U.S. SENATE COMMITTEE *on*
ENERGY AND NATURAL RESOURCES
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Europe's Energy Crisis: A Warning to America

Democrat Plans To Mimic Europe's Energy And Climate Policies Will Lead To Sky-high Prices, Less Reliability, And Shortages

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Executive Summary

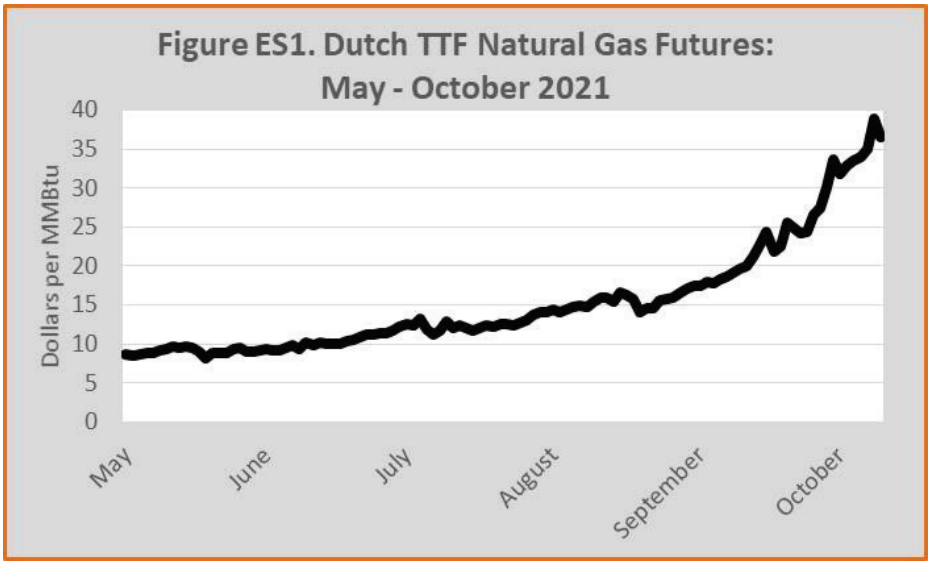
As President Biden and Congressional Democrats continue to push the punishing "Green New Deal" energy polices within their multi-trillion dollar reckless tax and spend budget legislation, one only need look to Europe to see the results of these failed ideas.

Since the early 1990s, European leaders have implemented several of the same energy policies that Democrats are promoting today. Unrealistically aggressive climate and energy policies already put in place in Europe, and the "Green Deal" the European Commission (EC) is implementing, combine to impede the production of traditional energy sources while pushing to replace them with more expensive and unreliable sources of energy.

As a result, Europeans pay some of the highest energy costs in the world while living with less reliable service. From 2005 to 2020, the real retail price for households for a megawatt hour (MWh) of electricity in the major European economies of France, Germany, Italy, Spain, and the United Kingdom have jumped 28 to 71 percent compared just 5 percent for the United States. In 2020, households in the United States paid 85 percent to 215 percent less per MWh than households in these five countries.

Industrial electricity users in the United States also pay less for energy. For electricity, European industries paid anywhere from 15 percent to 160 percent more per MWh compared to industrial customers in the United States.[1] For natural gas, the difference was even more pronounced, with European industries paying 90 percent to 500 percent more for the same amount of natural gas in the United States. In an extremely competitive global market for industrial goods, this represents a huge competitive advantage that the United States should not surrender.

It has only gotten worse in Europe. Low wind speeds limiting wind energy output, record-high prices for emission allowances in the European Emissions Trading System, low natural gas inventories, and a Russian cap on natural gas flows to Europe all conspired to send energy prices soaring to record levels. Figure ES1 shows the rapid escalation in the price from May to October 2021, when the price in Europe nearly quadrupled to almost $33 per million Btu.



European governments are already warning of blackouts, and winter weather will just make things worse for consumers there. Inflationary pressures are building. Europe's industries are facing skyrocketing energy prices that are hurting their bottom lines and forcing them to curtail, if not shut down completely, operations. Some European industries are warning they are in danger of becoming globally uncompetitive. With natural gas prices out of sight and despite claims that there is no longer a market for coal, some countries are turning back to coal to keep the lights on.

American consumers also have enjoyed gasoline prices that are much lower than in Europe. Data from the International Energy Agency (IEA) show that in the first quarter of 2021 the average price for a gallon of regular unleaded gasoline was about $2.95.In Europe, consumers paid $4.88 to $7.65 per gallon, 65 percent to 160 percent more. The price of diesel fuel—a big consideration in trucking and railroad operations—averaged from 35 percent to 90 percent higher in Europe than in the United States.

Table ES1. Percent Change in Fuel Bills from Last Winter (Forecast)

Fuel	Base Case Forecast	If 10% Warmer than Forecast	If 10% Colder than Forecast
Heating Oil	↑43%	↑30%	↑59%
Natural Gas	↑30%	↑22%	↑50%
Propane	↑54%	↑29%	↑94%
Electricity	↑6%	↑4%	↑15%

As if that is not enough, European leaders seem willing to risk a trade war with a carbon border adjustment mechanism. While a border tax may protect domestic industries from being undercut on price by foreign competitors that do not have comparable domestic programs, it does not and cannot do anything to prevent the demand destruction that significantly higher prices cause.

These developments should serve as a dire warning to the United States if Democrats enact Biden's Budget Blowout. The impulsive and imprudent actions of President Biden have helped created uncertainty in U.S. energy markets, and the events in Europe are giving us a preview of coming attractions should Democrats succeed in passing their Green New Deal-laden budget just before the winter heating season begins. After just 10 months of the Biden Administration, the price for regular gasoline rise rapidly to an average of about $3.40 nationwide, with prices as high as $4.50 in some areas (*e.g.*, California). Supplies of other fuels also are tightening. Table ES1 shows the projected increase in household bills of different heating fuels calculated by the Energy Information Administration (EIA). Families can expect to pay, depending on the fuel being used and the weather, 4 percent to 94 percent more to heat their homes.[2] A foretaste of what may come if the Democrats are successful.

Introduction

Although most Democrats are loathe to admit it, President Biden's multi-trillion dollar "Build Back Better" plan—better described as "Biden's Budget Blowout"—bears more than a passing resemblance to the Green New Deal.

Recall the original Green New Deal was a socialist extravaganza for which the public had absolutely no appetite and resoundingly rejected. Nevertheless, bad ideas seem to have a way of taking on a life of their own in the Democrat party. It should surprise no one, then, that President Biden, House Speaker Nancy Pelosi, and Senate Majority Leader Schumer have resuscitated this socialist nonsense in the House budget reconciliation bill.

Progressive Representative Alexandria Ocasio-Cortez observed, "As much as I think some parts of the party try to avoid saying 'Green New Deal' and really dance around and try to not use that term, ultimately, the framework I think has been adopted." She is right.

The reckless tax and spend budget reconciliation bill, like the original Green New Deal, would involve the Federal Government in practically every nook and cranny of American life and transform the country into something unrecognizable—poorer, less free, less dynamic, and a geopolitical bystander.

Its impacts on America's energy economy would be enormous, too. The budget plan envisages the United States getting 80 percent of its electricity from non-fossil sources by 2030 and 100 percent by 2035 (fossil fuels now accounts for about 60 percent of electricity generation). It also imagines slashing economy-wide greenhouse gas emissions from about 13 percent below the 2005 level in 2019 to 50 percent below by 2030, a practical impossibility.

The suite of policy proposals being considered include: costly tax changes to targeting oil and gas producers; a tax on natural gas; higher fees for, and more restrictions on, federal leases; a clean energy standard that no fossil fuel-powered electricity generator could meet; subsidies for the wealthy to buy electric vehicles; and much more.

In 2010, then-Speaker of the House Pelosi, speaking about the ObamaCare legislation, let slip that, "We have to pass the bill so that you can find out what is in it." Congress and the president do not have to enact the House Democrats' reckless reconciliation bill and its Green New Deal before we can find out what its impact would be. We already have a good idea.

