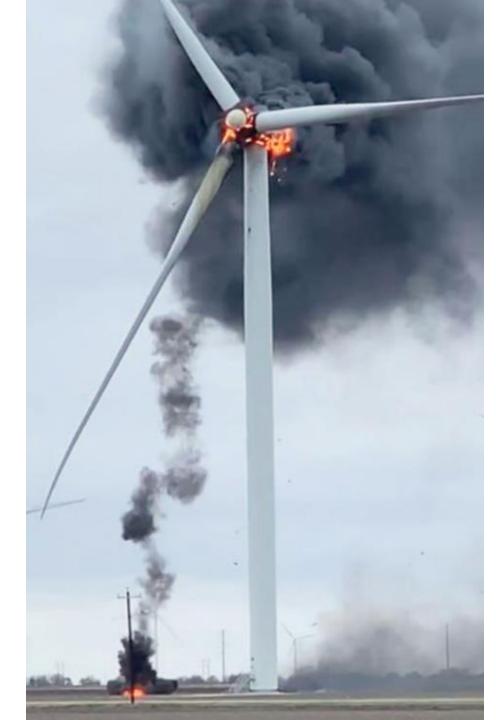


https://stopthesethings.files.wordpress.com/2014/12/turbine-fire-trent-wind-farm.jpg

Overheating can cause the case oil to ignite

https://www.pinterest.com/pin/530017449893161117/





https://forums.canadiancontent.net/threads/14-000-abandoned-wind-turbines-litter-the-united-states.138950/



Excessive wind speed can cause the Turbines to tip over. Then WHO is responsible to clean up the mess? https://forums.canadiancontent.net/threads/14-000-abandoned-wind-turbines-litter-the-united-states.138950/



https://stopthesethings.files.wordpress.com/2017/08/fire-in-japan.png?w=460&h=288



Aftermath - Wind Turbines

Like Solar Panels, wind power is driven by Wind Turbines that require many different ingredients to manufacture...

One Wind Turbine Takes 900 Tons of Steel , 2500 Tons Of Concrete , 45 Tons of Plastic! <u>https://peckford42.wordpress.com/2019/08/09/one-wind-turbine-takes-900-</u> <u>tons-of-steel-2500-tons-of-concrete-45-tons-of-plastic/</u> → If You Want 'Renewable Energy,' Get Ready to Dig.

The **dream** of powering society entirely with wind and solar farms combined with massive batteries might seem realizable, but it's merely a DREAM! To implement this dream would actually require the biggest expansion in mining the world has seen and would produce enormous quantities of waste.

These **massive machines** eventually (20-25 years later) **wear out**. The old equipment must be decommissioned, generating millions of tons of waste.

Aftermath 1 - Wind Turbines

What to do with hundreds of tons of WASTE?

Solution 1: Simply leave the turbines where they were installed. DO NOTHING.

https://forums.canadiancontent.net/threads/14-000-abandoned-wind-turbines-litter-the-united-states.138950/



In Many Cases the Company that installed the Turbines either (a) sold them to a third party, or (b) never paid an upfront fee to cover the cost of removal. So they simply sit and rot...

https://wakeupwyoming.com



https://forums.canadiancontent.net/threads/14-000-abandoned-wind-turbines-litter-the-united-states.138950/



Puerto Rico Wind/Solar Destroyed By Maria https://youtu.be/1AAHJs-j3uw

Posted on September 27, 2017 by tonyheller



https://realclimatescience.com/2017/09/puerto-rico-windsolar-destroyed-by-maria/ Green energy is worthless. If Puerto Rico had to depend on it, they would be back to the Dark Ages.

Aftermath 2 - Wind Turbines

What to do with hundreds of tons of WASTE?

Solution 2: Leave the Concrete in the GROUND, tear down the towers. Send the BLADES to a LANDFILL!

We've Created "Forever" Waste. Wind Turbine Blades Can't be Recycled https://iowaclimate.org/2020/11/21/1-35-million-tonnes-of-hazardous-material-germany-admits-no-plan-to-recycle -used-wind-turbine-blades/

1.35 Million Tonnes of "Hazardous Material", Germany Admits No Plan To Recycle Used Wind Turbine Blades

Germany began installing wind turbines in earnest some 20 years ago. Now that their lifetime has been exceeded, many are being ripped down. But there's a big problem about what to do with the leftover carbon and glass-fibre reinforced blades.

A recent report on ZDF German public television explains that currently there's no plan in place on what to do with the turbine blades, which weigh up to 15 tonnes each.

There's no way to recycle them to use as raw material for new blades. Currently the old blades are being shredded and the chips mixed in with concrete. "You need too much energy and power to shred them," says Hans-Dieter Wilcken, the operator of a German recycling company.

Burning them is also not an option.

Hazardous waste

The problem with chopping them up is that dangerous carbon fibre particles are produced and pose a threat to human health. Used wind turbine blades have been designated hazardous waste and no one knows how to deal with them.

Currently 30,000 wind turbines are in operation across Germany and many will have to be dismantled over the next 20 years. That volume alone means over a million tonnes of hazardous waste (30,000 turbines x 3 blades/turbine x 15 tonnes/blade = 1.35 million tonnes).

