

**Testimony  
of  
Thomas J. Pyle  
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Before the  
U.S. House of Representatives Committee on Energy and Commerce  
Subcommittee on Energy and Power  
“Charging Forward: Securing American Manufacturing and Our EV Future.”**

Thank you, Mr. Chairman and Ranking Member Upton for holding this hearing on the important questions of American manufacturing and electric vehicles.

The Institute for Energy Research and its advocacy arm, the American Energy Alliance, are the premier energy policy and research organizations in the United States. It is my honor to have been president of both organizations since 2008.

I am a strong supporter of energy freedom. I support the ability of the American people to choose the type of vehicles and fuels that best meet their transportation needs. Consequently, I am strongly opposed – as are most Americans – to the idea that government should mandate energy technologies or fuels.

*Electric vehicles*

I’m largely indifferent to whether Americans choose to buy electric vehicles. But I’m not indifferent to the federal government mandating through rule what kind of cars consumers buy.

It is not surprising, therefore, that EPA’s issuance of their 2023 and later light-duty greenhouse gas emissions standards<sup>1</sup> gives me pause. This rule essentially mandates that 17 percent of new vehicles in model year 2026 be fully electric or plug-in hybrids.<sup>2</sup> As EPA puts it, “We project that during the four-year ramp up of the stringency of the GHG standards, the standards can be met with gradually increasing sales of plug-in electric vehicles in the U.S., from about 7 percent market share in MY 2023 (including both fully electric vehicles and plug-in hybrid vehicles) up to about 17 percent in MY 2026.”<sup>3</sup>

In that same rule, EPA concludes that as a result of the rule the average cost of a new car will increase \$1000. That’s an average. Purchasers of crossovers, SUVs, trucks, and performance vehicles will pay more, as they will need to subsidize purchases of smaller cars, which are routinely less popular.

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<sup>1</sup> Environmental Protection Agency, *Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards*, 86 Fed. Reg. 74434 at 74438, Dec. 30, 2021.

<sup>2</sup> *Id.* at 74438.

<sup>3</sup> *Id.*

The \$1000 increase in average cost is almost certainly a low estimate. Similar assessments for the 2009 federal fleet mandate indicated that the cost of the 2009 CAFE rules was \$6,200 increase per vehicle.<sup>4</sup>

These same consumers – along with all taxpayers – will also subsidize the purchase of electric vehicles. Currently, electric vehicles are much more expensive than vehicles with internal combustion engines. As the CEO of Stellantis explained late last year, “What has been decided is to impose on the automotive industry electrification that brings 50% additional costs against a conventional vehicle.”<sup>5</sup> He went on: “There is no way we can transfer 50% of additional costs to the final consumer because most parts of the middle class will not be able to pay.”<sup>6</sup>

If automakers have to sell electric vehicles that are 50 percent more expensive than conventional vehicles, sales of gasoline-powered cars will wind up subsidizing electric vehicle sales.

That should be a concern to all of us.

In December 2021, the average new vehicle cost over \$47,000 and the average used car cost nearly \$30,000.<sup>7</sup> To put this in perspective, the average individual income in the United States is about \$63,000.

Making it more costly to buy a car doesn't sound like something the federal government should do. But EPA has done it.

Hopefully, this committee will look into how EPA is driving up the price of cars for millions of American families. The committee should also alert American consumers that they might be helping to pay for their neighbor's car.

With respect to chargers for electric vehicles, it seems unfair to ask taxpayers to pay for them. Entrepreneurs will provide sufficient charging calibrated to the needs of consumers. They can certainly afford to. Tesla is currently valued at over \$800 billion and could easily fund all of the \$7.5 billion for electric vehicles in the infrastructure legislation. As of last Monday, Rivian was worth \$60 billion, Lucid was worth nearly \$50 billion, Nio was worth \$36 billion, and XPeng is worth \$31 billion.