Europe provides a real-time reality check of the menacing impacts the Democrats' policies would have in the United States. Today, Europe is in the midst of a self-inflicted energy crisis that could serve as a dire warning to the United States if Democrats succeed in enacting Biden's Budget Blowout.

Europe's Approach to Energy & Climate Change

Since the early 1990s, European leaders have pursued an array of policies to generate deep cuts in the continent's emissions. Cap and trade, feed in tariffs, efficiency and renewable standards, carbon taxes, subsidies for electrics vehicles, bans on fossil fuel development—you name it. No matter the policy, however, it is always pitched as a driver of economic growth that would be good for consumers. Today's Democrats are saying the exact same thing.

In 2014, the EC issued a press release[3] on the European Union's (EU) plans to achieve a 40 percent reduction in emissions from the 1990 level by 2030: "The framework aims to drive continued progress towards a low-carbon economy and a competitive and secure energy system that ensures affordable energy for all consumers, increases the security of the EU's energy supplies, reduces our dependence on energy imports and creates new opportunities for growth and jobs . . ."

The EU's 2015 Energy Union strategy calls for "building an energy union that gives EU consumers - households and businesses - secure, sustainable, competitive and affordable energy." It revolves round five pillars: (1) security, solidarity and trust through, among other things, diversifying Europe's sources of energy; (2) a fully integrated internal energy market; (3) energy efficiency; (4) climate action to decarbonize the economy; and (5) research, innovation and competitiveness.[4]

In 2019, the EU doubled down and launched the extravagant "European Green Deal,"[5] a scheme inspired by, and in many respects modeled after, the Democrats' Green New Deal. Its goal is to reduce emissions in 2030 by 55 percent below 1990 levels on the way to "net zero" by 2050. In addition to ramping up its ambition further still, the EU would tighten existing Emissions Trading System and expand it into new sectors, increase subsidies for green technologies, increase the share of renewables in the generation mix, mandate that all new cars registered by 2035 will be zero-emission, and establish a Social Climate Fund to help vulnerable EU citizens and small businesses absorb the costs of decarbonization. These plans should have a familiar ring to those following the partisan budget reconciliation bill the Democrats are trying to ram through Congress with tepid public support.

Then newly-installed EU Commissioner Ursula Von der Leyen declared, "This is Europe's man on the moon moment . . . The European Green Deal is our new growth strategy. It is a strategy for growth that gives more back than it takes away."[6]

Energy Prices for Consumers and Industries: EU

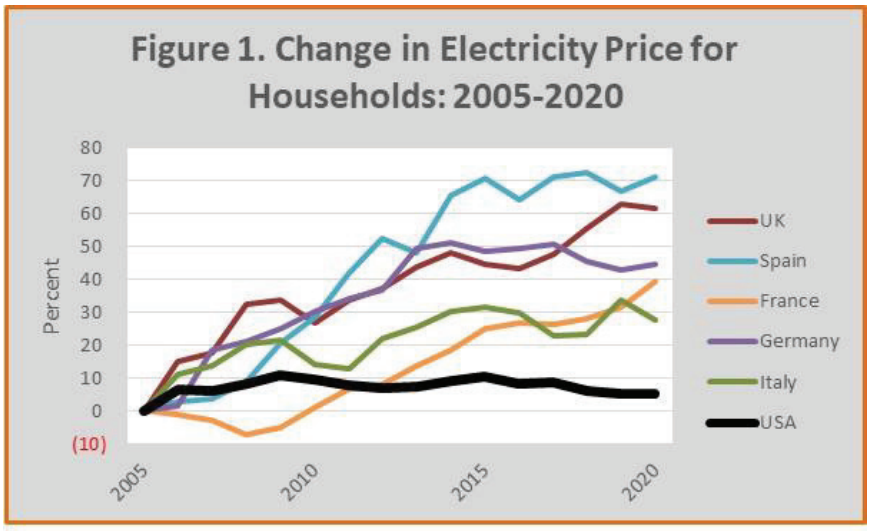
So how have these policies worked out? They have been a disaster. Unrealistically aggressive climate and energy policies, which will only be made worse by imposition of the Green Deal, have conspired to make Europe's energy prices the highest in the world. Today, Europe is in the midst

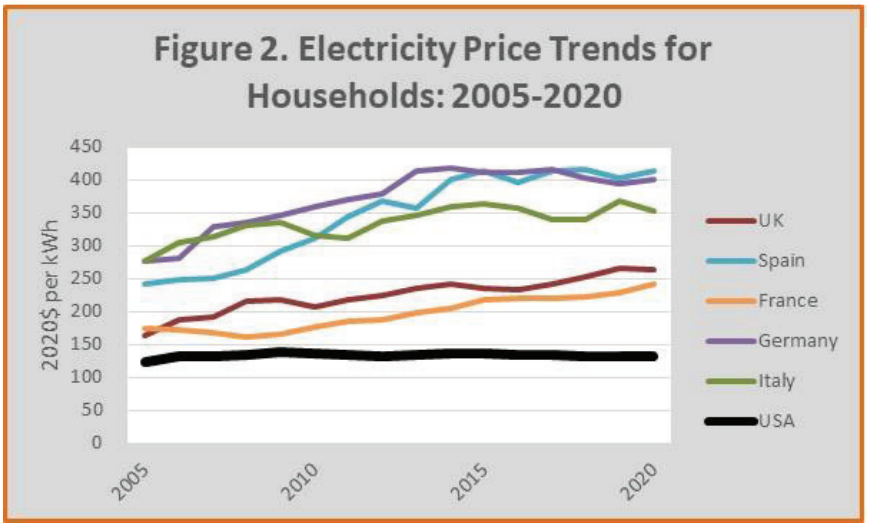
of a policy-driven energy crisis of the kind we could very well see here in the United States if Democrats succeed in enacting Biden's Budget Blowout.

The EU's restrictive environmental policies and high tax rates mean EU businesses and residents pay more than U.S. consumers for electricity, natural gas, transportation fuels, home heating oil, and just about everything else. This is important because energy prices play a large part in the performance of the economy and the competitiveness of U.S. businesses in global markets. The benefits of low-cost energy are especially helpful for low- and fixed-income households, which tend to spend a greater share of their disposable income on energy.

EU Households Pay More . . . A Lot More

Take residential electricity prices. Households pay much higher rates for electricity in Europe than in the United States. Figure 1 plots the change in the real electricity rates[7] in the United States and five large European national economies—France, Germany, Italy, Spain, and the United Kingdom—from 2005.[8] While the average U.S. price in 2020 was about 5 percent higher than in 2005, the average price for the five European countries ranged from about 30 to 70 percent higher than in 2005.





The data in Figure 1 do not provide the full picture. Not only have rates swelled at a faster pace in Europe than in the United States, the initial 2005 prices per megawatt hour (MWh) for the five European economies also were much higher, about 1.3 to 2.2 times more (Figure 2). That means European rates started out higher in 2005 and then rose faster than in the United States—a double whammy. By 2020,

households in these countries were shelling out 85 percent to 215 percent more for a MWh of electricity than households in the United States.

It is interesting to note that over the same 2005 to 2020 period, real U.S. Gross National Product grew by an annual average of 1.4 percent, substantially higher than the 1.1 percent for Germany, 0.5 percent for France, -0.7 percent for Italy, 0.2 percent for Spain, and 0.6 percent for the United Kingdom.[9] There are many reasons for these disparities in economic growth, but differences in the price of electricity, and energy more broadly, are undoubtedly contributing factors.

The benefits of low-cost electricity are especially helpful for low- and fixed-income households, which tend to spend a greater share of their disposable income on energy. High costs can have consequences. The British Department of Business Energy and Industrial Strategy reported in 2019 (using 2012 through 2016 data) a trend that "shows a negative relationship between energy under consumption and income and suggests that those households with less financial capability are much more likely to restrict consumption to less than suggested adequate levels."[10]

In short, poor families cannot afford to heat their homes sufficiently compared to families with higher earnings. Rising prices certainly do not help households that are already struggling to heat their homes.

