



REALITY COALITION

Dear Member of Congress,

We are writing to call your attention to a looming catastrophe: the collapse of the nation's electrical grid, economy, and security. Actions are rapidly being taken to implement a "net zero" energy system without even determining whether it is possible, practical, or affordable.

We urgently request that Congress immediately begin oversight hearings into this reckless dismantling of America's energy infrastructure, the lifeblood of our economy. People's living standards – and very lives – depend on it.

President Biden and his allies are advancing "transformative" climate goals of "carbon-free" U.S. electricity generation by 2035 and a "net zero," nearly fossil-fuel-free economy by 2050. Acting in concert with federal and state regulators, utility and other energy companies, grid operators and activist groups, the Biden administration intends to shut down coal and gas-fired power plants, replace internal-combustion vehicles with electric models and ultimately replace natural gas with intermittent electricity for cooking, heating buildings and water, and powering factories.

Nuclear power could provide much of this electricity with zero emissions. However, the president's allies seem to believe the only acceptable alternatives are wind turbines and solar panels, backed up for windless, sunless periods by batteries. To cite one example, the administration is proposing to generate 30,000 megawatts of "green" offshore electricity by 2030, which would require installing 2,150 14-MW offshore wind turbines or 2,500 12-MW turbines, along with an enormously expanded high-voltage transmission system to support them.

And yet, the President has not presented even a ballpark estimate of cost. Nor is there a *working demonstration project* to prove the feasibility of a system of wind, solar and batteries at even a city or county level. His "plan" for replacing coal and gas consists primarily of speeches, proclamations, flow charts and references to the "existential threat" of climate change. Implementation would be through legislative mandates, regulations, subsidies and "take or pay" guarantees for wind and solar electricity.

Independent experts have carefully reviewed the requirements for powering the \$23-trillion U.S. economy (2021 GDP) with an all-electricity "green" energy system. They conclude that batteries for balancing the grid and providing backup electricity storage alone would cost up

to \$290-trillion, depending on which capital cost, hourly electricity-generation data and other estimates are used.

It is vitally important that Congress conduct oversight hearings into this and compel the Executive Branch and other net-zero proponents to develop a detailed, coherent financial and engineering plan specifying exactly how this massive transformation of the United States energy system (and thus our economy and society) is to be accomplished. Essential but still unanswered questions include:

- how many windless and/or sunless hours, days and weeks occur in a typical year in each state;
- how many wind turbines, solar panels, electric vehicles, transformers, backup/grid-balancing battery modules, home and water heating appliances, and miles of new transmission lines would be required;
- where in the USA, and on whose property, all this equipment and associated power lines would be installed and how many millions of acres of lands and coastal waters would be impacted;
- how many billions of tons of steel, manganese, copper, aluminum, cobalt, nickel, lithium, rare earth elements, carbon-fiber composites, graphite, plastics, concrete and other materials would be needed;
- where these raw materials would be mined and processed – in the USA or overseas;
- where the components and equipment would be manufactured – in the USA or overseas;
- under what pollution controls, wildlife habitat and endangered species protection, mined land reclamation and workplace safety rules, and slave and child labor laws all this work would be done;
- what fuels would be employed to conduct all this work and associated transportation;
- where and how worn out, broken and obsolete equipment would be recycled or landfilled and;
- how many tens of trillions of dollars this nationwide transformation would cost, and which industries, small businesses, communities, families and states would ultimately pay the highest costs.

Up to now, we have been expected to accept as sufficient empty assurances that all the necessary materials and equipment will somehow arrive and be installed on schedule, because laws and proclamations require it. This is akin to assuming a new electricity app can be downloaded into the enormously complex computer that is the U.S. economy, and it will operate flawlessly.

Replacing fossil fuels with “renewable” technologies is governed by a fundamental rule: Wind and sunshine are clean, green, renewable and sustainable; however, *harnessing* these dispersed, intermittent, weather-dependent sources to power a modern industrial society absolutely is *not*.

Extracting and processing the ores and other raw materials required for this “renewable electricity transformation” are difficult and dirty operations. So are manufacturing “renewable electricity” equipment, and installing wind turbines, solar panels, and transmission lines across vast expanses of private and public lands. All these actions disrupt and destroy scenic and

wildlife habitat areas, onshore and offshore. They are the antithesis of clean, green, renewable, and sustainable.

Absolutely unsustainable is spending tens of trillions of dollars on such folly. The magnitude of these expenditures has been calculated by four independent experts, using different analytical approaches:

Science and public policy analyst David Wojick: Even assuming huge and highly improbable price reductions, replacing U.S. coal and natural gas electricity generation with wind and solar, backed up primarily with batteries, would exceed America's \$23-trillion 2021 GDP, probably many times over.

