TO:

Office of NEPA Policy and Compliance (GC–54)
U.S. Department of Energy
1000 Independence Avenue SW.
Washington, DC 20585
Attn: Samuel T. Walsh, General Counsel
Email: DOE-NEPA-Rulemaking@hq.doe.gov
Tel.: (202) 586-4600

December 31, 2023

Re: Docket Number: DOE-HQ-2023-0063

Mr. Walsh,

Please accept this joint comment by Sea Life Conservation, Public Employees for Environmental Responsibility, Alliance of Nurses for Healthy Environments, Clean+Healthy, Beyond Toxics, Toxic Free NC, Save the Whales, Protect Our Woods, Save Our Shores, As You Sow, the City of Covington (Washington State), Swan View Coalition, Friends of the Bitterroot, Conservation Congress, Ocean Conservation Research, and the Responsible Offshore Development Alliance, in response to the Department of Energy's November 16 announcement (88 FR 78681) pertaining to its proposed environmental deregulation described here.

Public Employees for Environmental Responsibility (PEER) serves current and former government employees such as public health professionals, scientists, land managers, enforcement officers, and others dedicated to upholding environmental laws and values, and to maintaining high standards of ethics within agencies. PEER protects and works with whistleblowers, so agencies confront the message, not the messenger, shining light on illegal or improper government actions, including those involving regulatory capture. PEER supports the work of other organizations, helps to ensure the use of science and sound policy in decision-making, and acts to protect the rule of law and the integrity of the scientific and administrative processes.

The Alliance of Nurses for Healthy Environments (ANHE) focuses on the relationships between human health and the environments in which we live, promotes human health and well-being, and fosters healthy and safe communities. Clean air, a stable climate, access to safe and clean drinking water, adequate sanitation and hygiene, safer chemicals, healthy workplaces, resilient and sustainable built environments and agricultural practices, and access to green spaces and nature are all necessary for good health and a healthy planet. AHNE provides resources to nurses that are credible and evidence-based about how the environment impacts health so that Nurses can better serve the public, as well as provide input into policies and practices that will improve health and prevent disease, creating a healthier future for all.

Beyond Toxics works toward a society where everyone has equitable access to healthy food and clean air and water, and underserved communities are included in the decision-making processes that affect them; provides leadership for a community-driven environmental justice movement in the state of Oregon; promotes green energy, sound forestry, and land use policies that safeguard our ecosystems and watersheds; gives support at the community level to mitigate environmental hazards; serves as watchdog over industrial polluters; promotes natural solutions to mitigate climate change through carbon sequestration; advocates for transparency in public reporting of chemical use and exposure potential; works to curtail use of harmful water contaminants; and strengthens statewide environmental monitoring in Oregon. Beyond Toxics helps move beyond the damaging environmental practices of the past and collectively work to support and maintain ecological resilience and balance.

Founded in 1986, the mission of Toxic Free NC is to engage North Carolina in initiatives that advance environmental health and justice by advocating for safe alternatives to harmful pesticides and chemicals. Toxic Free NC is moving the needle toward a system in which decision-makers consider the needs of whole communities impacted by multiple injustices, acknowledge the cumulative and longitudinal impact of chemicals in the environment, and respect the right to clean air, clean water, and healthy food for all.

As You Sow is the nation’s leading nonprofit practitioner of shareholder advocacy, believes corporations must be part of the solution to today’s social and environmental problems, and has been changing corporations for good for over thirty years. As shareholder representatives, As You Sow moves corporations toward business models that reduce risk, benefit brand reputation, and protect long-term shareholder value while bringing about positive change for the environment and human rights. As You Sow creates change by conducting and publishing original research; enabling foundation, institutional, and individual investors to align investments with values; and engaging directly with corporate CEOs and senior management on the issues of climate change, energy and fossil-free finance, biodiversity, circular economy versus single-use plastics, pesticides, regenerative agriculture, antibiotics misuse on factory farms, racial justice, and workplace diversity.

A group of committed people from different walks of life whose achievements in protecting national forest along the Bitterroot Mountains led to a groundswell of grassroots support among like-minded citizens in the Bitterroot valley and beyond, Friends of the Bitterroot has challenged and halted large timber sales on the Bitterroot and Beaverhead-Deerlodge National Forests by bringing the best available science and our nation's environmental laws to bear. Friends of the Bitterroot works for a sustainable relationship with the environment by recommending management practices that avoid exacerbation of the impacts of climate change; provides evidence to inform property damage fire risk mitigation practices that avoid further impairment of natural forest ecology; and works to conserve essential habitat of elk, lynx, grizzly, wolverine, bull trout, and other species. Friends of the Bitterroot has protected the forests and watersheds of Montana's Bitterroot range, a subrange of the Rocky Mountains, for three decades.

Protect Our Woods protects Indiana's Hoosier National Forest by bringing to light the impacts of clearcutting, logging, burning, and chemically treating tens of thousands of acres in Orange County, Indiana Hoosier National Forest on its ecological and recreational value; controversy between current and former US Forest Service officials over how clearing old growth for new growth may affect the forest's utility as a carbon sink to combat climate change; and the moral hazards occasioned by financial conflicts of interest when agencies benefit from receipts from the sale and use of natural resources they are tasked with overseeing.

The City of Covington is an incorporated City in the great state of Washington. The City of Covington has a population of approximately 21,000 persons and is situated in the foothills of the Cascade Mountains, within King County. It is governed by a seven-member Council.

Protecting wildlife, forest, and other wildlands in the U.S. Northwest, Conservation Congress provides cautionary input for land managers on such topics as post-fire site dismantlement practices that work against natural fire ecology and post-fire succession; habitat area extent; and the ecological importance to animal nesting places and behaviors of certain physical elements of old growth. Conservation Congress works to help right the direction of attention of land management from influences of those who wish to see it serve primarily as a sustainable supply of assets for timber commodity sale, to the environmental safeguarding of public freshwater systems, fisheries, other wildlife, and their habitats.

With a focus on forest and freshwater habitat in Flathead National Forest's Swan Valley area of western Montana, Swan View Coalition helps preserve ecosystem integrity by reducing forest habitat fragmentation and protecting essential freshwater systems via abatement of the degradation of public land that often occurs from privatization of public resources. Swan View Coalition reverses habitat fragmentation by securing removal of roads and curbing impairing uses, and by deterring adoption of those plans and policies that result in elevated risk of logging road landslides and other erosion into streams including into trout habitat of high ecological value where turbidity is damaging to native freshwater ecosystems. Swan View Coalition exposes fraudulent programs seeking to "restore" forests to false "historic" conditions as pretext for logging ; and conserves and highlights opportunities for quiet recreation, for better human health.

Save Our Shores fosters thriving and sustainable ecosystems in California's Monterey Bay and surrounding habitats through equitable environmental action. Save Our Shores is a grassroots non-profit organization focused on marine conservation located in Santa Cruz, California,

founded in 1978 in response to the threat of offshore oil drilling along the Central Coast. Save Our Shores was integral in achieving the designation of Monterey Bay as a National Marine Sanctuary. Since then, Save Our Shores has worked to protect the Pacific coastline from threats such as plastic pollution, other litter, and illegal sand mining. Our efforts have expanded since our inception to include delivering marine science education to local students, engaging community members in environmental stewardship, outreach for pollution mitigation, and continuing the invaluable advocacy work upon which our organization was founded by pushing for policies that protect oceans, coastlines, and connected communities.

The Responsible Offshore Development Association (RODA) coordinates approaches to managing development of the U.S. Outer Continental Shelf for mitigation of conflict with existing traditional uses and historical fishing; facilitates participation of fishers, industry, and members of the public that is so essential for making local ecological, experiential, and technical knowledge available to decision-makers; develops indicators of systemic ecosystem risk for fishery assessments that improve management decisions for the continued health of fisheries; maintains a repository of standardized, accessible, timely, first-hand knowledge containing high-res, accurate, spatially and temporally explicit data; and enables fishing and food production concerns to be represented in regional database information products that are used to make decisions regarding the use of the Outer Continental Shelf.

Save the Whales has protected whales and whale birthing places from perils created by expansion of mining operations, military operations, entanglement, whaling, and pollutants for over forty years. Save the Whales engages in rescue operations and litigation to protect whales, and has a strong focus on education on marine mammals and the sensitivity of the ocean environments to disturbance. Save the Whales is headquartered in Salinas, California. Through education, Save the Whales empowers youth to understand that their actions can effect real change.

Ocean Conservation Research focuses on understanding the energy and noise impacts of the industrialization of the ocean, and its consequences on marine life. Ocean Conservation Research engages in marine biological and technological research based on conservation priorities, and uses the products of this research to inform the policies and practices of the public, industry, and government.

Sea Life Conservation, a New York not-for-profit corporation, uses a multidisciplinary approach to identify disruptive forces presenting challenges to coastal and marine life, in order to ensure the fulfillment of a legacy of ecosystem health and its benefit to humanity for all of the future. Sea Life Conservation preserves coastal, marine, both freshwater and tidal wetland habitat, and other natural resources, including assets held in the public trust when these are proposed to be appropriated for uses which impair them.

The Department of Energy seeks to amend regulation such that inquiry into the potential impacts on the environment of construction operation and decommissioning of the following categories of energy infrastructure projects[1] would no longer require an environmental impact statement or for their environmental impacts assessed or reviewed prior to being approved, permitted, or funded, except in extraordinary circumstances.

- photovoltaic solar power plants
- utility-scale battery energy storage systems
- transmission line rebuilds/upgrades

The obligation to advance-notify the potentially affected public and the requirement to provide opportunity for public input on projects of these types would be eliminated if the above-proposed change in regulation is effected.

A project that is "categorically excluded" under NEPA[2] is one for which an “Environmental Assessment” need not be prepared because it is known to not have any significant adverse effect, neither singly nor considered in aggregate with others in its category, so that the reviewer of an application under NEPA for such project is waived from the requirement of having to prepare any Environmental Assessment and any Environmental Impact Statement. Thus, creation of categories of excluded actions should only occur for project types which are known not to have any potential adverse significant effect or where such effects are sure to be only insignificant, even in aggregate.

Categorical Exclusions are categories of actions which, on account of their innocuousness, do not require an environmental assessment or review prior to their approval, permitting, or funding. That is, Categorical Exclusions types of actions which, although requiring federal approval, permitting, or funding, by their character **are benign actions** for which it is not plausible to believe that they may have significant adverse impact on the environment.

Some examples of actions categorically excluded from having to undergo further NEPA review and their issuing agencies are as follows. We include these only to show categorical exclusions are intended for activities that are environmentally benign, not those with potential for impact.