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<sup>4</sup> Salim Furth & David Kreutzer, Heritage Foundation, Fuel Economy Standards Are a Costly Mistake, Mar. 4, 2016, <https://www.heritage.org/government-regulation/report/fuel-economy-standards-are-costly-mistake>

<sup>5</sup> Joseph White, Reuters, Stellantis CEO says EV cost burden is 'beyond the limits' for automakers, Dec. 1, 2021. <https://www.reuters.com/business/autos-transportation/stellantis-ceo-says-ev-cost-burden-is-beyond-limits-automakers-2021-12-01/>

<sup>6</sup> *Id.*

<sup>7</sup> Adam Hardy, Money, Average Used Car Prices soar to Nearly \$30,000, Jan. 14, 2022, <https://money.com/new-used-car-prices-december-2021/>

For purposes of comparison, the median net worth of American households is a little more than \$120,000.

There is no need for Congress to spend tax dollars on chargers when investors have provided electric vehicle makers with hundreds of billions of capital. At some point these investors should live with their bets on these technologies, rather than being rewarded by taxpayer dollars.

How about the equity associated with the underlying policy of advancing electric vehicles and associated infrastructure? The average household income for a Tesla Model X owner is over \$143,000,<sup>8</sup> the average household income of a Model S owner is over \$153,000 a year,<sup>9</sup> and the average household income of Model 3 owners is \$128,140 a year.<sup>10</sup>

Let's also take a quick look at the scale and scope of the challenge.

Studies indicate that to meet anything like net zero by 2050, we will need a high voltage transmission system anywhere from 35% to 100% larger than we have now. A rapid build like that – keep in mind being done at the same time as replacing our current system, about 70% of which is in the last half of its useful life – relies on a couple of assumptions.

First, it assumes that the administrative and permitting processes that have slowed, stopped, or otherwise precluded linear energy projects for decades are suddenly going to change just because one political side now favors such projects.

That seems unlikely. It is more likely that the pathologies our governments have created over the last 50 years with respect to permitting infrastructure will be durable for at least another few years.

It also assumes away questions about the sufficiency of the skilled workforce, or the simple mismatch between the critical path nature of transmission and the delays in interconnections (with PJM now in a two-year delay with respect to interconnections), or ever-present questions about who will pay for what.

Beyond questions of federal impingement on consumer choices, cost, inequities associated with respect to chargers and company valuations, questionable equities associated with annual incomes, permitting and building problems, and use of the coercive power of the federal government to mandate that some pay for the cars of others, it is clear that electric vehicles will increase our dependence on the communist regime in China.

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<sup>8</sup> Hedges & Company, TESLA OWNER DEMOGRAPHICS: INCOME, AGE, GENDER AND MORE, <https://hedgescompany.com/blog/2018/11/tesla-owner-demographics/>