High Energy Costs Hurt Europe's Industrial Competitiveness

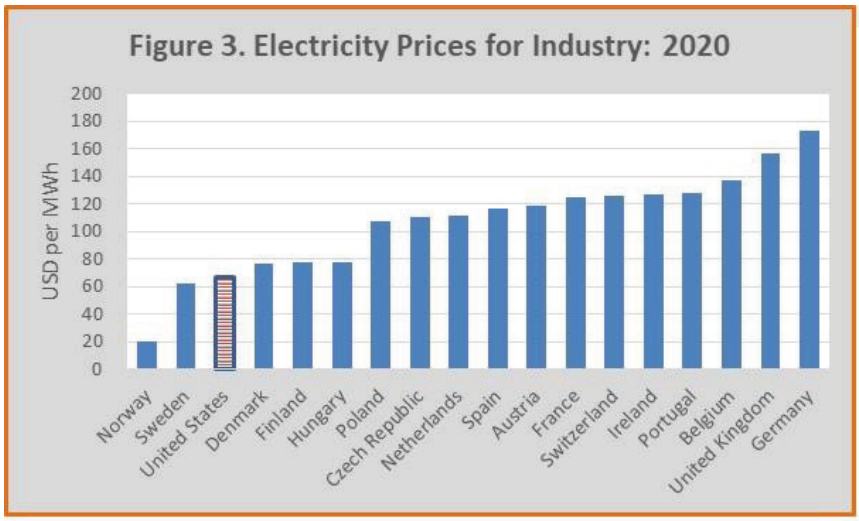
It is not just U.S. households that pay less. U.S. industry pays much lower prices for energy and other fuels than in Europe. Price data in U.S. dollars from IEA[11] allow for cross-country comparisons. Figures 3 and 4 show how U.S. electricity and natural gas prices for U.S. industry compared to countries in Europe in 2020. Only two European countries had lower electricity prices than the United States in 2020—Norway and Sweden—and both generate a large portion of their electricity from inexpensive hydropower. In 2020, European industries paid anywhere from 15 percent to 160 percent more per MWh compared to industrial customers in the United States.

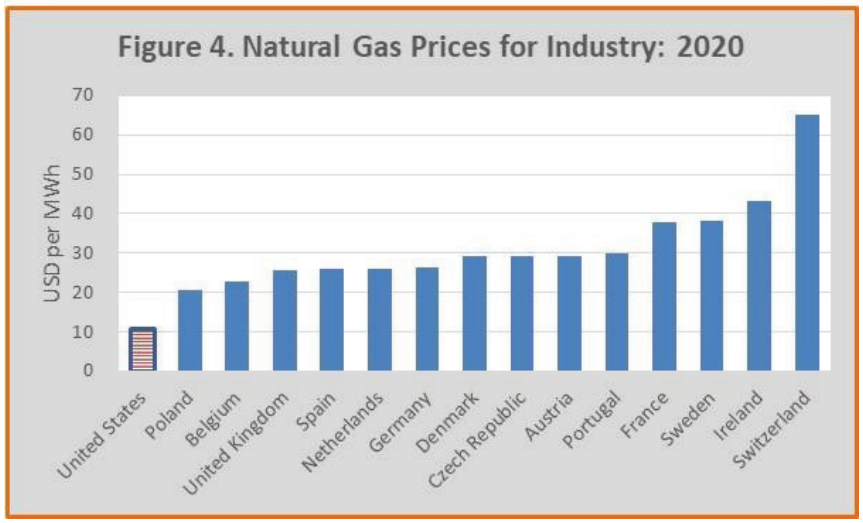
The U.S. had lower natural gas prices than any European country. On average U.S. industries paid 90 percent to 500 percent less for the same amount of natural gas purchased in Europe countries. The United States also had lower industrial heavy fuel oil and coal prices than any country in Europe except for Lithuania, whose industry enjoys lower heavy fuel oil prices.

In an extremely competitive global market for industrial goods, these kinds of disparities, especially for energy-intensive industries, can spell the difference between success and failure in international markets.

In 2019, Jim Ratcliffe, Chairman of the chemical company INEOS, undoubtedly spoke for many European business leaders in an open letter[12] to then-EC President Jean-Claude Juncker explaining the situation many companies in Europe face:

"Europe is no longer competitive. It has the world's most expensive energy and labour laws that are uninviting for employers. Worst of all, it has green taxes that, at best, can be described as foolish as they are having the opposite effect to how they were intended. Europe going it alone with green taxes prevents renewal as it frightens away investment into the open arms of the USA and China . . . The USA is fully in the process of renewal. Immense building programmes are installing the world's finest chemical technology which has a fraction of the emissions we saw a generation ago. Old units are being shut down. The USA doesn't have green taxes but it does insist on the very highest environmental standards before it issues permits for new builds."





As European business recognizes, inexpensive energy is a huge competitive plus for the United States. Yet unlike the Trump Administration, the Biden Administration seems determined to surrender this national advantage by working to eliminate the low-priced fuels that supply 80% of our energy and saddling the energy producers and consumers alike with ever more regulations and taxes.

EU Says "No" To Natural Gas Production

We can thank the shale revolution for creating this edge. It has helped to make the United States the world's largest producer of natural gas—the source of about 35 to 40 percent of our

electricity generation—and crude oil. That is not only an economic advantage, it is a geopolitical advantage, too, immunizing our diplomacy from overdue concerns about global energy markets.

Compare that to the situation in Europe. Its reserves of natural gas are not particularly large, most of its conventional reserves are in the North Sea. Some countries, though, do possess commercial reserves of shale gas. European governments, however, have been more successful than Democrats—at least up to now—in making access to those reserves extremely difficult if not outright impossible.

The United Kingdom, for example, was once a natural gas exporter, but with declines in North Sea output and greater demand, it has become a net importer of the fuel. It has a big onshore shale resource that could support a large-scale gas production industry, but government policy prevents it. Misleading claims about hydraulic fracturing by environmental groups and mischief by a Russia[13] worried about losing market share for its gas in Europe turned the tide against exploiting these reserves, at least for now. Similar restrictions, many influenced by Russia, are in place elsewhere across the continent.

Europe is content to get most of its natural gas from overseas. Russia provides the continent with about 40 to 45 percent of its gas imports. Vladimir Putin's grip on the continent's natural gas suppliers is about to get even firmer with completion of the Nord Stream 2 pipeline, in which the president acquiesced after once calling it a "fundamentally bad deal for Europe." This controversial pipeline would move Russian natural gas under the Baltic Sea to Germany for distribution throughout Western Europe. The very understandable fear is that its completion will give strongman Vladimir Putin a firmer stranglehold on European gas supplies.

Gasoline and Diesel Fuel

American consumers also have enjoyed gasoline prices that are much lower than in Europe. Data from IEA[14] show that in the first quarter of 2021, the average price for a gallon of regular unleaded gasoline in Europe ranged from $4.88 to $7.65 per gallon (Figure 5), 60 percent to 160 percent more expensive than the United States average of about $2.95. Policy plays a key role in these disparities. Taxes can make up as much as three quarters of the price of a gallon of gasoline in Europe.

After just 10 months of the Biden Administration, U.S. prices have risen rapidly. On October 22, AAA was reporting an average of $3.40 nationwide compared to $2.17 a year ago. There are large regional variations, and in some reasons of the country, like California, prices as high as $4.50.

The price of diesel fuel—a big consideration in trucking and railroad operations—averaged in the first quarter anywhere from 35 percent to 90 percent higher in Europe than in the United States.

Given the broad overlap in policy proscriptions we have seen from Europe and the Democrats, we could expect their reconciliation package *cum* Green New Deal will inexorably lead to steadily higher and higher energy costs for consumers and businesses. That would not only impede growth, it would make us more vulnerable to energy crises of the likes we have not seen since the 1970s and early 1980s.

