A Clear and Present Danger: Threat #2 – U.N. Agenda 21 / 2030
Addenda #1 – June 2023
Re: Ch. 16, UN 30x30 Plan *SDG 15 - Protect, restore and promote sustainable use of the land*

"Sweeping Biden Rule Could Change The Game For Protecting Public Lands"
Huffington Post, March 30, 2023

"*The Bureau of Land Management has largely prioritized leasing its lands for mining and drilling. A new rule would change that… The proposed rule would direct BLM to "protect intact landscapes, restore degraded habitat, and make wise management decisions based on science and data." In addition, BLM would have to incorporate land health assessments into its decisions on land use… It would allow BLM to issue "conservation leases," a new tool to promote land protection and ecosystem restoration. The leases would allow members of the public to sponsor lands for protection and restoration for terms up to a decade long.*
And it would prioritize the creation of more Areas of Critical Environmental Concern (ACEC) — an agency designation that limits environmentally destructive uses like mining and drilling.

Note: This policy of "conservation" of public lands, fits right into the U.N. 30x30 plan, and President Bidens America the Beautiful Initiative.
It does nothing, however, for increasing the supply of rare earth minerals required for the transition to renewable power sources, electrification, and electric vehicles, trucks and busses, which the President and Religion of Green advocates have mandated.
I find this ruling to be a striking contrast between the two objectives, further proof (in my mind at least) that the renewable energy mandates cannot be met by the deadlines.

"Swedish parliament passes new energy target, easing way for new nuclear power"
Reuters, June 20, 2023

"Sweden's parliament on Tuesday adopted a new energy target, giving the right-wing government the green light to push forward with plans to build new nuclear plants in a country that voted 40 years ago to phase out atomic power."

"Changing the target to "100% fossil-free" electricity, from "100% renewable" is key to the government's plan to meet an expected doubling of electricity demand to around 300 TwH by 2040 and reach net zero emissions by 2045… We need more electricity production, we need clean electricity and we need a stable energy system."

Finally, admissions of the futility of 'Net-Zero by Renewables' by responsible government.

"Proposed NYC environmental regulations targets coal, wood-fired pizza ovens"
CNN Newsource, 14 News, June 27, 2023

"The New York City Department of Environmental Protection wants to crack down on carbon emissions from coal and wood-fired pizza ovens…. If their regulations are implemented, they would impose tight restrictions on pizzerias across the city… Pizzerias with ovens installed before 2016 would be required to buy emission-control devices to reduce total emissions by 75%.

"City health officials say wood and coal-fired stoves are among the largest contributors of harmful pollutants in neighborhoods with poor air quality. The new rules would impact about 100 businesses citywide."

Addenda #2 – June 2023
Re: Ch. 9, Progressive States Climate Policies *SDG 11 – Make cities safe, resilient and sustainable*

"New York State Passes Historic Ban Affecting Gas Appliances (Stoves Included)"
yahoo!news, May 4, 2023
On May 3, 2023, NY governor Kathy Hochul signed the FY2024 state budget. Included in that budget was the executive enacting of a 2021policy known as the "All Electric Buildings Act". This bill was proposed by Progressive Democrats during the 2021-2022 legislative session but never came up for a vote.
In other words, this proposal was never voted on by our elected officials, never subject to a public comments period, never approved by citizens of New York state.

The policy effectively enacts a statewide ban on natural gas or propane gas connections in all new residential and most new commercial construction, beginning in 2026. This ban will eliminate the use of gas-fueled stoves, water heaters, dryers, fireplaces, furnaces, boilers, and any other equipment. This policy was first approved by New York's Climate Action Council "*Scoping Plan*" to reduce greenhouse gasses, in December 2022.
There is no official written policy (at this time) saying that future purchases of these gas fueled appliances will be banned in the state.
However, the article ends with the following statement:

"If you have a gas stove in your home currently, nothing changes. In fact, you can go out and purchase a new one whenever you'd like. But moving forward, future development in New York will have to consider what's best for people and the climate."

That tells me that this is just the tip of the iceberg in controlling what we will and will not be able to do in our own homes. The elites again deciding *what's best* for the rest of us.

Real Life Situation:
The cost of just replacing gas-fired residential heating units with electric heat pumps or gas boilers increases the cost by 3-4 times. This does not include upgrades to the homes electric service!
The house I live in is just under 2,100 square feet and has a 100-amp electric service.
I have hot water baseboard heating, fed by a 77,000 BTU natural gas fired boiler.

After January 1, 2030, any future replacement will require an electric boiler.
The change from gas to electric requires the conversion from BTU to kWh (kilowatt-hour).
A 77,000 BTU gas-fired boiler is resized as a 22.56 kWh electric boiler.
An Electro Industries 22.5 kW TS Standard Series electric boiler requires a 240-volt, 93.8-amp electric supply fed by two 60-amp and one 30-amp circuits.

Since the size of my electric service now is just 100-amps, I will also have to pay to upgrade my electrical service to 200-amps, in order to install the electric boiler.
That cost to me will be about $3,000, in addition to the $6,000 average boiler change cost.

Note: The New York State Climate Action Council is a 22-member body, *appointed* by state Democrat leaders, that prepared that Scoping Plan to serve as the roadmap to achieve the State's clean energy and climate goals.

The Scoping Plan is the framework for how New York will reduce greenhouse gas emissions and achieve net-zero emissions, increase renewable energy use, and ensure all communities equitably benefit in the clean energy transition.

The 2019 Climate Leadership and Community Protection Act (Climate Act), one of the most ambitious climate laws in the nation, called for the issuance of a Scoping Plan under the direction of a 22-member Climate Action Council (Council), to be completed by January 1, 2023.

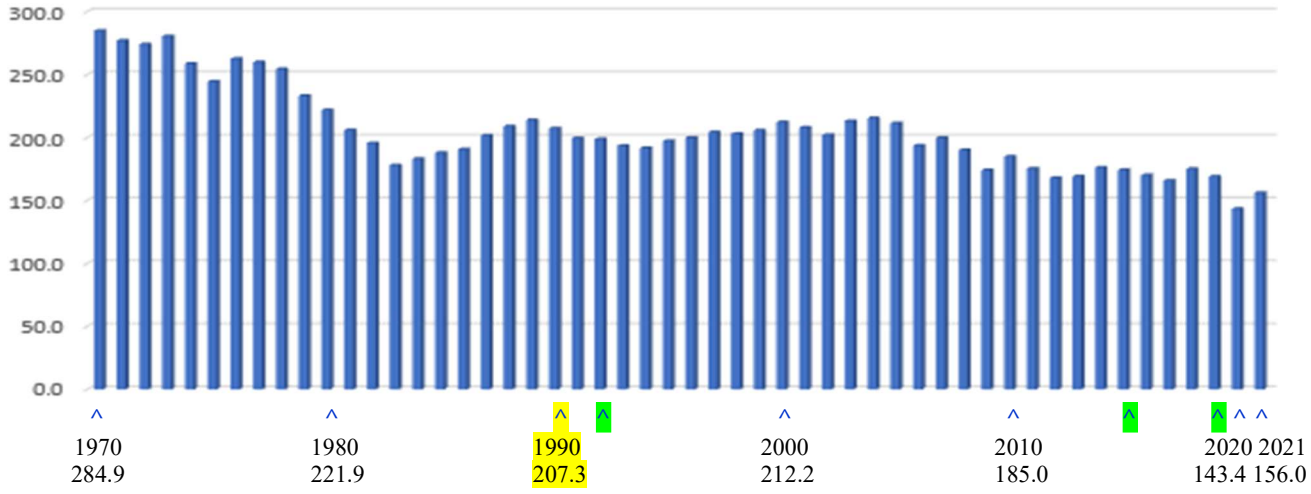
This Scoping Plan includes recommendations to meet the Climate Act's nation-leading goals and requirements, including actions to achieve a reduction in economywide greenhouse gas (GHG) emissions of 40% by 2030 and 85% by 2050 from 1990 levels, which will put New York on a path toward carbon neutrality while ensuring equity, system reliability, and a just transition from a fossil fuel economy to a robust clean energy economy.

This Scoping Plan prioritizes Disadvantaged Communities and the creation of good, family-sustaining, union jobs accessible to all New Yorkers. The Scoping Plan sets the course for New York to create new job opportunities, support healthier communities, and ensure that all New Yorkers will benefit from investments in the State's growing green economy. It builds on New York's unprecedented investments to ramp-up clean energy, including over $35 billion for 120 large-scale renewable and transmission projects across the State, $6.8 billion to reduce buildings emissions, $1.8 billion to scale up solar, more than $1 billion for clean transportation initiatives, and over $1.6 billion in NY Green Bank commitments.

Note the phrases, "ensuring equity", a "just transition", and "Disadvantaged Communities".

Energy-Related CO2 Emissions Data, New York State
U.S. Energy Information Administration https://www.eia.gov/environment/emissions/state/

New York Carbon Dioxide Emissions From Fossil Fuel Consumption (1970-2021) million metric tons CO_2



Key Dates:
1990 – baseline date for calculating greenhouse gas emissions
1992 – United Nations Framework Convention on Climate Change (aka Agenda 21)
1997 – Kyoto Protocol, commitment to reduce greenhouse gas emissions (U.S. did not sign the agreement)
2015 – Paris Agreement (aka Agenda 2030), commitment to limit global temperature to 1.5 °C (2.7 °F)
U.S. signed the Paris Agreement on April 22, 2016
2019 – NYS Climate Leadership and Community Protection Act, target CO_2 emission reductions 40%-85%
2020 – last coal-fired power plant in NYS closes

- *The Math*

2021 CO_2 emissions were 24.74% lower than 1990 and 45.24% lower than 1970.
CO_2 emissions have dropped by 51.3 mmt since 1990 (31-years), 1.65 mmt/year average
CO_2 emissions have dropped by 18.3 mmt since 2015 (6-years), 3.05 mmt/year average
2030 target from 2021 = 124.4 mmt (9-years), 31.6 mmt / 9 = 3.517 mmt/year average
2050 target from 2030 = 31.1 mmt (19-years), 93.3 mmt / 19 = 4.91 mmt/year average

Targeted reductions are based on achieving mandatory climate change laws, including;
All new car sales to be "zero-emission" (EV's) by 2035
*** 3 million zero-emission vehicles will be needed by 2030*
All heavy truck sales to be "zero-emission" by 2035, transition begins in 2025
All commercial bus sales to be "zero-emission" by 2035, transition begins in 2025
All school bus sales to be "zero-emission" by 2027, transition begins in 2023
No natural gas 'hookups' in all new residential construction, beginning in 2026
No natural gas 'hookups' in commercial construction (up to 6-floors), begins in 2026
No natural gas 'hookups' in commercial construction (above 6-floors), beginning in 2029
No sales of natural gas appliances and natural gas heating equipment by 2030
*** 1-2 million homes must be electrified with heat pumps by 2030*
All small "off-road" engine sales to be "zero-emission" by 2027, waiting passage of law

"Net direct costs (for de-carbonization and electrification) are estimated to be up to 0.6% of New York state's economy in 2030 and 1.3% in 2050."
Note: In 2021, the economy of NY state was $2,053,000,000,000 gross state product. The "pre-covid", pre-Biden "Climate Change" stimulus spending 22-year average annual GSP year-over-year increase is 4.22%.
NY states Climate Action Plan will reduce annual economic growth to 3.62% in 2030, and 2.92% in 2050.
NY state's economic growth has only been below this level in 4 of the last 25 years, excluding the Financial Crisis recession of 2008 and the COVID-19 recession of 2020!!

The U.N.'s SDG 7 calls for *ensuring access to affordable, reliable, sustainable and modern energy for all.*

What New York states Climate Plan *does ensure* is, unreliable renewable energy at a higher prices, ultimately resulting in a reduction of the state's economic growth.

Addenda #3 – July 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!

SDG 7 – Ensure access to affordable, reliable, sustainable and modern energy for all

America's Bet on Wind Power Is Running Into a Big Problem
Higher costs and serious delays are plaguing offshore wind projects. Here's who will pay the price.

"… behind the scenes, the news about wind power is more sobering. Financially, the industry is teetering, with a parade of companies planning to renegotiate or pull out of contracts, jeopardizing plans for projects that were expected to provide electricity for millions of homes. Inflation is erasing profits, causing some of the largest energy firms in the world to back away."

"At least eight multinational companies in three states have quietly started to back out of wind contracts, or ask to renegotiate deals in ways that will pass more costs to consumers."
Barron's magazine – July 24, 2023

SouthCoast Wind wants to cancel its contract to build offshore turbines

"The developer (Shell Oil) behind SouthCoast Wind (off the coast of Massachusetts) wants to cancel its contracts and secure more money to build 1,200 megawatts of offshore wind power, throwing uncertainty over a majority of the already-approved energy capacity in the state's offshore wind pipeline… The developer concluded that its 800-megawatt project bid selected in 2019 and its 400-megawatt project bid *selected in 2021 are no longer financially viable at the previously negotiated prices.*

"Officials for the project are betting that by backing out and launching a new bid in the next round this summer, they can get selected once again with more favorable financial terms."
WBUR Radio (Boston's npr) – June 5, 2023

Utilities agree to let Commonwealth Wind out of contracts for $48 million

"The developer behind the 1,200-megawatt project and a trio of Massachusetts utility companies struck a deal in which Commonwealth Wind will pay roughly $48 million to dissolve previous agreements the parties signed for the proposed clean wind energy. If the move wins approval from state regulators as at least one top lawmaker expects, it would effectively wipe away the largest offshore wind development in the state's pipeline and clear the way for the project's developer, Avangrid, to re-bid the project in hopes of securing a higher price amid what it has described as changing economic currents."
WBUR Radio (Boston's npr radio) – July 19, 2023

Stalled coastal wind power projects imperil Biden's climate agenda

Funding shortfalls are imperiling projects in New York, New Jersey and beyond.

"Up and down the Northeast — the center of the burgeoning industry — however, energy companies have struggled to finance their projects, going hat in hand to governors and utility regulators asking for more money so they can start building the turbines they have already promised to deliver."

