

**H.R. ____, “TRANSPARENCY AND
PRODUCTION OF AMERICAN ENERGY ACT
OF 2023”; AND H.R. 209, “PERMITTING FOR
MINING NEEDS ACT OF 2023”**

LEGISLATIVE HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND
MINERAL RESOURCES

OF THE

COMMITTEE ON NATURAL RESOURCES

U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTEENTH CONGRESS

FIRST SESSION

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**LEGISLATIVE HEARING ON H.R. ____, TO
RESTART ONSHORE AND OFFSHORE OIL,
GAS, AND COAL LEASING, STREAMLINE
PERMITTING FOR ENERGY INFRASTRUC-
TURE, ENSURE TRANSPARENCY IN ENERGY
DEVELOPMENT ON FEDERAL LANDS, AND
FOR OTHER PURPOSES, “TRANSPARENCY
AND PRODUCTION OF AMERICAN ENERGY
ACT OF 2023”; AND H.R. 209, TO IMPROVE
THE PERMITTING PROCESS FOR MINING
ON FEDERAL LAND, AND FOR OTHER PUR-
POSES, “PERMITTING FOR MINING NEEDS
ACT OF 2023”**

**Tuesday, February 28, 2023
U.S. House of Representatives
Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
Washington, DC**

The Subcommittee met, pursuant to notice, at 10:17 a.m., in Room 1324, Longworth House Office Building, Hon. Pete Stauber [Chairman of the Subcommittee] presiding.

Present: Representatives Stauber, Lamborn, Gosar, Graves, Webster, Fulcher, Curtis, Tiffany, Rosendale, Boebert, Westerman; Ocasio-Cortez, Kamlager-Dove, Magaziner, Dingell, and Grijalva.

Mr. STAUBER. The Subcommittee on Energy and Mineral Resources will come to order.

Without objection, the Chair is authorized to declare recess of the Subcommittee at any time.

Under Committee Rule 4, subdivision F, any oral opening statements at hearings are limited to the Chairman and the Ranking Minority Member.

I now recognize myself for an opening statement.

**STATEMENT OF THE HON. PETE STAUBER, A REPRESENTA-
TIVE IN CONGRESS FROM THE STATE OF MINNESOTA**

Mr. STAUBER. Welcome, everyone, to the Energy and Mineral Resources Subcommittee’s first legislative hearing of this 118th Congress.

First, I would like to acknowledge our new Ranking Member, Representative Ocasio-Cortez. Our Subcommittee is poised to tackle issues of great importance, and I am eager to work with you, your staff, and the rest of this Committee. Although we may disagree at times, our Subcommittee leadership has always

operated in a bipartisan fashion, and I look forward to continuing that tradition.

America needs permitting reform, whether it be for the burgeoning offshore wind industry, building transmission lines to upgrade our energy grid, solar fields on Federal lands, geothermal steam projects, mining proposals, or oil and gas development. All of these projects need permitting reform to ensure timeliness, transparency, and certainty.

To that end, we are here this morning considering two proposals: the TAP American Energy Act, introduced by my friend and colleague, and our full Committee Chair, Bruce Westerman; and the Permitting for Mining Needs Act, which I introduced last month and now has 33 co-sponsors.

To quote a witness at our February 8 Full Committee oversight hearing on permitting, “Without reforms to ensure reasonable timeliness, crucial investments in American infrastructure will be delayed and in some cases diverted. Various provisions outlined in the TAP Act and other thoughtful permitting proposals will help encourage the timely development of clean energy infrastructure across this country.”

This is from the American Clean Power Association, the largest trade association representing wind, solar, and more clean energy technologies: “Every megawatt of wind capacity requires tens of thousands of pounds of copper, according to the International Energy Agency. The Biden-Harris plan for offshore wind alone is 30,000 megawatts by 2030. The IEA estimates that offshore wind requires 17,600 pounds of copper for every megawatt.”

We need hundreds of millions of pounds of copper to only construct the turbines for meeting this Administration’s offshore wind goals. This does not account for the materials needed for electric vehicles, charging stations, distribution, transmission, storage, health care, tech, or more. It is only turbine construction.