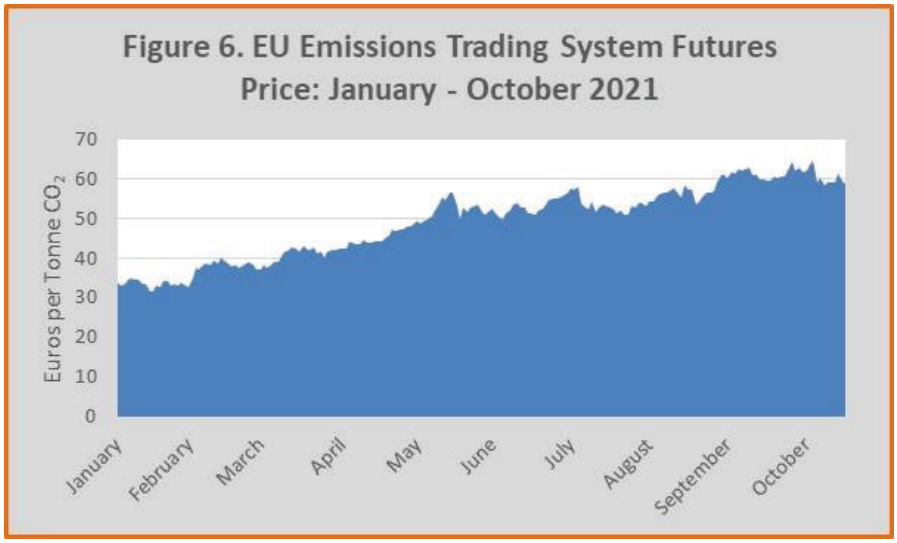
Europe's Policy-driven Energy Crisis

The EC's assurances that climate policy was energy security policy have not been borne out. In fact, Europe is in the throes of a policy-induced energy crisis triggered by a combination of overreliance on green energy and hostility to traditional and reliable forms of energy. It took confluence of events happening almost simultaneously to expose the vulnerabilities these policies created. These include:

- **Low Wind Speeds:** These developments in natural gas markets were accompanied by a sudden and persistent decline in electricity generation from weather-dependent offshore wind farms off the coast of the United Kingdom due to calm weather. As natural gas plants provide the back-up for wind, the effects of the rapid decline in wind power rippled through European natural gas, sending the price of that fuel, and the electricity generated from it, soaring. "The electricity price shock was most acute in the U.K.," the *Wall Street Journal* reports, "which has leaned on wind farms to eradicate net carbon emissions by 2050."[15] The price for electricity there leaped to an astonishing £285 ($395) a MWh as a result.[16]

- **Record Carbon Prices:** Large increases in the price of carbon permits in the European Emissions Trading System this year have seen the price of a ton of carbon dioxide more than double, going from €31 (≈$36) in January to more than €64 (≈$74) in September (Figure 6). The EC estimates these costs have added about a fifth of the jump energy prices.

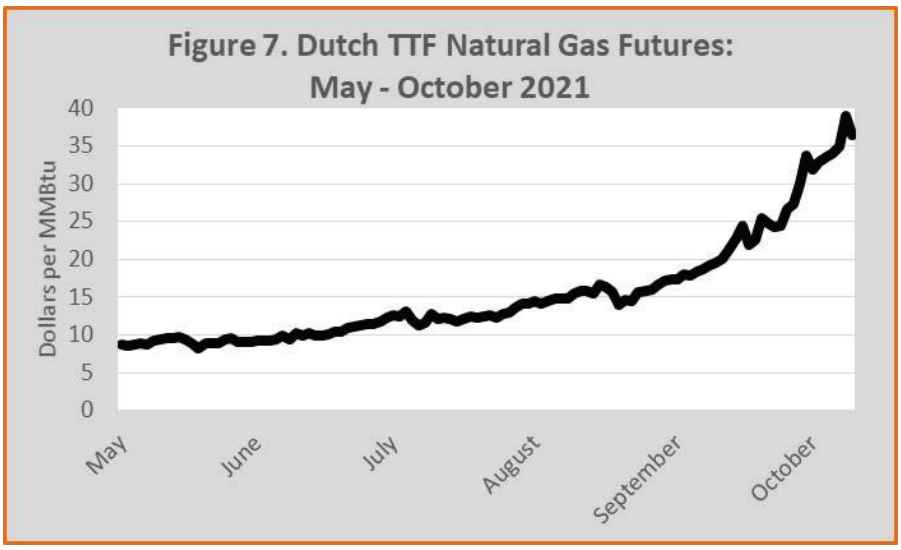
- **Low Gas Inventories:** An increase in natural gas consumption driven by economies recovering from the COVID-19 pandemic came at a time when stocks of the fuel were unusually low. EIA cites data from Gas Infrastructure Europe's Aggregated Gas Storage Inventory showing natural gas stocks in Europe ended September at 16 percent below the five-year average and 8 percent below the five-year minimum. "Colder-than-normal weather late in the 2020–21 heating season and a cold spell in April led to rapid drawdowns of natural gas inventories early in 2021, contributing to the low inventory levels that are putting upward pressure on prices."[17] Another contributing factor is that Europe has for many years been shutting in its natural gas fields largely in response to policies that call into question the fuel's long-term future. This has led to underinvestment in natural gas production and infrastructure, including LNG terminals.



- **Russian Mischief-Making:** Russia's state-controlled natural gas export monopoly Gazprom capped additional flows of natural gas to the European market. The crisis has enhanced Russia's leverage. As the New York Times reports, "In Europe, the surge in the price of natural gas has halted factories, startled politicians and alarmed consumers fearful of a cold winter. For President Vladimir V. Putin of Russia . . . it all added up to something of an early birthday present." All of this is before the Nord Stream 2 pipeline is even operational, which will only increase Putin's sway over the Continent's gas markets.

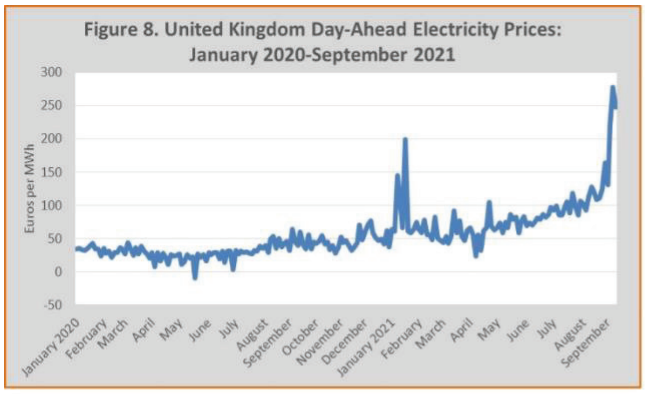
Record Energy Price Spikes

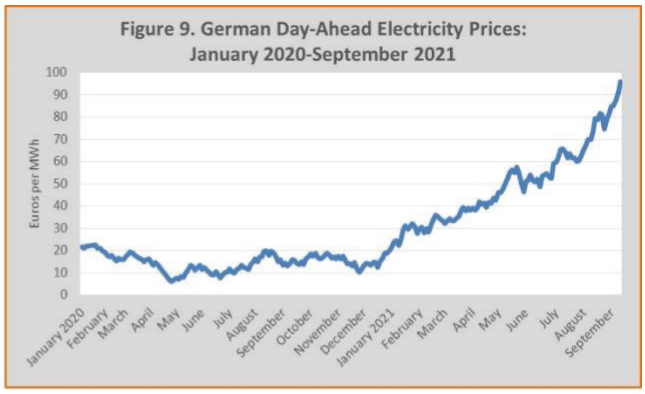
Because of these factors, the price of natural gas and electricity are exploding to record highs across the Continent, driving up inflation. The graphs nearby reveal impact these factors have had on record-setting natural gas futures (Figure 7)[18] and day-ahead electricity prices in the United Kingdom, Germany, the Netherlands, and Spain through early September 2021 (Figures 8, 9, 10, and 11).[19] There are no signs these trends are letting up.