"A second major project (Atlantic Shores off the New Jersey coast) is still facing significant financial uncertainty. The developers will need to decide next year if it proceeds with the [1.5 gigawatt] project, but without more money from the state it won't happen"
Politico, July 26, 2023

Addenda#4 – July 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
SDG 7 – Ensure access to affordable, reliable, sustainable and modern energy for all
Re: Ch. 16, UN 30x30 Plan
SDG 15 – Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

US copper mines get riskier as Biden stalls Resolution land swap
S&P Global, March 5, 2021

The Biden presidency in the U.S. was expected to bring about enthusiasm for the green revolution and the metals to fuel it. But faced with a decision to permit one of the most valuable mining projects in the country, the new administration sided with environmentalists and Indigenous rights activists.

The U.S. Agriculture Department's decision to withdraw approval for the proposed Resolution copper mine in Arizona was the Biden administration's first politically contentious action on mining. With other U.S. mines in development also expected to test the Biden administration, mining companies should anticipate new hurdles for their projects if the Resolution decision is any indicator of the administration's direction.

Biden administration kills Antofagasta's Minnesota copper project
Reuters, Jan 26, 2023

The U.S. Department of the Interior canceled two mineral leases for Antofagasta Plc's proposed Twin Metals copper and nickel mine in Minnesota on Wednesday, effectively killing the project and handing a major win to environmentalists.

The decision shows President Joe Biden's administration is increasingly comfortable prioritizing domestic conservation efforts even as demand for minerals used to build electric vehicles rises amid efforts to combat climate change.

The leases for the proposed mine in northern Minnesota had first been pulled by then-President Barack Obama's administration in 2016. But President Donald Trump's administration reversed that decision.

The step was in addition to a plan announced last fall by the White House to impose a 20-year ban on mining in Minnesota's Boundary Waters region, where Antofagasta hopes to build an underground mine to supply copper for electric vehicles, which use twice as much of the red metal as those with internal combustion engines.

Question: Who set the agenda for his presidency, and who is responsible for creating the policies behind those orders?
Answer: Governing for Impact, the "left-of-center thinktank" established to write policy for the incoming Biden administration in 2019. (See pg. 102)

The Mission Statement on the front page of their website states:
Ensuring the federal government works effectively for everyday Americans… Really?

Addenda #5 – August 2023
Re: Ch. 16, UN 30x30 Plan

SDG 15 - Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

President Biden Designates Amache National Historic Site as America's Newest National Park

U.S. Department of the Interior – Press Release, March 18, 2022

President Biden signed the Amache National Historic Site Act today, designating the Amache site in Granada, Colorado as part of the National Park System. This designation, the first in the National Park System during this Administration, will permanently protect the site for future generations and will help tell the history of Japanese American incarceration during World War II.

"As a nation, we must face the wrongs of our past in order to build a more just and equitable future," said **Secretary of the Interior Deb Haaland.**

Note: The Granada Relocation Center and city of Amache are located on 17 square miles (10,880 acres)

16 National Monuments and Marine Sanctuaries Biden Should Create or Expand

Center for American Progress, November 22, 2022

President Joe Biden has many executive authorities at his disposal to meet his administration's historic promise to conserve 30 percent of U.S. lands and waters by 2030. This includes the power of the president to designate national monuments and the power of his National Oceanic and Atmospheric Administration (NOAA) to designate national marine sanctuaries, answering the call from community, state, Tribal, and other leaders for action.

This issue brief highlights some of the many community-led proposals for national monuments and national marine sanctuaries that warrant serious consideration by President Biden.

Note: The Center for American Progress is a liberal Washington, D.C.-based think tank with strong ties to the Democratic Party establishment created after Democrats lost the Presidency in 2000 to George W. Bush and lost control of both houses of Congress in 2002.

CAP was founded by John Podesta, former White House Chief of Staff for President Bill Clinton, Counselor to the President in the Obama White House, and chair of former U.S. Secretary of State Hillary Clinton's 2016 Presidential campaign.
Notable financial supporters of CAP include the Sandler Foundation, the JPB Foundation, the Open Society Foundations and Foundation to Promote Open Society associated with George Soros, and labor unions like the American Federation of State, County, and Municipal Employees (AFSCME) and Service Employees International Union (SEIU).

According to *The Nation's* Robert Dreyfuss, it was not "completely wrong to see [CAP] as a shadow government, a kind of Clinton White-House-in-exile—or a White House staff in readiness for President Hillary Clinton.

Addenda #6 – August 2023
Re: Ch. 16, UN 30x30 Plan

SDG 15 - Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

FACT SHEET: Biden-Harris Administration Takes New Action to Conserve and Restore America's Lands and Waters
The White House Press Release, March 21, 2023

President Establishes New National Monuments in Nevada and Texas…
Together, these new national monuments protect nearly 514,000 acres of public lands.
The President will direct the Secretary of Commerce to consider initiating a new National Marine Sanctuary designation within the next 30 days to protect all U.S. waters around the Pacific Remote Islands. If completed, the new sanctuary would ensure the U.S. will reach the President's goal of conserving at least 30% of ocean waters under American jurisdiction by 2030.

FACT SHEET: President Biden Designates Baaj Nwaavjo I'tah Kukveni – Ancestral Footprints of the Grand Canyon National Monument
The White House Press Release, August 08, 2023

New monument – marking fifth new National Monument created by President Biden – will conserve nearly 1 million acres of greater Grand Canyon landscape sacred to Tribal Nations and Indigenous peoples and advance President Biden's historic climate and conservation agenda.
In conjunction with the President's visit, Biden-Harris Administration announces $44 million investment to strengthen climate resilience across America's National Parks system

Note: See Ch. 16 UN 30x30 plan

Question: Who set the agenda for his presidency, and who is responsible for creating the policies behind those orders?

Answer: Governing for Impact, the "left-of-center thinktank" established to write policy for the incoming Biden administration in 2019. (See pg. 102)

Addenda #7 – August 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!

SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all
SDG 9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Biden Said EV [bus] Maker Proterra Was 'Getting Us in the Game.' It Just Declared Bankruptcy.
The Washington Free Beacon, August 8, 2023

President Joe Biden promoted the company. Its top executive landed a spot on a White House board. And Energy Secretary Jennifer Granholm held hundreds of thousands of shares in it.

But that wasn't enough to save Proterra—the electric vehicle maker whose buses routinely failed to stay on the road—from declaring bankruptcy… The declaration marks a stunning downfall for Biden's favorite green energy company.

Biden's praise for Proterra—and Granholm's financial stake in the company—drew comparisons to Solyndra, a solar panel maker that went bankrupt after receiving a $535 million loan guarantee as part of the 2009 Obama-Biden [$787 billion American Recovery and Reinvestment Act] stimulus package.

Note: President Bidens 2021 $1.2 trillion Infrastructure Investment and Jobs Act, included at least $5 billion in spending on electric buses alone.

Note: Biden Energy Secretary Jennifer Granholm served on the Board of Directors of Proterra before being appointed to the cabinet post by President Biden in 2021. (Granholm sold more than 240,000 shares in the company after being confirmed by Congress, netting a $1.6 million profit; for which taxes owed were deferred due to her cabinet position)

Addenda #8 – August 2023
Re: Ch. 13, Sustainable Consumption
SDG 12 - Ensure sustainable consumption and production patterns

Plant-based foods did not take off the way the climate alarmists had hoped.
By 2022, plant-based foods had only reached 1.3% of total meat category sales. Many restaurant chains slimmed down or even abandoned plant-based alternatives to meat, chicken, and dairy products in all but the most 'progressive' cities.
Even so, advocates 'predicted' that demand would expand at "a stupendous AGR [annual growth rate] of 12.2% between 2023 and 2033", and that Gen Z and Millennials would lead the 'surge to transition'.

Beyond Meat earnings drop 30% with falling demand
CNN, August 7, 2023

Troubled plant-based meat company Beyond Meat posted a 30% revenue decline in the second quarter due to falling demand for its products… International revenues fell by 8.7% while sales volume dropped by 24%

Company spokesperson claimed high inflation, rising interest rates and the likelihood of recession are the reason???

The plant-based substitute meat seller said it would sell up to $200 million worth of new shares in May as it faced a shrinking cash pile.

Losses on meat alternatives leave investors with sour aftertaste
Financial Times, June 8, 2023

Despite a boom in ethically focused investing and growing concerns about the meat industry's carbon footprint, consumers have not developed a taste for plant-based alternatives, which still only account for a fraction of a single per cent of the global meat market.

In February 2021, Whole Foods Market Inc.'s former co-chief executive Walter Robb described consumers' gradual shift from meat to plant-based alternatives as a "megatrend akin to digitisation" — potentially "the biggest single trend in the history of food… An index tracking 46 plant-based food companies has halved in value since peaking weeks after Robb's bold call, hit by lacklustre sales and rising interest rates.

… Until they can match meat on flavour, texture and cost, plant-based substitutes are unlikely ever to win a substantial chunk of the market, analysts said.

The big problem with plant-based meat: The 'meat' part
The Washington Post, January 19, 2023

When consumers shop, they tend to simplify foods into categories: healthy, "good" foods on one side, and less-healthy, indulgent foods on the other.

First, many alternative meats — especially those that are ready-made to resemble burgers, sausages or bacon — include a long list of ingredients. "I was pretty shocked when I saw the ingredient lists," said Marion Nestle, a professor emerita of nutrition and food studies at New York University… These products fall into the category of "ultra-processed" foods, which many consumers associate with weight gain and health problems. That creates a conflict for buyers.

Addenda #9 – August 2023
Re: Ch. 13, Sustainable Consumption
SDG 12 - Ensure sustainable consumption and production patterns

These 14 American Cities Have A 'Target' Of Banning Meat, Dairy, And Private Vehicles By 2030
conservative review – the Federalist, August 19, 2023

Fourteen major American cities are part of a globalist climate organization known as the "C40 Cities Climate Leadership Group," which has an "ambitious target" by the year 2030 of "0 kg [of] meat consumption," "0 kg [of] dairy consumption," "3 new clothing items per person per year," "0 private vehicles" owned, and "1 short-haul return flight (less than 1500 km) every 3 years per person."

C40's dystopian goals can be found in its "The Future of Urban Consumption in a 1.5°C World" report, which was published in 2019 and reportedly reemphasized in 2023. The organization is headed and largely funded by Democrat billionaire Michael Bloomberg.

Nearly 100 cities across the world make up the organization, and its American members include Austin, Boston, Chicago, Houston, Los Angeles, Miami, New Orleans, New York City, Philadelphia, Phoenix, Portland, San Francisco, Washington, D.C., and Seattle.

The target of eliminating meat, dairy, and private vehicles by 2030 is "based on a future vision of resource-efficient production and extensive changes in consumer choices," the report notes — something its authors clearly hope to bring about. If these were not their goals, they would not have labeled them "ambitious targets."

This year, in lockstep with C40 Cities' 2030 aims, New York City Mayor Eric Adams announced that the city will place caps on the amount of meat and dairy served by city institutions, such as schools and prisons. Meanwhile, the U.K. has banned the sale of new gas-powered vehicles after 2030, and France has banned short-haul flights "to cut carbon emissions."

conservative review – the Federalist, August 19, 2023
https://www.conservativereview.com/these-14-american-cities-have-a-target-of-banning-meat-dairy-and-private-vehicles-by-2030-2664099182.html

ARUP; The Future of Urban Consumption in a 1.5°C World
https://www.arup.com/perspectives/publications/research/section/the-future-of-urban-consumption-in-a-1-5c-world

Addenda #10 – August 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all

Utility-scale solar is now forecasted by Wood Mackenzie to total 10.3 GW in 2022, falling 40% compared to the 17 GW installed in 2021. In addition, 2021 utility-scale solar installations already fell short of forecasts by 3 GW due to multiple project delays as a result of cost increases.
Utility Dive, Dec 15, 2022

New solar installations in the U.S. dropped 16% to 20.2 gigawatts (GW) in 2022 from the prior year, largely because a ban on some Chinese goods limited the availability of panels, according to a market report released on Thursday.
Reuters, March 9, 2023

The US solar industry had the most growth of any quarter in its history in Q1 2023, as delayed projects from 2022 came online and supply chain constraints showed signs of loosening.
*According to the US Solar Market Insight Q2 2023 report from Wood Mackenzie and the Solar Energy Industries Association (SEIA), 6.1GW of solar was installed across the country in the first three months of the year. This represented a 47% year-on-year increase from Q1 2022 and a 19% decline from Q4.*Solar Market Insight Report Q2 2023;
Solar Energy Industries Association, June 8, 2023

Update: October 2023
The Lawrence Berkeley National Laboratory recently released a report titled *Utility-Scale Solar, 2023 Edition*. The report showed 10.4 GW of utility-scale PV was installed in 2022, in line with the projections of Wood Mackenzie.
Residential, commercial and community solar installations are more difficult to track accurately, but an updated Wood Mackenzie report shows the US total solar market installed 20.2 gigawatts of capacity in 2022, a 16% decrease from 2021.
Their Q3 2023 report estimates 14% growth annually in solar installations over the next five years. Based on their estimate, expect to see the following annual solar installations:
2023 = 23.0 GW, 2024 = 26.2 GW, 2025 = 29.9 GW, 2026 = 34.1 GW, 2027 = 38.9 GW

The renewable energy consulting firm Worley released a report in 2023 titled: **From** Ambition to Reality: A call to action for sustainable change. The report stated that to reach net-zero Carbon emissions in the U.S. by 2050, 800 megawatts of new capacity would have to be commissioned every week, until 2050.
https://pv-magazine-usa.com/2021/08/04/u-s-to-net-zero-carbon-by-2050-will-be-a-steep-climb/

1.2 GW = 20,200 MW installed for 52-weeks of 2022. Thats 388 MW average per week.
38.9 GW = 38,900 MW = 748 megawatts average per week in 2027.

2050-Zero emissions; Impossible!

Addenda #11 – September 2023
Re: Ch. 13, Sustainable Consumption
SDG 12 - Ensure sustainable consumption and production patterns

At UPSIDE Foods, we've spent nearly a decade working together to create cultivated meat that's good for people and our planet.

Founded in 2015, Upside Foods (formerly known as Memphis Meats) is a food technology company headquartered in Berkeley, California, aiming to grow sustainable cultured meat. The company claims to produce various meat products using biotechnology to induce stem cells to differentiate into muscle tissue, and to manufacture the meat products in bioreactors.