The answer for this Administration is to import and recycle, but that is not based in reality. If the COVID-19 pandemic has taught us anything, it is that we must be self-reliant on our own supply chains, and there are simply not enough materials in existence now to recycle our way out of this mess, and recycling centers also require permits.

It takes an absolutely unreasonable amount of time to mine here in the United States. In my district alone, we have a mine project in its second decade of permitting and litigation. We have another that has its lease arbitrarily canceled and a mining ban put in place over some of the best mineral reserves in the world.

At a recent Oversight Subcommittee hearing, my Democrat colleague from New Mexico discussed the need for a multi-pronged effort to address our supply chains. I agree, but right now it is not multi-pronged. Right now, the only plan is to import from abroad and some vague references to recycling.

Minnesota, like Arizona, Alaska, Utah, or other states has the resources, the workforce, and the political willpower to mine. We just have to have an Administration not turn its back on us.

Meanwhile, the Energy Information Administration predicts 50 percent increase in global energy consumption by 2050, with petroleum and liquid fuels remaining the largest energy source.

American resources are the cleanest produced in the world. Chairman Westerman, Federal Lands Chairman Tiffany, and myself toured Federal land operations near Hobbs, New Mexico earlier this month. We saw how clean operations are firsthand, from construction to remediation. They are not hiding. They will provide a tour to anyone who asks. Yet, the Administration continues to kneecap American workers and American production.

On the first days in office, President Biden froze new oil and gas leasing. Although sued and forced to comply with the Mineral Leasing Act, it has been nothing but delay after delay with this Administration.

Remember, it takes more than one permit to approve a project on Federal lands. Operators must comply with various statutes, including NEPA. However, approval times skyrocketed from an average of 400 days under Trump to 650 days under Joe Biden, with total approvals plummeting well below 50 percent.

The TAP Act fixes these issues and then some. It also explicitly improves upgrades to NEPA that make it easier to deploy transmission lines so we can supplement our energy grid, building on coal, gas, and nuclear to include solar, wind, and more. I am proud to support this legislation, and I am eager to move it alongside my Permit MN Act.

America's energy future is in question. We remain beholden, even after learning the lessons of COVID-19, to our foreign adversaries for hardrock minerals and our energy fuels.

I look forward today to the witness testimonies, and I am eager to move America forward with the TAP Act and the Permit MN Act.

Thank you, and I yield to my colleague from New York, Ranking Member Ocasio-Cortez.

STATEMENT OF THE HON. ALEXANDRIA OCASIO-CORTEZ, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Ms. OCASIO-CORTEZ. Thank you so much, Chairman Stauber. And I, too, am looking forward to working with you this Congress. And it is agreed, while our policy difference may be very stark at times, I think conducting this Committee in a professional and courteous manner is what the American people deserve, and I look forward in working with you on that.

I also want to extend a special thank you to all of our witnesses that are here today, and for taking the time and resources necessary to be here.

This Committee has a profound responsibility and role in mitigating the impacts of the climate crisis. We have a timeline that is simply inescapable in decarbonization, and our actions and decisions that we make today will have profound implications for our future. And as overwhelming as it may all feel with the climate crisis, the very select few of us in this very room can do something about it.

This Committee has the unique privilege of overseeing our nation's public lands. As it stands now, nearly a quarter of the United States' current carbon pollution comes from fossil fuel production on public lands. I will say that again: A quarter of U.S.

carbon emissions comes from the public lands that we oversee right here in this room. And failing to do something about it would be a profound lost opportunity on a timeline that we simply cannot get back.

So, with that, I want to dig into today's hearing. I want to first address an argument that I am sure we may hear today, that we need to open our public lands further to drilling and mining in order to achieve "energy independence," despite the fact that fossil fuel companies are already using large portions of U.S. public lands.