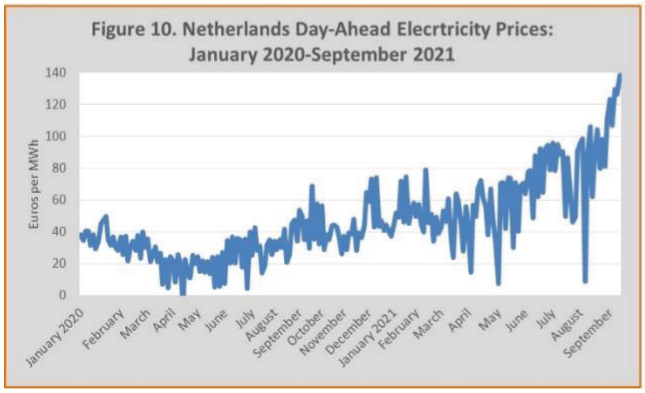


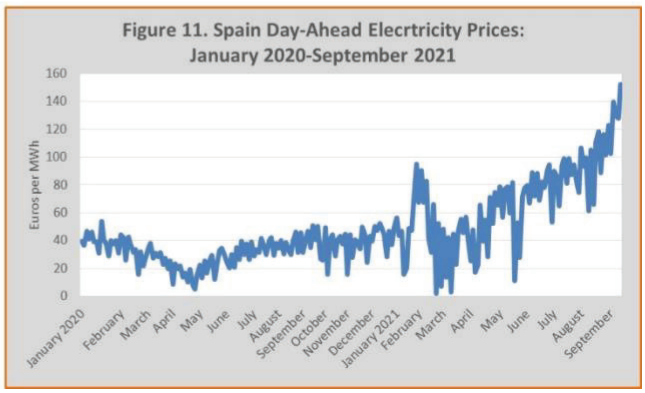
Governments in Europe are already warning blackouts, and with winter approaching, it is liable to get worse. The *New York Times* reports that higher costs "have begun showing up in utility bills, weighing on consumers whose personal finances already have been strained by the pandemic. The price jumps are unusual because demand is typically relatively low in the warmer summer months, raising alarms about the prospects for further increases when demand jumps in the winter."[20]

Europe's industries are facing skyrocketing energy prices that are hurting their bottom lines and forcing them to curtail, if not shut down completely, operations. Some electricity suppliers in the United Kingdom have gone belly-up, and some suppliers in Germany are under similar strains.









Chemicals, fertilizer, mining, food, and other sectors are reporting higher energy costs are putting inflationary pressures on their operations and affecting profit margins. The European Steel Association has warned that its members are becoming globally uncompetitive. Fertilizer plants, which depend on natural gas as a feedstock, are cutting back or halting production. This has had the ironic effect of creating shortages of carbon dioxide used in foods and beverages, with the United Kingdom's Food and Drink Federation warning Britons that they may see some items missing from store shelves.[21]

Fossil Fuels Come Through

Perhaps an even more ironic aspect of all this is that to get through the current crisis and the winter months, Europe is turning back to coal. Frans Timmerman, now Vice President of the EU, assured Europeans back in 2020 that "The economic realities are sinking in—there is simply no future in coal."[22] Democrats have made similar assurances.

The reality is quite different, as Britain, Germany,[23] and other countries begin turning back to coal. Bloomberg reports, "European electricity producers are snapping up coal cargoes" as natural gas prices force utilities to turn to coal to keep the lights and heat on. Coal prices are now trading at the highest price since 2008. Rising demand is depleting stockpiles at ports. Like with natural gas, "Investment in new mining projects has almost come to a halt in recent years, with banks cutting lending to coal companies as the world seeks to avert the worst effects of climate change."[24] With natural gas prices so high, some European power producers have approached Russia to supply more coal (though they may not get it).[25] We have been told that getting off coal is a good thing—until you need it.

Europe's are not the only economies in need of coal. China is working to import more coal from Russia, Indonesia, and Mongolia to alleviate supply shortages that are crippling industrial production in some regions of the country.[26] China has been "forced to ration electricity to energy-hungry aluminum smelters because of a coal power shortfall. This has sent aluminum prices soaring."[27] India, too, is scrambling for coal amid shortages and increased demand.

There was an inevitability to all of this. As energy writer Irina Slav pointed, "Indeed, the price aspect of the energy transition has been kept out of the public eye by government officials and environmentalist organizations who have all been hard at work hammering home the notion of falling costs for wind turbines and solar panels. As the current energy crunch shows, it's not all about the falling costs of turbines or panels: even if those costs fall to zero, without sun or wind they cannot generate any electricity."[28] Let us hope we do not have to relearn the same lesson here.

Europe's Carbon Border Tax: A Green Trade War In The Making

When the EC announced its intentions to undertake a Green Deal for Europe, it did so with full knowledge, despite the lofty rhetoric, that its policies would lead to higher prices for businesses. The risk in adopting a steep emissions target is that it inevitably would push carbon-intensive production from industries like cement, steel, aluminum and fertilizers to other countries where energy costs are cheaper. That is why when the EC announced its Green Deal, it warned of the need for a carbon border adjustment mechanism—a tax—to address "carbon leakage" by leveling the playing field for energy-intensive industries in Europe.

The EU has long considered but shied away from such a move, for fear of exacerbating trade frictions, as a border adjustment would unquestionably do. Even more dauntingly, the EU will need to ensure that the new regime does not run afoul of World Trade Organization rules. An equally important, though often overlooked, question is whether such border taxes are consistent with the letter and spirit of the UN Framework Convention on Climate Change (UNFCCC) and the Paris Agreement. Goods from large, rapidly growing, and therefore rapidly emitting, developing countries would be the main targets of any border adjustment regime. Under the principle of "common but differentiated responsibilities and respective capabilities," which is enshrined in both agreements, developing countries are not obligated, or even expected, to do as much as developed countries.

Already, Brazil, China, India, and South Africa have "expressed grave concern" that the EU's proposed carbon border tax would be "discriminatory,"[29] particularly against developing countries that bear less historical responsibility for climate change. There is the very real fear that the imposition of a carbon tariff by Europe inevitably would invite retaliation and incite a global green trade war.

House and Senate Democrats are also planning a carbon border adjustment as part of their overall climate change policy approach. Senator Chris Coons and Representative Scott Peters have proposed a border tax they would like to see get included in the budget reconciliation package.[30]

Suggesting a carbon border tax is tantamount to admitting that deep emissions reductions cost a lot—too, much in fact. If Democrats climate policy maintains affordable and reliable energy, then what is the purpose of collecting a carbon tax at the border?

Border taxes are, in fact, designed to ensure that domestic prices for industrial goods stay high, thus maintaining industrial competitiveness.[31] While a carbon border fee may protect domestic industries from overseas competitors that do not operate under such severe regulatory restrictions, it does not and cannot do anything to prevent the demand destruction that significantly higher prices cause. Add on top of that what it would do to relations with our trading partners, and it is a recipe for a huge geopolitical setback.

It is inexplicable that this European experience has not soured progressive Democrats on enacting the same kinds of policies here.

They are also employing the same kind of rhetoric as their EC counterparts. In an August 25 "Dear Colleague" letter, Majority Leader Schumer said the Democrats budget "will represent the most significant investment in tackling the climate crisis in U.S. history." He went on, "This package will invest in American industries, infrastructure, and agriculture to create millions of jobs with good wages while restoring American manufacturing competitiveness. These investments will make clean energy, clean transportation, and energy efficient homes more affordable for all Americans."

The goals the Democrats have set are completely unrealistic. They would damage America's energy economy, make our energy supply more vulnerable, and deliver on then-candidate Biden's promise to "get rid of fossil fuels,"[32] the source of nearly 80 percent of the nation's energy.

The president wasted little time in moving to fulfill that promise. On his very first day in office, he signed an executive order to kill the Keystone XL pipeline and the jobs it created. With the stroke of a pen, the President caused 1,000 U.S. workers to be let go immediately and ended future prospects for 10,000 more.