[1] as qualified and described in more detail below

[2] The National Environmental Policy Act, our nation’s bedrock environmental law that requires the environmental impacts of proposed projects to be understood before they are federally approved, permitted, or funded

- administrative activities such as recruiting, recordkeeping, budgeting, routine personnel actions, and fiscal management [Department of Commerce]

- replacing a pole for a transmission line only where either the same or substantially equivalent support structures is used at the same approximate location; [Department of Agriculture]

- repair of an airfield runway [Federal Aviation Administration]

- placing a trailer in an already developed area [A-10 Bureau of Ocean Energy Management]

- remotely viewing plants and animals in the field using non-invasive techniques [E4 National Oceanic and Atmospheric Administration]

- Routine repair and maintenance of buildings, facilities, vessels, aircraft, ranges, and equipment associated with existing operations and activities (e.g., minor erosion control measures, painting, general building repair, landscaping, grounds maintenance. [Department of the Navy]

- Leasing buildings, only when such leasing complies with all applicable Federal, State, and local laws, including all environmental protection and zoning laws, and lease extensions and terminations. [National Instititute of Health]

- Assigning personnel to conduct audits [Department of Homeland Security]

- Procurement of non-hazardous goods and services, and storage, recycling, and disposal of non-hazardous materials and wastes, that complies with applicable requirements and is in support of routine administrative, operational, or maintenance activities, only where the storage activities occur on previously disturbed land or at existing facilities. [Department of Energy]

- Installing motion detection systems and shatter-resistant glass security features [Department of Homeland Security]

- Seizure and monitoring of goods at the customs border [Homeland Security]

- Procurement of non-hazardous goods and services, and storage, recycling, and disposal of non-hazardous materials and wastes, that complies with applicable requirements and is in support of routine administrative, operational, or maintenance activities. Storage activities must occur on previously disturbed land or in existing facilities.[DHS Customs and Border Protection]

- Minimally-intrusive sampling to determine whether the following is present: hazardous wastes, contaminants, pollutants. [Missile Defense Agency]

The Department of Energy seeks to:

1. remove the current 20-mile cap for the maximum distance of transmission rebuild or upgrade project (expressed as length of right of way for transmission line) that can qualify for a Categorical Exclusion under NEPA. **The Department of Energy is proposing to change the regulation so that the transmission project length that can qualify for such waiver is: <u>limitless</u>.** The proposed rule would also allow projects which widen transmission rights of way over long distances, and which remove hundreds or perhaps thousands of trees (translation: substantial loss of habitat) to qualify for a Categorical Exclusion - requiring no NEPA review beyond the mere determination that such project is categorically excluded from further review - unless the project is expected

to implicate endangered species, cultural resources or sensitive habitat. It uses the rationale that only in sensitive habitats, or in those that contain cultural resources are they likely to result in environmental effects, along with the flawed reasoning that just because a large project does not *necessarily* always result in significant adverse effect, that there isn't any relationship between project size and potential for significant adverse effect. The Department also clarifies that new transportation roads to service these projects fall within the waiver/exclusion.

2. Allow the construction and operation of photovoltaic solar power plants to be approved and permitted without an Environmental Assessment or review, even though they nearly always usurp habitat, are surrounded by fine-chain-link fence exclosures that block animal movement and cause habitat fragmentation, and even though they often require clearing vegetation and/or trees and other profound modifications to, or elimination of, habitat.
3. The Department of Energy also seeks to create a new Categorical Exclusion (or waiver of the requirement to Environmentally Assess or prepare an impact statement) for the construction, operation of Battery Energy Storage Systems, also known as battery parks, as well as for their decommissioning, where they will be constructed :
    a. at already-disturbed land
    b. on <u>undeveloped undisturbed land</u> situated "contiguous to" a previously disturbed area, where 'previously disturbed' is a term with wide applicability defined to mean area with ecological function altered by human activity.

No battery park construction, operation, and decommissioning should be categorically excluded, as the batteries for such facilities require rare earth minerals which require mining, moving, and grinding of large quantities of earth, refinement/production, substantial environmental hazard to the mined area and areas surrounding the mines, and transcontinental transport, as well as hazmat (hazardous materials) transport into and out of the facility upon decommissioning. The battery park itself typically has serious health and safety risks and concerns to be fully considered, most notably fire risks[3], the concomitant risk of toxic fumes, as well as environmental contamination potential both from accidents as well as from persistent leachates in decommissioning/disposal. There is also the issue of how to prevent and lessen the impact of the most catastrophic blazes, as well as how to mitigate disruption to the community from road closures in the event of an emergency, which, without adequate planning and siting could cut off important emergency routes to and from hospitals and between nursing homes and hospitals, or disrupt local commerce and commuter routes. This indeed happened[4]. For all these reasons, if a categorical exclusion for battery storage facilities were to be issued, it would constitute irrational and capricious agency action.

A regulation allowing a catex for such projects that are well-known to usurp habitat, including on previously undeveloped land, ***<u>reduces</u>*** environmental protection and ***<u>is inconsistent with</u>*** (rather than implements) NEPA, The National Environmental Policy Act, which requires that the actions

[3] Conservatively, facility fire incidence rate is between 1 in 30, and 1 in 50, and is reasonably expected to rise over time, as the batteries age at such facilities (most of which are relatively new at present).

[4] https://www.easthamptonstar.com/police-courts/2023531/roads-closed-trains-halted-over-smoldering-battery

to which NEPA applies[5] undergo an environmental review before being funded, approved, or permitted.
The two types of review are : (1) Environmental Assessment and (2) full review culminating in Environmental Impact Statement.
NEPA requires that actions which, under a plausibility standard, "may" result in significant adverse environmental impact undergo an environmental assessment. NEPA requires full review culminating in an Environmental Impact Statement of actions for which it is reasonable to believe that it "may" have significant adverse effects.

These statutory requirements of NEPA conflict with the Department of Energy's proposal to create categorical exclusions for the said project types, because projects of these types may result in significant adverse environmental impact.

Requiring an environmental review does not mean projects are likely to be disapproved if some environmental costs are found, but rather ensures that decision makers have examined and weighed all the environmental costs and risks of their projects before approving. None of the project types that the Department seeks to categorically exclude from further NEPA reviews should be categorically excluded from such reviews just because some projects of that type had received FONSI[6] findings upon an EA. All three project types the Department seeks to create exclusions for have the potential for environmental harm, either singly or in aggregate, and as such, it is inappropriate to create categories excluded from further review[7], for these project types. Reviews typically require on-site surveys or other means of determining, ahead of the start of the project, the best way to undertake it, and reveal, in a public process, whether less harmful alternatives could be used to further the same purpose and meet the same need.

A CATEX FOR PROJECTS WHICH UPGRADE OR REBUILD POWER TRANSMISSION SYSTEMS OF LIMITLESS LINE DISTANCE AND WHICH WIDEN RIGHTS OF WAY FOR SUCH LINES IS AN ABSURDITY

The Department of Energy seeks to remove the 20-mile cap for the maximum length of power transmission project that can qualify for a Categorical Exclusion under its NEPA regulation. The proposed environmental deregulation would allow projects which widen transmission rights-of-way over long distances, including those which remove hundreds[8] or even thousands of trees and vegetation (which represents substantial loss of habitat) to qualify for a Categorical Exclusion, meaning that projects in the category would require no review beyond the bare determination that such project belongs to said category, except where the project is, a priori, expected to implicate endangered species, cultural resources, or sensitive habitat.

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[5] that is, actions which are federally funded to accomplish a policy goal or which require federal authorization or approval

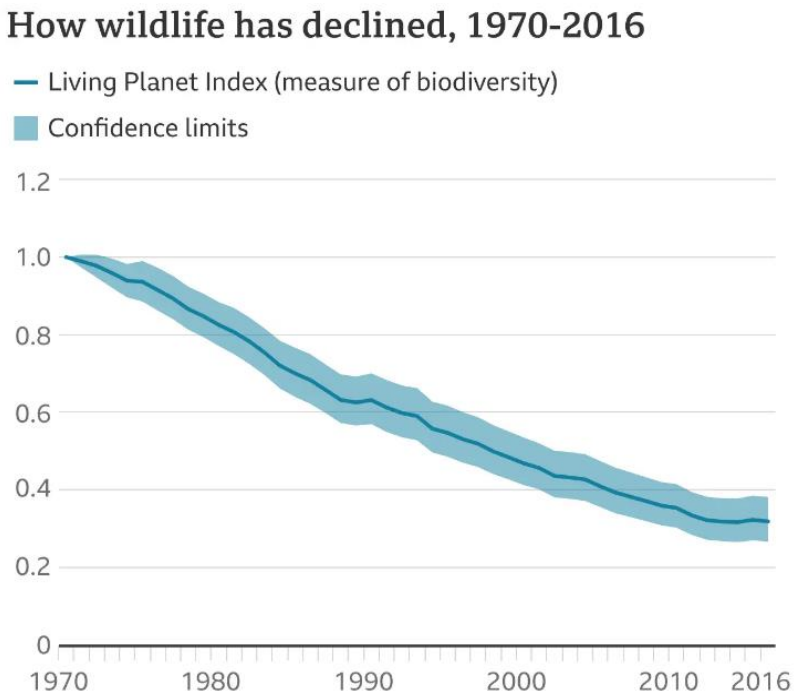
[6] Finding of no significant impact

[7] 'excluded from further review' here means the requirement for the proposed undertaking to undergo an environmental assessment and impact full review prior to its permitting, funding or approval, is waived

[8] the examples of EA FONSIs cited by the Department of Energy upon which it bases the Categorical Exclusion makes clear that clearcutting hundreds of trees would fall within the Category the department proposes to exclude.

In a 2020 report, The World Wildlife Federation demonstrated that wildlife is in catastrophic decline worldwide. By reporting on the IPBES's tracking over 20,000 populations of mammals, birds, reptiles, amphibians, and fish; on land, in freshwater, and in marine environments; it was revealed that these wildlife populations have decreased on average by approximately 70% globally in only about 45 years.

Fig. 1



Graph courtesy of: Zoological Society of London, Andrew Terry, director of Conservation

The primary reason for this decline on land is habitat destruction from human land appropriation, the report found. Then-Director General of WWF International, Marco Lambertini, called for unprecedented and coordinated global action to halt and reverse the loss of biodiversity and decline in wildlife populations across the globe by the end of the decade and stated emphatically that drastic action would be necessary protect our future health and livelihoods, because our own human survival depends on survival of the earth's plants and animals. The world's population has doubled since 1970, and the global economy has multiplied four-fold. The United Nations report by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), found that **first**, human land appropriation, and **second**, reckless overuse of animal species as commodity are the primary drivers of catastrophic declines in populations of wildlife, decreased biodiversity, and heightened extinction risk. Between 1980 and 2000 alone, over a hundred million hectares of forest were ruined, and ninety percent of the documented wetlands that were present a few hundred years

ago no longer exist today. According to the IPBES global assessment, an average of about 25% of animals and plants are now threatened. About a million species now face extinction, and it has occurred within mere decades. This rate of destruction is anomalous; It is dozens to hundreds of times higher than the mean over longer time scales. Extinction and unrecoverable regional extirpation of species can occur whereby populations decline profoundly and species may be snuffed out in a matter of decades. Such species that are being snuffed out of existence in mere decades have taken tens of millions of years or more to come into existence. Of the primary drivers of extinction and wildlife population decline, climate change is number three, the IPBES report found [Summary at internet source: https://www.bbc.com/news/science-environment-48169783]. "Climate change is certainly one of the greatest threats that face humankind in the near future - so what does that tell us about the [much bigger] first and second biggest causes of decline, namely changes in land/sea use and direct exploitation?" It tells us that, for these causes of species and population decline (whose impact is even larger than that of climate change),"the current situation is desperate and has been for some time"[9] What is made clear by the United Nations IPBES report[10,11], the WWF report, and others like it is that due diligence protection of nature and natural habitats from the harms of direct habitat modification must be a priority in addition to, and in front of, those actions to reduce climate change, actions to produce and transmit energy, and actions to obtain or produce food and goods for human consumption and survival. This is because such measures are essential to avoiding catastrophic losses of wildlife and the concomitant extinction risks that can challenge the very ability of the earth to support the humans on it. It is academic that aiming to maximize resource area utilization in the quest for fulfillment of economic growth on a finite planet causes conflict and very painful tradeoffs.