And it is in our view that the problem is not a shortage of leases or land; the problem is a fossil fuel industry that is more interested in keeping supply artificially low so that prices stay artificially high. And I believe there is almost no greater illustration of this point than the profiteering and artificial surge in gas prices that we all experienced last year and over the last several years at the height of the pandemic and after the war in Ukraine.

The truth is that these companies are not necessarily primarily motivated by energy independence. They are corporations primarily interested in profit.

But let's dig in to the two pieces of legislation that have been introduced today.

The first, the TAP American Energy Act, is a fossil fuel industry wish list. It would eviscerate the authority and discretion of land and ocean energy management agencies to make smart, informed, and prudent decisions about the best uses of our shared public lands and offshore areas. It would force the DOI to hold lease sales quarterly in every state with oil and gas reserves, despite the fact that the fossil fuel industry already holds leases covering nearly 26 million acres, half of which are not being used at all. And it would also allow oil and gas operators to drill on up to 57 million acres of split estate resources without Federal oversight. This is shocking.

The second, Permit MN, would loosen our mining regulations for the most toxic industry in America. It would allow mining companies to stake a claim to public lands without even having to prove that the earth beneath them contains valuable minerals. It would limit environmental reviews and, egregiously, it would allow mining companies to conduct their own environmental reviews.

This bill also attacks the rights of tribal communities. It allows the mining industry itself to fast-track tribal consultation processes, despite the fact that the vast majority of minerals needed for clean energy are within 35 miles of tribal land, and that nearly 40 percent of western headwaters have already been polluted by hardrock mining.

At stake is the need to decarbonize rapidly while prioritizing justice for the traditionally most impacted communities in America. It is for our ecosystems and for our planet. And because of this urgency, I look forward to today's discussion and hearing from our witnesses.

Thank you, Chairman, and I yield back.

Mr. STAUBER. Thank you very much.

And now I would like to allow the Chairman of the Full Committee, Mr. Westerman, for his opening statement.

STATEMENT OF THE HON. BRUCE WESTERMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARKANSAS

Mr. WESTERMAN. Thank you, Chairman Stauber, and thank you to the witnesses for coming today.

Robert Frost, in his famous poem, he talked about two roads diverging. And I think our country is at a point where we have two roads diverging. And it is very important that we choose the correct path. If we continue down the path that we are on, we are going to go down a path where we lose. Quite frankly, we are going to lose. And the only way that we can lose is if we beat ourselves. And that is what current policies are doing. They are causing us to beat ourselves.

We can do better than this. We can choose a path that allows America to be energy independent, allows us to have more national security, and allows us to protect the environment more than we could ever hope to protect it down the path that we are on right now.

When we talk about—I heard it mentioned that supplies and prices are artificial. They are not artificial, they are real. Our constituents are paying the price of bad policies that result in high energy prices that translates throughout our whole economy. As energy is so important as a foundation of the economy, when we raise those prices it raises prices everywhere.

We can have clean energy. We produce energy cleaner in America than anyplace else in the world. That doesn't mean we should stop innovating, but our innovators can't innovate because of the barriers put in place by bureaucrats and by policies that are antiquated, that need updated.

And I am for all-of-the-above energy, all-of-the-above energy. But as my friends across the aisle are finding out, even though they appropriated huge sums of money in the Infrastructure and Jobs Act, huge sums of money in the Inflation Reduction Act, those projects can't be built for the same reason that fossil fuel projects can't be built. It is because of the paralysis through the permitting system.

And I hope people will look at the facts, because I think it starts in this Committee, if we want to take the right road. And I want to work across the aisle with my colleagues, because I want to do what is best for our country, what is best, really, for the entire planet.

[Chart.]

Mr. WESTERMAN. And this chart behind me that I have used several times, it shows what is happening with global energy consumption. It is not a slight increase. It is an exponential increase. And if you look at, globally, 80 to 90 percent of energy use globally is from fossil fuels, from carbon-emitting sources. Do you think we can change that by cutting off the quarter of the greenhouse gas pollutions that come from Federal lands in the United States? It is only going to make it go up higher, because developing countries, quite frankly, don't give a rip about what is happening to the environment.