The next week he signed another executive order[33] stopping all oil and gas leasing on federal lands and waters. According to data from the Department of the Interior[34] (DOI) and the EIA,[35] crude oil production on federal lands and waters in 2019 made up about one-fifth of total production in the United States. Since 2010, the amounts being produced have increased 37 percent to nearly 2.7 million barrels per day. A permanent ban on oil and gas leasing on federal lands and waters could destroy up to one million jobs across America and raise costs for consumers.[36]

Administration officials claim this is a temporary "pause" on federal leases, but that was too much for a federal court, which sided with states claiming "substantial threat of irreparable injury" and issued an injunction[37] blocking the policy (though as of this writing DOI has not lifted the new leasing ban). The Department of the Interior is finishing its review of the leasing program, and indications [38]are that the agency is planning to make life even more difficult and expensive for producers.

These by-now a familiar episodes[39] were just the beginning. The budget reconciliation proposals Democrats are entertaining would take these policy blunders to the next level.

Among these is a tax on methane modeled on the *Methane Emissions Reduction Act of 2021*. This punitive fee on natural gas—set at $1,800 per ton in 2023 with 5 percent increases above

inflation each year—would be paid by every upstream, midstream, and storage facility in the country. Under this proposal, the fees companies pay would be determined not by actual emissions, which are already regulated, and will be further regulated, by the Environmental Protection Agency (EPA). Instead, the fees would be levied by a complex formula involving the average emissions intensity of producers in the oil and gas basin in which they operate.

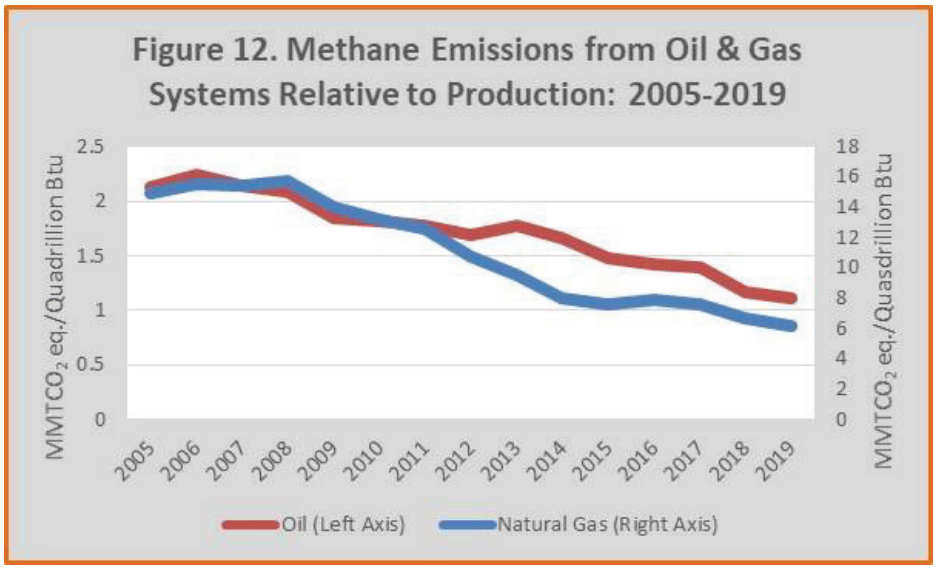
Both of these proposals would raise costs to consumers and yield questionable environmental benefits. The oil and gas industry has already made tremendous progress in managing methane. Figure 12 shows that since 2005, the emissions intensity—that is, emissions per unit of production—have declined 48 percent for oil and 58 percent for natural gas. Over the same period, oil production has soared 90 percent and natural gas production 133 percent.

The original House draft of Biden's Budget Blowout also pulls the plug on the percentage depletion deduction for oil and gas companies that has been a part of the U.S. tax code for nearly a century. While this provision has been removed from the House draft, progressives have vowed to force this provision back into the bill in the Senate.

Far from a subsidy, the treatment of deduction for oil and gas drillers is similar to that for companies in many other industries. Moreover, all companies that extract mineral natural resources are allowed a percentage depletion income tax deduction that recognizes the fact that the value of a resource declines as it is produced.

The shale revolution was, and largely still is, driven by small- and medium-sized companies. As a piece in the *Washington Examiner* explained, "about 90 percent of wells in the United States are drilled by independent energy producers, most of which are small and mid-sized companies. These independent companies produce about 83 percent of U.S. oil and 90 percent of U.S. natural gas."[40] Should these deductions be killed, independent energy producers would lose about 25 percent of their available capital.

The assault on traditional energy does not stop there. Democrats want to use reconciliation to repeal the Alaska National Wildlife Refuge (ANWR) that was included in the Tax Cuts and Jobs Act of 2017. Any oil and gas leases issued under the ANWR Oil and Gas



Program would be cancelled and all payments related to the leases would be returned to the lessees.

If House Democrats have their way, interest in leasing on federal lands would effectively end. For example, House Democrats are proposing to raise both the onshore and offshore minimum royalty rates from the present 12.5 percent for fossil fuels to 20 percent. The minimum bid for federal oil and gas leases would jump from $2 per acre to $10 per acre. Then there are the inspection fees, severance fees, idled well fees, and pipeline owners' fees. Decreasing the primary term of federal onshore oil and gas leases from 10 years to 5 years, as Democrats want, would make it extremely difficult for an operator to reach production in time given the time consuming environmental review process. Most of these new fees and cost increases also apply to federal coal production.

Making it more difficult to produce on federal lands will do nothing to address a changing climate, as restricting oil and gas leasing on federal lands and waters simply will shift production to other countries with lower environmental standards, something even DOI Secretary Deb Haaland had to admit during her confirmation hearing.

Completing this attack on domestic fossil energy production is the centerpiece of the energy portion of the bill: the Clean Electricity Payment Plan (CEPP), which is designed to act as a clean energy standard shoehorned in the procedural parameters of their budget reconciliation blowout. CEPP is the main policy lever in President Biden's goal to achieve an 80 percent reduction in emissions from the power sector (from a 2005 baseline) and eventually a 100 percent reduction by 2035."[41]

The CEPP would require companies to adopt politically-favored electric generation technologies (primarily wind and solar) and the retirement of out-of-favor technologies and receive payments—or pay a fine. Biden's Budget Blowout would appropriate a whopping $250 million for fiscal year 2022 to the Department of Energy to stand up and administer the program. Further, it would authorize "such sums as are necessary" for each of fiscal years 2023 through 2031 to issue payments to electricity suppliers that meet the program's clean electricity requirements. It also would collect penalties for companies that do not meet the targets. Estimates of the amount federal funding for payouts needed to meet the 80 percent target range from $150 billion to $200 billion.[42]

A review of publically available data from EIA shows that no electric generating unit in the United States fueled by natural gas, coal, petroleum, or municipal solid waste would be capable of generating "qualified clean electricity"[43] as defined in the proposal. And that is the purpose: to shut down the sources that generate approximately 60 percent of utility-scale electricity United States.

Such a dramatic shift to weather-dependent intermittent renewable resources for power as Democrats are proposing would undercut reliability and make the entire country more

susceptible to blackouts and brownouts. Spiking prices for power would increase the cost of heating or cooling homes, hurting low- and fixed-income families the most.

The American Public Power Association said that CEPP does not provide "sufficient time for public power utilities to transition to cleaner resources while keeping their rates affordable and ensuring reliability for their customers."[44]

In testimony before the Senate Committee on Energy and Natural Resources, a Federal Energy Regulatory Commission (FERC) commissioner James Danly echoed this sentiment: "The text of the bill, as I read it, seems to create an incentive and penalty structure that would absolutely change and frustrate every subtle expectation we have for these slowly-developed, incrementally-produced markets of ours. Effectively dropping an H-bomb into the middle of them." At the same hearing, another FERC Commissioner, Mark Christie, noted that in West Virginia, which gets about 90 percent of its electricity from coal-fired power plants, "Paying to replace 90 percent of their generation mix is going to be extremely costly."[45]

West Virginia will not be alone in paying more for electricity. An analysis by the Center of the American Experiment found that in Arizona, compliance with CEPP would "result in a 45 percent increase in electricity prices by 2031, compared to 2019 rates" costing Arizonans an additional $119 billion.[46]

There also is a proposal to give up to $12,500 to married couples who make as much as $800,000 per year to buy luxury electric vehicles. These taxpayer-provided subsidies could be used to purchase new electric cars that cost up to $55,000 and electric trucks that cost up to $74,000. These subsidies also would be available to individuals who make up to $400,000, as well as head of households who earn up to $600,000. Individuals who earn hundreds of thousands of dollars every year do not need thousands of dollars in taxpayer provided subsidies to purchase luxury electric vehicles.