Upgrading and rebuilding existing powerlines has ordinarily required, at minimum, an Environmental Assessment. The Department of Energy asserts that its promise to incorporate practices to reduce the area of land that will be disturbed, erosion, and effects on sensitive resources (that is, a mere pledge to carry out the project "in accordance with applicable requirements") should be satisfactory to forgo an environmental assessment. But how can it reduce land disturbance if it does not examine the land and plan for ways to avoid and lessen harm?

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[9] BBC coverage in May 2019 of the IPBES UN Report. Internet Source: https://www.bbc.com/news/scienceenvironment-48169783, statement by Dr. John Spicer from the University of Plymouth, an IPBES report contributor.

[10] IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J. Settele, E. S. Brondízio, H. T. Ngo, M. Guèze, J. Agard, A. Arneth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany. 56 pages. https://doi.org/10.5281/zenodo.3553579

[11] IPBES (2019): Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany. 1148 pages. https://doi.org/10.5281/zenodo.3831673

This pledge to carry out proposed projects "in accordance with applicable requirements" is tantamount to "we will conduct our own environmental inquiry sans any public transparency" and "just trust us". A categorical exclusion does not legally require any environmental documentation to be made by the developer or agency other than documenting that an action belongs in the specific category, i.e. the only documentation required would be a mere statement that it is a transmission upgrade project. It is the intent of NEPA that actions which, under a plausibility standard, may cause significant environmental adverse impact, shall require an environmental assessment to take place. If the action - under a reasonable expectation standard - may cause same, then an EIS or "full inquiry" is required. It is not the intent of NEPA, when these standards are met, that agencies conduct environmental reviews in secret and without ample documentation while pretending such actions are so utterly harmless as to be able to forgo the EA and EIS just because they will be carried out "in accordance with applicable requirements". The Catex is meant for types of actions which are truly benign—truly have only insignificant effect, or which have no adverse significant effect whatsoever, neither singly, nor in aggregate, no matter how many of such actions are undertaken. It is very clear that transmission upgrade and rebuild projects, including long-distance transmission projects and projects which widen the rights of way, clearcut trees, or fragment or usurp swaths of habitat may have significant adverse effects on the environment[12]. Thus, if the Department were to create such a categorical exclusion, such creation would be irrational and capricious. An EA is required whenever the action may *under a plausibility standard* have adverse significant impact, and an EIS is required when the action may have significant adverse impact under a reasonable expectation standard.

The Department further tries to argue that removal of the twenty-mile cap on maximum length of transmission upgrade projects (that can receive a categorical exclusion) will be inconsequential because project length or transmission distance is not "necessarily" an indicator of significance of adverse effect.

The IPBES study report leaves no room for dispute that the approximately 70% average reduction of wildlife populations worldwide in a mere approximate four decades is primarily the result of direct habitat modification. The more habitat that is degraded, modified, and fragmented, the greater are the reduction in wildlife populations which are dependent on the habitat. So while it is generally true that the more habitat area degraded per unit time, the sharper reduction in wildlife populations, the Department illogically maintains that habitat degradation, such as clearcutting of trees, even over large areas, it is not *necessarily* going to cause greater impacts than a smaller project in a more sensitive area. This is comparing apples and oranges. When comparing oranges to oranges or apples to apples, more habitat loss, degradation, and fragmentation generally causes *greater* declines in wildlife population. It is plain that illogical rationalizations are being put forth for the proposed categorical exclusion.

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[12] Also, the laying down of herbicide or gravel has the potential for significant adverse effects, especially over long distances, requiring an EIS [Example EIS: https://www.energy.gov/nepa/eis-0285-transmission-system-vegetation-management-program ; ROD: https://www.energy.gov/nepa/articles/eis-0285-record-decision]

The project reviewers'[13] tactical neurolinguistic reference to all the trees (whose removal is sought) as "danger trees" has not escaped our notice. Couching such trees as "danger trees" is a strategic way of attempting to garner acceptance of the removal of such trees without an inquiry into the environmental impact of their removal. It is a method of leading with the conclusory determination that their removal is essential by making a presumption of danger that is intended to do away with the exercise of figuring out the ecological effects of their removal. This is not the intent of NEPA. NEPA statutorily requires that the environmental impacts, both beneficial and adverse, receive a "hard look" for actions for which it is reasonable to expect that such action may have significant adverse impact. This is not to say that such projects will not be deemed necessary just because of significant adverse effect. Rather, even if a project causes some environmental harm, it may be approved, permitted, and/or funded by the agency. However, if an Environmental Assessment or Environmental Impact statement is prepared and open for comment by the community, then a "look before you leap" becomes possible; At least the decision-makers understand what the trade-offs are and can make judicious decisions that take environmental harms into consideration and allow balancing of interests. At least alternatives can be fully considered. This is not possible with a Categorical Exclusion, nor is public input.

It is not unusual, for transmission upgrade and rebuild projects to decide upon a change in route of the transmission line trajectory, and indeed this is explicitly contemplated by the new regulation. For example, a mile or even larger segments of the transmission line may be rerouted to a trajectory never used before for a transmission line and located a sizable distance of a half mile to a mile from its current route, may require residential homes to be sold or demolished, force the relocation of resident domiciles in the way of the new route. Such rerouting and concomitant change of has the potential to significantly adversely affect natural land unused by the route prior to the upgrade, to affect individual humans' relation with their environment, as well as impact neighborhoods and communities. See, for example, https://www.kwch.com/video/2023/05/18/homeowners-asked-sell-evergy-upgrades-transmission-line-n-wichita/ . Due to the obvious potential for the natural and human environment to be affected, the creation of this categorical exclusion is inappropriate.

The portion of the proposed regulation relating to transmission lines is titled, "Upgrading and rebuilding existing powerlines" and reads:

> "Upgrading or rebuilding approximately 20 miles in length or less of existing electric powerlines, which may involve minor relocations of small (as discussed at 10 CFR 1021.410(g)(2)) segments of the powerlines within an existing right of way or within otherwise previously disturbed or developed lands (as discussed at 10 CFR 1021.410(g)(1)). Covered actions would be in accordance with applicable requirements, including the integral elements listed at the start of appendix B of this part; and would incorporate appropriate design and construction standards, control technologies, and best management practices."

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[13] In the particular sample Environmental Assessments that the Department provides in an effort to show that multiple transmission projects have been evaluated on prior occasions and have been found to have no adverse effects or only insignificant effects. [internet source: https://www.regulations.gov/document/DOE-HQ-2023-0063-0002]

On first glance, it may appear that if the transmission line were planned to be routed through natural lands, a catex would not, under the proposed regulation, be able to be used. Afterall, the provision says that only "previously disturbed" areas could receive a categorical exclusion. However, a reading of 10 CFR 1021.410(g)(1), which is referenced in the proposed regulatory language, defines “previously disturbed” as "land that has been changed such that its functioning ecological processes have been and remain altered by human activity." This clearly does not require that the land be ecologically impaired, but rather that the ecology present on the land is “altered” compared to before the human-caused influence. It is clear that, since much of the land in the terrestrial United States has been altered from its prior state, then the definition of “previously disturbed” is very broad indeed, and includes land bearing highly functioning ecosystems. Also, "Small" also doesn’t actually mean small, because it's defined at 10 CFR 1021.410(g)(1), which indicates that what is considered small depends on :

- "industry norms"
- relationship between the proposed action and similar types of development in the vicinity
- emissions output
- scale of proposed facility "in relation to existing development"
- "capacity of existing roads to support the proposed action"

It is clear that the Department is actually attempting to categorically exclude (from even so much as an environmental assessment) installation of high-voltage transmission lines and supporting equipment as an upgrade replacement to lower-voltage lines and associated equipment [This is clear from footnote #4 at 88 FR 78684 (November 16, 2023)]. Transmission line upgrades are an inappropriate category of action to be categorically excluded from having to undergo an environmental assessment or full review. Transmission lines are responsible for the deaths of 8 to 57 million birds per year by collision[14] alone (not even including by electrocution)[15]. Evaluations of alternatives and mitigation strategies that would avoid, lessen the risk or incidence or severity of harm is required by the National Environmental Policy Act. This includes via comparative consideration of alternate routing of the transmission line, alternate designs, alternate structures, avoiding common bird travel routes, peaks and crests, and employment of mitigation measures such as making power lines more visible to birds by attaching visual cues as to the line's presence. This cannot be done via categorical exclusion using "best practices" and studies completed long prior, because birds are changing their routes and ranges in response to climatic changes. Also, new solutions arise that should be considered for adoption, but categorical exclusions are only reviewed once a decade.

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[14] https://www.youtube.com/watch?v=kBWxhf91dps

[15] Loss SR, Will T, Marra PP (2014) Refining Estimates of Bird Collision and Electrocution Mortality at Power Lines in the United States. PLoS ONE 9(7): e101565. Internet Source : https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0101565 https://doi.org/10.1371/journal.pone.0101565. Also see woodpecker owl goose parrot chicken buzzard and eagle ibis hawk and falcon electrocution.



Fig. 2

Tower designs that carry multiple lines in the horizontal plane are less likely to see bird-line collisions. Because birds fly in the horizontal plane, multiple lines parallel to one another in the horizontal plane is more detectable for an animal travelling in the horizontal plane, is easier to fly over, and presents comparatively fewer danger-obstacles to passage. Upgrades that substantially increase voltage often require greater ground clearing in the right of way, and thus present greater degradation of habitat, larger habitat usurpation, and a more-difficult-to-overcome habitat fragmentation. Habitat fragmentation makes populations of terrestrial wildlife more susceptible to high rates of localized extinction events (called "extirpation") even in undisturbed portions (or fragments) of habitat. Animals can have lower survival when crossing between fragments, or possess behavioral adaptations that prevent them from crossing. Extirpations can result because remaining fragments of unspoiled land which have sufficient populations do not or do not often result in re-migration to (and thus repopulation of) those fragments in which the local population is no longer present.

Larger towers are typically required for higher voltage lines. Upgrades are often expected to involve tower replacement. Tower design greatly varies and risk of collision is affected by the design; Carrying the lines parallel in the horizontal configuration is far less risky than in the vertical configuration because birds travel in the horizontal plane.

The projects cited by the Department in support of the Department-proposed Catex substantially support the position that such categories proposed to be excluded should, in fact, *not* be excluded. One of the cases in point – the Midway Benton No.1 Rebuild project (at page 6 of the technical document) : The undertaking had to take a fourteen mile-long detour around cultural resources, and a new right of way had to be created, in order for the impacts to be lowered to

what were ascribed acceptable levels of impact. The effects on the environment of this newly proposed right of way had to be compared to the effects of running the transmission line nearer to the cultural resource, and it had to be decided which impacts are worse. Such comparison and analysis of alternatives would not even have been required to have been performed under a Catex. So, how does the fact that such a project ultimately received a FONSI determination support the conclusion that projects of this type should constitute an excluded category? It doesn't. The Department appears to be attempting to signal that these considerations would have been made (and the best tradeoffs selected) under a Catex absent any requirement to make them. That is, "just trust us" to fulfill such requirements in a future in which there are no longer such requirements. What is more, the Midway Benton Rebuild project's own documentation does not support its FONSI conclusion. The cited finding classifies moderate impacts as not significant as if only impacts that are severe exceed the insignificance threshold. This directly contradicts a plain reading of NEPA; Moderate impacts are not insignificant by any professional, common, or legal meaning. The BPA[16] issued a FONSI even while it acknowledged "high" level of adverse impacts *may* occur (as the Midway Benton Rebuild project documentation suggests), this triggers the requirement to prepare an EIS.