Upside introduced the first "cultivated" meatball in 2016 and followed with cultivated chicken and duck. Now they're "evolving" how beef and seafood are grown…

GOOD Meat is cultivated meat, a process of making sustainable, safe meat from animal cells instead of slaughtered animals. Our company also makes plant-based egg products under the JUST Egg brand.

GOOD Meat is real meat, made without tearing down a forest or taking a life.

Based in California, GOOD Meat is the "cultivated meat" division of food technology company Eat Just, Inc. They first received regulatory approval to sell its "cell-cultivated" or "cultured" chicken in Singapore in 2020.

Note: Cell cultivation, or cell culture, is a method used to cultivate, propagate and grow a large amount of cells in a dish. Cell culture allows one to grow cells outside of their natural environment and control the conditions in which they grow.
Cell culture must occur under sterile conditions to avoid contamination with bacteria, yeast and/or mold.

"Viruses pathogenic for humans are one of the most likely biohazards presented by cell cultures… The generation and use of genetically modified organisms (GMOs) should be strictly controlled and regulated."

Millipore Sigma: life science division of the Merck Group, Germany.

Of particular concern is the genetic engineering of cells and their potential cancer-promoting properties. To be able to better assess whether the products are being produced by methods that involve genetic engineering and use genetic constructs (-called onco-genes, typically used to make stem cells keep growing; this is not a problem for lab experiments, but could be for food products-) that might encourage cancer cells, we need more information on how the cells are engineered and kept growing. Many of the companies are claiming this information is confidential and a business secret.

To produce lab-cultured "meat," many producers extract animal cells from living animals. This is typically done via biopsy, a painful and uncomfortable procedure that uses large needles. If a company could scale up with this method, it would require a consistent supply of animals from which to acquire cells and innumerable painful extractions.

The scale required for making lab-cultured "meat" feasible for mass consumption will be the largest form of tissue engineering to exist and could introduce new kinds of genetically engineered cells into our diets. Further research will also be needed to confirm or dispel uncertainties over various potential safety issues.

Is Lab-Grown Meat Healthy and Safe to Consume; Center for Food Safety, September 20,2020

Lab-grown meat cleared for human consumption by U.S. regulator

The U.S. Food and Drug Administration (FDA) for the first time cleared a meat product grown from animal cells for human consumption, the agency announced on Wednesday.

"The world is experiencing a food revolution and the (FDA) is committed to supporting innovation in the food supply"

The FDA said in documents released on Wednesday that it had reviewed data from the company and had no further questions about the company's conclusion that its product is safe for humans to eat.

Reuters; November 16, 2022

The "food revolution" being UN SDG12.

USDA approves 1st ever "cultured" meat for 2 American manufacturers

UPSIDE will cultivate and sell chicken grown from animal cells in bioreactors.

abc News; June 22, 2023

So both the Food and Drug Administration and the U.S. Department of Agriculture have determined that cell cultured meat is "safe" for human consumption.

This is the same FDA that collaborated with Biogen to approve the Alzheimer drug Aduhelm in 2021.

The same drug that Biogen discontinued trials on in 2019, when an independent review committee found the drug probably would not slow the cognitive and functional impairment of Alzheimer's.
The same FDA that then collaborated with Biogen to approve the drug, which engaged in at least 115 meetings, calls and substantive email discussions from July 2019 to July 2020, including 40 meetings to guide Aduhelm's potential approval.

Note: Biogen stood to gain billions in revenue and profits if the drug was approved.

Note: Several members of the FDA review committee resigned in protest when the drug received approval. *"It is clear to me that FDA is not presently capable of adequately integrating the Committee's scientific recommendations into its approval decisions,"*

Note: In 2021, the federal government announced a 14.5% hike in Medicare premiums to cover reimbursements for an anticipated rise in Adulhelm prescriptions, which cost $56,000 per-person, per-year. In January 2022, the Centers for Medicare and Medicaid Services declined to cover Adulhelm for regular usage outside clinical trials, a decision widely supported by most Alzheimer's researchers, citing "scant efficacy data" to support widespread use of the drug.

The same FDA that initially refused to approve OxyContin. The official responsible for reviewing the effectiveness and safety of the drug, Curtis Wright, eventually changed his mind. Wright then resigned from the FDA and was hired first by the pharmaceutical company that manufactured OxyContin, then by Purdue Pharma, the company that marketed and distributed the drug. Wrights compensation package was at least $379,000, or 3 times what he made at the FDA.

There are more instances of this same type of quid-pro-quo approval process, but these two examples should give you some kind of idea how thorough and reliable the FDA approval process is.

"The Food and Drug Administration is responsible for protecting the public health by ensuring the safety, efficacy, and security of human and veterinary drugs, biological products, and medical devices; and by ensuring the safety of our nation's food supply, cosmetics, and products that emit radiation."

Note: FDA Commissioner Robert Califf was appointed by President Biden in February of 2022. He previously served as FDA Commissioner under President Obama. A Duke University alumni, he "convinced" pharmaceutical companies to do large, expensive, and, for Duke, profitable clinical trials. Califf was also a "paid consultant" for several pharmaceutical companies from 2009 to 2013.

You really need a person with close, financial ties to "big pharma", in charge of the approval of prescription drugs! No conflict of interest there, right?

Meat without slaughter: Here's everything you need to know about lab-grown meat
CNN; June 23, 2023

On Wednesday, the USDA gave Upside Foods and Good Meat the green light to start producing and selling their lab-grown, or cultivated, chicken products in the United States.

Upside Foods And Good Meat Secure USDA Approval For Lab-Grown Meat - Can You Buy Stocks Now?
Forbes; June 23, 2023

Insiders Reveal Major Problems at Lab-Grown-Meat Startup Upside Foods
Billion-dollar cultivated-meat startup Upside Foods wants you to think the breakthrough chicken fillets it sells are made in a futuristic factory. A WIRED investigation tells a different story.
WIRED; September 15, 2023

Recent revelations from Upside Foods employees raise serious questions about how much cultured meat companies have achieved after billions of dollars in investment in recent years, and whether wholecut cultivated meat products will ever be commercially viable…

A current employee confirmed that the cultivators are no longer used to produce wholecuts, despite their pride of place in the facility and during factory tours… Each roller, which must be prepared by hand, produces between 2 and 3 grams of usable tissue…

The revelations seriously damage the credibility of Upside Foods' business model. Upside has repeatedly claimed it is ready to mass produce wholecuts of cultured meat, however their current requires many hours of work by trained scientists to yield a tiny serving of food.

The Biggest Problem With Lab-Grown Chicken Is Growing the Chicken
Bloomberg Business Week; December 14, 2023

Ten years ago at a press event in London, a Dutch scientist, a Chicago-based food writer and an Austrian researcher shared a single $330,000 beef patty. The burger was the world's most serious attempt at lab-grown meat, made by taking cells from a cow and cultivating them in the lab.

It had taken six weeks for Mark Post, the Dutch scientist and professor, to grow 20,000 muscle fibers in trays and vials. Once complete, these tiny ropes of muscle tissue were removed by hand and pressed into a single hamburger…

Most of the world's 8 billion people eat meat, but it's bad for the environment and obviously for animals. Rather than persuade carnivores to give up their favorite meal, why not just grow it in a lab? The startup showed a slide forecasting an uninterrupted path to mass market: It would get to Whole Foods by 2020 and Costco by 2021… Nothing hit the shelves, but promises did get bolder.

… after eight years of toiling away in labs, raising more than $600 million and getting US Food and Drug Administration and Department of Agriculture signoffs to sell its first product, Upside has little to show for itself. The company said its current plant would make more than 50,000 pounds of product each year and has recently announced plans to build a 187,000-square-foot commercial meat plant. But at the moment it's selling only a pound of chicken a month.

Insiders Say Eat Just Is in Big Financial Trouble
WIRED; November 16, 2023

In March 2021, Eat Just's landlord sued for nearly $2.6 million in unpaid rent. A month later, FedEx sued the company for more than $72,000… Bioreactor specialist ABEC claimed GOOD Meat failed to pay $30 million in invoices…

Addenda #12 – September 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all
Re: Ch. 16, UN 30x30 Plan
SDG 15 - Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Biden admin unleashes 50-year mining, oil drilling ban across thousands of acres in New Mexico
Biden admin says actions intended to protect wildlife and cultural resources in region
Fox News, September 18, 2023

According to the Department of the Interior (DOI), the proposal would ban new mining claims and oil and gas development across more than 4,200 acres in Sandoval County, New Mexico, located north of Albuquerque. If finalized and implemented, the action would remain in place for up to 50 years.

"We recognize the importance of the Placitas area, both for Tribal Nations and for the local community who visit and recreate in this area," added Melanie Barnes, the state director of the Bureau of Land Management's (BLM) New Mexico office.

Data obtained from the U.S. Geological Society: "New Mexico leads in perlite, potash, & zeolites production & is a major producer of COPPER, & pumice/pumicite"

So, isn't copper going to be required in large amounts for the electrification of vehicles, homes and society in order to meet the emissions reductions requirements for Agenda 2030?

Note: New Mexico ranked 3rd in the country in copper production in 2021,178 million pounds.

But the president is removing another supply source needed from the market, and limit the expansion of an industry that already employs 3,757 high paid American workers?

Question: Who set the agenda for his presidency, and who is responsible for creating the policies behind those orders?

Answer: Governing for Impact, the “left-of-center think tank” established to write policy for the incoming Biden administration in 2019. (See pg. 102)

Addenda #13 – September 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all

Johnson County $4 billion Panasonic plant may get $8 billion in taxpayer incentives: report
July 13, 2023

Panasonic is expected to invest some $4 billion in a new De Soto battery plant, but it could receive twice that amount in taxpayer incentives.

So, Panasonic will get as much as $6.8 billion in federal funding from the Democrats 2022 Inflation Reduction Act, and another $1.2 billion from state and local tax breaks. Panasonic will receive as much as $8.0 billion in subsidies to build its $4 billion plant.

The demand created by the nearly 4-million sq. ft. Panasonic plant will require so much power to run, that the Kansas utility company Evergy has delayed (eventually they will cancel) plans to close its Lawrence Energy Center 517-megawatt coal fired power plant. A representative of Evergy said the plant will require between 200 and 250 megawatts of electricity to operate beginning in 2025. That's the equivalent of powering a small city.

Note: The Eia estimates one megawatt-hour of coal-fired electricity generation produces 2,257 pounds of CO2. This means that the Panasonic EV battery plant will be responsible for between 451,400 and 564,250 pounds of CO2 emissions per hour, 24-hours per day, 365-days per year. My 'back of the envelope' calculations say this equals 1.277 to 1.596 million metric tons of CO2 into the atmosphere, every year that coal is the primary electricity generation source for the Panasonic plant.

At least 13 additional EV battery manufacturing sites are expected to open in the U.S. in coming years to meet the Biden administrations electrification plan.
In a July 2022 White House press release, the President proudly proclaimed that "the Biden-Harris economic strategy is working."
It said nothing about the additional CO2 emissions that all of these EV battery plants will create year after year, in order to reduce CO2 emissions from fossil fuel powered vehicles...

Note: Evergy had agreed to close the Lawrence Energy Center plant by the end of 2023 to appease environmental activist groups and 2030 agenda proponents. Instead, because of the Panasonic plant, it will keep the plant open until at least 2028, AND increase the coal burning capacity by 2024. Evergy also said they are "scaling back" construction of solar farms and not adding any additional solar power until 2026.

Despite adding more coal-fired electricity production, and reducing renewable energy source production, Evergy still has the same "goal" to reduce carbon emissions 70% by 2030 and reaching net-zero emissions by 2045.

My question would be, HOW???

Addenda #14 – October 2023
Re: Ch. 15, Sustainable Living – Smart Cities (Control by Authorities),
Smart Thermostats (Control by utility companies)
SDG 12 - Ensure sustainable consumption and production patterns

On another issue related to green energy, specifically about the N.Y. Electric Power Grid, I received a mailing from National Grid the other day, about their "Smart Meter" program.

National Grid promotes installation of electric service smart meters, saying they will help identify outages quicker and alert the utility to peaks in power demand so they can transfer electricity to cope with them.
"The goal of the program is to empower customers ***to better manage*** *their energy use... Smart meters are part of our ongoing commitment to empower our customers while working to build a more reliable, robust, and climate-friendly energy grid"*

They also promote customers being able to identify when they use the most electricity and on what, and to encourage users how they can reduce their costs (reduce your use).
"By getting continuous access to your energy usage data, you can make informed choices, which means you'll have more ways to ***take control of your energy use****, and potentially lower your bill."*
National Grid intends *all* electric utility customers will change over to smart meters, with a natural gas smart meter program to follow.

The meters transmit data wirelessly to the utility company, giving them and hackers, details on your energy use. They report data in "real-time" as opposed to current electric meters that report in time intervals (ie. daily, weekly or monthly)
We already have traditional AMI meters on our electric service, gas service and water service. A utility company van drives up & down streets capturing the data from each household, which is then downloaded by the company to calculate the billing.
Smart meters will use a radio frequency (RF) transmitter in the meter, sending data to a collection device (data concentrator) mounted on the utility pole. Several households transmit to the same location, the data is then sent to the utility central grid thru a wireless or cellular network. This eliminates the need for a service van driving around collecting customers data, saving the company a lot of money over the course of a year!!

Complaints about meters already installed in the U.S. include; communications issues, inaccurate readings and failures, leading to the utility estimating the reading and overbilling customers. Health issues from RF transmissions have also been raised, with a bill introduced into the NY state legislature to do a study about these health risks.

National Grid is installing them in the U.K. too (N.G. is based in the U.K.) The "incentive" in the U.K. to get customers to agree to use them, is to give them rebates if the customers voluntarily cut electricity use during peak times; heat waves and evening hours when everyone is home from work.

Customers not participating are charged full price, the “penalty” for failure to comply.

In N.Y. you can opt out of the smart meter program... but
"If you decide you do not want a smart meter installed, you will have a conventional, or non-communicating, meter installed instead. Since this meter will not transmit data to us automatically, your meter will need to continue to be read manually by a utility representative and you will be charged the following fees for this service."