Finally, some Democrats are now considering a carbon tax that would raise the cost of energy to every American.

Conclusion

Democrat leadership plans to pass, on a partisan basis and without Republican support or input, an obscenely expensive tax and spending spree drafted by Senator Sanders that would spend trillions of dollars we do not have on a socialist wish list voters do not want, including the complete remaking of our energy systems. In the nine months since Joe Biden has been president, we have gone from global energy dominance to the spectacle of the president's National Security Advisor imploring OPEC+ to boost oil output and maintain "competitive" markets.[47]

The same folks are now telling us that tearing down and rebuilding the power grid in little more than a decade and weening the country of traditional fuels will not cost consumers a dime and will improve reliability and competitiveness.

Europe provides a window to the menacing impacts the Democrats' policies would have in the United States. What we could expect here is the same thing they are experiencing in Europe: sky-high rates for energy and electricity, shortages of natural gas and other fuels, more blackouts, and less geopolitical clout.

The impulsive and imprudent actions of President Biden have helped create uncertainty in U.S. energy markets and the events in Europe are giving us a preview of coming attractions should Democrats succeed in passing their Green New Deal-laden budget just before the winter heating season begins. Table 1 shows the projected increase in household bills of different heating fuels calculated by EIA.[48] Families can be expected to pay, depending on the fuel being used and the weather, 4 percent to 94 percent more to heat their homes. It is a foretaste of what may come.

Table 1. Percent Change in Fuel Bills from Last Winter (Forecast)

Fuel	Base Case Forecast	If 10% Warmer than Forecast	If 10% Colder than Forecast
Heating Oil	43%	30%	59%
Natural Gas	30%	22%	50%
Propane	54%	29%	94%
Electricity	6%	4%	15%

Affordable energy gives America's industries a distinct edge over foreign competitors. We should think long and hard before surrendering this advantage. China and Russia most certainly will not. Why should we?

The progressive Democrats' green scheme will make us more dependent on foreign supply chains dominated by adversaries and tainted by human rights abuses. China, for example, controls production of about 60 percent of the rare earths used in renewable and battery technologies.

The Biden Administration's renewable energy and electric vehicle ambitions all rely heavily on specific raw mineral components, like copper, rare earth elements, graphite, and lithium. We have reserves of many of these minerals in the United States, including on federal land in the West. Democrats would like to make it more difficult to access and produce these minerals by imposing fee increases and punitive new royalties on current and prospective mineral production on federal lands. These proposed costs are so high that domestic mining operations will have no choice but to wind down operations and turn their focus to production in foreign countries, many of them not friendly to America.

All of these impacts are predictable, and they deserve a serious debate. Yet Democrats want to ram through their green dream without any analysis or hearings to air these and other concerns. They expect the American people will just have to take their word for it.

We have to stop fooling ourselves that eliminating emissions is going to be easy and cheap. That does not mean we should just do nothing. It means we have to be realistic about what is practical and affordable.

At its most fundamental level, reducing greenhouse gas emissions is a technology challenge that "cannot be simply regulated away."[49] It cannot be taxed away, either. Instead of inhibiting production, and raising the costs, of traditional energy sources, the preferred policy of progressives, we are better served by working to lower the cost and improve the performance of alternate technologies like carbon capture, storage and use, hydrogen, fuel cells, advanced nuclear power, and perhaps one day even fusion. Until that happens, traditional fuels will continue to capture the lion's share of global energy demand.

An approach based on innovation plays to America's strengths. Technology development is inherently unpredictable. But once alternate technologies are able to compete on price, reliability, and scalability, the range of politically and economically acceptable policy options to address climate change will broaden accordingly.

Instead, progressive Democrats—the same people who gave us the Afghanistan humiliation, border chaos, raging inflation, "defund the police," skyrocketing crime, and other fiascos big and small—want to convince America that their energy and climate policies will be a big success, creating jobs and providing affordable and reliable energy.

Trying to ram through an unpopular and flawed plan will only create more chaos in our energy markets. Let us focus on actual solutions instead.

Endnotes

[1] Except for Sweden and Norway, the only two European countries with lower electricity rates than the U.S. average.
[2] EIA. 2021. *Short Term Energy Outlook*, October 2021. Winter Fuels Report. Available at: https://www.eia.gov/outlooks/steo/report/winterfuels.php.
[3] European Commission. 2014. Press Release: "2030 climate and energy goals for a competitive, secure and low-carbon EU economy." Brussels. Available at: https://ec.europa.eu/commission/presscorner/detail/en/IP_14_54.
[4] European Commission. Energy Union. Available at: https://ec.europa.eu/energy/topics/energy-strategy/energy-union_en.
[5] European Commission. 2019. *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THEREGIONS: The European Green Deal.* Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF.
[6] *Jonas Ekblom and Gabriela Baczynska. 20*19. "EU trumpets Green Deal as its 'man on the moon moment." Reuters. Available at: "https://www.reuters.com/article/us-climate-change-eu/eu-trumpets-green-deal-as-its-man-on-the-moon-moment-idUSKBN1YF1NA.
[7] Measured a total price in 2020 dollars per MWh using Purchasing Power Parity and including all taxes and fees.
[8] International Energy Agency. 2021. Energy Prices Available at: https://www.iea.org/reports/energy-prices-overview.
[9] World Bank. 2021. World Development Indicators. "GDP, PPP (constant 2017 international $)." Available at: https://data.worldbank.org/indicator?tab=all.
[10] Department of Business Energy and Industrial Strategy. 2019. "Comparison of theoretical energy consumption with actual usage." *Energy Trends*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795520/Comparison_of_theoretical_energy_consumption_with_actual_usage.pdf.
[11] IEA. 2021. Key World Energy Statistics 2021. "Energy prices in selected OECD countries in USD/unit." Available at: https://www.iea.org/reports/key-world-energy-statistics-2021.
[12] Open letter to President Jean-Claude Juncker from Sir Jim Ratcliffe, Chairman, INEOS. 2019. Available at: https://www.ineos.com/news/ineos-group/letter-to-the-european-commission-president-jean-claude-juncker/.
[13] North Atlantic Treaty Organization chief Anders Rasmussen said the Russians "engaged actively with so-called non-governmental organisations—environmental organisations working against shale gas—to maintain Europe's dependence on imported Russian gas." See: Matt Ridley. 2019. "How Britain's shale revolution was killed by green lies and Russian propaganda." *The Critic*. Available at: https://thecritic.co.uk/issues/december-2019/the-plot-against-fracking/?mc_cid=12e29b9ac0&mc_eid=08b3885339.
[14] IEA. 2021. Key World Energy Statistics 2021. *Op Cit.*
[15] Joe Wallace. 2021. "Energy Prices in Europe Hit Records After Wind Stops Blowing: Heavy reliance on wind power, coupled with a shortage of natural gas, has led to a spike in energy prices." *Wall Street Journal*. Available at: https://www.wsj.com/articles/energy-prices-in-europe-hit-records-after-wind-stops-blowing-11631528258?mc_cid=4ca9f7e579&mc_eid=08b3885339.
[16] Brussels Bureau. 2021."Europe's energy crisis: EU divided over response to soaring, 'unbearable' prices." *Euronews*. Available at: https://www.euronews.com/2021/10/04/europe-divided-over-response-to-soaring-unbearable-energy-prices.
[17] EIA. 2021. *Short Term Energy Outlook*, Forecast Completed October 7, 2021. Available at: https://www.eia.gov/outlooks/steo/report/prices.php.
[18] Data are from Intercontinental Exchange, Inc.
[19] Original charts available at: Tyler Durden. 2021. "Furious Europeans Protest Electricity Hyperinflation: Lagarde Are You Watching?" *ZeroHedge*. https://www.zerohedge.com/markets/furious-europeans-protest-electricity-hyperinflation-christine-lagarde-are-you-watching.
[20] Stanley Reed and Raphael Minder. 2021. "High Natural Gas Prices Strain Europeans, Weighing on Recovery: Crimped supplies and increased demand have pushed energy prices to their highest in years, raising concerns about the winter." New York Times. Available at: https://www.nytimes.com/2021/09/08/business/europe-natural-gas-prices.html.