We produce energy with less emissions, cleaner, and safer on our facilities than we do anywhere else. We were just out in New

Mexico, and the methane emissions off of the wells in New Mexico are down to a fraction of a percent because we innovated and used the right technology. But it doesn't matter how much we innovate if we can't do the projects once the technology is developed.

And it is not just oil and gas production, it is mining. All this money for "green energy," "carbon-free energy," we don't have enough copper, we don't have enough steel, we don't have the rare earth elements to build what we need to build. We have those, they are just in the ground. We have to get them out, we have to process them.

And in the meantime, we can be creating great jobs here in America, instead of exporting our wealth, quite literally, to China, because they are the ones that are dominating the world in mineral supplies. And every time we refuse to permit a mine here in America, we are depending more on mines that are controlled by Chinese.

And you all heard the story: cobalt is mined with child slave labor in Chinese mines. That is not something we are making up. That is what is happening in the world today, and we are driving that kind of policy, we are driving that kind of process because we refuse to do what we all know needs to be done—is to streamline the permitting, to make it where we can actually build stuff in America, because we can do it better than any place else in the world.

I look forward to hearing the testimony today, and I look forward to marking up and passing bills, and I really hope we can do this in a bipartisan manner for the betterment of America.

I yield back.

Mr. STAUBER. Thank you, Chair Westerman.

Now I would like to yield 5 minutes to the Ranking Member of the Full Committee, Mr. Grijalva.

STATEMENT OF THE HON. RAÚL M. GRIJALVA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Mr. GRIJALVA. Thank you, Mr. Chairman. I appreciate the courtesy, and a special thanks to the Ranking Member for adding her leadership and her perspective to this Subcommittee.

I associate myself with the Ranking Member's opening comments. And while my colleagues across the aisle are finally beginning to admit climate change does exist, and that it is real, the bills they are putting forward up for discussion today show that it is, unfortunately, not being taken seriously.

Climate crisis fundamentally changed our lives. And with that, just with that fact alone, the issue should be a high priority for this Congress and for this Committee. Yet, we have here, I think, two bills that really represent industry wish lists, a wish list that has been promoted and pushed for many, many years.

At a time when we need environmental review, a strong environmental review process more than ever, these bills seek to gut those processes just so dirty energy projects that can start producing profits a lot faster with weak scrutiny and oversight and limited to no accountability. These bills have always been a gift to the polluters, but with the context of climate crisis that we all know

is real, we are living in that right now. These bills now become reckless and, to some extent, dangerous.

So, before we start the whole marketed, branded phrases that we are going to hear, “permitting reform,” “streamlining NEPA,” let’s look more closely at what some of these bills do.

To start with, the Chair’s bill explicitly says, and I quote, “Environmental reviews shall not require consideration of downstream indirect effects of oil and gas consumption.” To make sure that there is no confusion, those downstream effects are indeed climate change. So, when we are considering the environmental impacts of more oil and gas drilling, we have to leave climate change out of that equation. Check a box.

Next, these bills remove requirements to look at a project alternative during environmental review. If there is another proposal that is more sustainable, more equitable for a project, we ignore them, and fast-track the original project itself. Check a box.

These bills can strip cumulative impact language out of environmental reviews. Check a box.

So, if a foreign-owned company wants to set up shop near a tribal community whose water is already contaminated by mining waste, they can do it. Check a box.

The Subcommittee Chair’s bill even lets mining companies conduct their own environmental reviews. Check a box. That is trust but no requirement to verify.

And in a really bizarre turn of events, that same bill also moves our outdated mining claims systems back even further by letting anyone stake a claim wherever mining is allowed, pay less than \$10 an acre, and do whatever mining-related activity they want on those lands, including dumping toxic mining waste. So, what do you do with the waste? Check a box.

And my colleagues and I are not against industry or mining, but we believe it needs to be done right. Given all the needs for transition on the climate crisis, they need to be done right. And these bills don’t do that.