For "failure to comply" non smart meter users will be charged a monthly fee of $11.64.
If you wait until after the meter is installed, you have to pay an additional $44.63 fee to change back to the conventional "non-communicating" meter.
If National Grid has to pay for those service vans to travel around and collect our usage data, we will be billed for the cost!!

Smart Meters | National Grid
https://www.nationalgridus.com/Upstate-NY-Home/Smart-Meters/

Note: these meters will be communicating devices only. They can't be used to reduce electricity use the way smart thermostats do.
(A Clear and Present Danger #2, Ch. 15 Sustainable Living-Smart Thermostats)
But.... in the future I can see customers who use more electricity than their allowance from an aging power grid, would be assessed a "surcharge" for excessive electricity use, which equals excessive CO2 emissions.
Excessive energy use / CO2 emissions surcharges are already being assessed to utility companies through the NY state RGGI program. (A Clear and Present Danger #2, Ch. 9 Progressive states climate policies).
In addition, Governor Hochul added a "Cap and Invest" program into the FY2023 state budget, which was approved by the Democrat majority of both houses. Cap-and-Invest will force companies to report their emissions and buy allowances in the amount of their pollution above the amount they are allowed.

So there are already two programs in effect in NY state. One charges utility companies for excess emissions in production of energy. The other charges large companies for excess emissions for their usage of energy.
Is it so hard to believe that the smart meter program will eventually extend the surcharges to individual households?

It was never about saving the planet...
It was and is all about CONTROL, and forcing *us*, the ordinary citizens to live sustainably, to consume less of everything.

Addenda #15 – November 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all

Mark Mills: Oil Will Power the Global Economy for Another Century

Financial Sense podcast, November 10, 2023
https://www.financialsense.com/podcast/20740/mark-mills-oil-will-power-global-economy-another-century

Physicist Mark Mills, is a senior fellow at the Manhattan Institute and former White House Science Office consultant under President Reagan.
He details why renewable power will not replace oil and natural gas for decades, the coming scarcity of rare earth materials required for electrification, the energy footprint of mining rare earth materials for renewables, and the amount of power required for the production and ongoing charging of EV's.

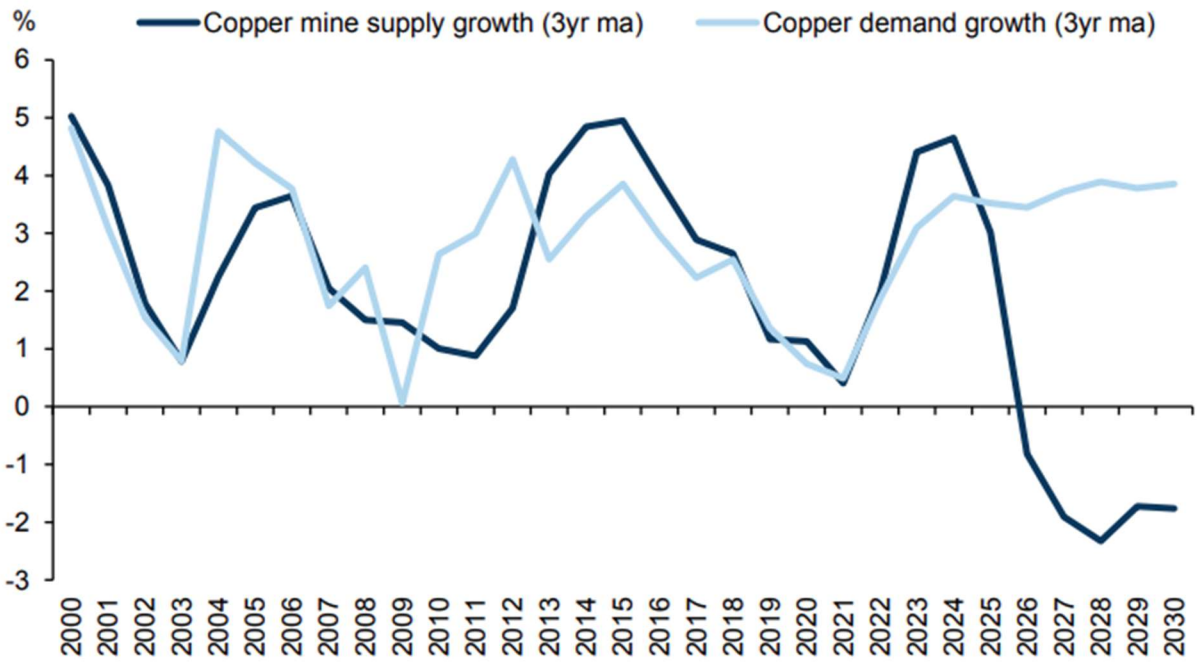
Low global copper supply imperils climate goals, Freeport CEO says

Reuters, October 21, 2023

"Low global supplies of copper - a key metal used in wiring, electric vehicles and other electronics - will crimp global climate ambitions unless regulators green light more mines, the chief executive of Freeport-McMoRan Inc. said on Thursday. The warning comes as global leaders plan to discuss climate mitigation efforts later this month at the COP26 conference, even as some host communities and environmentalists increasingly oppose new mines for so-called strategic metals. "There's going to be a time when the world is going to be very short of copper, Freeport CEO Richard Adkerson told investors… Supply is a real issue for this industry."

"In an early warning sign, stockpiles of available copper in the London Metal Exchange's global warehouse system fell last week to levels not seen for more than 25 years. Governments in Peru and Chile - the world's two largest copper producers - have recently threatened to increase mining taxes and regulations."

"U.S. President Joe Biden's administration on Wednesday took steps to block a Minnesota copper mine from Antofagasta Plc, the latest in a string of mining projects his administration has moved against. Adkerson, who also chairs a global mining industry trade group, described the political situation in Washington as a "head-scratcher."
"Biden officials understand the importance of copper to climate goals, Adkerson said, but are not likely to lessen mine permitting standards "because that just runs against the grain of their political situation."



Note: Freeport-McMoran is a major copper mining and production company, headquartered in the U.S. In a recent interview, their CEO talked about the coming shortage of copper worldwide.

Issue #1: Copper miners have endured a six-year long bear market of low demand and low prices, so they have not invested in exploration of new copper sources. With interest rates continuing to rise, miners are reluctant to go into debt for new mining projects.

Issue #2: The permitting process for new and existing mine expansion. It takes 2-4 years to to expand existing mining projects, and 6-8 years to get a new mining project to the production phase. IF the government cooperates and doesn't bow to the demands of environmentalists. Strangely, environmentalists don't want drilling for oil and fossil fuel burning vehicles. They also don't want miners to extract copper and lithium out of the ground.

Issue #3: The coming demand for copper to electrify society by 2030 - 2050. The CEO sees copper demand exceeding supply by 2025, and as a result, copper futures price rising almost 90% from $8,000 per metric ton today to $15,000 per metric ton by 2025.
What do you think that will do to the price of EV's .

Issue #4: Chile, Peru, China and the Democratic Republic of the Congo produce 53% of the worlds supply of copper. All have political, economic and human rights problems. The U.S. produces 6% of the worlds copper supply, and we have our own political, economic and environmental issues. The supply is not "stable" for continued growth of production.

Addenda #16 – November 2023
Re: Ch. 15, Sustainable Living (Other Progressive Sustainable Living Ideas
SDG 11 - Make cities and human settlements inclusive, safe, resilient and sustainable

NY gov drops plan to overrule local zoning amid Dem fears for 2024 elections
Fox News; December 4, 2023

New York Democratic Gov. Kathy Hochul confirmed she is dropping an initiative to pass legislation mandating the Empire State expand its housing growth in individual communities as Democrats head into an election season that could prove contentious.

Hochul attempted to rally the legislature to pass her "New York Housing Compact" earlier this year, which aimed to build 800,000 new homes and affordable housing over the next decade. The plan would have handed the state new authority to override zoning laws in towns that did not want to comply with expanding housing options.

The plan, however, failed in the legislature this spring, after lawmakers, most notably in New York City suburbs, railed against Albany having a say in how municipalities build and regulate housing.

On July 18, 2023, Governor Hochul announced her plan to tackle New York's "housing crisis". Technically there is no housing shortage in NY, but in reality, higher rents have caused people to leave large urban areas like NY City and move to the suburbs in search of lower cost housing. What New York does have is a shortage of affordable housing.

At the same time that apartment and home rental prices were surging, house construction has lagged in many areas of the state. This is partly due to the slowdown of construction during and immediately after the worst of the pandemic, caused by both a worker shortage and skyrocketing costs of building materials.
It is also partly due to two other factors: restrictive zoning policies and over-regulated permitting processes.

Over the years, many municipalities have enlarged the amount of land a home can sit on. This in the effort to not have single-family residences built too close together.
Minimum lot sizes have come under increasing scrutiny in recent years as an impediment to homeownership and a significant contributor to decreasing housing affordability.

Social Justice critics claim that larger lot sizes and a resulting increase in property prices are a "prime enabler of exclusion" by municipalities having these rules. In some ways, this is true. People tend to want to live in neighborhoods where not just anyone can be their neighbor. We don't want apartment buildings or multi-family homes that may come with increased rates of crime, or Section 8 recipients who can't or won't maintain their homes as neighbors, causing our own property values to fall.

Does that make those of us who feel this way biased?
Is this really "racist" exclusionary zoning?

Progressives embrace the concept of "high density housing" in order to implement sustainable living. They want people to live on top of each other (literally) in order to use less land, less infrastructure, less traffic, and less "environmental destruction". Municipalities led by Progressive embracers of Agenda 2030 are eliminating single-unit-only zoning, and legalizing duplexes and triplexes instead. Minneapolis became the first major city to do so in 2018. Oregon followed making this mandatory state-wide in 2019.

Governor Hochul attempted to follow the lead of Oregon by signing an Executive Order to create the "Pro-Housing Community Program" in July 2023. Executive orders mean no public comment period, no legislative discussions, no homeowner/taxpayer voting. Hochul's program "rewarded" communities that agreed to cooperate by increasing the number of housing permits issued, and providing the state with "key information" including local zoning codes, zoning maps, and housing permit records. (Data collection)

"Pro-Housing Communities" would get priority on key discretionary funding programs from the program, as well as funding for construction through tax-exempt agency bonds, low income housing credits, and subsidy loans.
This is another example of how the tax dollars from all New Yorkers are being prioritized for use in programs that many taxpayers will not see any benefit from. We are subsidizing Agenda 2030 SDG 11 from our pockets without even realizing it.

So few municipalities bought into the governor's vision, which included re-zoning single-family lots to allow multi-family dwellings and apartments, that she came up with a new plan to "encourage" cooperation (read: compliance). She wanted lawmakers to pass a bill that would give the state authority to override local zoning laws where municipalities do not cooperate with her vision sustainable construction.
If a locality fails to remove zoning restrictions, developers would be allowed to bypass local officials entirely and get their projects approved through the state.
Hochul's plan, the New York Housing Compact, would *require* (mandate) all cities, towns, and villages to achieve new home creation targets on a three-year cycle.

Governor Hochul Announces Statewide Strategy to Address New York's Housing Crisis and Build 800,000 New Homes NY State of the State Press Release, January 10, 2023

After 3 years, in localities that do not meet growth targets or do not take steps to implement Preferred Actions, proposed housing developments that meet particular affordability criteria, but may not conform to existing zoning, may take advantage of a fast-track housing approval process if the locality denies the permit. The appeal can be made to a new State Housing Approval Board or through the courts. Appealed projects will be approved unless a locality can demonstrate a valid health or safety reason for denying the application.

And there you have it: Governor Hochul's plan is to take away the authority and jurisdiction of your elected officials, and give it to the courts or state board driven by a progressive left ideology. Can you say… totalitarianism?

Addend #17 – November 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all
Re: Ch. 17, SDG Enforcement by Global Organizations

Global Roadmap for Accelerated SDG7 Action in Support of the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change U.N.
United Nations SDG7 Global Roadmap press release, September 2021

A global roadmap setting out milestones needed to achieve a radical transformation of energy access and transition by 2030, while also contributing to net zero emissions by 2050, was issued on 3 November by UN Secretary-General António Guterres, as an outcome of the High-level Dialogue.

A report of the Dialogue was also issued, giving more detail on the roadmap's recommendations as well as statements and commitments made at the Dialogue.

On 24 September 2021, over 130 Heads of State and Government, high representatives and multi-stakeholder leaders gathered for the High-level Dialogue on Energy to promote implementation of the energy-related goals and targets of the 2030 Agenda for Sustainable Development.

Without urgent action, however, the world will fall short of achieving SDG 7. We must dramatically accelerate our efforts. This global roadmap for accelerated SDG 7 action in support of the 2030 Agenda and the Paris Agreement calls for the following actions:

The U.N. "roadmap" called for "urgent action" on a radical transition to "decarbonized" energy systems; solar, hydro and wind. The U.N. also pushed for tripling global financial investments in renewable energy.
The global elites at the UN, decided for all the world, what should be done. Totalitarianism.

Global elites have long known that the United States is a major obstacle to implementing any kind of totalitarian world government. Consider the following organizations that have these ambitions:

- the United Nations (*We want the world our children inherit to be defined by the values enshrined in the UN Charter*),
- the Atlantic Council (*Driven by our mission of "shaping the global future together*),
- the World Governments Summit Organization (*a global, neutral, non-profit organization dedicated to shaping the future of governments*) or
- the World Economic Forum (*to shape global, regional and industry agendas*)

Every organization knows the U.S. must be a willing and active participant, in order for them to achieve the aims of their agendas.

- In 1992, the Bush administration signed U.N. Agenda 21 in 1992. (Note: Bush was a globalist who negotiated for NAFTA before he was voted out of office in 1993)

- In 1993, President Bill Clinton issued Executive Order 12852, establishing the Presidents Council on Sustainable Development ***"****to advise him on sustainable development and develop bold, new approaches to achieve our economic, environmental, and equity goals."*
- In 2015, the Obama administration signed U.N. 2030 Agenda for Sustainable Development. (Note: Obama was a globalist and a progressive environmentalist)

We reaffirm our unwavering commitment to achieving this Agenda and utilizing it to the full to transform our world for the better by 2030.