[21] Allysia Finley. 2021. "Climate policies meet cold reality in Europe." *Wall Street Journal*. Available at: https://www.wsj.com/articles/climate-policy-reality-europe-energy-costs-gas-coal-11632754849?mc_cid=f162041b18&mc_eid=08b3885339.

[22] Tad Simons. 2020. "Frans Timmermans discusses the European Green Deal." Thomson Reuters. Available at: https://www.thomsonreuters.com/en-us/posts/news-and-media/reuters-newsmaker-frans-timmermans-european-green-deal/.

[23] It has been reported that in the first half of 2021, coal was the biggest contributor to Germany's electric grid while wind power dropped to its lowest level since 2018. See: "Germany: Coal tops wind as primary electricity source." *Deutsche Welle*. Available at: https://www.dw.com/en/germany-coal-tops-wind-as-primary-electricity-source/a-59168105?mc_cid=4ca9f7e579&mc_eid=08b3885339.

[24] By Isis Almeida, Javier Blas, and Anna Shiryaevskaya. 2021. "Starved of Gas, European Electricity Producers Snap Up Coal." *Bloomberg*. Available at: https://www.bloomberg.com/news/articles/2021-09-24/starved-of-gas-european-electricity-producers-snap-up-coal?mc_cid=2e698960d3&mc_eid=08b3885339.

[25] Anna Shiryaevskaya and Yuliya Fedorinova. 2021. "Europe Asking Russia for More Coal Is Set for Disappointment." *Bloomberg*. Available at: https://www.bloomberg.com/news/articles/2021-09-30/europe-asking-russia-for-more-coal-is-set-for-disappointment?mc_cid=d6a316c597&mc_eid=08b3885339.

[26] Sophia Yan. 2021. "Streets go dark and lifts grind to a halt as China cuts power to meet climate targets." *The Telegraph*. Available at: https://www.telegraph.co.uk/world-news/2021/09/28/western-consumers-face-shortage-smartphones-china-shuts-factories/?mc_cid=f162041b18&mc_eid=08b3885339.

[27] Allysia Finley. 2021. *Op Cit*.

[28] Irina Slav. 2021. "Are Carbon Taxes To Blame For Europe's Energy Crisis?" *OilPrice.com*. Available at: https://oilprice.com/Energy/Energy-General/Are-Carbon-Taxes-To-Blame-For-Europes-Energy-Crisis.html?mc_cid=f162041b18&mc_eid=08b3885339.

[29] Jo Lo. 2021. "Emerging economies share 'grave concern' over EU plans for a carbon border tax: Brazil, South Africa, India and China say EU plans for a carbon levy on imported products like steel and cement will unfairly penalise their economies." Available at: https://www.climatechangenews.com/2021/04/09/emerging-economies-share-grave-concern-eu-plans-carbon-border-tax/.

[30] Lisa Friedman. 2021. "Democrats Propose a Border Tax Based on Countries' Greenhouse Gas Emissions." *New York Times*. Available at: https://www.nytimes.com/2021/07/19/climate/democrats-border-carbon-tax.html.

[31] Typically, these policies are designed so that exported goods are exempt from, say, the carbon tax or cap and trade fees, thus helping to maintain some semblance of international competitiveness.

[32] Biden campaign speech in Somersworth, N.H., February 5, 2020. Available at: https://www.youtube.com/watch?v=yAP4ily9IOs.

[33] Executive Order on Tackling the Climate Crisis at Home and Abroad, January 27, 2021. Available at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/.

[34] [34] Department of the Interior. 2021. Natural Resources Revenue Data. Available at: https://revenuedata.doi.gov/explore/?dataType=Revenue&location=NF%2CNA&mapLevel=State&offshoreRegions=false&period=Calendar%20Year&year=2019.

[35] EIA. 2021. Petroleum and Other Liquids. Available at: https://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbblpd_a.htm.

[36] OnLocation. 2020. *The Consequences of a Leasing and Development Ban on Federal Lands and Waters*. Prepared for the American Petroleum Institute. Available at: https://www.api.org/news-policy-and-issues/exploration-and-production/federal-leasing-and-development-ban-study. See also:
Energy and Industrial Advisory Partners. 2020. *The Economic Impacts of the Gulf of Mexico Oil and Natural Gas Industry*. Prepared for America's Offshore Energy Industry.

[37] Joshua Partlow and Juliet Eilperin. 2021. "Louisiana judge blocks Biden administration's oil and gas leasing pause." *Washington Post*. Available at: https://www.washingtonpost.com/climate-environment/2021/06/15/louisiana-judge-blocks-biden-administrations-oil-gas-leasing-pause/.

[38] Rachel Frazin. 2021. "Haaland calls for 'balance' in federal oil and gas program." *The Hill*. Available at: https://thehill.com/policy/energy-environment/573724-haaland-calls-for-balance-in-federal-oil-and-gas-program.

[39] More on the Keystone XL and oil and gas leasing decisions can be found in the Committee on Energy and natural Resources minority report, *Solyndra Syndrome and the Green Stimulus Delusion*, found here: https://www.energy.senate.gov/services/files/424E7FA4-AD66-454B-8174-978411AB0447.

[40] Ed Longanecker. 2021. "A stealth national energy tax is in the $3.5 trillion reconciliation package." *Washington Examiner*. Available at: https://www.washingtonexaminer.com/opinion/op-eds/a-stealth-national-energy-tax-is-in-the-3-5-trillion-reconciliation-package.

[41] *FACT SHEET: The American Jobs Plan,* The White House, March 31, 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/

[42] *Don't Call it a Standard: What's Unique About the Clean Electricity Payment Program (CEPP),* Lindsay Walter, Third Way, August 12, 2021, https://www.thirdway.org/memo/dont-call-it-a-standard-whats-unique-about-the-clean-electricity-payment-program-cepp See also *A Roadmap to 100 percent Clean Electricity by 2035: August 2021 Update,* Leah Stokes, et al., Evergreen Collaborative, August 2021, https://www.evergreenaction.com/policy-hub/evergreen-ces2-report-August-update_5.pdf

[43] Defined as electricity generated with an emissions intensity of just 0.1 tons per MWh.

[44] Paul Ciampoli. 2021. "Ditto Says House Clean Energy Plan Creates Unachievable Transition Timeframe For Public Power" American Public Power Association. Available at: https://www.publicpower.org/periodical/article/ditto-says-house-clean-energy-plan-creates-unachievable-transition-timeframe-public-power.

[45] Testimonies of Commissioner James P. Danly and Commissioner Mark Christie, Federal Energy Regulatory Commission, Before the Committee on Energy & Natural Resources, United States Senate. September 28, 2021. Available at: https://www.energy.senate.gov/hearings/2021/9/full-committee-hearing-to-review-administration-of-laws-within-ferc-jurisdiction.

[46] Isaac Orr and Mitch Bolling. 2021. *High Cost of CEPP in Arizona*. Center of the American Experiment. Available at: https://files.americanexperiment.org/wp-content/uploads/2021/10/High-Cost-of-CEPP-in-Arizona.pdf.

[47] "Statement by National Security Advisor Jake Sullivan on the Need for Reliable and Stable Global Energy Markets." The White House. Available at: 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-lobal-energy-markets/.

[48] EIA. 2021. *Short Term Energy Outlook*, October 2021. Winter Fuels Report. Available at: https://www.eia.gov/outlooks/steo/report/winterfuels.php.

[49] M.I. Hoffert et al. 2002. "Advanced Technology Paths to Global Climate Stability: Energy for a Greenhouse Planet," *Science*. Available at: https://www.science.org/doi/10.1126/science.1072357.