We believe that environmental review is a critical part of that process. That is why we listen to what the experts said would actually improve environmental review, and fought for \$1 billion in the Inflation Reduction Act to do just that.

[Chart.]

Mr. GRIJALVA. And as we deftly move toward a visual along with our comments, that is what that bill is about, and it is about expediting those resources out there, and making sure that, if the issue was the lack of staff, those areas have become a self-fulfilling prophecy. Republicans cut and cut those programs, those reviews, staff programs that are so vital, the personnel and the resources to them, and then they complain that it takes very long. This is an effort to begin to balance those scales and provide the professional staffing so that we can expedite the review process.

And we believe that tribes deserve to be meaningfully consulted before development happens on their ancestral lands. Those are issues that are important. We believe in protecting Americans and their communities from industry exploitation and climate change. We believe that we can get to a cleaner, safer future, and it is not only possible, but it is necessary.

These bills, on the other hand, are a checklist for industry. The boxes are checked, but the reality of what we need to deal with in the long term for this country, that box continues to be left empty.

With that, I yield back, Mr. Chairman, and appreciate the time.

Mr. STAUBER. Thank you very much. Now I will introduce our other witnesses.

The Honorable Dan Naatz is the Chief Operating Officer of the Independent Petroleum Association of America; Mr. Rich Nolan is the President and CEO of the National Mining Association; Mr. Squillace is a Professor of Law from the University of Colorado; and Mr. Paul Thomsen serves as the Vice President of Business Development in the Americas for Ormat Technologies.

The Chair now recognizes Mr. Naatz for 5 minutes.

**STATEMENT OF DAN NAATZ, CHIEF OPERATING OFFICER,
INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA,
WASHINGTON, DC**

Mr. NAATZ. Mr. Chairman, Ranking Member, my name is Dan Naatz, and I am the Chief Operating Officer of the Independent Petroleum Association of America.

IPAA is a national trade association representing thousands of American independent oil and natural gas producers. IPAA members operate in 33 states, as well as offshore, and are the primary producers of the nation's oil and natural gas, and account for 83 percent of America's oil production and 90 percent of its natural gas output. The average IPAA member company employs 20 people.

American oil and natural gas companies vary in size, and the characterization that the industry is only Big Oil is a big myth. IPAA and our members understand the challenges facing the world regarding climate change, environmental protection, and addressing energy security. These are all issues that must be addressed worldwide on a global scale.

The good news is the United States is a clear leader in reducing greenhouse gas emissions, something that is directly attributable to the increased production and use of American natural gas.

We thank Chairman Westerman, Chairman Stauber, and Representative Graves for the thoughtful reforms outlined in the Transparency and Production of American Energy Act. Many of the reforms outlined in the TAP Act will help to revitalize oil and natural gas producers operating on Federal lands and waters to the benefit of the nation.

The multiple-use mandate provided in the Federal Lands Policy and Management Act, FLPMA, requires the Bureau of Land Management to balance the resources and uses of public lands to the benefit of the American people. While this mandate includes a variety of uses beyond oil and natural gas production, it clearly is not intended to prevent the production of American oil and natural gas on Federal lands. IPAA believes that safe and responsible development of the nation's natural resources needs to remain an integral part of the equation.

The revenue generated from the production on Federal lands helps fund critical investments and communities across the United States, and supports jobs, schools, conservation efforts, and

infrastructure projects. The amount of annual revenue that Federal mineral development provides to the U.S. Treasury is second only to that provided by the Internal Revenue Service.

There are several common-sense reforms in the TAP Act that will increase certainty for American producers, and will ultimately lead to a more streamlined process for Federal oil and natural gas development. While IPAA is supportive of the bill in its entirety, there are a few key provisions that I would like to highlight in my testimony this morning.

IPAA supports language in the TAP Act requiring the Secretary of the Interior to resume quarterly onshore oil and natural gas lease sales. Quarterly, these sales are mandated as part of the Mineral Leasing Act that governs proper stewardship and handling of mineral extraction. The Biden administration's efforts to hinder quarterly onshore lease sales will be felt for years to come, as companies typically plan their next stages of development many years in advance.