Neither agenda was ever discussed by, voted on or approved by our elected officials in Congress. They are ***not*** legally binding.
Only progressive Democrats controlling Congress, voting for Green New Deal style legislation, or progressive Democrat presidents issuing executive orders, can implement policies envisioned by the global elites. G.H. Bush being an exception, of course.

- In 2023, the Biden administration approved a U.N. "political declaration" to accelerate action to achieve the 17 goals *"which aim to drive economic prosperity and well-being for all people while protecting the environment."*

Note the phrase, *"which aim to drive economic prosperity"*
Global public debt has increased by 400% since 2000. Low interest rates following the Dot-Com bust and 9/11, enabled above average economic expansion and debt accumulation. The 2007 housing crash and 2008 financial crisis brought trillion-dollar stimulus programs. The 2020-2021 COVID pandemic brought more trillion-dollar stimulus programs and Central Bank money printing.

While debt has increased drastically, global economic growth measured by GDP has lagged significantly. Global debt hit a record high of $307 trillion in June 2023. The United Nations Conference on Trade and Development reported that world output growth for 2023 is projected to be one of the lowest growth rates in recent decades.
At the September 2023 SDG Summit, U.N. Secretary-General Guterres stated, *"This is not the time for short-term thinking or knee-jerk fiscal austerity that exacerbates inequality, increases suffering and could put the SDGs farther out of reach. These unprecedented times demand unprecedented action…"*

Through his statement, Guterres is admitting two key points.
#1 – Global elites are not concerned about continued global debt accumulation. In fact, Guterres urges even more deficit spending to achieve those SDG's.
#2 – Excessive debt results in lower economic growth. In order to meet payments on this debt, countries will have no choice but to reduce spending on everything from social programs to government funded jobs and business expansion.
Slowing growth and a likely 2024 recession pose grave threats to achieving Sustainable Development Goals. This cannot be allowed to happen!!

The alternate to government mandates that has always worked in the past. A free and open capitalism market. Why?

1. Individual firms have incentives to be efficient and cost-effective: they operate on their own capital and that of their investors and shareholders. The money supply is not open ended.
2. Bureaucracy is kept to a minimum, and employment is based on performance and results. Employees and management can be terminated if they don't perform up to expectations.
3. Consumers decide if the products offered by companies fit their needs and are cost effective. If so, consumers will buy the product. If not, they won't. This leads to more innovation and pressure to reduce costs.
4. Incentives to be innovative and provide products consumers want leads to more product development, more choice of goods, economic growth and higher levels of employment.

When governments own the means of production and set prices, it invariably leads to a powerful state and creates a large bureaucracy which may extend into other areas of life. State-owned firms often tend to be more inefficient (e.g. less willing to get rid of surplus workers and fewer incentives to try new innovative working practices.)
Here are a few examples of what the private sector has

1. Innovations by private sector business – fuel-efficient vehicles

In 1973, the member nations of the Organization of Arab Petroleum Exporting Countries (OPEC), initiated an oil embargo of nations who supported Israel during the Yom Kippur War. By the end of the embargo in March 1974, the price of oil had risen nearly 300%, from US$3 per barrel ($19/m^3) to nearly $12 per barrel ($75/m^3) globally.
In the US, prices were significantly higher.

Combined with peak oil production in the United States in the late 1960's, supply decreased while demand continued to increase. In 1972, the average price of gasoline in the U.S. was $0.36 per gallon. (I remember that because it was the year I started driving)
By 1974 the cost had risen to $0.53/gallon, and by 1980 the price of gasoline had breached the $1.00 level, making the price of driving more burdensome for the American public.

At the same time, Japan was becoming the world's leading producer of smaller and more fuel-efficient automobiles. The American public was buying more and more Japanese imports to save on fuel costs because the U.S. auto industry failed to respond to the trend and continued to make larger "gas guzzlers" with V-8 engines.
In 1981 Chrysler introduced the K-car platform of vehicles to the public. They were the first auto manufacturer to produce entire lines of front-wheel drive, 4-cylinder engine fuel-efficient automobiles. Chrysler engineering was responsible for the smaller and mid-sized K-cars getting 26 mpg city / 41 mpg highway with manual transmission. I remember at that time the Ford Mustang I was driving was getting about 14 mpg.

Chrysler was responsible for the transition to more the fuel-efficient vehicles of today. And the research and development that made this possible was done by a private corporation, without mandate by the federal government, or hundreds of billions in stimulus spending.

Note: The government did give Chrysler a $1.5 billion loan in 1979 when it was on the verge of bankruptcy. While this loan, in part, was due to Chrysler also being the provider of the Abrams M-1 tank used by the military, this cushion also enabled Chrysler to develop and produce the K-car and save a minimum of 360,000 direct jobs.
Chrysler (unlike Proterra or Solyndra) repaid the loan seven years ahead of schedule.

2. Innovations by private sector business – the catalytic converter

As the American economy rapidly grew after the end of World War II, so did the number of vehicles on the road, and the resulting air pollution.
By the 1950s, smog and reduced visibility had become severe issues in cities like Los Angeles, and there was an urgency to find ways of controlling emissions of automobiles.

GM and Ford were working on the problem with modest results, but it was the Engelhard Corporation that developed the first catalytic converter in the late 1960's.
This innovation was responsible for a more than 90% reduction in vehicle emissions. Widespread adoption of the converter was mandated by the federal government in 1975, but it was private research and development, private corporation initiative, and private money that enabled the production of this device that was responsible for cutting pollutants by more than 3 billion tons worldwide between 1975 and 2000.
Even though the number of miles driven increased, and the amount of gasoline and diesel fuel consumed increased by about 50% over the next 3 decades, emissions decreased significantly.

3. Innovations by private sector business – energy efficient lighting

Fluorescent lighting developed by GE in the 1930's, and by 1940 the T-12 fluorescent lamp had replaced the incandescent light bulb as the standard for commercial lighting.
One 2-lamp fixture using two 40-watt T12 fluorescent lamps, delivered 130% more illumination using 60% less electricity than two 1-lamp fixtures using one 100-watt incandescent bulbs. And the fluorescent lamps lasted much longer than incandescent bulbs.
In the 1980's, T8 argon gas fluorescent lamps widely replaced T-12 lamps in commercial applications. One 2-lamp fixture using two 32-watt T8 fluorescent lamps, delivered 130% more illumination than a 2-lamp T12 fixture, and used 20% less electricity.

LED lighting was being experimented on during the 1960's but wasn't developed enough for full scale use until the early 2000's. LED fixtures were initially very expensive, but as costs came down, they became widely used in the commercial sector.

Today, an equivalent LED light fixture can deliver the same illumination level using 50% less electricity than the original T8 fixture, and they are specified on every commercial lighting project.
Private research, private development, private corporation initiative, and private money.

4. Innovations by private sector business – energy efficient electric motors

Since the invention of the electric motor in 1832, countless changes have made motors capable of doing more work while using less energy. Multi-speed motors were developed for certain installations, resulting in improved efficiency and reduced electric use.
In the 1980's and 90's, variable speed motors became more widely used in the industrial and commercial sectors. Variable speed motors start at lower speeds and reducing high electricity use to start the motor. As the speed increases (ramps up), the motor draws more power to operate, but can be programmed to run at the optimal speed for its use, resulting in the most efficient energy use for the job it is doing.
Private research, private development, private corporation initiative, and private money.

5. Innovations by private sector business – LEED building standards

The OPEC oil embargo and environmental movement motivated policy making in Washington in the 1970's, leading to the Energy Policy and Conservation Act of 1975 and the creation of the Department of Energy in 1977. Federal energy regulations and building codes began to be developed around increasing energy efficiency and reducing the use of fossil fuels.
In 1993, the American Institute of Architects (AIA) founded the U.S. Green Building Council. The purpose of the USGBC was to promote energy efficiency or "sustainability", in new building construction and renovations. The USGBC created its own certification guidelines and certification for building sustainability in 1998, known as the LEED (Leadership in Energy and Environmental Design) green building rating system.
Since 1998, International Building Codes and LEED have undergone numerous updates, all for the purpose of reducing waste of energy and construction materials and reducing energy use when buildings are operational.

There are different LEED ratings for each type of construction project. Standards for construction require a review every step of the project, from reducing waste during the design process and during construction, building design and insulation for air quality, reduced usage of water and electricity, and future maintenance. These standards also take into consideration impact on the surrounding environment and ecosystems during and after construction.
Private research, private development, private corporation initiative, and private money.

History shows, if left alone, private industry can and has developed thousands of products that operate more efficiently.

Addenda #18 – November 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all

UN Secretary-General issues new global roadmap to secure clean energy access for all by 2030 and net zero emissions by 2050
United Nations Development Programme, November 3, 2021

As pressure mounts for urgent climate action, UN Secretary-General António Guterres today issued a global roadmap to achieve a radical transformation of energy access and transition by 2030, while also contributing to net zero emissions by 2050.

The roadmap sets an aggressive timeline to ensure that 500 million more people gain access to electricity in a mere four years' time, by 2025, and 1 billion more people gain access to clean cooking solutions. This would require that annual investment in access to electricity and clean cooking increase to US$ 35 billion and US$ 25 billion, respectively. The required investment represents only a small fraction of the multi-trillion-dollar global energy investment needed overall, but would bring huge benefits to one-third of the world's population.

Secretary General Gutierrez wants urgent and radical transformation of global electricity production, that will cost trillions of dollars to achieve.

In chapter 5, I detailed how the urgency to address climate change and the U.N. Sustainable Goals came about.

U.N. climate scientists were then asked to find out what it would take to achieve this "ambitious" target [1.5 degree average annual temperature by 2100].

In 2018, the IPPC released its Special Reporton Global Warming of 1.5-Deg C. The IPCC responded that this would require almost impossible policies to achieve… and would require annual average investments between 2016 and 2050, in the range of $150 billion to $1.7 trillion in 2010 U.S. Dollars.

In chapter 8, I laid out the case to support my opinion that construction of enough renewable power sources to meet the U.N.'s Net-Zero emissions goal by 2050, is impossible.

I gave examples of federal government mismanagement and cronyism in past green energy spending.
I detailed the total picture of energy transformation required that the United States alone would have to achieve to meet this goal.
I cited sources showing the shortage of critical rare earth metals that are needed to achieve this urgent transformation.
I gave actual examples of the massive amount of land space that will be required to install all of these solar, wind and storage projects.
I cited multiple instances where private landowners and communities have pushed back against these installations.

And I gave the reasons showing that the nation's electrical grid will not be able to support this dramatic increase in electricity transmission any time soon.

All of these things pose significant roadblocks for achieving the radical and rapid transformation of current energy production to renewables global elites are pushing on us.

The one thing I did not spend any time on is, what the effects of today's higher inflation and interest rates will have on the ability to complete these projects profitably by the developers. Or if financed by public money (contracted by individual states like New York), can they be completed without an excessive accumulation of debt.
Remember, we still live in a capitalist economy, where the bottom line is always an important factor in determining the business viability on these projects.

So, how is this working out for companies that have decided to jump into the renewables market?

Not so good for electric bus maker Proterra, that filed for Chapter 11 bankruptcy this summer, after receiving more than $10 million in Covid-relief aid and incentives.

Not so good for the Southern Teton Area Rapid Transit company in Jackson Wyoming, where all eight electric buses are out of commission due to breakdowns and lack of parts'

Not so good for the Philadelphia Transit Authority whose entire fleet of 25 electric buses built by Proterra had to be taken out of service due to "maintenance issues"

Or for Ford Motor Company that lost $2 billion on EV sales in 2022 and estimates losing another $4 billion in 2023. And cut 1,000 jobs to offset losses.

Or for Lightning eMotors, manufacturer of electric vans, trucks and buses, which warned it will not be able to meet a December 2023 debt payment and could go bankrupt.

Or for EV maker Electric Last Mile Solutions, which filed for Chapter 7 bankruptcy in June.

Or for EV maker Rivan who loses more than $32,000 on every vehicle sold.

Or for GM who says they're losing an undisclosed amount of money on every EV sold.

Ford hits the brakes on $12 billion in EV spending because EVs are too expensive
The Verge, October 26, 2023

Ford is postponing $12 billion in EV factory building, including a planned battery factory in Kentucky. The reasons given were an unwillingness by customers to pay extra for its electric vehicles. You see, they're too expensive, and now Ford's massive transformation into an EV company is now going to take a lot longer than before.

So far this year, Ford has lost $3.1 billion on its EV spending and has said it's going to lose a total of $4 billion for the year.

Ford's not alone in all this, of course. General Motors is pushing back production of its new slate of electric trucks and SUVs. Tesla CEO Elon Musk spent a large chuck of his last earnings call moaning about interest rates. It's rough out there right now.

So much for "affordable modern energy" as vehicle electrification is concerned…
EV Chargers: How many do we need?

Even with home charging, infrastructure will need to quadruple by 2025
Even when home-charging is taken into account, the United States will need to see the number of EV chargers quadruple between 2022 and 2025, and grow more than eight-fold by 2030…
S&P Global; January 9, 2023

'They have to do something about it': Why drivers say New York State needs more working EV chargers

Starting in 2035, all new cars sold in New York State must be fully electric. That means the number of EVs on the road will quickly climb - but even now current EV drivers say the state doesn't have enough working public chargers in many areas.

"We estimate 20-25 percent of the chargers one way or another are not in a position of full-functionality," said Paul Stasiak, the President of the Niagara Frontier Auto Dealers Association.
WKBW abc7 news, Buffalo NY; December 6, 2023

That's 20-25% of the 701 public EV charging stations just in Western New York *not* working at any one time.

Congress provided $7.5B for electric vehicle chargers. Built so far: Zero.
The sluggish rollout could undermine President Joe Biden's reelection messaging promoting electric vehicles.

Congress at the urging of the Biden administration agreed in 2021 to spend $7.5 billion to build tens of thousands of electric vehicle chargers across the country, aiming to appease anxious drivers while tackling climate change.
Two years later, the program has yet to install a single charger.

States and the charger industry blame the delays mostly on the labyrinth of new contracting and performance requirements they have to navigate to receive federal funds. While federal officials have authorized more than $2 billion of the funds to be sent to states, fewer than half of states have even started to take bids from contractors to build the chargers — let alone begin construction.