Environmental reviews (beyond a mere classification that a project belongs to a category of actions excluded from further review) are needed to ensure that overlaps between animal habitat or migration routes with future projects are identified and alternatives and mitigation methods and their efficacy discussions are open to public comment and input. Section 102 of the National Environmental Policy Act demands that all practicable means be used to the end that the Nation may fulfill a responsibility as trustee of the environment and use the environment "without degradation or other undesirable or unintended consequences".

Power transmission upgrade projects (**upgrading to a higher voltage transmission line rating**) should not be categorically excluded because the environmental review of the effects of electric and magnetic fields require consideration, whether buried or above ground. Persons with pacemakers walking across an area with a buried cable are subject to magnetic flux that is known to interfere[17,18] with certain pacemaker program settings. Above-ground transmission lines on towers or shallow-depth buried cable needs to be evaluated for impacts where the replacement transmission line is higher voltage. This evaluation should include any impact on land use or other resource use by humans, including change in capacity to support existing

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[16] BPA is the Bonneville Power Administration, which was the federal agency that issued a FONSI (finding of no significant impact) for the Midway Benton Rebuild project.

[17] A magnetic field pulsed at power frequency is known to cause risk of a mode switch and pacing inhibition in patients with devices programmed in the unipolar sensing configuration. A switch to the asynchronous mode was recorded in three patients with devices programmed in the unipolar sensing configuration. A sustained mode switch was followed by symptomatic pacing inhibition in one of the study subjects (such that the pacemaker stopped working). See Trigano A, Blandeau O, Souques M, Gernez JP, Magne I. Clinical study of interference with cardiac pacemakers by a magnetic field at power line frequencies. J Am Coll Cardiol. 2005 Mar 15;45(6):896-900. doi: 10.1016/j.jacc.2004.10.072. PMID: 15766826.

[18] See Tiikkaja, M., Alanko, T., Lindholm, H. *et al.* Experimental study on malfunction of pacemakers due to exposure to different external magnetic fields. *J Interv Card Electrophysiol* **34**, 19–27 (2012). https://doi.org/10.1007/s10840-011-9651-4

uses of that land or resource, effects on human health, and on animal populations (including whether and how a widening of right of way and/or the building of additional roads might contribute to greater barriers (either actual or behavioral barriers) to animal movement that could result in an increase in habitat fragmentation.

Transmission projects in and through aquatic environs are proliferating. Rights of ways are being created through estuarine areas, swales, sounds, fjords, bays, lakes & rivers[19], other water bodies, and open ocean. There is nothing in the regulation to suggest, once those rights of way are created, that the categorical exclusion would not also apply to upgrade of power lines that traverse through or are in aquatic environs. Only the portion of the relevant provision that appears to refer to relocation references "lands", and even that may include underwater 'lands'. The Department explicitly includes "gen-tie" cables that connect generating facilities with the transmission grid. It is known that upgrading or replacing power lines in aquatic environs may have significant adverse effect. Whether by direct-contact mechanical trenching, or via systems of blasting away sediment using pressurized water vortices, subsea and sub-lake cable replacement and installation smothers and damages benthic fauna and flora. Disturbance and consequential turbidity interrupts sensory modalities, clogs filters in filter feeders, kicks up nutrients that can cause harmful blooms[20], destabilizes the substrate[21], has the potential to release into the food chain harmful toxins that have been buried under years of newer, protective sediment[22], impairs photosynthetic activity and primary productivity[23] and is known to adversely impact biodiversity for long periods[24,25]. Power transmission cables, even ones that

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19 For example, the Champlain-Hudson Express Power line

20 stressors such as increased turbidity, that affect seagrasses primary production, impair its nutrient removal capacity. Seagrass ability to uptake nutrients prevents harmful algal blooms. Water turbidity impacts seagrass by reducing the quantity and quality of light available for photosynthesis (See Petrou, K., Jimenez-Denness, I., Chartrand, K., McCormack, C., Rasheed, M., and Ralph, P. J. (2013). Seasonal heterogeneity in the photophysiological response to air exposure in two tropical intertidal seagrass species. Mar. Ecol. Prog. Ser. 482, 93–106. doi: 10.3354/meps10229 and also Chartrand, K. M., Bryant, C. V., Carter, A. B., Ralph, P. J., and Rasheed, M. A. (2016). Light thresholds to prevent dredging impacts on the great barrier reef seagrass, Zostera muelleri ssp. capricorni. Front. Mar. Sci. 3:106. doi: 10.3389/fmars.2016.00106).

21 This reduces suitability of the underwater land as habitat in epifaunal animals such as mussels, oysters, and scallops. E.g. See Neves, R.J., A.E. Bogan, J.D. Williams, S.A. Ahlstedt, and P.W. Hartfield. 1997. Status of Aquatic Mollusks in the Southeastern United States: A Downward Spiral of Diversity. Chapter 3 In: Aquatic Fauna in Peril: The Southeastern Perspective. Eds: G.W. Benz and D.E. Collins. Special Publication I, Southeast Aquatic Research Institute, Lenz Design and Communications, Decatur, GA. 554 pages

22 E.g. During an approximate 30-year period ending in 1977, two General Electric Company capacitor manufacturing plants discharged between a quarter million and a million pounds of PCBs into the Hudson River (U.S. Environmental Protection Agency 2002; USEPA 2008), 200 miles of which is now a superfund site.

23 Malerba, Martino & White, Craig & Marshall, Dustin. (2019). The outsized trophic footprint of marine urbanization. Frontiers in Ecology and the Environment. 17. 10.1002/fee.2074.

24 A decreasing gradient of ecological health status (as measured by biodiversity) can be observed going from the Haploops bank to the midline of the electrical cable, emphasizing that the area remains an adversely impacted environment, even after 5 years from the cable installation. Nearer the cable, a

are buried, induce weak electric fields in water near the sea-, river-, or lake floors from the magnetic fields emanating from them (Fig. 3), which electric fields interfere with locating food via electroreception[26], and which magnetic fields have other adverse effects on forms of aquatic life, including distress and difficulty locomoting[27] .

A categorical exclusion for transmission rebuilds and for upgrades (including upgrade to a higher voltage line) is irrational for these reasons. Nothing in the technical document or elsewhere in the administrative record has the Department provided any substantive support for its bare conclusions that transmission rebuild and upgrade projects have no significant effect on the human environment. This conclusion cannot be rationally arrived at, given numerous known facts that significant adverse impacts may occur from such projects. Indeed adverse effects are often commonplace, and are not extraordinarily rare anomalous occurrences.

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dense, unbalanced species assemblage was highly dominated by a single species. Biodiversity increased with distance away from the cable. [Se “HOOPLA” case study on Haploops fields by WAMEC (West Atlantic Marine Energy Community), internet reference: https://www.weamec.fr/en/publications/2018-champilou-j-bforaminiferal-faunas-associated-to-haploops-spp-mats-on-the-atlantic-french-coast-andeffects-of-a-wind-farm-installation-on-the-area-weamec-project-hoopla/].

[25] Momota, K., Hosokawa, S. Potential impacts of marine urbanization on benthic macrofaunal diversity. *Sci Rep* 11, 4028 (2021). https://doi.org/10.1038/s41598-021-83597-z

[26] Bottlenose dolphin detect very weak electric fields (2.4 to 5 microvolts) which capability serves to locate buried prey not able to be detected visually or through echolocation. Bottlenose dolphin have been observed to 'crater-feed', or thrust themselves face-first into the seafloor to catch prey. Tim Hüttner, von Fersen, Miersch, and Dehnhardt. Passive electroreception in bottlenose dolphins (Tursiops truncatus): implication for micro- and large-scale orientation. Journal of Experimental Biology (November 2023) 226 (22): jeb245845. It should be noted that Cartilaginous marine fishes are even more sensitive to electro-magnetism and the cumulative impacts to cartilaginous fishes of projects which bury cables beneath the sea and estuarine floors have been estimated to be substantial.

[27] Certain sturgeon species in the U.S., particularly in the juvenile stage, have been demonstrated to display magneto-reactive locomotion anomalies indicative of distress when exposed to variable magnetic fields, including pectoral fin flare, body spasm (entire body shakes/quivers), freezes, glides in frozen position,, tail shake/spasm, thrashing movements, sudden stop over magnet, forming the body into a curled "C" shape, and rapid escape maneuvers [Laboratory Studies of the Effects of Static and Variable Magnetic Fields on Freshwater Fish by Cada, Bevelhimer, Fortner, Riemer, and Schweizer April 2012 vol 119 Oak Ridge National Laboratory].

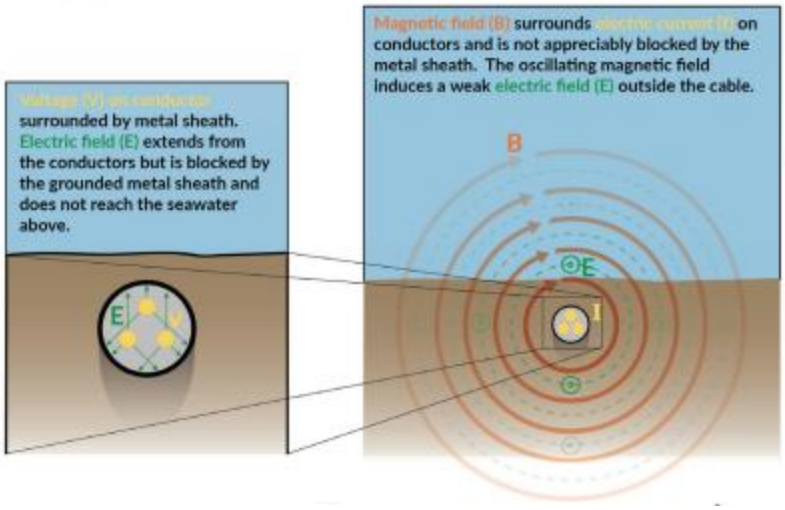


Fig. 3 – Diagram courtesy of the U.S. Bureau of Ocean Energy Management. Underwater transmission cables are insulated on the inside, and have conductive exterior shells that direct any leaked current into the ground, and as such are unlikely to leak current into the surrounding water. *However,* the magnetic field cannot be dampened by such shielding, or by burying beneath the ground, and exists at a certain strength which is relative to the distance from the cable, and itself creates an electric field. That is, although current does not "leak out" of the cable, the strong magnetic field in the water emanating from the cable spontaneously induces a weak electric field in the surrounding water.

Consideration need be given to potential for adverse effects on such forms of life including those which humans have interaction (connecting to nature), dependency (e.g. drinking water, fisheries which provide food for human consumption or material used as fertilizer or animal feed), or otherwise derive tangible benefit (recreation, health).
“Projects in previously disturbed or developed [rights-of-way] will not significantly impact the human environment regardless of the length of the powerlines” is an irrational conclusion for which the Department has not proffered adequate support.

BATTERY ENERGY STORAGE FACILITIES

Lithium-ion batteries are extremely volatile and present extreme challenges when attempting to extinguish a fire. Such fires burn much hotter, burn much longer, require far more water resources to mitigate heat damage to the surrounding area, including to surrounding property, than most other fires.

Industry appears to be rocket-launching well ahead of the emergency, human safety, and property- and infrastructure-damage mitigation techniques plans, protocol, and capacity.

The liquid organic electrolyte in a lithium-ion battery is a flammable liquid. Battery fires of such batteries require different tactics to effectively fight them than other fires. An ignited battery releases two gasses, one is flammable, the other is highly toxic. Highly toxic gasses are dangerous for people in the surrounding area, particularly if there is insufficient emergency planning of evacuation and contingencies for when situations known to cause harm occur.