IPAA also represents many independent producers operating in Federal waters. As such, we support the revisions to the offshore oil and gas leasing program found in section 107 of the TAP Act. Operating offshore is a capital-intensive endeavor. Unlike the major oil companies, independent producers often work together in a consortium, with more than one company involved in a project. Federal offshore production makes up about 15 percent of total U.S. oil production, which is a significant component to America's energy security.

Last year, the Secretary of the Interior failed to act in a timely manner on the 5-year plan offshore leasing program, and let it expire without another plan in place. The proposed program that closed for comment in October 2022 offered between 0 and 10 potential lease sales in the Gulf of Mexico. A leasing program that has the potential to offer no lease sales is not a leasing program. It is a Federal mandate to end offshore oil and natural gas production in the United States.

Oil and natural gas projects on Federal lands also face months of delay due to regulatory obstacles with the National Environmental Policy Act. For example, in 2020, it took an average of 142 days to complete an APD to drill on Federal lands. By comparison, in the state of Texas, in 2019, it took an average of 2 days to process a standard drilling permit. IPAA supports the Committee's efforts to develop workable reforms to NEPA that will bring the law closer to its original intent of analyzing projects that require major Federal action, rather than the current process, which is simply being used to delay and disrupt activities on Federal lands by a determined Minority.

The current program governing oil and natural gas activities on onshore and offshore Federal lands needs a significant overhaul. The TAP Act provides important solutions to many of the problems hampering the safe, continued development of mineral resources on Federal lands and waters.

Oil and natural gas will remain a key component of energy supply in the world for the foreseeable future. No modern economy can function without them. Growth in other energy sectors, such as wind, solar, and nuclear will also need to occur. Clearly, more

energy and from many sources will be needed to maintain a robust American economy.

Thank you, Mr. Chairman, for giving me the opportunity today.
[The prepared statement of Mr. Naatz follows:]

PREPARED STATEMENT OF DANIEL T. NAATZ, CHIEF OPERATING OFFICER AND
EXECUTIVE VICE PRESIDENT, THE INDEPENDENT PETROLEUM
ASSOCIATION OF AMERICA

These comments are submitted by the Independent Petroleum Association of America (IPAA). IPAA appreciates the Committee holding this legislative hearing.

IPAA is a national trade association representing thousands of American independent oil and natural gas producers. Its members operate in 33 states as well as offshore and are the primary producers of the nation's oil and natural gas and account for 83 percent of America's oil production and 90 percent of its natural gas output. These independent producers are a driving force in the American economy and support roughly 4.5 million jobs in the United States. IPAA member companies are innovative leaders that broke the code to usher in the shale oil and natural gas revolution in the United States. Furthermore, the average member company employs 20 people. These small businesses are unique and are best served by having a cooperative regulatory system with input from the states and the federal government rather than a one-size-fits-all structure coming from Washington.

IPAA thanks Chairman Westerman, Chairman Stauber, and Representative Graves for the thoughtful reforms outlined in the Transparency and Production of American Energy Act of 2023 (TAP Act). Many of the reforms outlined in the TAP Act will help to revitalize oil and natural gas producers operating on federal lands and waters to the benefit of the nation. The "multiple-use mandate" provided in the Federal Lands Policy and Management Act (FLPMA) requires the Bureau of Land Management (BLM) to balance the resources and uses of public lands to the benefit of the American people. While this mandate includes a variety of uses beyond oil and natural gas production, it clearly is not intended to prevent the production of American oil and natural gas. IPAA believes that safe and responsible development of the nation's natural resources needs to remain an integral part of the equation.