"The nine most terrifying words in the English language are: I'm from the government, and I'm here to help"
President Ronald Reagan, August 12, 1986 press conference quote

Addenda #19 – November 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all

"At home, President Biden signed into law the Inflation Reduction Act (IRA) to increase investments in clean energy technologies. Outside estimates report that the IRA has already created more than 170,000 jobs and will create 1.5 million over the next decade. And the IRA will expand clean energy supply, speed global adoption, and drive down technology costs by as much as 25 percent globally."
White House press release "Fact Sheet"; September 9, 2023

The Biden administration never passes up an opportunity to boast how well the president's renewable energy policy is working. If you listen just to the weekly press releases, you would assume that the U.S. is well on its way to meeting the president's ultimate goal of net-zero emissions no later than 2050.
Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050
Published by the United States Department of State and the United States Executive Office of the President, Washington DC. November 2021.

Politicians and policy makers in Washington D.C. live in political, partisan class-oriented bubbles. These people typically have little interaction with the rest of society, the economy, or "normal" working class Americans. They don't face the everyday struggles middle-and working-class households face.

More than half of all members of Congress are millionaires, and in 2020, there were 29,506 millionaire households in Washington D.C., one of the highest concentration of millionaires in the country. Contrary to the ideal of a government of and by the people, Americans are almost always governed by the very wealthy and privileged in Washington.

These elites believe everything they say is true, every policy they put forward is infallible and bound to succeed. However, if you pay attention to what is actually going on in the economy, the markets, and the energy industry, a totally different picture unfolds.

Rural communities push back against solar projects in Nevada
Similar opposition has formed against large renewable energy infrastructure proposals in California, Utah and Virginia.
Associated Press; November 30, 2021
Renewable Energy Projects Face Opposition in 49 States, Local Restrictions in 31 States
Columbia University Climate Law report; March 15, 202

Upstate New York towns pushed back after state tried to speed the approval of wind and solar projects.
Lohud media; October 12, 2022

Green energy projects face stark environmental, local opposition nationwide

Green energy development is facing increasing grassroots opposition nationwide over concerns regarding projects' impact on the environment and local communities.

Fox News; October 13, 2022

Planet-Saving Wind Farms Fall Victim to Global Inflation Fight

As investment foundations crumble due to rising interest rates and higher materials costs, developers in the US are delaying clean-power projects like the 1.2-gigawatt Commonwealth Wind development near Massachusetts, which would be one of the largest wind farms in the country and capable of powering 700,000 homes… "Governments need to wake up to the reality that investments in offshore wind are not happening,"

Bloomberg; March 10, 2023

Solar Projects on Farmland Meet Community Opposition in the Midwest

Modern Farmer; April 20, 2023

Offshore wind projects nixed due to costs despite clean energy needs

Together, the three affected projects would have provided 3.5 gigawatts of power — more than 11% of the total offshore wind fleet currently deployed in the waters of the US and Europe... At least 9.7 gigawatts of US projects are at risk because their developers want to renegotiate or exit contracts to sell power at prices that they say are now too low to make the investments worth it.

Fortune; July 22, 2023

Stalled coastal wind power projects imperil Biden's climate agenda

A grim financial outlook for the country's offshore wind power industry is threatening President Joe Biden's most important energy plans.

Politico; July 26, 2023

Offshore Wind Runs Into Rising Costs and Delays

Some troubled projects are raising concerns about the role to be played by offshore wind farms in tackling climate change.

New York Times, August 7, 2023

Biden's offshore wind target slipping out of reach as projects struggle

President Joe Biden's goal to deploy 30,000 megawatts of offshore wind along U.S. coastlines this decade to fight climate change may be unattainable due to soaring costs and supply chain delays, according to forecasters and industry insiders.

Reuters; September 15, 2023

These news articles tell the story of the real problems the green energy push faces here in the United States. From local communities and environmental groups pushing back on renewable projects (see page 32), to "supply chain" problems (lack of critical resources and parts – see page 26), to issues with the existing electrical grid (see page 33) and finally the increasing costs to finance and construct these renewable projects.

President Biden's Investing in America agenda is growing an American offshore wind industry that will create thousands of good-paying union jobs across the country, power millions of homes with clean electricity, and strengthen our energy security while reducing dangerous climate pollution.

American workers across manufacturing, shipbuilding, construction, and other sectors are building this new industry right now.

White House "Fact Sheet", Press Release, September 21, 2023

How have all those offshore wind projects touted by the president actually progressed?

July, 2023: Developer Avangrid agreed to pay $48 million to dissolve its contracts to develop the 1,200 megawatt Commonwealth Wind offshore wind project, due to rising costs.

October 27, 2023: Equinor and BP are reassessing New York wind projects (Empire Wind 1, Empire Wind 2 and Beacon Wind) after they booked a combined $840 million "impairment" on their U.S. offshore wind portfolios.
BP and its partner Equinor are assessing their next steps after the state of New York rejected the companies' request to revise upwards power supply contracts for their Empire Wind projects.

October 31, 2023:
Orsted, the world's largest offshore wind developer, pulled the plug on two offshore wind farms in New Jersey, Ocean Wind 1 and 2, taking a $4 billion write-down on project losses. Orsted cited supply chain problems, higher interest rates and not being able to obtain the amount of tax credits the company wanted. New Jersey did approve a tax break for Orsted in July, letting it keep federal tax credits that otherwise would have gone to ratepayers.

November 16, 2023:
New York will issue a new offshore wind solicitation open to all bidders, including those with existing contracts, allowing the companies to re-offer their planned projects at higher prices and exit their old contracts.
European energy companies Equinor and BP have taken a combined $840 million in write-downs on U.S. offshore wind projects that are not even completed, in part because their existing power sales contracts would not cover the cost of building and financing projects. Inflation, rising interest rates and supply chain problems have led to much higher costs than anticipated. Re-Bids are due in January 2024, and the revised costs to New York taxpayers will be significantly higher.

Apparently those sustainable offshore wind projects that are supposed to *"create thousands of good-paying union jobs across the country, power millions of homes with clean electricity, and strengthen our energy security while reducing dangerous climate pollution"* are not working out quite as planned either.

The reality of the situation does not seem to penetrate that bubble that the current administration governs in. Achievement of green energy goals of the United Nations and the president are seriously in doubt. And this was all apparent to anyone who took the time to seriously think about it.

Ironically, as developers were releasing the scope of problems and financial losses and considering pulling the plug on existing projects, New York governor Kathy Hochul invited said developers to rebid offshore wind projects… at lower prices!?

NY Regulators authorize offshore wind developers to lower bids
S&P Global, July 28, 2023

There were no takers to rebid projects at *lower* prices. Huh!!

You just can't make this stuff up!

News Flash!!
Scotland's Progressive Left government lied about the potential of renewable wind power…

SNP admits it overestimated Scotland's offshore wind capacity
yahoo! Finance, November 13, 2023

SNP ministers have quietly downgraded their claim that Scotland has a quarter of Europe's offshore wind potential to just seven per cent, in a major blow to their economic case for independence… Neil Gray, the Scottish energy secretary, wrote to a Holyrood committee with the revised estimate after SNP ministers were forced to admit that the 25 per cent figure they had used for years was false.

Note: SNP, the Scotland National Party, is self-described as being "Centre-left" and "social democratic".

Wait… governments *lie* to us?
Really?!

Many people have always known or suspected that governments lie. (I know, shocking, isn't it?) But even more so when there is something of such great importance at stake as green energy politics.

Addenda #20 – November 2023
Re: Ch. 20 Final Thoughts:

Who sets the administrations agenda? Who is creating the policies behind the agenda?

According to the U.S. Office of Energy Efficiency & Renewable Energy, hydropower accounts for 37% of U.S. renewable energy generation. Washington state generates 13% of the nation's hydroelectricity net summer generation. California is second with 13%, Oregon third at 10% and New York is fourth at 6%.
Since hydroelectricity is a renewable zero-emission power source, one would expect the Biden administration to support hydropower in his quest to achieve zero net emissions.

Biden admin quietly developing settlement with groups seeking to tear down key power source

Fox News November 22, 2023

The Biden administration is quietly discussing a potentially far-reaching settlement with environmental groups that advocate for tearing down four hydroelectric dams in Washington to protect salmon.

Federal attorneys representing the government said it had "developed a package of actions and commitments" and agreed to pause litigation with environmental activist plaintiffs in the case, according to court documents filed late last month. In the filings, jointly submitted by the federal government and eco groups, the parties said they could request a multiyear pause on the litigation to allow for the implementation of the package as soon as Dec. 15, 2023.

However, the filing failed to detail exactly what conditions were included in the secretive package developed. The groups involved in the case have vehemently argued in favor of breaching the four federally managed dams amid declining salmon populations in the lower Snake River, which winds through Idaho and southwestern Washington before feeding into the Columbia River and then into the Pacific Ocean.

Once again, Biden seems more concerned with bowing to pressures of environmental groups. Remember who helped set his administration's policy agenda before he even took office, it was Governing for Impact. (see Summary page 102)

The U.S. Army Corps of Engineers website gives a detailed descriptions on the Snake River dam system, built in the 1960's and 1970's, on its website.
https://www.nww.usace.army.mil/Missions/Lower-Snake-River-Dams/

Because of their locations, size and ability to help meet peak power loads, these four dams do much more than generate energy--they are key to keeping the system reliable and helping to meet its multiple uses — including supporting wind energy. The Snake River dams lie east of the other federal generators, so they provide a significant technical contribution to transmission grid reliability.
The website also details how cooling systems were installed to reduce temperatures, and fish ladders and spillways were modified to aid passage of upstream-migrating adult salmon on their way to their spawning areas.
So, it looks like the Army Corps of Engineers has done everything in its power to *sustain* the salmon population on the Snake River. But environmental groups still sued the Corps of

Engineers. The basis of the suit is that the dams are *increasing* the water temperatures, leading to reductions in the salmon population.

Historically, the Snake River is known to have experienced high summer water temperatures in years prior to construction of dams. In summer 2013, elevated water temperatures began to occur in Columbia-Snake basin river reaches with and without dams due to unusually hot weather dominating the basin. At Lower Granite Lock and Dam's adult fish ladder, longer-duration elevated water temperatures began to form a "thermal barrier" to upstream migrating salmon and steelhead, slowing and/or stopping adult fish migration upstream.

During 2015 fish perished throughout the West in rivers with and without dams due to elevated water temperatures.

If the Army Corps of Engineers is correct, dams have little to do with heating the river water. This is due to "unusually hot weather", which is associated with climate change, right? And isn't climate change caused by emissions from non-renewable power sources?

So shouldn't the Biden administration be more concerned with keeping the dams in operation since they are not emissions generating?

Additionally, the system of dams and locks on the Lower Snake River enables barges to move approximately 10-tons of cargo valued at over $3 billion each year. Forty percent of the Nation's wheat transits through this system.

Reliable and sustainable energy is the reason for U.N. SDG #7, and these are critical aspects of the Snake River dams.
But none of this matters to environmental groups or climate alarmists. And apparently, none of this matters to the President of the United States either.

Addenda #21 – November 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all

Two-thirds of North America could face power shortages this winter -NERC
Reuters, November 8, 2023

More than half of the U.S. and parts of Canada, home to around 180 million people, could fall short of electricity during extreme cold again this winter due to lacking natural gas infrastructure, the North American Electric Reliability Corp (NERC) said on Wednesday.
In its 2023-24 winter outlook, the regulatory authority warned that prolonged, wide-area cold snaps threaten the reliability of bulk power generation and availability of fuel supplies for natural gas-fired generation.

"There is not enough natural gas pipeline and infrastructure to serve all the gas generation in certain big areas like PJM, MISO, New York, and New England"

How New York Just Took a Big Step Away From Fossil Fuels
The New York Times, October 27, 2021

A decision to reject upgrades of two gas-powered power plants was a big win for climate advocates and was endorsed by Gov. Hochul.

New York takes big step toward renewable energy in 'historic' climate win
The Guardian, May 3, 2023

New York state has passed legislation that will scale up the state's renewable energy production and signals a major step toward moving utilities out of private hands to become publicly owned.

The bill, included in the state's new budget, will require the state's public power provider to generate all of its electricity from clean energy by 2030… This new legislation will require the state to phase out the six natural gas-fired plants that NYPA operates across New York City by 2030.

"The law is set to create tens of thousands of green jobs and "shut down some of the state's most polluting oil and gas plants—which are concentrated in working-class, Black, and brown communities"

Note: this is a statement by Public Power NY, grassroots movement, whose goal is to "nationalize" all utility companies in New York state; to "take our power back from corporate control", and let the state government control the production, distribution and pricing of electricity.

Sounds a little like what Venezuela did with the countries oil industry in the 1970's. And look how that turned out… No new exploration for oil occurred, production deteriorated, revenues declined, leading to food and medicine shortages, hyperinflation and a deterioration of living standards for the people of the country.
Climate campaigners like Public Power NY *pushed* (not nudged) Hochul into including those provisions into the 2024 NY state budget.
Like our president, it seems at least some of our governor's agenda is also being crafted by extreme environmental groups.

New York postpones retiring four power plants to maintain NYC supply
Reuters, November 21, 2023
https://www.reuters.com/business/energy/new-york-postpones-retiring-four-power-plants-maintain-nyc-supply-2023-11-21/

The New York Independent System Operator (NYISO) said on Monday it will postpone the retirement of four floating natural gas-fired power plants by two years to keep the power supply reliable in New York City.

The four plants, owned by Astoria Generating Co, will stay operational beyond their planned retirement in May 2025, adding 508 megawatts (MW) to New York City's power reserves which otherwise be in a 446 MW deficiency.

"The reliability deficiency is being driven by increased demand for electricity, economic activity, and recent generator retirements per emissions requirements set forth by the New York State Department of Environmental Conservation (DEC)," the NYISO said.
DEC's "peaker rule," under which Astoria's four plans were going to shut down, has shut 950 megawatts of inefficient generation in environmental justice areas, with a provision to temporarily keep plants in operation to maintain reliable power supply.

NYISO did not get any other solutions to fully meet the deficiency but said the supply situation for New York City will improve after new power lines expected to enter service in spring 2026 will connect it to 1,250 MW of hydropower in Quebec.