Energy and technology consultant Thomas Tanton: Converting the U.S. economy to eliminate most fossil fuels – and use wind and solar-based electricity to power vehicles, and appliances in residential and commercial buildings – would cost at least \$29 trillion in *initial* outlays, without accounting for financing; future repairs, replacements and other ongoing costs; or the value of stranding existing fossil fuel assets. An additional \$7 trillion would be needed to build a system robust enough to ride out severe winter weather; offshore wind turbines strong enough to survive hurricanes would add more trillions.

Professional engineer Ken Gregory: *Battery costs alone* – to replace all current fossil fuel electricity with wind- and solar-generated electricity, backed up by battery modules – could reach \$290 trillion (12.6 times the USA's 2021 gross domestic product), based on actual 2019 and 2020 hourly intermittent electricity-generation data, rather than annual average conditions utilized in the Tanton report.

A fourth report, by **energy analyst and lawyer Francis Menton**, calculates that New York's plan to procure some 24 gigawatt-hours (24,000 megawatt-hours) of battery storage would provide only 0.2% of what the state would actually need as backup *before* electrifying its automobiles and home heating and cooking systems. His calculations for California are even more staggering.

Additional analysis shows that even Menton's minimal New York storage would require some **300,000 Tesla Model 3 Long Range half-ton 80-kilowatt-hour battery modules**. Menton's calculations also mean that backing up California's currently planned intermittent wind and solar electricity generation system would require nearly **310,000,000 Tesla 80-kWh modules!**

Professional engineer Ronald Stein, co-author of the Pulitzer Prize-nominated book, *Clean Energy Exploitation: Helping citizens understand the environmental and humanity abuses that support "clean" energy*, notes that electrical grids worldwide are already on the brink of being unable to charge even a small fleet of EV's. But the "elephant in the room" that no one wants to talk about is the limited amount of electricity available to charge billions of EV and gridbalancing and backup battery modules. That problem will expand exponentially as soaring battery numbers chase unreliable, unavailable electricity.

These experts made no attempt to quantify the national security risks associated with importing the raw materials – or the wind turbines, solar panels, battery modules, transformers and other equipment themselves – primarily from China, or from overseas mines, processing plants and

factories operated under Chinese control. Such imports are necessary because the United States and its allies are unwilling or unable to conduct the necessary mining, materials processing and manufacturing within their borders.

In essence, we would be trading the OPEC cartel of old for reliance on a near-total Chinese monopoly on our energy and security.

Neither did our experts consider that “renewable” wind and solar energy systems require roughly ten times more raw materials per megawatt than what conventional fossil fuel and nuclear technologies need. They did not address the fact that the Inflation Reduction Act’s goals of boosting domestic production of electric cars and reducing reliance on China for battery materials and components cannot be met without opening most U.S. public lands in Alaska and the Lower 48 States (excluding national parks) to extensive exploration and mining.

Our experts likewise did not examine how soaring raw material demands under these plans would inflate prices for increasingly scarce commodities, boosting all these cost estimates, perhaps exponentially, especially under *global* net-zero campaigns. Nor did they assess how America and the world will replace the fertilizers, pharmaceuticals, plastics, paints, cosmetics, synthetic fibers, wind turbine blades and countless other products made from oil and natural gas, if those resources are locked in the ground.

Finally, they did not factor in how our nation’s entire electrical grid would be threatened by terrorism, breakage and weather problems as America becomes heavily reliant on this untested “renewable” energy system that would replace the current mix of coal, oil, natural gas and nuclear power.

America cannot afford to relegate our functional, reliable, affordable, and yet fragile energy and economic system to history’s dust bin – and replace it with one that exists only in fanciful government proclamations and legislative mandates.

We have enclosed abstracts from the Wojick, Tanton, Gregory, Menton and Stein studies. We hope you will review them and will invite our experts to discuss their findings in more detail. They are available to testify as witnesses and assist in other ways, to help America avoid what otherwise will be a calamity.

Congress can show real policy leadership by holding hearings, bringing essential new dimensions to discussions of climate change and Environment Social and Governance (ESG) principles, and enacting legislation that directly addresses the vitally important issues raised in this letter.

Sincerely,



Craig Rucker

President of CFACT

On behalf of the Net Zero Reality Coalition:
Committee For A Constructive Tomorrow (CFACT)
American Policy Center (APC)
Competitive Enterprise Institute (CEI)
Energy & Environment Legal Institute (E&E Legal)
Heartland Institute
International Climate Science Coalition (ICSC)