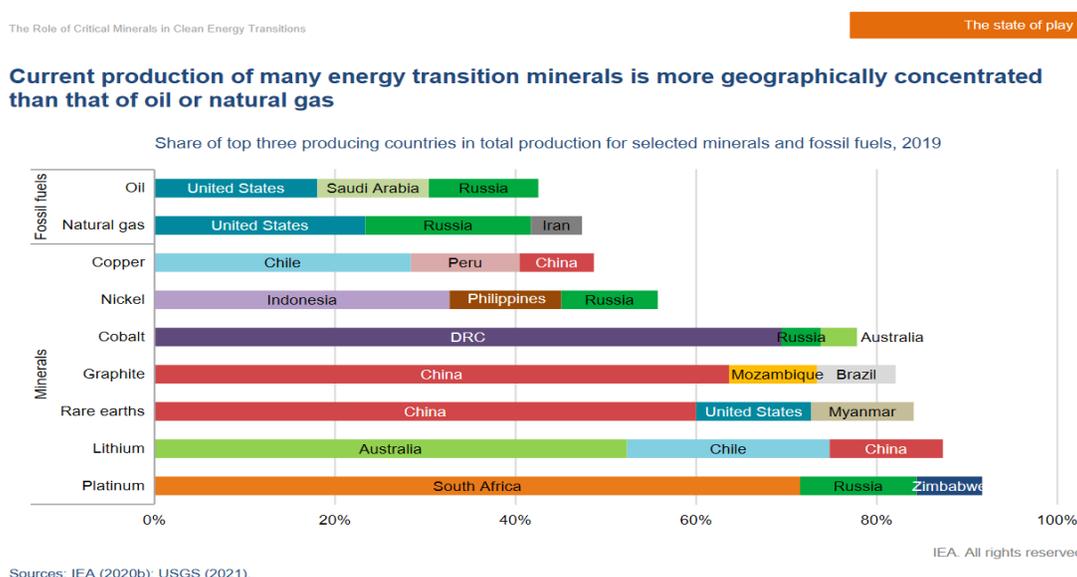
<sup>9</sup> *Id.*

<sup>10</sup> Hedges & Company, TESLA MODEL 3 DEMOGRAPHICS: INCOME, AGE, GENDER AND MORE, <https://hedgescompany.com/blog/2019/03/tesla-model-3-demographics-income/>.

As I am sure you know, the Department of Defense recently released a report titled, “Securing Defense-Critical Supply Chains.”<sup>11</sup> The report states:

China dominates the global advanced battery supply chain, including lithium hydroxide (94 percent), cells (76 percent), electrolyte (76 percent), lithium carbonate (70 percent), anodes (65 percent), and cathodes (53 percent). Even materials and components manufactured domestically often have reliance on China-produced precursors or are fragile suppliers and single point failures within the supply chain. As electrification is expected to accelerate dramatically by 2030, reliance on China will grow and China’s relative cell dominance is projected to remain stable.

Last year, the International Energy Agency produced a report on critical minerals. The IEA reported that “current production of many energy transition minerals is more geographically concentrated than that of oil or natural gas.”<sup>12</sup>

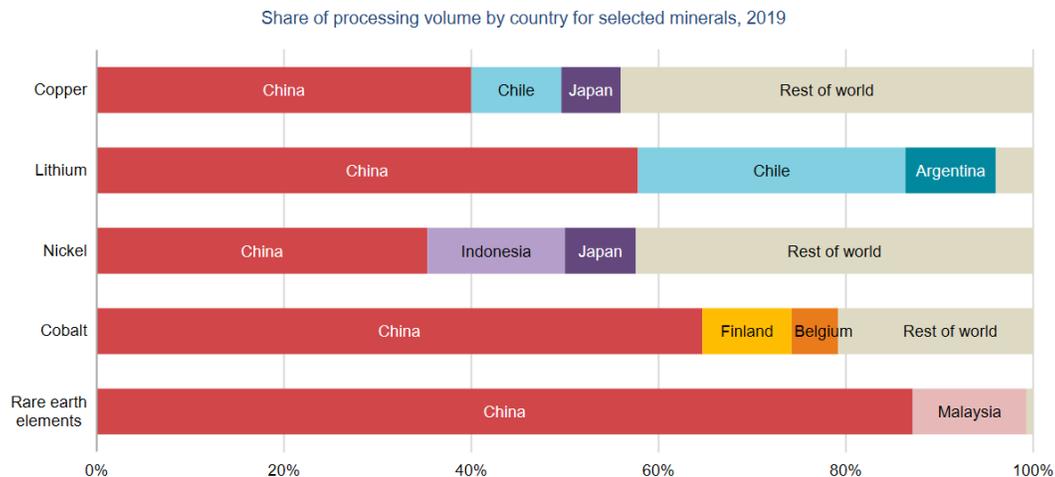


It’s not just the mining or production of the minerals. China dominates critical mineral processing, leading the world in copper, lithium, nickel, cobalt, and rare earth processing. Currently, the best batteries and electric motors for electric vehicles use all of these minerals.