NYISO now admits that the Climate Leadership and Community Protection Act *is* retiring reliable sources of power generation, but *is not* providing New Yorkers with enough reliable renewable energy transmission to replace the fossil fuel sources.

Rapid electrification is boosting power demand and straining the electric grid in New York state, as renewable resources struggle to replace fossil fuel that is being phased out, a June report by the grid operator found. The grid needs to triple its clean energy supply to meet the state's goal of an emission-free electric system by 2040, but geopolitical issues, permitting uncertainties and global supply chain constraints are impeding investments, the report said.

Note: Information taken from the "Initial Scenario" of the *Zero Emissions Electric Grid in NY by 2040* study.

In my opinion, this will continue to happen across the country, as municipalities realize the renewable energy timeline is not going to be met. Hopefully even the most progressive Democrat political leaders will recognize this and make the necessary adjustments to their climate goals.
If not, we the public, will be the ones to suffer the consequences.

Addenda #22 – November 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all

Grid operator sounds alarm as coal plant shutdown threatens power for millions
Federal energy regulator said coal plant closure could be 'potentially catastrophic'

Fox Business, November 22, 2023
https://www.foxbusiness.com/politics/grid-operator-sounds-alarm-coal-plant-shutdown-threatens-power-millions

A power grid operator that serves millions of Americans across the mid-Atlantic is warning that a planned coal-fired power plant shutdown will severely threaten electricity supplies and occur before new power sources come online.

PJM Interconnection — which coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia, serving 65 million consumers — said the forthcoming shutdown of Brandon Shores coal power plant located outside of Baltimore will disrupt the reliability of the region's grid. The plant's operator, Texas-based Talen Energy, intends to deactivate the plant in June 2025 as part of a settlement with the left-wing eco group Sierra Club.

Ralph Alexander, the then-CEO of Talen Energy, said at the time that his company's move was part of its transition to green energy and its broader environmental, social and governance (ESG)-focused future. According to the company's current ESG commitments, it plans to entirely eliminate the use of coal in its wholly-owned generation facilities like Brandon Shores, which generate more than 5,000 megawatts of power nationwide.

"The PJM region and the state of Maryland are facing future reliability challenges as a result of the announced retirement of the Brandon Shores units," Jeff Shields, a spokesperson for PJM Interconnection, told Fox News Digital. "Specifically, PJM analyses showed that the deactivation of the Brandon Shores units would cause severe voltage drop and thermal violations across seven PJM zones, which could lead to a widespread reliability risks in Baltimore and the immediate surrounding areas."

"Therefore, there is an urgent need to upgrade the transmission system in order to maintain reliability and the flow of power to the 65 million people we serve," Shields said. "The chosen transmission solutions include in-service estimates in the 2027-2028 timeframe."

Note: The Sierra Club is one of the nation's oldest and largest environmentalist organizations. The group has recently risen in prominence as a political force, backing efforts to curtail the use of all fossil fuel energy sources and proven zero-emissions technologies. The organization also opposes the construction of hydroelectric dams and nuclear power generating stations, the two largest sources of zero-emission power in the United States.

In the 2022 election cycle, the Sierra Club gave $286,996 in contributions to Democrat candidates, and $0 to Republican candidates.
https://www.influencewatch.org/non-profit/sierra-club/
https://www.opensecrets.org/orgs/sierra-club/recipients?id=D000000259

PJM Interconnection operates the regional electrical grid serving thirteen states plus the District of Columbia, providing electricity to 65 million customers.
But utility companies under PJM's supervision "seriously lag" the rest of the country in adding renewable energy. In 2021 nationwide 12% of US electric energy was produced by wind and solar. Even a year later in 2022, PJM produced only 4.7% of the electricity it distributes by wind and solar. In 2022 PJM was the only regional transmission organization in the country to add more fossil fuel generation capacity than renewables, and their backlog of renewable power projects has progressed slowly.
https://en.wikipedia.org/wiki/PJM_Interconnection

Talen Energy's "ESG commitment" includes a 75% reduction in CO_2 emissions by 2030 and a total elimination of coal electricity generation.
65% of Talen Energy's electricity generation (8,100 MWh) comes from fossil fuel power plants, including 17% (2,105 MWh) from coal fired plants.
The ESG section of Talen Energy's website says they have plans to add 140 MWh of renewable generation *in the near future*. That's just 1.7% of the generating capacity they plan on closing to meet their CO_2 reduction goal!
Does anyone else see a problem with this?

Talen Energy's business decisions are directly influenced by ESG (Environmental, Social & Governance) metrics at the expense of their customers electricity production.

Once again, progressive Democrats are closing the barn door before all the horses are safely inside. Shutting down reliable electricity sources before unreliable ones are up and running.

Addenda #23 – November 2023
Re: Ch. 20 Final Thoughts:
Who sets the administrations agenda? Who is creating the policies behind the agenda?

John Kerry's office consulted with far-left eco groups on policy, banning fossil fuel investment: emails
Fox News, October 31, 2022

Special Presidential Envoy for Climate (SPEC) John Kerry's office exchanged emails with eco groups to schedule off-paper meetings on the key policy items last fall, according to documents obtained by government watchdog Protect the Public's Trust (PPT) and shared with Fox News Digital.

In the first instance, the Sierra Club, a major environmental group that advocates for an aggressive transition from fossil fuels, asked to meet with [senior policy advisor Jesse] *Young to discuss a coal investment ban. The exchange took place in September 2021 ahead of the annual United Nations (UN) climate conference which Kerry, President Biden and other top U.S. officials attended.*

"I think Biden has the executive authority to take a range of steps to end [new coal financing], starting with preventing US banks funding…"

In addition, a few months later, the Natural Resources Defense Council (NRDC) contacted Young to schedule an "ambition accelerator" meeting with multiple environmental groups pushing green transition policies.

And there you have it! The Biden administrations green energy policy being influenced by far-left environmental groups, pushing the president to use his "executive authority" to prevent funding of fossil fuel companies by U.S. banks.
Just as in the decision to shutting down that coal-fired power plant in Maryland, the Sierra Club is again involved.

Note: It was at that November 2021 U.N. climate conference, also known as COP26, that President Biden pledged that under his administration, the United States would cut greenhouse gas emissions in half by 2030, and achieve a zero-emissions economy by 2050.

As soon as Biden took office, environmental groups began pressuring him to meet a $2 billion commitment from 2014, and to commit $6 billion in 2021 to the Green Climate Fund, a U.N. fund to help developing and poorer nations combat climate change.
In April of 2021, President Biden announced a $1.25 billion contribution to the GCF. House Democrats increased the contribution to $1.6 billion for the FY2022 federal budget.
Climate advocates called for the U.S. to pay 45% of the $100 billion annual goal for all developed nations.

In April 2021, the president requested $2.5 billion in the FY2022 federal budget to be paid for "international climate financing".
Ultimately, only $1.1 billion in spending was approved by a divided Congress.
U.S. International Climate Finance: FY2022, Congressional Research Service, March 17, 2022

In September 2021, prior to the COP26 meeting, President Biden pledged to double U.S. annual contributions to the GCF to $11.4 billion by 2024.

In March 2022, the president requested a combined $11 billion in the FY2023 federal budget to be paid for "international climate financing".
The approved budget included just $1 billion in direct financing for global climate payments.
U.S. International Climate Finance: FY2023, Congressional Research Service, October 3, 2022

In April 2023, the president requested a combined $5.7 billion in the FY2024 federal budget to be paid to the GCF and other global environmental funds. The amount actually approved is still undetermined, as Congress could not agree on a fiscal year budget and instead passed a series of *continuing resolutions* and *omnibus appropriations bills* to fund spending.
U.S. International Climate Finance: FY2024, Congressional Research Service, April 24, 2023

In December 2023, the United States pledged $3 billion to the Green Climate Fund at the U.N. COP28 climate summit in Dubai.
Sources said the pledge was subject to the "availability of funds".

While the president appears to be attempting to make good on his public climate finance pledges, he knows that unless he has a Democrat majority in both houses of Congress, this level of foreign climate spending will never happen. President Obama also made bold climate finance pledges that were never approved either.

But, it makes the climate activist groups happy with him and angry with Congressional Republicans. And, it makes younger "Religion of Green" voter happy with him as well, resulting in votes in the next election.

US pledges $3 billion for Green Climate Fund at COP28
Reuters, December 2, 2023

Addenda #24 – November 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
The U.S. Power Grid
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all

Lack of ambition and attention risks making electricity grids the weak link in clean energy transitions
International Energy Agency, October 17, 2023
https://www.iea.org/news/lack-of-ambition-and-attention-risks-making-electricity-grids-the-weak-link-in-clean-energy-transitions

First-of-its-kind global study finds the world must add or replace 80 million km of grids by 2040, equal to all grids globally today, to meet national climate targets and support energy security… Efforts to tackle climate change and ensure reliable supplies of electricity could be put at risk unless policy makers and companies quickly take action to improve and expand the world's electricity grids, according to a special report released today by the IEA.

… the new report, Electricity Grids and Secure Energy Transitions, which offers a first-of-its-kind stocktake of grids worldwide, finds signs they are not keeping pace with the rapid growth of key clean energy technologies such as solar, wind, electric cars and heat pumps. Without greater policy attention and investment, shortfalls in the reach and quality of grid infrastructure could put the goal of limiting global warming to 1.5 °C out of reach and undermine energy security, the report warns.

In other words, the grid will not be capable of carrying the increased loads required by electrification of developed countries.

Achieving all national climate and energy goals will require adding or replacing 80 million kilometres of power lines by 2040 – an amount equal to the entire existing global grid… while annual investment in grids, which has remained broadly stagnant, needs to double to more than USD 600 billion a year by 2030.

Notice that the focus of this article is on the concern that the goal of limiting global warming is in danger, not that the electric grids will fail to carry the electricity required for an electrification of industry and the economy. The Agenda matters. The public doesn't.

NY's power grid is holding up. But officials are concerned for the future
North Country Public Radio, July 26, 2023
https://www.northcountrypublicradio.org/news/story/48197/20230726/ny-s-power-grid-is-holding-up-but-officials-are-concerned-for-the-future

While the state's power grid operator says there's enough juice to fuel demand right now, a recent report warns that supply might run short in the New York City area in two years.

Kevin Lanahan, who runs NYISO's government relations, said the most recent report, issued in July, finds that without a faster build-out of the power grid, New York City will have a deficit as large as 446 megawatts in two years. That's the amount of power needed to run around half a million homes.

Here in New York state, utility companies have made commitments to upgrade the electric distribution and transmission grid in order to meet the renewable generation and greenhouse gas reduction goals of the Climate Leadership and Community Protection Act (CLCPA).

The "Phase 1" Local Transmission & Distribution Infrastructure upgrades will satisfy the "reliability, safety, and compliance" requirements for increased future electrical loads required by the CLCPA mandates, of the inter-state high-voltage grid system.
These 113 projects will cost NY rate payers $6.8 billion to complete.

The "Phase 2" LT&D upgrades are at the "street and local level" for connection of new renewable sources to the grid, and distribution directly to utility customers.
These 71 projects will cost NY rate payers an additional $9.777 billion to $10.428 billion to complete.
Note: These projects are not fully "conceptualized" or designed at this time, so it is likely that the cost of Phase 2 is "understated".
Appendix C to the Initial Report on the New York State Power Grid Study, Utility Transmission & Distribution Investment Working Group Study, November 2, 2020

First Governor Cuomo, then Governor Hochul have mandated an ever-stricter series of plans to reduce greenhouse gas emissions and electrify future residential, commercial and industrial construction, personal vehicles, school buses and lawn and garden equipment. This has resulted in billions in spending on upgrading the electric power grid as well as tens of billions more for smaller local level system and owner upgrades that will be required in the future to meet these "goals."

Then, when the utility companies file for double digit rate increases to finance those projects, governor Hochul publicly berates the same utility companies for doing so.

"It's outrageous and unacceptable that utility companies are proposing the largest rate increase in recent history for more than 1.2 million consumers in Upstate New York. The Department of Public Service is legally required to review all proposed rate increases, and I urge them to scrutinize every number and word of this proposal to protect New York families from unjustified and unfair rate increases."
Statement from Governor Kathy Hochul on NYSEG and RG&E rate increase requests, May 19, 2022
https://spectrumlocalnews.com/nys/rochester/news/2022/05/27/nyseg--rg-e-request-13-22--rate-hike--gov--hochul-responds

In February 2022, ConEdison requested a 17.6% electric delivery rate increase and a 28.1% gas delivery rate increase.
Note: Con Ed is the utility that provides electric and gas service to NY City and Westchester
These rate increases were to support spending for capital improvements to the company's infrastructure required by climate legislation and mandates, to ensure "system integrity, safety and reliability."

In July 2023, the NY State Public Service Commission unanimously approved a new 3-year rate plan, cutting the 2022 rate request by 60%. The new rate schedule included of 14.7% for electricity and 21.7% for gas over three years
Note: Delivery rates are in addition to supply rates, which fluctuate based on costs to purchase or produce electricity.

New York Assembly Member Zohran Mamdani, who represents western Queens, told digital news media am NY that the new rates were "completely unacceptable and unconscionable." When you look on Mamdani's Assembly website, you see that he is the prime sponsor of the Clean Futures Act (A6761A) a ban on all new fracked gas power plants across the state, and lobbied hard for the Assembly to pass Assembly Bill A1466D, the Build Public Renewables Act (BPRA).
"On Thursday, 522 of my constituents woke up to no electricity. On Saturday, a New Yorker died due to heat exposure. On Monday, we marked the seventh consecutive day of 90 degree and above temperatures. The climate crisis does not abide by the legislative calendar, and neither can we. We must hold a special legislative session, pass BPRA, and finally provide energy to New Yorkers that is reliable, renewable, and at a reasonable cost."

In October 2023, the PSC also unanimously approved reduced rate increases for New York State Electric and Gas (NYSEG) of 22.1% for electricity and 6.1% for gas over three years, and Rochester Gas & Electric (RG&E) of 16% for electric and 10.9% for gas.