Legacy of waste, breathtaking stupidity

Future generations will wonder how dumb their ancestors must have been to opt for a form of energy that blighted the landscape, destroyed ecosystems over vast areas, killed avian wildlife, was an unreliable and expensive energy source, made nearby residents sick and left millions and millions of tonnes of waste behind.

Busted: Government Fines Another Wind Turbine Blade 'Recycler' for Illegal Dumping



Dumping 45-60m long, 10-20 ton turbine blades in landfills is a costly 'solution' that many wind power outfits seem keen to avoid.

Global Fiberglass Solutions Inc. had accumulated some <u>1,300</u> <u>blades</u> at sites in Newton, Atlantic and Ellsworth with plans to purportedly 'recycle' them. With <u>no means of recycling</u> the growing pile, or any apparent intention to do so, Iowa's Environmental Protection Commission referred the case for prosecution.

Much the same is happening across the US, with <u>tens of thousands</u> of blades being **buried in landfills** or **piling up** on properties that are not approved by regulators as waste disposal sites. https://hotfashionnews.com/world-news/hundreds-of-fiberglass-wind-turbine-blades-pile-up-in-landfills/

Hundreds of fiberglass wind turbine blades pile up in landfills

Pieces of wind turbine blades are buried in the Casper Regional Landfill in Casper, Wyoming.

Because of the conditions they are built to withstand, the blades cannot be easily recycled.

Once they are in the ground, the blades will remain there essentially forever — they do not degrade over time.



HABITATS LOST it's not just WIND FARMS

RAPTORS KILLED



HABITATS LOST

Solar Farms: Inefficient **Problem-Prone High Maintenance**

Today's Home Solar Energy Highly Subsidized / Not Maintained

When we hear ads on the radio about Solar Power today, we think - Wow. That's so easy... Nearly free power. BUT...

To access this "DEAL" you need a HOUSE big enough to hold the panels. \rightarrow Subsidizes mostly the middle-to-upper class Americans.

Also, the "DEAL" involves HEAVY SUBSIDIES. (Paid off within a few years)

What is the INCENTIVE, then, to MAINTAIN the Panels so that they perform OPTIMALLY?

There is NONE.

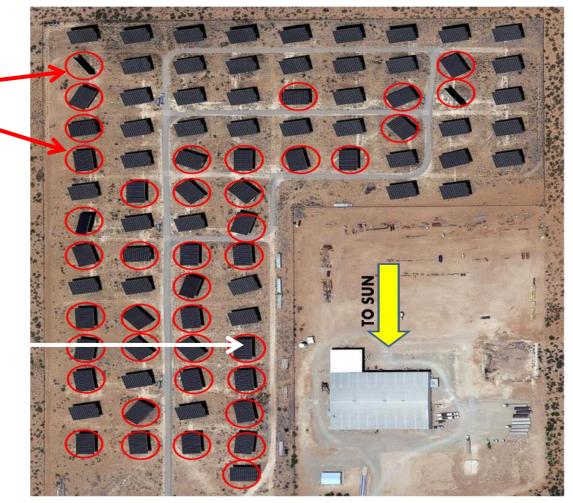


https://stopthesethings.com/2022/03/13/filthy-rich-get-tosoak-in-massive-solar-subsidies-while-the-poor-getnothing/

Un-"CLEAN" Solar Energy Faulty Inefficient Hatch, NM, Solar Farm

- Originally designed so large panels would actively Track Solar Position during the Day.
- > Over Half of Platforms NO LONGER TRACK!
- > NO One is Responsible to do Maintenance!





79 Installed 40 malfunctioning

Photo of the Las Cruces Centennial Solar Farm, part of El Paso Electric's "green energy solution." The sun is at one point in the sky, but the solar panels are pointing in three different directions! This means that the solar array can not possibly be an efficient producer of electricity. Another project paid by "Other Peoples' Money." Who cleans the wind-borne dust from the solar panels?



https://www.conservativenewsdaily.net/breaking-news/outdated-solar-panels-wind-turbines-electric-car-batteries-will -clog-landfills-with-hazardous-waste-according-to-new-report/

Solar Panels are Inefficient: Max Conversion Efficiency: 20% Solar Incidence Variations Cloud Cover Losses To Make Up for Losses, Solar Farms must be extremely LARGE. Must eliminate vegetation - Massive Habitat Losses.

Newly Proposed Las Cruces Solar Farm by Afton, NM: 46 MORE Square Miles of Habitat to be destroyed.

Once Obsolete, How are Solar Panels to be recycled?

Again: No one is responsible because the subsidies ran out after purchase.

photo from <u>http://a.abcnews.com/images/US/hurricane-</u> maria-virgin-islands-5-rd-jt-170929_16x9_1600.jpg

100% Renewables? No. NOT Possible.

44 Yrs. of Subsidies = 12% NO WHERE near enough.



https://rumble.com/vy3evj-the-renewableenergy-fail.html



Saved by Batteries?

No. Battery Tech Not up to the Job.

The Renewable Energy Fail