The vented gas released from a battery fire is itself flammable and in about 10% of cases, the vapors emitted from the battery fire actually have exploded.

Lithium-ion batteries are known to be dangerous. In China, a battery fire caused the loss of 55 busses in one amusement park parking lot. In Long Island, NY a spontaneous battery fire in a car at an impound lot destroyed 35 other automobiles parked in the same lot. A Model S Plaid burst into flames while the driver was driving it VIDEO https://www.youtube.com/watch?v=07-hUaQ5mog ; https://www.youtube.com/watch?v=VykGDZIlqLw .

We recognize the risk of fire for small lithium ion-battery devices such as scooters, bicycles and hand-held electronic devices[28] is higher than for BESS (Battery Energy Storage Systems). So, let us look at the actual numbers for Battery Energy Storage Systems. The Electric Power Research Institute (EPRI) maintains a database of fires involving grid-connected BESS from media-reported sources. It does not include battery fires in vehicles or consumer products. The record of fires in residential units (such as garage-mounted Tesla Walls) is incomplete. However, the database contains a thorough accounting of fires involving the type of large, utility-scale, grid-connected Battery Storage Systems (BESS) that are subject to review and approval the kind of which the Department of Energy would now like to create a categorical exclusion. EPRI's database identifies 14 incidents involving fires at such utility-scale storage facilities in the U.S. (2023 EPRI Report).[29] To place that number in perspective, there were 491 utility-scale projects in the U.S. as of April 2023, for a fire incidence rate of about 2.9 percent. If all the smaller BESS are excluded from the data, the fire incidence rate is still high, 2.4 percent. **Thus, the measured chance of fire at a utility-scale Battery Energy Storage Facility is 1 in 30 to 1 in 50 - quite high**. The average age of the battery which caught fire was 18 months.

Because Battery Storage parks are so new, the average age of installed batteries is not significantly older than the average age at which they catch fire. This fact, together with the fact that the failure rate is greater if more of the lifespan of the battery has transpired, means that, over time, as more of the batteries in these battery parks near the milestone of their expected battery life, it can reasonably be expected that fire incidence rates higher than even 1 in 30 will be experienced.

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[28] A train car carrying Lithium-ion batteries from the port of New Orleans to San Antonio, Texas, blew up in Houston, Texas. The shock from the blast was felt a mile and a half away. https://www.chron.com/news/houston-texas/houston/article/Train-explosion-leads-to-chemical-release-in-11095738.php **and** https://www.click2houston.com/news/2017/04/24/lithium-batteries-causes-train-car-explosion-in-ne-houston/

[29] Pacific Northwest National Laboratory Document # PNNL-34462 Energy Storage in Local Zoning Ordinances (October 2023), by Jeremy B Twitchell, Devyn W Powell, and Matthew D Paiss.



Fig. 4 B.E.S.S.

Training for firefighters specifically to put out these types of fires is limited at this time. The education and resources available are limited. Regulatory framework for utility-scale battery product safety is not in place yet because the industry is very young and changing rapidly. There is also, at the present time, an exploration of different battery chemistries (other than Lithium-ion), which makes development of safety protocols for their production and maintenance by regulators extremely difficult to develop.

Safety apparently comes at the cost of energy density tradeoffs. Generally, the greater the capacity for a Lithium-ion battery, the higher the risk of fire.

Safer solid state batteries with no liquid may become available sometime in the future, estimated between 2027-2028, but what happens until then? **The public has a right to know the risks, and to explore** (together with the deciding town board , public service commission, utility sponsor, public authority, or other reviewing agency) **alternative siting to the proposed projects and alternatives to the proposed projects which could serve the same purpose and need. The public has a right to review evacuation plans, to understand environmental and safety risks prior to approval, and to offer mitigation strategies** upon a draft Environmental Impact Statement being made public for review.

As there are only less than ten such utility-scale Battery Storage Facility per state, on average, at present, we are just starting to scratch the surface of understanding how many resources and of what type, what protocol, and what training and firefighter forces on hand are needed to mitigate the risks for different types of facilities and for different scale battery storage yards.

Lithium-ion batteries are extremely volatile and present extreme challenges when attempting to extinguish a fire. Such fires burn much hotter, burn much longer, require far more water resources to mitigate heat damage to the surrounding area, including to surrounding property, than other types of fires.

Four firefighters were injured in a fire at a battery storage facility in Arizona. An investigation[30] of the incident revealed that two of the four injured firefighters were "ballistically propelled" with one being thrown 73 feet through the air following which his body became wedged beneath a fence from the massive force of the blast from the explosion of flammable gasses. The other was thrown 30 feet. The blast blew their helmets and face masks right off their heads. The fireball from the explosion was observed from observers further away to be 75 feet in length. A cloud of toxic gasses emitted by the fire caused all four members of the hazmat team to lose consciousness. This occurred while still in the toxic gaseous environment of Carbon Monoxide and Hydrogen Cyanide gasses that were measured to be at concentrations immediately dangerous to life. Others had to sweep in and retrieve their unconscious bodies to rescue from death. Serious injuries were incurred. Engineer Justin Lopez "suffered a traumatic brain injury, a collapsed lung, broken ribs, a broken leg, a separated shoulder, laceration of the liver, thermal and chemical burns, a missing tooth and facial lacerations." Fire Captain Hunter Clare "also suffered a traumatic brain injury, eye injury, spine damage, broken ribs, a broken scapula, thermal and chemical burns, internal bleeding, a broken foot, and two broken ankles." Firefighter Cottini suffered "a fractured patella, broken leg, spine damage, thermal burns, and facial laceration."

Ensuring that the fire departments local to the proposed site will have vapor-cloud dynamics training, and training in definitive evidence-backed tactics for responding to such fires is crucial to reducing the risk of serious bodily harm when fire breaks out. A plan for sensors onsite that provide information about the presence of flammable gasses and whose data can be remotely accessed by responding teams is also essential.

Three battery energy storage facilities in New York went ablaze in less than a year, this year. After the third blaze, New York launched a task force to investigate the catastrophes. This investigation is still underway and now the federal agencies[31] want to give a blanket categorical exclusion to Categorically Exclude utility-scale battery storage facilities from having to undergo even a cursory environmental review (environment Assessment) or full environmental review (yielding an environmental impact statement) before being permitted and built?

The proposal to create such a Category of Actions (for which no Environmental Assessment or impact statement is required), shows the Department of Energy of the

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[30] *Four Firefighters Injured In Lithium-Ion Battery Energy Storage System Explosion – Arizona* by Mark B. McKinnon, Sean DeCrane, Stephen Kerber, UL Firefighter Safety Research Institute and Underwriter Laboratories Inc, Report published. July 28, 2020 [internet source: https://liiontamer.com/wp-content/uploads/UL-Report.pdf]

[31] In the Inflation Reduction Act, Congress has passed amendments to NEPA that would allow agencies to borrow eachothers' categories of actions excluded from further NEPA review. If the Department of Energy categorically excludes battery storage parks, the categorical exclusion will be subject to "borrowing" by other agencies too.

current administration is clearly putting human health and safety *behind* its desire to meet renewable energy benchmarks, to which it has assigned higher priority.

Industry players[32] are calling for "Reducing permitting burdens for clean energy projects such as wind, solar, and battery storage, and for infrastructure related to carbon capture utilization and sequestration (CCUS)". Such industry players "recommend[] that DOE maximize its use of Categorical Exclusions …[to stay on a] path …toward broader deployment of facility-level technologies", and say this is a "great opportunity to… streamline…administrative actions through the use and expansion of Categorical Exclusions [from having to undergo a full environmental review]…"

A Solar power plant fire in the town of Lyme, New York sent toxic smoke billowing into the surrounding community. Residents in the area were initially told not to worry, then were told to get inside their homes and secure all their windows to shelter in place. The flames at times rose hundreds of feet into the air.

VIDEO 1 https://www.youtube.com/watch?v=FpevZ-3Md8c

VIDEO 2 https://www.wwnytv.com/2023/07/27/residents-told-shelter-place-due-potentially-toxic-smoke-solar-farm-fire/

The fire was very difficult to put out. Even when such fires are eventually put out, continued emission of flammable gas, for some time, is at risk of reignition from the heat of the site and requires continued presence of fire department personnel and resources. Human health and safety can be compromised when such resources are stretched so thin that responsiveness to other demands of the community (gas leaks, car fires, welfare checks) are impaired. Thus, an environmental impact statement is needed prior to approval.

We need objective evaluations of the risks and a real development of mitigation techniques, as well as studies to determine best protocol for public health outcomes.

The battery fire at Lyme was onsite storage at a photovoltaic solar farm.

READ https://www.cbsnews.com/news/solar-farm-battery-fire-upstate-new-york-possible-toxic-smoke-shelter-in-place-lyme-jefferson-county/

A Moss Landing, California Battery Storage System fire closed businesses and roads.

READ https://www.youtube.com/watch?v=iTeDqvk8iX4

The need for understanding of security risk efficacy, collective understanding of security risk ownership (who has responsibility for security risks), and a critical need for ensuring risk

[32] E.g. the Portland Cement Association, Applied Materials of Santa Clara, the American Chemistry Council, Clear Path,

management protocol and plans are in place by itself precludes a categorical exclusion of battery energy storage systems.

There has been starkly little discussion of the system integrators that will be used in BESS projects prior to their approval, and their capabilities. The system integrator brings together the components and respective disparate technologies within the system and is what allows the Battery Energy Storage system to connect to the grid. There needs to be proper layers of protection for their networks that would prohibit security vulnerabilities in the technology at battery energy storage systems from adversely affecting the grid. New entrants are often from the solar inverter or battery cell manufacturer space, are joining the market space with little experience as systems integrator. Oliver Forsyth from IHS Markit (now a part of S&P Global) says of this, "The battery industry hasn't really been around for that long — so we haven't really seen the full lifecycle of many of these assets to fully understand how some of these assets get degraded over time." Adding, "developers and all those that own and operate these assets are starting to realize that there is an element of risk here that they want to pass on to someone else, they don't want to hold that risk." Global professional services firm AON warned that the battery makers and other equipment makers aren't likely to want to hold the risk either, because although they supply the components, they don't have long-term visibility into how the assets operate. Similarly, asset operators and optimizers might be experts in trading from and earning revenues from batteries but they don't really want to take on the risk of the asset. "There is inherent risk involved and a lot of [those who] have stepped into this space aren't quite experienced with building and commissioning energy storage systems.", he said, recommending more traditional systems integrators. [Source: https://www.energy-storage.news/catl-battery-storage-unit-disconnected-at-marine-corps-installation-amid-concerns-about-project/]

Paul Gooch, head of Cyber Open Market at the lead underwriter for Aon's Cyber Property Damage Insurance Facility, said that critical operational technologies have noticeable control gaps and - unlike traditional IT infrastructure - sometimes have poor visibility of their risk management efficacy. To make matters worse, manufacturers are generally not conversant with secure development lifecycles and therefore continue to deploy systems "that are not properly hardened" which could "lead[] to severe operational, financial and physical impacts for BESS [Battery Energy Storage Systems]"[33]. Categorical exclusion of BESS projects from receipt of a full NEPA review (culminating in an environmental impact statement) is inappropriate because severe operational, financial, societal, and physical adverse impacts on such systems may occur if projects approved, funded, and undertaken with a truncated, Catex, review[34].