Governor Hochul was "grandstanding" in the lead up to her November re-election campaign. Hochul sends out press releases touting emission reduction rules and regulations but blames others when the real costs of her policies become known to her constituents. Assembly member Mamdani was also grandstanding, portraying himself as a champion of consumer protection and the environment, as the very policies he lobbies for are directly responsible for these rate increases.

So what will happen, is that more fossil fuel power plants will be taken out of service to appease environmental groups and green energy advocates, developers will continue to hedge on or cancel renewable power projects, and the utility companies won't complete scheduled projects on time to ensure reliable electricity distribution and transmission to customers. Just like the Talen Energy/PJM Interconnection case in Baltimore.

Addenda #25 – November 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all

Permitting and grid interconnection delays mean it's highly unlikely that enough new generation will be added to meet the state's goal of having 100% zero-emission electricity production by 2040.

Utility Dive, April 19, 2023 Opinion
https://www.utilitydive.com/news/new-york-climate-action-plan-reduce-electricity-grid-reliability/646199/

The New York Climate Action Council, the state entity tasked with devising a plan to implement the 2019 Climate Leadership and Community Protection Act to combat climate change, issued its Scoping Plan in December 2022. The plan calls for hundreds of billions of dollars in state and ratepayer subsidies for renewable energy, battery storage and transmission lines, but it is clear that it is doomed to fail to achieve its goals of 100% zero emissions electricity production by 2040 while simultaneously supplying a reliable supply of electricity.

The Climate Action Council projects current electric load in New York to triple by 2040 due to the electrification of transportation and 100% building electrification. By 2040, when all electricity generation must be zero emissions, NYISO, the independent New York grid operator, states that at least 95 GW of new generation must be developed to make up for generation plant retirements and increased electrical demand. This goal is unrealistic and unachievable because the state only added 12.9 GW over the last 23 years, and it is highly unlikely that 95 GW of new generation capacity will be added in 17 years due to state permitting and grid interconnection delays.

The Climate Action Council's final Scoping Plan also reveals that New York will need 15 GW to 45 GW of new "zero emission dispatchable electric generation" by 2040 to meet increased electric demand and maintain electric system reliability. This is emission-free electric generation that can be dispatched, i.e., turned on, by NYISO at night or stormy conditions when there is no solar radiation or during calm wind conditions. But the Scoping Plan also admits that this 15 GW - 45 GW target "cannot be currently met" with existing technologies.

This dire prediction is confirmed by NYISO, which has issued reports stating that the New York grid may experience as much as a 10% deficiency, and possibly more, in generation capacity by 2040, and will require 32 GW of new zero-emission dispatchable generation by 2040 — which would almost double the current New York grid's 37 GW generation capacity.

NYISO also warns that such zero-emission dispatchable generation technologies "are not commercially available." Electricity shortages will occur if these new emission-free generation plants do not materialize in time as hoped for by the state. Hope is not an action plan to solve electric reliability deficits.

The Climate Action Council's climate plan — if fully implemented by the state as is currently being debated in the legislature — risks placing New York in an electricity shortage that could result in blackouts and brownouts. The New York grid operator pointed out that if existing gas-fired electric generation is shut before new resources come on line, there is a risk that NYISO will not be able to provide a reliable electric system.

Note: "Dispatchable Electric Generation" refers to battery storage capacity that can be used to provide power when renewable sources are not producing electricity.
Example: solar panels at night, on cloudy days, or when covered with snow



Example: Frozen wind turbines covered with ice.



Note: Researchers have found that icing has a major effect on wind turbines. Even under high wind conditions, iced wind turbines have been found to rotate much slower and even shut down frequently during the icing event, with icing-induced power losses of up to 80%.

Example: Not enough wind power to turn turbine blades

2021 European "wind drought" resulted in a decrease in wind speed of 5-10%. This reduced the output of electricity by 13-16%.
The IPCC predicts a drop of 6-8% in average wind speeds across Europe by 2050.

Addenda #26 – December 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!! – Rare Earth Materials
SDG 3 – Ensure healthy lives and promote well-being for all at all ages

From Cobalt to Cars: How China Exploits Child and Forced Labor in the Congo | Congressional-Executive Commission on China
Congressional-Executive Committee Commission on China, November 14, 2023

Child and forced labor taint the supply chain of cobalt, a mineral that is a critical component in the lithium-ion batteries and other products important for modern technologies, including electric vehicles.

Fully four-fifths of the world's cobalt is buried under the ground in the Democratic Republic of the Congo ("DRC") and the mining and refining of the mineral is dominated by Chinese companies. 80% of the DRC's cobalt output is owned by Chinese companies, refined in China, and then sold to battery makers around the world.

Mining of cobalt is linked to grave human rights abuses, including the exposure of miners to unsafe worksites and reliance on child and forced Congolese labor, as well as environmental degradation. The U.S. Department of Labor estimates that at least 25,000 children are working in cobalt mines in the DRC.

Exposing Exploitation in Global Supply Chains Series
From Artisanal Mines to Electric Cars:
How does cobalt mined with child labor end up in rechargeable lithium-ion batteries?
U.S. Department of Labor – Bureau of Internal Affairs, 2019 Report

The Democratic Republic of the Congo (DRC) is the main source of cobalt globally—in fact, over 70% of the world's cobalt comes from mines in this country. Cobalt mining is centered in the "copper belt" region of Haut-Katanga and Lualaba Provinces, where the cobalt is also refined for export.

While some cobalt is mined at large-scale industrial mines, artisanal and small-scale mines are responsible for 15–30% of local production. Child labor is often found in these artisanal and small-scale mines, which are less regulated and rarely visited by labor inspectors.

Cobalt is often mined by children exploited in dangerous and illegal child labor. Recognizing the prevalence of child labor in the mining of this mineral, in 2009 the Department of Labor placed cobalt ore from the DRC on its List of Goods Produced by Child Labor or Forced Labor. Over a decade later, child labor persists in cobalt production, raising risks for the entire lithium-ion battery supply chain.

The federal government knows child labor is being used in foreign countries to mine lithium and cobalt for EV batteries.
Mining here in the US could be done by adults and would be good paying jobs.
Instead, the Biden administration "conserves" land that contains these resources and sides with environmentalists to prevent mining here in the US, while mandating EV production.

Addenda #27 – December 2023
Re: Ch. 8, 2050 Net-Zero Emissions; Impossible!!

SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all
SDG 8 - Promote sustained, inclusive and sustainable economic growth…

U.N. Energy efficiency directive
First adopted in 2012, the directive was updated in 2018 and 2023, setting rules and obligations for achieving the EU's ambitious energy efficiency targets.

Officially adopted in 2012, the European Union's Energy Efficiency Directive set "rules and obligations" for member nations to reduce overall energy consumption, reduce greenhouse gas emissions, while at the same time, "enhance" energy security.
The Conclusions of the European Council of 8 and 9 March 2007 emphasised the need to increase energy efficiency in the Union to achieve the objective of saving 20 % of the Union's primary energy consumption by 2020 compared to projections.

The conclusions of the European Council of 4 February 2011 emphasised that the 2020 20 % energy efficiency target as agreed by the June 2010 European Council, which is presently not on track, must be delivered. Projections made in 2007 showed a primary energy consumption in 2020 of 1 842 Mtoe. A 20 % reduction results in 1 474 Mtoe in 2020, i.e. a reduction of 368 Mtoe as compared to projections.

In 2014, the Energy Efficiency Directive was amended to increase energy consumption by an additional 7% between 2020 and 2030.

The European Council of 23 and 24 October 2014 supported a 27 % energy efficiency target for 2030 at Union level, to be reviewed by 2020 having in mind a Union-level target of 30 %.

In 2018, the Energy Efficiency Directive was amended again, to increase energy consumption reduction target from 27% to 32.5% by 2030.

The need for the Union to achieve its energy efficiency targets at Union level, expressed in primary and/or final energy consumption, should be clearly set out in the form of a target of at least 32.5 % for 2030.

In September 2023, the Energy Efficiency Directive was amended again, to increase energy consumption reduction target an additional 11.7% by 2030.

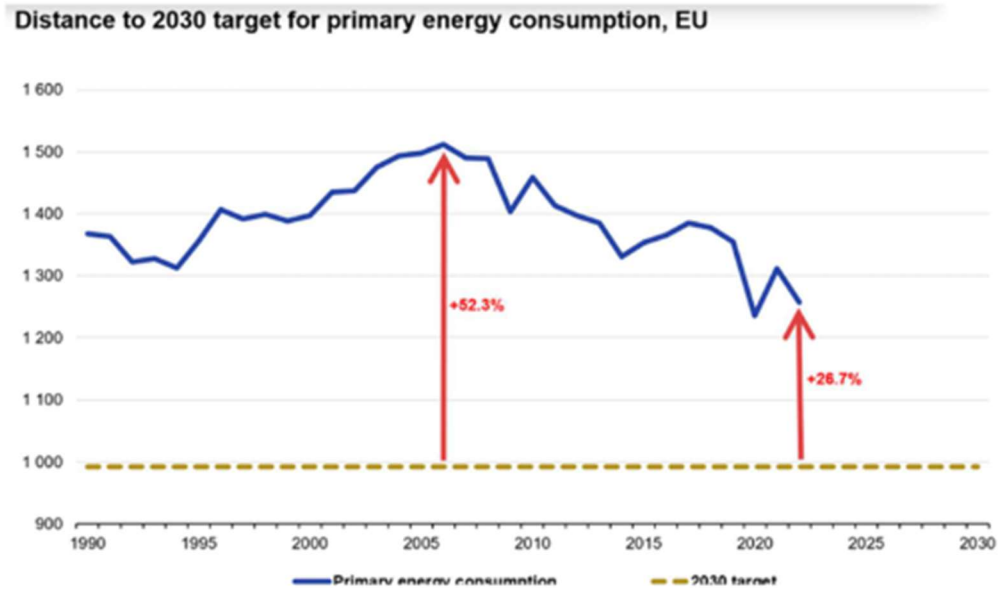
The 2023 revised directive raises the EU energy efficiency target, making it binding for EU countries to collectively ensure an additional 11.7% reduction in energy consumption by 2030, compared to the 2020 reference scenario projections.

As a result, overall EU energy consumption by 2030 should not exceed 992.5 million tonnes of oil equivalent (Mtoe) for primary energy and 763 Mtoe for final energy.

Let's unpack the Directive amendments and see what this eventually means for the people of the European Union…

In 2007, the EU projected that by the year 2020, energy consumption would be1 842 Mtoe. This means the consumption of 1,842 million tons of oil to produce all energy consumed.
* The 2012, the Directive set the ambitious goal of reducing overall energy consumption 20% by 2020. The goal for consumption was reduced to 1 474 Mtoe or 1,474 million tons of oil.
* In 2014, the Directive was amended to a 27% reduction of energy consumption by 2030. The new consumption target was 1,345 million tons of oil by 2030.
* In 2018, the Directive was amended to a 32.5% reduction of energy consumption by 2030. Now the consumption target was 1,243 million tons of oil by 2030.
* In 2023, the Directive was amended to a 32.5% reduction of energy consumption by 2030. Now the consumption target was 992.5 million tons of oil by 2030.

With all revisions accounted for, citizens and businesses of the European Union will have to consume 26% less energy over a twelve-year period, and 46% less energy than would have consumed before the initial Directive was put in place.



Note: The European Union economy stagnated in the third quarter of 2023, marking the weakest performance since the 2020-2021 economic recession. GDP Annual Growth Rate in European Union averaged 1.65 percent from 1996 until 2023, reaching an all-time high of 14.40 percent in the second quarter of 2021 and a record low of -13.30 percent in the second quarter of 2020.

The economy is projected to grow just 1.3% in 2024, 22% lower than the "long-term" average.

Questions I ask myself: How much do these climate change mandates have to do with decreased growth?

Addenda #28 – December 2023
Re: Ch. 9 Progressive ~~States~~ Federal Government Policies
Banning the use of natural gas hookups
Banning the installation of gas-fueled furnaces, space heaters, and water heaters
SDG 3 – Ensure healthy lives and promote well-being for all at all ages
SDG 11 – Make cities and human settlements inclusive, safe, resilient and sustainable

Biden admin hit with legal challenge over gas appliance crackdown
Families, businesses will be 'saddled with increased costs' under regulations, industry group says
Fox News, December 19, 2023

Led by the American Gas Association (AGA), whose members provide natural gas to more than 74 million customers nationwide, several trade associations and one manufacturer filed the legal challenge late Monday against the Department of Energy (DOE) over the regulations, which were finalized in late September. The groups argued the agency's action effectively bans the sale of a large swath of furnaces enjoyed by consumers.

"AGA has attempted to work with the Department of Energy to address the rule's profound impacts on consumers and homeowners with a solutions-oriented approach to energy conservation that protects consumers and ensures continued availability of low-cost, low-emission natural gas furnaces," AGA President and CEO Karen Harbert said in a statement. "Unfortunately, our 114 pages of comments have been summarily ignored."

The DOE's finalized regulations, which are slated to go into effect in 2028, specifically require furnaces to achieve an annual fuel utilization efficiency (AFUE) of 95%, meaning manufacturers would only be allowed to sell furnaces that convert at least 95% of fuel into heat within six years. The current market standard AFUE for a residential furnace is 80%.

Because of the stringent AFUE requirements, the regulations would largely take non-condensing gas furnaces — which are generally less efficient, but cheaper — off the market. However, consumers who replace their non-condensing furnace with a condensing furnace after the rule is implemented face hefty installation costs.

Overall, AGA has estimated the DOE regulations would remove up to 60% of current residential furnaces off the market. Additionally, AGA said on Monday that the regulations impact 55% of American households and would lead to higher costs for 30% of senior households, 27% of small businesses and 26% of low-income households.

DOE Secretary Jennifer Granholm has defended the regulations, and a slew of other Biden administration actions targeting popular home appliances, by arguing they will lead to more efficient appliances, lower costs and reduced carbon emissions.

Once again, Washington politicians are making rules that all income levels must follow. High-income households could afford the more expensive energy efficient furnaces. Low-income households would receive federal or state aid to make the transitions. Middle-class households would bear the disproportionate financial burden of this mandate.

Note: This is a Department of Energy "regulation". It was never discussed or voted on by our elected representatives in Congress.