Is Biden's Climate Disclosure Rule on the Right Path?

Professional Landmen's Association of New Orleans

Poe Leggette – September 19, 2022



U.N. Definition of Net-Zero

"Put simply, net zero means cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance."

Source: https://www.un.org/en/climatechange/net-zero-coalition



We All Use More

- ✓ "Energy-related CO2 emissions grew to 36.3 Gt in 2021, a record high"
- ✓ "The world has not heeded the call for a sustainable recovery from the Covid-19 crisis"

Source: IEA, "Global Energy Review: CO2 Emissions in 2021" (released March 2022)

Global petroleum demand still rising



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2022



The COVID Consumption Cliff

U.S. delivered energy across end-use sectors (2010-2050) quadrillion British thermal units 2020 100 High Economic projections history Growth years when consumption 90 surpasses 2019 peak AEO2021 2024 2029 Reference 80 2019 peak level 2050 Low Economic Growth 70 60 50 \parallel 0 eia 2010 2020 2030 2040 2050 Source: U.S. Energy Information Administration, Annual Energy Outlook 2021 (AEO2021)

Cost of SEC Climate Risk Rule

- "[A]nnual compliance burden of the affected collections of information,"
 87 Fed Reg. at 21458 (4/11/22),
- > Is **\$10,235,031,998**. *Id.* at 21461.



Changes By the Numbers, 1960-2020

- Atmospheric Concentration of CO₂ <u>Increase</u>: **100 ppm** [1960-310 ppm; 2019-410 ppm]
- > Average surface temperature increase: 1.4º Fahrenheit
- > Average sea level rise: 5 inches
- Global human population increase: ???





Population Prospects...



Bloomberg Law[®]

Here's a specific illustration of the effect of <u>population growth</u>, showing that what is perceived as a climate problem is really a population problem. Why the rise in insurance losses from extreme weather events? In a *May 17, 2022, article in Bloomberg News*, reporter Dean Scott's headline was "Realtors, Insurers Lament Climate, Clean Energy Inaction."

Bloomberg Law News 2022-07-18T13:47:04497941583-04:00

Realtors, Insurers Lament Climate, Clean Energy Inaction (1)

- By Dean Scott 2022-05-17T10:30:22000-04:00
 - U.S. climate, weather impacts totaled \$148 billion in 2021
 - Advocates launch national campaign for congressional deal

BakerHostetler itors, Insurers Lament Climate, Clean Energy Inaction (1) Bloomberg Law News 2022-07-18T13:47:04497941583-04:00 Realtors, Insurers Lament Climate, Clean Energy Inaction (1) By Dean Scott 2022-05-17T10:30:22000-04:00 U.S. climate, weather impacts totaled \$148 billion in 2021 Advocates launch national campaign for congressional deal Federal inaction to combat climate change and accelerate clean energy deployment is worrying the real estate, insurance, and clean energy sector amid soaring costs of severe storms and other All signs point to rising costs of climate inaction, according to National Oceanic and Atmospheric An agris point to resing Coals or Cantered measure, according to resource of the second secon Administration calls that shows surged in view of the state of the sta noong. Three states have over in host anected since room on one time only to now over to term only to now over the last four decades: Texas (\$349 billion), Louisiana (\$278 billion), and /hose climate impacts drove costs to a record \$764.9 billion in U.S. climate-related damage over the ast five years, according to NOAA figures. e increases come as congressional policymakers struggle to find common ground on any he increases come as congressional policymakers struggie to tino common ground on any significant U.S. climate policy. Democrats \$550 billion climate and clean energy package stalled on Crastol Hill at the end of last user even as the name construct the White Linus and house and hous Jonicant U.S. climate policy. Democrats \$550 billion climate and clean energy package stalled on Capitol Hill at the end of last year, even as the party controls the White House and both chambers of Concress. Jump-Starting Action Avionmental and clean energy groups are trying to jump-start congressional action amid Are window is closing on a compromise should Republicans wrest control of either chamber in Aresents clean energy companies and investors, announced Tuesday a series of live the U.S., along with a six figure ad campaign to draw attention to the economic costs

NOAA's Costs of Disaster Events





Climate Change Plays a Minor Role in Increased Damages from Tropical Cyclones

"Recent decades have seen very large increases in the economic damage and disruption caused by tropical cyclones. Historical analyses indicate that this has been caused primarily by rising coastal populations and the increasing value of infrastructure in coastal areas."

Source: T. Knutson, J. McBride, et al., "Tropical Cyclones and Climate Change," NATURE GEOSCIENCE (online pub. Feb. 21, 2010) (emphasis added).

Disaster Losses and Climate Change?

Increasing exposure of people and economic assets has been the major cause of long-term increases in economic losses from weather- and climate-related disasters (high confidence). Long-term trends in economic disaster losses **adjusted for wealth and population increases** have not been attributed to climate change, but a role for climate change has not been excluded (high agreement, medium evidence).