<sup>11</sup> U.S. Department of Defense, *Securing Defense-Critical Supply Chains*, Feb. 2022, <https://media.defense.gov/2022/Feb/24/2002944158/-1/-1/1/DOD-EO-14017-REPORT-SECURING-DEFENSE-CRITICAL-SUPPLY-CHAINS.PDF#:~:text=Securing%20Defense-Critical%20Supply%20Chains%20An%20action%20plan%20developed,in%20response%20to%20President%20Biden%27s%20Executive%20Order%2014017>

<sup>12</sup> International Energy Agency, *The Role of Critical Minerals in Clean Energy Transitions*, p. 30.

### The level of concentration is similarly high for processing operations, with China's significant presence across the board



Note: The values for copper are for refining operations.

Sources: World Bureau of Metal Statistics (2020); Adamas Intelligence (2020) for rare earth elements.

IEA. All rights reserved.

The United States could, of course, mine and process many of those materials. But mines typically take a decade or more to permit, and the current Administration – having recently rejected the Twin Metals mine<sup>13</sup> in Minnesota and been sturdy opponents of other mines, including Pebble, Rosemont, and others – is unlikely to rush to approve any new mines at all, and certainly not anywhere near the number that we would need to reduce our dependence on communist China.

The Administration has even weighed in against a state-sponsored infrastructure project in Alaska's Ambler Mining District<sup>14</sup> accessing rich potential mines which might feed U.S. manufacturing facilities.

While not every one of these mining projects are perfect, mandating the sales of electric vehicles without these mines makes us more dependent on Chinese supply chains.

<sup>13</sup> Tory Van Oot, Axios, What the Biden administration's Twin Metals decision means for Minnesota, Jan. 27, 2022, <https://news.yahoo.com/biden-administrations-twin-metals-decision-121501593.html>

<sup>14</sup> Liz Ruskin, Alaska Public Media, Biden administration deals setback to Ambler road, Feb. 22, 2022, <https://www.alaskapublic.org/2022/02/22/biden-administration-deals-setback-to-ambler-road/>

It is challenging to believe that Americans would be in favor of trading energy independence – which we currently enjoy despite the best efforts of some in the Administration – for dependence on a genocidal regime (and identified as such by both the current and previous Administration) marked by international hooliganism.

There are three final thoughts worth noting with respect to electric vehicles and what can happen when the government gets involved in energy systems, especially energy systems they don't fully understand.

### The EU

First, let's think about the EU.

One thing that has been obvious for months is that Europe is in a bad energy situation. Relatively weak winds this summer led to less wind generation than usual across the continent.<sup>15</sup> According to Reuters, “Europe's largest wind producers – Britain, Germany and Denmark – harnessed just 14% of installed capacity, in the third quarter, when gas prices hit record highs, compared with an average of 20-26% seen in previous years.”<sup>16</sup>

This led directly to more natural-gas fired generation, primarily because Europe has shut down coal and nuclear plants in recent years. Obviously, the natural gas used to make electricity was not available for heating homes this winter.

High global natural gas demand and high demand in Europe has led to skyrocketing natural gas and electricity prices. Last Thursday, the benchmark natural gas price in Europe hit an all-time high and was trading at the equivalent of oil trading at \$360 a barrel.<sup>17</sup>

This is the result of decades of underinvestment in natural gas and oil, as Europe has tried to switch to renewables and shutter nuclear power plants. In the last 15 years, the production of

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<sup>15</sup> Nora Buli & Stine Jacobsen, Reuters, *Analysis: Weak winds worsened Europe's power crunch; utilities need better storage*, Dec. 22, 2021, <https://www.reuters.com/markets/commodities/weak-winds-worsened-europes-power-crunch-utilities-need-better-storage-2021-12-22/#:~:text=OSLO%2FCOPENHAGEN%2C%20Dec%202022%20%28Reuters%29%20-%20Wind%20speeds%20were,buy%20more%20coal%20and%20scarce%2C%20costly%2C%20natural%20gas.>

<sup>16</sup> *Id.*

<sup>17</sup> Javier Blas, <https://twitter.com/JavierBlas/status/1499305444451487749>

natural gas in Europe has declined by 30 percent but natural gas consumption has only declined by 13 percent.<sup>18</sup>

This was driven by government policy, not market forces.