[33] https://www.aon.com/unitedkingdom/media-room/articles/aon-identifies-invisible-cyber-risks-global-energy

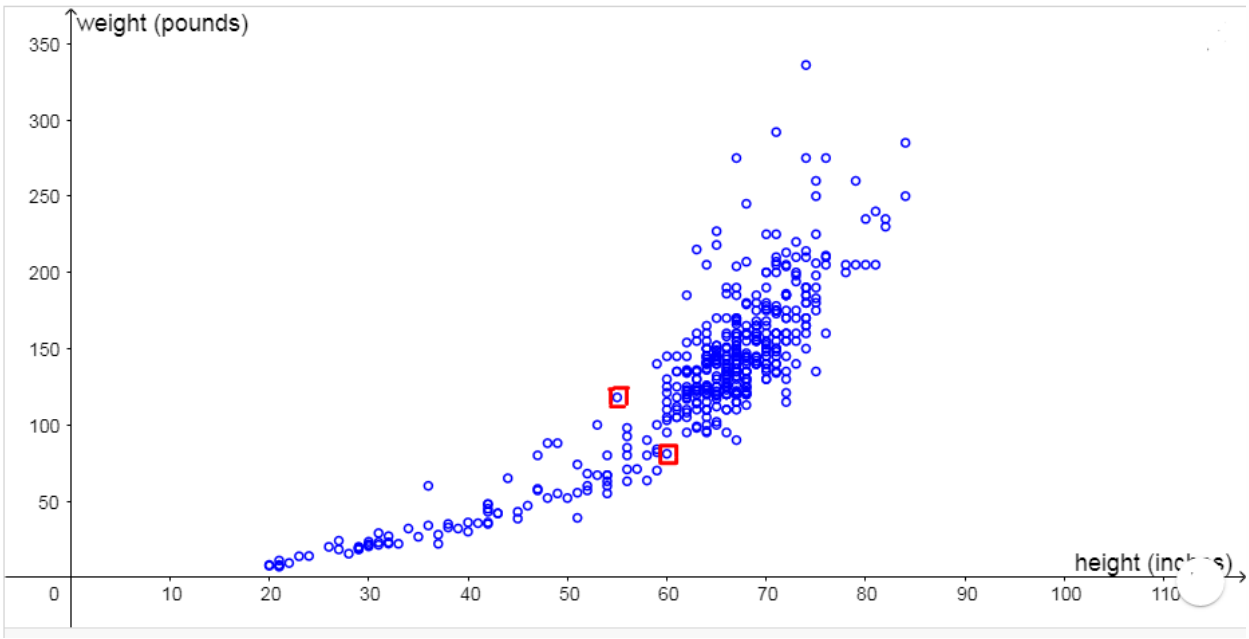
[34] https://www.reuters.com/world/us/duke-energy-disconnects-catl-batteries-marine-corps-base-camp-lejeune-2023-12-06/

PHOTOVOLTAIC ("PV") SOLAR POWER PLANTS

DOE also proposes to remove the acreage limitation for proposed Photovoltaic projects which would remove—even for large PV solar plants that are a thousand or more acres—the requirement that an environmental assessment or impact statement be prepared prior to approval, permitting, and funding.

The irrational argument the Department makes (by insinuation) to justify the deregulatory Catex expansion is that there isn't a relationship between size of power plant and adverse effect. It attempts to do this by saying a large solar plant isn't 'necessarily' going to be a project that has significant adverse effect. It is a logical fallacy to say that there is no relationship just because some or a few large PV solar plants have no effect; One (or even a few handfuls of examples of something) does not falsify a trend. Here is a graph showing the measured heights (in inches) and weights (in pounds) of a number of people. Each dot represents a person. There is a data point corresponding to a person who is 60 inches tall who weighs 75 pounds. That 60-inch person weighs less than a 55-inch person who weighs 116 lbs. That is, the shorter person weighs over 40 pounds more than the taller person.

Fig. 5 ***Graph showing human height versus weight for a group of subjects***



Several of such comparisons can be picked out of the graph. Yet doing so does not in any way refute the clear trend between (independent variable) height and (dependent variable) weight.

The Department cites the 1000-acre Wild Springs Solar Project EA finding and a handful of other projects' EA findings as support for its conclusion that there is a lack of relationship between size of project and adversity of effect. The department is committing the same logical fallacy as the person who points out that tall people might weigh less than short people as support for the fallacious argument that there is no relationship between a person's height and weight. Generally, the more habitat modified or lost the greater the adverse environmental effect. The Department has not supplied any sound basis for categorically excluding even large

Photovoltaic Solar Power plants from receiving an assessment or, if warranted upon assessment, a full review.

To make matters worse for the Department's argument, of the nine examples it chose, several are atypical, which provide special reasons why there may be less pronounced adverse effect. The Wild Springs Solar project in South Dakota is a 1000-acre plant was used as an example of a large solar facility whose effect was insignificant. A 1000-acre power plant surrounded by chain link fence would impede wildlife movement constituting an adverse environmental effect. However, this (the Department's example of a large PV solar plant having little to no adverse effect) did not enclose the entire plant in fencing, but rather, only groupings of panels, allowing animals to roam in between the groupings. Furthermore, the groupings were not adjacent.

> " This permanent fencing would enclose [only] blocks of panels, rather than surrounding the entire Project Footprint with a single fence (see Figures 3 and 4a-4d for fencing locations). Therefore, there are corridors through the Project Boundary for ground-based wildlife to move around or between the fenced areas."

A look at the Wild Springs Solar facility reveals that, although electricity from all the panels are fed into the same gen-tie line, they are not together. That is, this is very atypical of a 1000-acre PV solar plant, but rather it is spatially a lot more like *ten* 100-acre sites that are spread apart, with room for animals to walk in between and around the sub-sites each of which is encased in exclosure fencing, not the whole site. This is atypical.

It is typical for the entire large area of consisting of tandem solar arrays to be enclosed in fence. For example, see video @ 1:06 minutes to 2:32 minutes.

The Wild Springs Solar project that the Department used as an example is an anomaly. Further, the land is already heavily used for livestock grazing, contributing to the marginality of effect of the PV solar facility presence and operation. However, it should be noted that because an Environmental Assessment was actually performed, the geographic location of prairie dog colonies were identified that were effectively built into the project design (careful siting, taking the environs into account) so that the portions of the land on which the photovoltaic array would sit were planned to exclude the colony areas. If this project had been categorically excluded from further NEPA review as the Department proposes to do, these wildlife resources are unlikely to have been identified, built into the project design, and protected. We also find it interesting that the project[35] requires post-construction monitoring of avian use of the site but the Department did not include any post-construction reports or data.

Other examples used by the department are solar facilities near landfill operation.

Solar photovoltaic projects consist of hundreds or thousands or millions of solar panels that convert sunlight into electricity. Large fields can fool birds into changing flight direction, sometimes during migration, to approach them because they appear to be lakes from a distance.

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35 The Wild Springs Solar facility's received FONSI finding is offered by the Department as support for the idea that PV solar facilities could receive a Categorical exclusion

Many of the birds that have been killed at large solar sites have been waterbirds, which indicates that these birds fly to solar fields and realize too late in their descent that the solar panels are not water. The waterbirds then collide with the solar panels and are wounded or killed. Some species of waterbird also have great difficulty taking off from non-water surfaces, especially if their energy reserves are low, which could leave them stranded to die prematurely in areas without food or water. The U.S. Fish and Wildlife Service is aware of these impacts, and has considered several approaches. The mitigation measures depend on the variety of bird and other species being affected and are best addressed in an Environmental Impact Statement. Measures being explored include removing vegetation in a more extensive area surrounding the solar plant; placing white dots on the panels to enable disambiguation of water from solar panels by wildlife; broadcasting predator and distress call recordings to deter birds from attempting to use the site; shutting down projects at key migration times; and artificial lights.

Animals use the direction of polarization of light as a source of information about their environment, so when photovoltaic panels produce polarized light it can confuse them in ways that cause them to expose themselves to harm [See: Polarized Light Pollution: a new kind of ecological photopollution, in Frontiers in Ecology and the Environment Volume 7, Issue 6, August 2009, Pages 317-325 Horváth, Kriska, Malik, & Robertson]. The partially-polarized light emitted from water ponds is used as a cue by many forms of insects who use it to find water, especially those species which lay their eggs under water. Water also attracts a host of non-aquatic flying insects. Introduction of photovoltaic panels can produce spurious signals to wildlife that appears to them as the experience of being around water. These photovoltaic panels may be completely harmless in suburbia to the animals and insects typically found in that context, but can be inappropriate and harmful in areas where aquatic-nymph insects and other insects which use wetlands and ephemeral ponds are vulnerable to these cues, and can alter interspecific interactions and feeding behaviors

When insects mistake shiny dark surfaces for water, they set themselves up for reproductive failure, lingering around wanting to lay eggs in them, often become easy targets for predators, miss real oviposition opportunities, and experience mortality, a recent article in the scientific journal Conservation Biology indicated. Local population collapse could be a result, with cascading impacts on predators and other species up the food chain. [internet source https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1523-1739.2010.01518.x]

Whether insect populations may be, from a plausibility standpoint, at risk from a PV Solar power plant, and whether risk to insect life has extended ecosystem effects, is a context-dependent inquiry that can only be made in an Environmental Assessment (EA)[36].

Large PV Solar Power Plants built on water[37] are environmentally problematic, for they decrease photosynthesis and primary productivity and have profound ecosystem effects.

Most commercial solar PV modules use photovoltaic cells made from highly purified silicon (Si). Since the early 1900s, silicon “metal” has been obtained from reducing quartz using carbon in submerged-arc furnaces, each powered by up to 45 MW of electricity. Carbon must be burned to make solar PV because elemental silicon (Si) cannot be found by itself anywhere in nature. It must be extracted from quartz (SiO2) using carbon (C) and heat (from an electric arc) in the

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[36] If the EA determine from a reasonable expectation standard, that there may be significant adverse effects, then an EIS would be required.

[37] E.g. https://www.youtube.com/watch?v=ufQC0vDjQwc; See note 23.

“carbothermic” (carbon + heat) reduction process. It is a myth that solar panels can be made from sand or soil. The silicon comes from mined quartz, not ordinary dirt.

Even more fossil fuels are burned at a later phase, in order to generate electricity for the polysilicon, ingot, wafer, cell, and module production later steps. As a result of all these processes, the solar PV industry generates large quantities of CO and CO2.

However, calculations of PV solar plants' project emissions omit the carbon emissions needed for raw materials sourcing, smelting, and refinement, claiming this "does not need to be counted" because the emissions are released more than 25 miles from the project site, or that "such emissions would be counted separately as industrial facility emissions" and not included in the solar power plant's lifetime emissions, even though such emissions would not occur but for the project. Obscuring, in environmental reviews the emissions resulting from the use of fossil fuels and ignoring the vast amount of land devastation that occurs via mining – all of which are necessary for solar PV production, is dishonest. In addition, the amount of non-renewable resources needed to construct and operate new PV production infrastructure (smelters, polysilicon refineries, etc.) is substantial, but it too has been excluded from life cycle analyses of PV (photovoltaic) solar technology production.

Regarding decommissioning and disposal of solar panels and other PV infrastructure, detailed photovoltaic panel leaching studies under realistic landfill conditions are critical to understanding the metal dissolution into the environment from this waste source. The presently-used aggressive and short-study-period standard waste characterization tests {such as the Waste Extraction Tests ("WET"), and Toxicity Characterization Leaching Procedures ("TCLP")} do not accurately reflect the complex reaction and conditions of a landfill, which are typically biomagnified by microbial processes and local conditions. Commercially available photovoltaics can be classified into **(a)** crystalline silicon (c-Si); and **(b)** thin-films.