Currently, of the 640 million acres of land that are federally owned in the United States, roughly 4 percent are leased for oil and natural gas development. Yet, even with this small percentage, oil and natural gas still have an enormous monetary impact for the federal treasury. All federal oil and gas royalty, rental fee, and bonus bid revenue is split roughly half between the U.S. Treasury and the states where development occurs. That revenue helps fund critical investments in communities across the United States and supports jobs, schools, conservation efforts and infrastructure projects. The amount of annual revenue that Federal mineral development provides to the U.S. Treasury is second only to that provided by the Internal Revenue Service. (Bureau of Land Management)

There are several commonsense reforms in the TAP Act that will increase certainty for American producers and will ultimately lead to a more streamlined process for federal oil and natural gas development. While IPAA is supportive of the bill in its entirety, there are a few key provisions that I would like to highlight in my testimony this morning.

IPAA supports language in the TAP Act requiring the Secretary of the Interior to resume quarterly onshore oil and natural gas lease sales. Quarterly lease sales are mandated as part of the Mineral Leasing Act (MLA) that governs proper stewardship and handling of mineral extraction. The Biden administration's program to halt quarterly onshore lease sales will be felt for years to come as companies typically plan their next stages of development many years in advance. IPAA also believes it is important to include in a sale all parcels that were nominated and eligible for lease under the resource management plan (RMP) of each state. Many times, a company's plans for development are put on hold while they are forced to wait on a specific parcel to tie a swath of land together whether for the purposes of a right of way, communization agreements, or simply for economic reasons. Producers must make sure that all the pieces are in place before they can pursue an Application for Permit to Drill (APD) and be able to contract for a drilling rig and crew. For these reasons, IPAA also supports the additional language in the TAP Act on suspension of operations permits.

Another issue that IPAA would like to highlight is the language in the bill returning the federal royalty rate for onshore oil and natural gas to "not less than 12.5 percent." Sponsors of the Inflation Reduction Act (IRA) argued that the historic royalty rate was too low and significantly increased the royalty rate last year.

However, as discussed earlier, there are many factors that play into a company's decision on whether and where to bid and lease for mineral extraction on federal lands. These include the location of a specific area with relation to other properties, transportation costs, operational costs, taxes and rents. However, the most impactful are the regulatory costs associated with a project. Operating on federal land triggers a variety of regulatory actions that must be taken in order for a company to receive a permit to drill. Satisfying the suite of federal regulations can take many months as a company pays overhead costs while awaiting specific federal approvals. Raising the royalty rate in isolation without taking other critical factors into account will have an impact on a company's decisions to develop federal resources or not. As such, IPAA supports returning the royalty rate to 12.5 percent for oil and natural gas on onshore federal lands.

Transparency in the permitting and leasing process is of the utmost importance. It is not unreasonable to ask the BLM, the Bureau of Ocean Energy Management (BOEM), and other federal agencies identified in section 106 of the TAP Act to collate and submit information that they already have on file to the authorizing congressional committees of jurisdiction. This oversight function will help bring the leasing practice in line with the original intent of the MLA by increasing transparency and including timelines for how the Secretary of the Interior plans to address issues to prevent unnecessary delays in the process.

IPAA also represents many independent producers operating in federal waters. As such, IPAA supports the revisions to the offshore oil and gas leasing program found in section 107 of the TAP Act. Operating offshore is a capital-intensive endeavor. Unlike the major oil companies, independent producers often work together in consortium with more than one company involved in a project. Federal offshore production makes up about 15 percent of total US oil production, which is a significant component to America's energy security. That said, IPAA supports language in the legislation mandating two region-wide annual lease sales in the prescribed offshore areas. Last year, the Secretary of the Interior failed to act in a timely manner on the Five-Year Plan and let it expire without another plan in place. The proposed program that closed for comment in October 2022, offered between zero and ten potential lease sales in the Gulf of Mexico and the option for only one potential lease sale in the northern portion of the Cook Inlet in Alaska. A "leasing program" that has the potential to offer no lease sales is not a leasing program; it is a federal mandate to end offshore oil and natural gas production in the United States. It is also not in the best interest of Americans who benefit from the increased revenue to the federal treasury and significantly harms American national security.