Consequently, Russian natural gas has become more critical to European energy security. At the moment, the EU consumes about 540 billion cubic meters of natural gas a year.<sup>19</sup> Over 40 percent of that originates in Russia.<sup>20</sup> It is no surprise, therefore, that the European and the American governments have hesitated to impose strong sanctions against Russian-sourced energy and Russian energy companies either before or after the invasion. For example, as recently as this week, the Biden Administration has expressed reservations about banning the importation of Russian oil and natural gas to the United States, and has steadfastly avoided sanctioning either Rosneft or Gazprom.

It turns out that the existential threat related to energy is when you are dependent on another nation for a commodity that is essential for electricity, for heating, and even for food production through the production of fertilizer.

### The United States

Second, let's think about the United States.

Over the past decade, U.S. oil production has had a moderating influence on global oil prices. From 2010 through 2019, global total petroleum (and other liquids) production increased by 12.1 million barrels a day. For the same time period, U.S. total petroleum (and other liquids) production increased by 9.77 million barrels a day. In other words, 81 percent of the increase in global oil production over the past 10 years came from the United States.<sup>21</sup>

Oil prices had been trending down until 2020. Unfortunately, but not surprisingly, in the wake of the 2020 election, President Biden made it clear that he intended to be an energetic advocate against the oil, coal, and natural gas that makes modern life possible. Oil markets, now faced with an existential threat, responded as one might expect. The price of oil went up. In response, Mr. Biden inexplicably asked Russia and OPEC for more oil. National Security

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<sup>18</sup> BP, Statistical Review of World Energy 2021, <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2021-full-report.pdf>.

<sup>19</sup> *Id.*

<sup>20</sup> Catherine Clifford, CNBC, Why Europe is so dependent on Russia for natural gas, Feb. 24, 2022, <https://www.cnbc.com/2022/02/24/why-europe-depends-on-russia-for-natural-gas.html>

<sup>21</sup> Institute for Energy Research, *Biden Administration Calls for More Oil Production—As Long as It's Not in North America*, July 14, 2021, <https://www.instituteforenergyresearch.org/fossil-fuels/gas-and-oil/biden-administration-calls-for-more-oil-production-as-long-as-its-not-in-north-america/>

Advisor Jake Sullivan issued a statement calling on OPEC Plus (the most important part of the “Plus” is Russia) to produce more oil.<sup>22</sup>

This is despite the Administration’s numerous actions designed to reduce the enthusiasm of energy companies to find, produce, and transport domestic oil and natural gas. These actions include, but are not limited to, the cancellation of the Keystone pipeline, the *de facto* suspension of domestic oil and gas leases, and failure to contest court rulings they did not appeal a court’s rejection of the one oil and gas offshore lease sale they held.

There are more examples, but you get the point.

### *The effect of propaganda on investment*

Finally, let’s think about the importance of propaganda.

We have been told for over forty years that renewables were on the cusp of providing a large percentage of our energy. The facts suggest something different.

In 1981, coal produced 22 percent of the energy we consumed, natural gas produced 27 percent, petroleum produced 43, hydropower produced 4 percent, and nuclear produced 4 percent.<sup>23</sup> In 2021, after decades of subsidies and mandates to boost their use, renewables produced 12.4 percent of the energy America consumed<sup>24</sup>—an increase of just 8 percent in forty years.

A significant part of our current problem is the endless repetition of the propaganda about the utility of alternative sources of energy, the possibility of net zero greenhouse gas emissions, and the inevitability of an “energy transition”. These foundational myths have led directly to higher energy prices for Americans.

Those involved in finding and producing the fuels that power the world – coal, oil, and natural gas – are concerned that our government might be serious about creating an electricity system entirely dependent on solar or wind power or outlawing gasoline or diesel-powered cars or trucks. How can anyone blame them when that is all they hear?

Consequently, these businesses have underinvested in oil and natural gas over the last several years. In 2014, the world spent about \$490 billion finding and producing oil and natural gas. In 2021, that number was just \$220 billion.