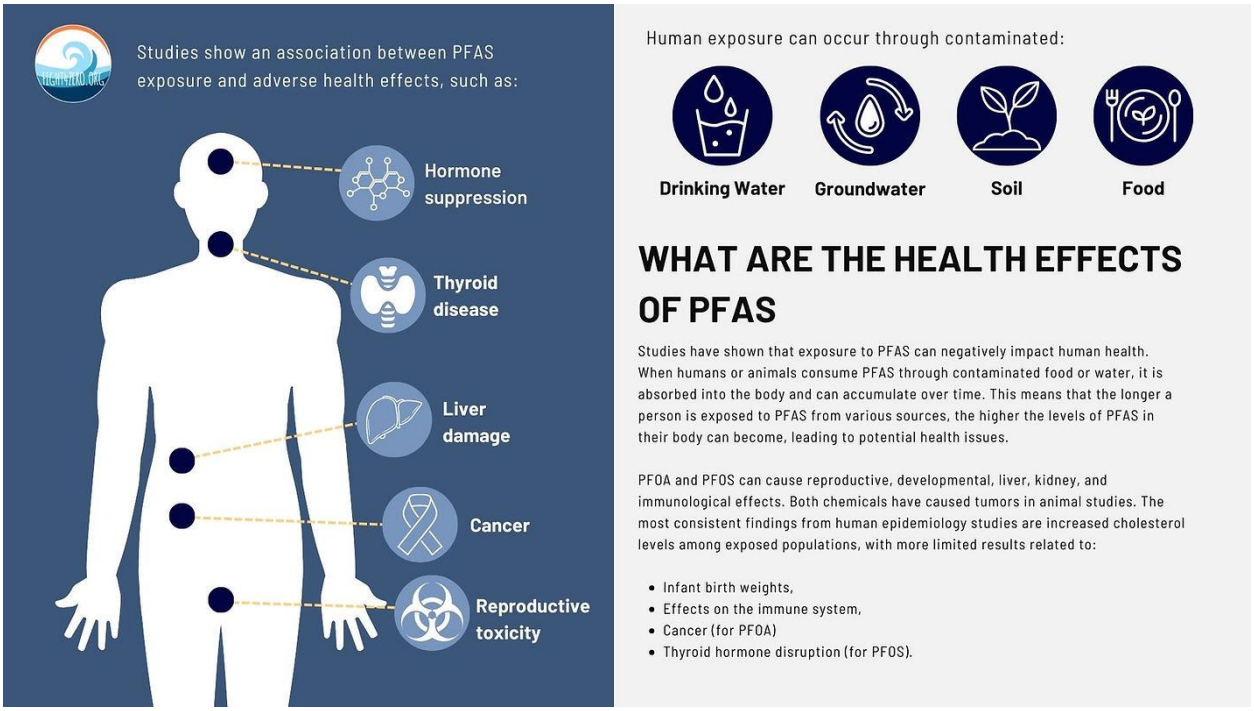
After operational life, PV panels are typically dumped in an open environment. Thin-films are evolving rapidly and entering into new rates of adoption and use due to new advancements in nano-materials. Short-term leaching studies with tiny (millimeter sized) sample pieces do not represent realistic disposal scenarios.

There are two separate concerns: that metals and chemicals in solar panels will deteriorate and seep into the soil and water.

Rainwater facilitates metal release from silicon-based photovoltaics, with silver, lead and chromium being released up to 683.26 mg/L (26.9%), 23.37 mg/L (17.6%), and 14.96 mg/L (13.05%), respectively. Overall, the maximum metal release observed in studies which realistically try to emulate landfill conditions is 30% more than the initial amount under the most stressful conditions, which suggests that short-term leaching studies with millimeter sized sample pieces do not realistically represent dumping/disposal scenarios and therefore underestimate the amount of harmful metals released into the soil and surrounding environment.

Chemical PFAS are sprayed onto Solar Panels as a "self-cleaning" coating, much like scotchguard, on solar panels to keep anything from sticking to them so they stay clean without maintenance. PFAS chemicals are extremely carcinogenic. It is important that PFAS do not end up leaching out of solar panels in landfills and into our drinking water and streams.

While safer alternatives to PFAS *could* be used in solar panels, PFAS use is common. If there is no transparency as to what materials are being used for the projects because no environmental assessment is being done that would require the project details to be made public (that is, if the proposed Categorical Exclusion comes into being) there are no assurances that solar panels and panels disposed into landfills will not contain this chemical, and the public will not be able to see what materials are used for the proposed projects before they are approved. Most states do not have regulation banning PFAS[38] from solar panels. PFAS content and potential for leaching (either during operation or after panel disposal) is something that should be determined in an environmental assessment or impact statement, based on the materials intended to be used for the project, including the non-stick coating on the solar panels. PFAS cause cancer. The safe level for PFOS (a common type of PFAS) in human blood is extremely low - less than 1.05 parts per billion. A PFAS-Toxicity database and Systemic Evidence map[39] can be useful to regulatory agencies for performing human health risk impact assessments for PFAS exposure (Cumulative effects across projects) from disposal of battery storage systems and PV panels, as well as production exposure to workers. **Fig. 6 - PFAS Effects courtesy of *Fight for Zero***



Toxic metals are also a large concern. A new study published in the reputable journal Science found that, conservatively, an estimated 23 million people and 5.7 million livestock are affected by dangerous concentrations of toxic waste discharged from mining contaminating almost a half

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38 Per- and Polyfluoroalkyl substances

39 Katherine E. Pelch, Anna Reade, Carol F. Kwiatkowski, Francheska M. Merced-Nieves, Haleigh Cavalier, Kim Schultz, Taylor Wolffe, Julia Varshavsky,The PFAS-Tox Database: A systematic evidence map of health studies on 29 per- and polyfluoroalkyl substances, Environment International, Volume 167, 2022; Source: www.sciencedirect.com/science/article/pii/S016041202200335X?via%3Dihub#f0025

million kilometers of river channels and hundreds of thousands of floodplains on a global scale. [M. G. Macklin et al. Impacts of metal mining on river systems: a global assessment.Science381,1345-1350(2023).DOI:10.1126/science.adg6704]. Mining constrains and impairs water and food security. Tools now exist for assessing the potential downstream toxicity impacts of metal mining activity on human populations and the environment. These tools should be used to determine the cumulative impacts of the mining activities required for solar and battery storage facility projects, as they require large amounts of mined metals to come into being. The cumulative impacts of renewable energy decommissioning of Photovoltaic Solar Power Plants and Battery Storage Facilities have not been adequately reviewed.

The Department of Energy cites nine or ten solar projects as having received a FONSI (finding of no significant impact) as support for its categorical exclusion of such projects, yet PFAS is a common "self-cleaning" agent on photovoltaic solar panels. The manufacturers of Photovoltaic panels used for the projects which the Department cites as examples of Photovoltaic Solar projects that received FONSIs did not disclose whether PFAS non-stick substance was manufactured into their panels because at the time they had no legal obligation whatsoever to do so. The Environmental Protection Agency issued a final rule on October 11, 2023 regarding the polyflouralkyl **(PFAS) use** reporting requirement for products, including photovoltaic panels, to report and disclose, pursuant to the Toxic Substances Control Act, as amended by the National Defense Authorization Act for fiscal year 2020. The problem is that the final rule was issued on October 11, 2023 and did not go into effect until November 13, 2023, which was only a few weeks ago[40]. ***Any PFAS use in the photovoltaics used in the projects that the Department points to*** (as its show of support that PV Solar Power Plants result in FONSIs and are appropriate for a Catex)[41] ***was not, and would not have been, disclosed***. In exactly none of the examples cited by the Department (as good examples that Photovoltaic Solar Power plants should be categorically excluded from having to undergo an environmental impact statement and review) did the manufacturers of the photovoltaics disclose what agent they used as a non-stick coating in the manufacture of the panels. Decommissioning of Solar PV Power Plants cannot be categorically excluded for this reason. The number of U.S. communities confirmed to be contaminated with the highly toxic polyflouralkyl compounds known as PFAS continues to grow at an alarming rate. As of August of 2023, the latest data showed it is pervasive[42].

[40] [See FR 70516, October 11, 2023 https://www.govinfo.gov/content/pkg/FR-2023-10-11/pdf/2023-22094.pdf]

[41] The Department argues such projects deserve a Catex because review of them ordinarily results in FONSIs and they have only insignificant or no affect no matter how many projects there are.

[42] Internet source: https://www.ewg.org/interactive-maps/pfas_contamination/

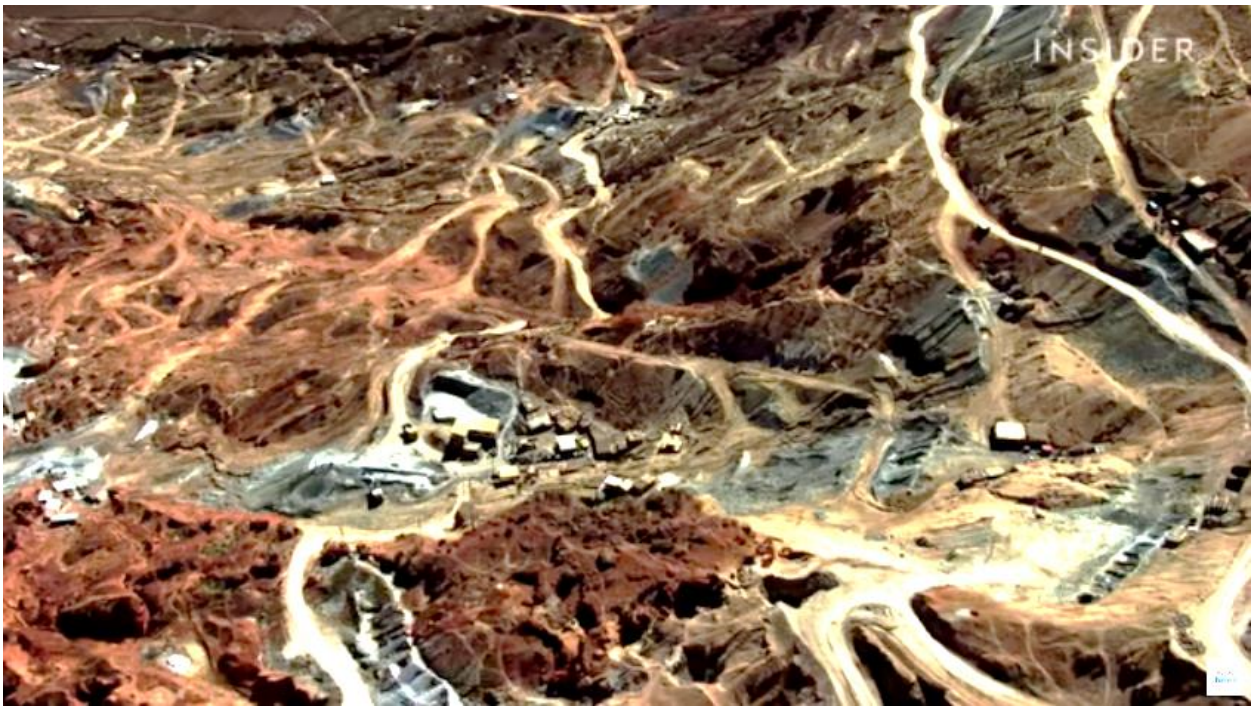


Fig. 7 ***Silver mine***

Mining causes damage to habitat and habitat fragmentation. This is a photograph of a silver mine. Silver is required in solar panels. The demand for Silver is increasing, both because of the increase in demand for PV solar panels, and because design of solar panels has recently shifted to favor those which require more Silver. In the past two years, demand was nearly twice as high as supply. The solar sector is projected to exhaust between 85%-89% of the world's global silver reserves by 2050. As world reserves are depleted, new deposits come to be discovered, new mines are opened, and more habitat lost.