Source: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation, Summary for Policymakers at 7 (emphasis added), available at ipcc.ch/site/assets/uploads/2018/03/SREX_FD_SPM_final-2.pdf

Emissions per Capita



U.S. Energy Consumption



eia.gov/totalenergy/data/monthly/pdf/sec.2-3.pdf

Electric Power Sector Generation by fuel type, reference case and alternative cases (2021 and 2050)



Data source: U.S. Energy Information Administration, Annual Energy Outlook 2022

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Global Energy Projections

Figure 1





Share of primary energy consumption by source,

Source: U.S. Energy Information Administration, International Energy Outlook 2021 (IEO2021) Reference case ¹ includes biofuels

Wind Growth

So Total Solar and Wind Energy Generation & Capacity in 2019, 2020, and 2021

	Cumulative Capacity (GW)		Annual Generation (GWh)	
	U.S.	World – U.S.	U.S.	World – U.S.
2019	105.6 ¹	545.1 ²	295,882 ³	1,032,1724
2020	122.05	620.4 ⁶	337,9387	1,142,4628
2021	134.7 ⁹	702.310	379,76711	1,433,93312

Solar Growth

Solar Energy	Cumulative Capacity (GW)		Annual Generation (GWh)	
	U.S.	World – U.S.	U.S.	World – U.S.
2019	60.8 ¹³	530.314	106,89415	586,16916
2020	75.617	641.2 ¹⁸	130,72119	703,90920
2021	95.2 ²¹	754.322	163,703 ²³	859,39724

Electric Power Sector Generation by fuel type, reference case and alternative cases (2021 and 2050)



Data source: U.S. Energy Information Administration, Annual Energy Outlook 2022

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Gasoline in 2050



Source: U.S. Energy Information Administration, Annual Energy Outlook 2022 (AEO2022) Reference case

U.S. Primary Energy Sources Jan – Aug 2021 (64.6 Quadrillion Btus)

Natural 36.1% Gas 23.6% Oil Coal 11.9% Gas Lqds 7.1% 8.4% Nuclear Nuclear Biomass 5.0% Natural Gas 36% 2.5% Hydro Geother 0.2% mal Wind 3.3% 1.7% Solar (Total less than 100.0% due to rounding) ■ ■ Natural Gas ■ Oil ■ Coal ■ Gas Lqds ■ Nuclear ■ Biomass ■ Hydro ■ Geothermal ■ Wind ■ Solar Source: U.S. Energy Information Administration, Monthly Energy Review

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Nov. 2021

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Global Energy Projections

Figure 1





Share of primary energy consumption by source,

Source: U.S. Energy Information Administration, International Energy Outlook 2021 (IEO2021) Reference case ¹ includes biofuels

China and Critical Minerals

- **2018**: China produced more than 75% of world's cobalt chemicals
- **90%** of all rare earth magnets are manufactured in China
- 2019: seven of the world's ten largest solar panel manufacturers were Chinese, making 84% of capacity in solar panels
- **2019:** China controlled 73% of lithium cell manufacturing capacity; the U.S. 12%

Uyghur Forced Labor Prevention Act BakerHostetler

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CBP Releases Operational Guidance to Importers Regarding UFLPA Enforcement

June 20, 2022

in f 🎔

The Uyghur Forced Labor Prevention Act (UFLPA), signed into law on ver 23, 2021, furthers the United States' policy of prohibiting the made with forced labor.[1] The UFLPA r ntity List[2]. nent on the UFLPA E. with forced labor and are prohibited from entry to CBP, the presumption applies to all goods ansported through China and other countries that

include inputs made in the XUAR.[4] eleased its operational guid

n 307 of the Tariff Act of 1930 [7] Acca

6/20/2022 **CBP** Releases Operational Guidance to Importers Regarding UFLPA Enforcement

Bakerlaw.com website (Resources)

Not a Net Zero American Future by 2050

Key takeaways from the Reference and side cases

- Petroleum and natural gas remain the most-consumed sources of energy in the United States through 2050, but renewable energy is the fastest growing
- Wind and solar incentives, along with falling technology costs, support robust competition with natural gas for electricity generation, while the shares of coal and nuclear power decrease in the U.S. electricity mix
- U.S. crude oil production reaches record highs, while natural gas production is increasingly driven by natural gas exports

Source: U.S. EIA 2022 Annual Energy Outlook

Emissions Still Rising

Energy related carbon dioxide (CO_2) emissions rise, even as

carbon and energy intensity fall Energy-related CO₂ emissions Carbon intens

billion metric tons











Why the SEC Rule?

Registrants' emissions and exposure to potential transition risk, as well as whether they have in place emissions targets with credible pathways of achievement.

87 Fed. Reg. 21425L.



How Is the Market Doing on Climate Without the SEC Rule?

Increased mandatory ESG disclosure is associated with aggregate stock price movement. . . with firms disclosing large GHG emissions experiencing price declines.

87 Fed. Reg. 21429R.

Verification Organizations

- Clean Development Mechanism
- Gold Standard
- Verra/Verified Carbon Standard (VCS)
- American Carbon Registry
- Climate Action Reserve
- Forest Carbon Partnership Facility
- Global Carbon Trust

Source: IATA - Aviation Carbon Offsetting Guidelines

Verified Carbon Offsets

Verra's Verified Carbon Standard: "1,797 certified VCS projects" have "reduced or removed more than 922 million tonnes of carbon and other GHG emissions."

[Source: verra.org/project/vcs-program, last visited 5/2/2022]

Sustaincert's Gold Standard: 208,766,151 "credits" issued. One credit = one metric ton of CO2e.

[Source: registry.goldstandard.org/credit-blocks/issuance?q=&page=1, last visited 5/2/2022]

Carbon Capture and Storage (CCS); Carbon Capture, Use, and Storage (CCUS).

- Equinor's Sleipner, offshore Norway, 1 million tonnes per year (MT/yr)
- Chevron's Gorgon, Australia, 2.5 MT/yr
- Summit Project, North Dakota (a/k/a "far western Norway"), 9 MT/yr
- > Total 27 operational, mostly N. Am., 36 MT/yr, per CCS Institute
- ➢ US storage potential, at least 3,000 Gigatonnes, per US Geol. Survey





Rethinking the Strategy

- \checkmark Ending oil and gas vs.
- ✓ Reforestation &
- ✓ CCS &
- ✓ Nuclear Power &
- ✓ Hydrogen.

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