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<sup>22</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/11/statement-by-national-security-advisor-jake-sullivan-on-the-need-for-reliable-and-stable-global-energy-markets/>

<sup>23</sup> See Energy Information Administration, *Monthly Energy Review*, April 1982, p. 6, <https://www.eia.gov/totalenergy/data/monthly/archive/00358204.pdf>

<sup>24</sup> See Energy Information Administration, *Monthly Energy Review*, Table 1.3, Feb. 2022, [https://www.eia.gov/totalenergy/data/monthly/pdf/sec1\\_7.pdf](https://www.eia.gov/totalenergy/data/monthly/pdf/sec1_7.pdf).

Despite high prices, growing demand (as countries and people become richer, their demand for reliable energy increases), and shrinking supplies, energy companies are disinclined to rush to produce more oil. Why? Because they are listening to their government (both elected and administrative) and concluding that such investments and such actions – which in most cases require years to pay off – are simply too risky in the current political and social environment.

Just to be sure that everyone knows what they think about affordable and reliable energy, this Administration has sought to institutionalize the thematics of the ESG movement and made sure that its appointees to the Securities and Exchange Commission, Treasury, and other financial regulators are committed advocates of the notion that climate change might pose some special kind of business or financial risk.

As intended by its advocates, this creation of ideological tests for investing has spooked investors, complicating the ability of energy projects to access capital.

It has not helped that financial companies like BlackRock, which will make money off whatever the federal government does to increase the price of energy and which has already said it will not invest in oil and natural gas projects because of government policies, have installed their allies on the boards of energy companies (like Exxon).<sup>25</sup> That has also made energy companies less likely to invest in oil and natural gas energetically and without hesitation.

The fundamental thesis that the world will soon transition away from coal, oil, and natural gas is wrong. Traditional fuels are and will be essential to our way of life and standard of living for decades to come.

Government needs to avoid creating an environment in which people and companies hesitate to invest in finding and producing affordable and reliable energy.

### Conclusion

The cancellation of the Keystone pipeline, the *de facto* lease suspension, the weaponization of financial regulators, the proposed taxes on energy and the tax credits given to unreliable energy sources, and even this very hearing are all part of the same effort. They all purposefully seek to create an environment in which it is difficult to invest in oil and natural gas.

Wide swaths of the elected government and administrative state have decided that investments in oil and gas must be minimized and eventually eradicated. There must be steady downward pressure on oil and gas investments. Even as recently as two weeks ago – at the height of the Administration scrounging around for liquified natural gas they could send to the EU – the Federal Energy Regulatory Commission issued two policy statements making it clear that the hurdles to permit LNG terminals and their feeder pipelines would be getting higher, not lower.

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<sup>25</sup> <https://www.nytimes.com/2021/06/09/business/exxon-mobil-engine-no1-activist.html>

Executives of and investors in oil and companies have listened and watched all of this and concluded that some significant portion of both the elected government and the administrative state are going to be actively hostile to their products into the foreseeable future. It should surprise no one, therefore, that these executives and investors are unwilling to make decisions on projects that may take decades to break even.

Rising prices for oil and gas are an inevitable part of the energy transition that some fervently seek. Even President Obama made it clear that his actions would “necessarily” cause energy prices to “skyrocket.”<sup>26</sup> The increase in energy costs is a feature, not a bug, of the forced energy transition. To suggest otherwise is less than truthful.

In short, when you are looking for who or what is responsible for high prices for oil and natural gas, whether in the United States or the EU, look no further than the government and its officials who have made and make decisions every day to drive up the cost of gasoline and natural gas by driving away investment in oil and natural gas.

Thank you.

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<sup>26</sup> Sen. Barack Obama speaking with the editorial board of the San Francisco Chronicle, Jan. 2008, [https://www.youtube.com/watch?time\\_continue=40&v=HITxGHn4sH4&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=40&v=HITxGHn4sH4&feature=emb_logo)