Photovoltaic efficiency requires that the Silicon be doped with rare earth metals. These materials leave behind greater damage owing to their rarity. That is, more earth needs to be moved, grinded, and treated with chemicals to produce a unit measure of them. This means many tons (up to 170 tons) of earth need to be extracted, hauled, and grinded to produce a small amount of the mineral sought.

The metals and minerals used in many of the Solar Array Facilities which the Department claims are good examples of FONSIs use Cadmium-telluride as the PV material. Cadmium becomes a pollutant when it is mined and then released into the environment via air emissions during smelting. Cadmium is toxic to fish and other aquatic life. Once in the environment, cadmium is taken up by organisms from the soil and easily moves through the food chain. Rice, other cereal grains, potatoes, vegetables, and tobacco readily take up cadmium from the soil. Cadmium is a carcinogen and causes osteoporosis and affects the kidneys. The particles can also be respired while they are still airborne affecting the lungs. Occupational exposures are those most likely to cause health impairment including cancer.

Tellurium for photovoltaic solar panels is gathered as a by-product of copper smelting. It contaminates not only the local environment but also distant, remote areas through atmospheric spreading[43]. During industrialization, Tellurium levels had risen from industrial coal use but now as coal use tapers, High-tech applications for tellurium, primarily photovoltaic solar panels, have experienced greatly increased demand for the rare but toxic element tellurium[43] and are replacing coal as the source of tellurium environmental contamination.

Ore (from which metals used in batteries are derived) is mined. Sulfuric acid is necessary for extracting rare and heavy metals from their ores before being used in batteries. Sub-surface mining often progresses below the water table, so water must be constantly pumped out of the mine in order to prevent flooding of the mine while it is in use. While the mine is in operation, there are different methods to control the water flow at mines: diversion systems, containment ponds, groundwater pumping systems, subsurface drainage, and subsurface barriers. When a mine is no longer useful and is closed and abandoned, the pumping ceases, and water floods the mine. The rocks that have been ground can release acids that pollute natural water bodies, not to mention that Sulfuric acid is added to extract the desired metals such as nickel, cobalt, and rare earth metals for batteries, magnets, and other parts in order to build renewable energy technologies.



Fig. 8 - *A sulfur contaminated lake from a closed mining operation.*

Sulfur is currently obtained from fossil fuel waste. Although deriving Sulfur from fossil fuel waste is far less environmentally harmful than obtaining it by mining, as we transition away from fossil fuels, Sulfur itself will have to be mined, which comes at a very heavy environmental price. Such mining is tremendously damaging to the surrounding environment and mineworker's

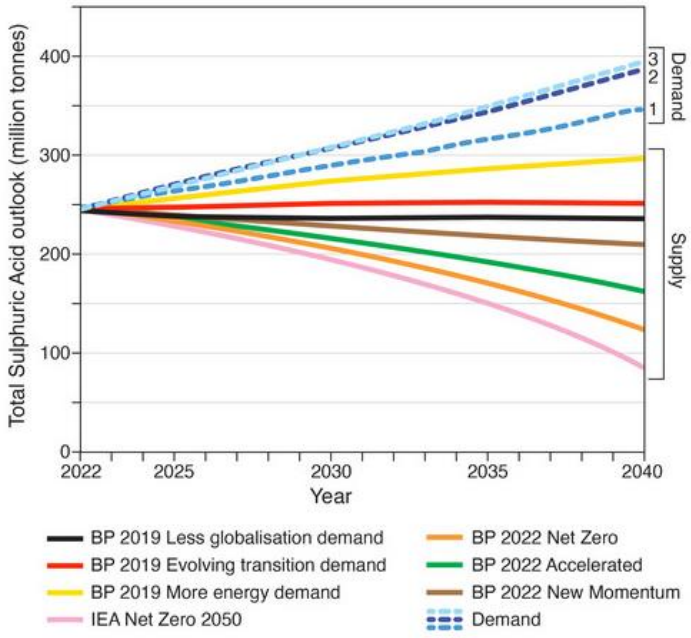
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https://www.researchgate.net/publication/324765473_Widespread_Atmospheric_Tellurium_Contamination_in_Industrial_and_Remote_Regions_of_Canada

health. This is because bound within the minerals that contain Sulfur often are also contained toxic metals such as mercury, arsenic, and thallium that is brought to the surface and separated out. The process of separating them spews toxic Hydrogen-Sulfide wastewater. This causes symptoms in humans similar to Carbon Monoxide poisoning, but Hydrogen Sulfide is ten times more toxic. Demand will increasingly exceed supply; thus we will have to resort to means of sourcing Sulfur that is far more environmentally damaging than processing fossil fuel waste to obtain it, and carries an unacceptable ecological burden as well as serious environmental justice issues. [See article internet source https://phys.org/news/2022-08-sulfur-shortage-potential-resource-crisis.html citing Maslin, M., Van Heerde, L. & Day, S. (2022) Sulfur: A potential resource crisis that could stifle green technology and threaten food security as the world decarbonises. *The Geographical Journal*, 188, 498–505. Scientific article available at: https://doi.org/10.1111/geoj.12475 https://rgs-ibg.onlinelibrary.wiley.com/doi/epdf/10.1111/geoj.12475]

Under all reasonable and all plausible scenarios, there is a departure of demand from supply that only widens over the next 15 years [Id.]:

Fig. 9



It should be noted that there has been a huge breakthrough in the development of Lithium-Sulfur (Li-S) batteries by Australian researchers[44], which may make feasible widespread adoption of Li-S batteries for commercial use. Exactly none of the above Sulfur demand curves contemplated such a breakthrough, and if such adoption were to occur, the path to widespread

[44] https://www.pv-magazine.com/2023/10/17/australian-researchers-achieve-lithium-sulphur-battery-breakthrough/

Sulfur mining will be even more rapid. To date, there has been not even a single sulfur mine operation on the planet that has not caused pollution of the surrounding environment[45].

The requirement for creation of a new excluded category in rulemaking is that projects of such category be well known to have only insignificant effect else have no potential for adverse effect on the environment, neither singly nor in aggregate.

We do not attempt to exhaustively treat the specific types of environmental damage, pollution, and human health problems caused by the mining and processing of each and every type of mineral or metal needed for photovoltaic solar panel production. What is clear, however, even from looking at the mining and extraction and the effects of that mining and extraction from even a small subset of the minerals and metals needed, is that it cannot be said that Photovoltaic Solar Power Plant projects have only insignificant or do not have any adverse effect on the environment singly or cumulatively. Thus, it would not rationally comport with the facts at hand if the proposed categories for exclusion from further NEPA review were to be issued by the Department as regulation.

SUMMARY

Making the widening a right of way for a transmission upgrade project, and construction of long-distance transmission upgrade into actions that are categorically waived from having to undergo an environmental assessment or impact review under NEPA is irrational and capricious because such projects are likely to require the clearing of sizeable quantity of vegetation and trees, usurp and/or modify habitat, have very real potential to change land use (especially re-routes, which are permitted). Because the direct modification of habitat is well-known to be among the top drivers of wildlife population decline worldwide, topping even climate change (a fact that is not in dispute. [See United Nations report by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) 2019, supra] , and because changes in land use are usually accompanied by a change to the human environment, the categorical exclusion proposed by the Department of Energy is inappropriate and does not comport with the National Environmental Policy Act. Clearly there may be, and often are, adverse significant effects to these projects. Categorical Exclusions are only appropriate where there is no known adverse effect, or where the effect only has the potential to be insignificant, even in aggregate (combined with many other like actions). This is clearly not the case for transmission replacement projects of limitless distance, or transmission replacements that widen 'rights of ways' or increase the line voltage (upgrades).

Categorically Excluding Photovoltaic Power Plants and Battery Storage Systems from being required to be environmental assessed or impact-reviewed, is, for the reasons stated herein, is capricious agency action.

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[45] "To date, no sulfide mine has been able to operate without causing some form of pollution in the surrounding environment." Source: https://www.sierraclub.org/minnesota/mining/sulfide-mining

The Department states ,"CEQ regulations do not direct agencies to prepare an environmental assessment or environmental impact statement before establishing agency procedures that supplement the CEQ regulations to implement NEPA (40 CFR 1507.3)". The Department is mistaken. Creation of a Categorical Exclusion is rulemaking. 40 CFR 1502.5(d) directs that "for informal rulemaking, issuance to the public of a draft environmental impact statement shall normally accompany the proposed rule". Yet, the Department did not prepare an Environmental Impact Statement, which is warranted, nor even an Assessment to accompany the proposed rule, and although the Department did list benefits of the proposed rule in its notice of rulemaking, it did not seriously examine the potential for its rulemaking to have adverse effects.

Pursuant to the requirements of Executive Order 12866, §6(a)(3)(C)(ii), the Department of Energy is requested to provide the points made by the undersigned herein and a copy of this joint comment to the Office of Information and Regulatory Affairs (OIRA) regarding the Department of Energy's draft of the regulations implementing NEPA it has proposed, which constitute significant regulatory action within the meaning of that Executive Order, 12866, as modified by the April 6, 2023 Executive Order titled Modernizing Regulatory Review.

While maintaining focus on continued reductions in carbon emissions is important, projects which may plausibly result in adverse significant environmental effects or which have unknown effects should not be waived from the requirement to undergo an environmental assessment, and—if significant adverse effects "may" reasonably be expected t*o* occur as a result of the project—then an Environmental Impact Statement is, and should continue to be required. Deregulation in the form of such waiver as has been proposed by the Department is contrary to the National Environmental Policy Act as written.

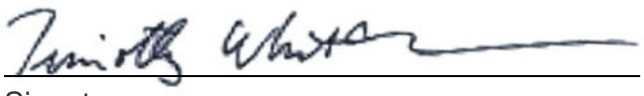


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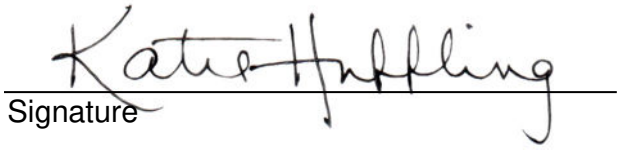


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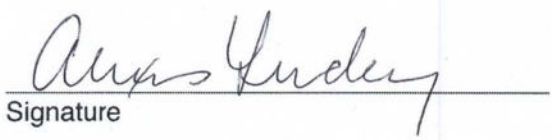


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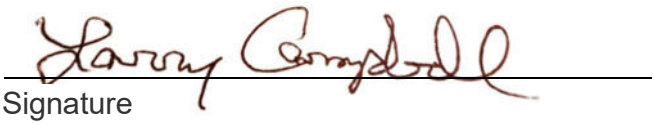


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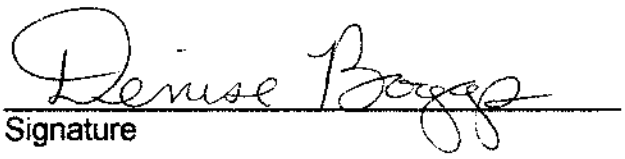


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