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

<u>Child and forced labor</u> 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...

## 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.

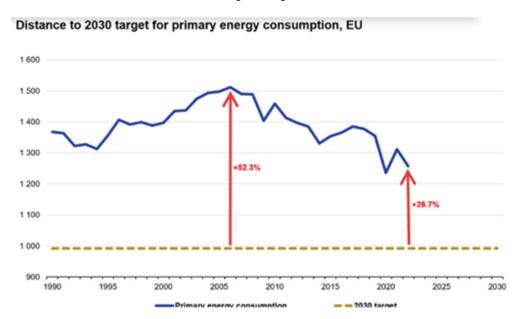
As a result, overall EU energy consumption by 2030 should not exceed 992.5 million tonnes of oil equivalent (Mtoe) for primary energy and 763 Mtoe for final energy.

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 be 1842 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.