Oil and natural gas projects on federal lands also face months of delay due to regulatory obstacles with National Environmental Policy Act (NEPA) analysis. For example, in 2020, it took an average of 142 days to complete an APD to drill on Federal lands. By comparison, in the state of Texas, in 2018 and 2019, it took an average of two days to process a standard drilling permit. IPAA believes legislative language is needed to define specific agency actions where a lower threshold of environmental analysis could be used. IPAA supports the committee's efforts to develop workable reforms to NEPA that will bring the law closer to its original intent of analyzing projects that require "major federal actions" rather than the current process, which is simply being used to delay and disrupt activities on federal lands by a determined minority. While not being discussed in this hearing, IPAA also supports the BUILDER Act, introduced by Representative Graves, which enacts additional reforms to NEPA.

IPAA endorses section 213 of the TAP Act dealing with split estates. BLM currently triggers NEPA analysis for wells on state or private lands if any of the oil and natural gas resources being drilled are federally owned. This occurs even when the federal government has a small/minority mineral interest. For too long, the BLM has used this federal nexus as a way for the agency to become involved in state and private mineral development decisions. In addition, once the federal interconnection is established, the full cavalcade of Washington's regulatory agencies can become involved in projects. Even when there is the smallest percentage of federal ownership, an operator must go through an entire NEPA review that would not otherwise be required. While adding time to the project, it is also a burden on federal resources at the regional BLM level. Simply because the federal government holds a minority mineral interest in a drilling project should not allow it to impose burdensome restrictions or delay projects where it has a limited role.

The current program governing oil and natural gas activities on onshore and offshore federal lands needs a significant overhaul. The TAP Act provides important solutions to many of the problems hampering the safe, continued development of mineral resources on federal lands and waters. Unfortunately, the Biden

administration is ignoring both the MLA and the Outer Continental Shelf Lands Act (OCSLA) requiring reasonable development of the nation's mineral resources on federal lands and waters. Instead, the Administration is focused on land conservation to the detriment of other activities from which all American taxpayers benefit. Rather than working with stakeholders at the local level, the land managers now make decisions based on edicts from the national office. IPAA supports efforts to require the Department of the Interior and its leadership to better engage the states when taking actions that impact development in their areas.

Oil and natural gas will remain a key component of energy supply in the world for the foreseeable future. No modern economy can function without them. This is clearly true in the United States where oil and natural gas contributes approximately 70 percent of the energy consumed in the country. Growth in other energy sectors, such as wind, solar and nuclear will also occur, clearly more energy from many sources will be needed to maintain a robust American economy.

Artificial political efforts to suppress American oil and natural gas supply will not reduce demand; they will only lead to a return to an import dependent energy structure with attendant energy security risks. False attacks targeting American oil and natural gas producers will reduce supply while hurting independent producers, particularly small businesses, and royalty owners. These policies will not reduce greenhouse gas emissions. The ultimate beneficiaries of these actions would be foreign national oil companies that produce with fewer environmental and safety controls than those in the United States.

IPAA applauds the House Natural Resources Committee for holding this hearing today and looks forward to the Committee acting on the TAP Act that will protect and enhance American energy security.

QUESTIONS SUBMITTED FOR THE RECORD TO DAN NAATZ, CHIEF OPERATING OFFICER,
INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA

Questions Submitted by Representative Westerman

Question 1. How much Federal revenue did onshore and offshore oil and gas production send to the Treasury last year?

Answer. Oil and gas revenues from production on federal land for FY2022 totaled \$7.6 Billion for onshore and \$6.3 billion for the offshore Gulf of Mexico.

Question 2. Last year our Democrat counterparts decided to raise the royalty rate for production on federal lands and waters.

2a) If you had to choose between developing a project on federal land versus private or state land what would be your preference and why?

Answer. The question is more complex than federal land vs. non-federal land. Many of our producers are involved in complicated, multi-stage and multi-year projects on federal land which would result in a huge financial blow to walk away from. Furthermore, oil and natural gas are not manufactured. Companies must go where the resource exists and, particularly in the West, that tends to be on federal land. That said, I believe most companies would gladly pay the royalty premium to deal with the regulatory certainty of a state like Texas where the average permit is processed and awarded in 2 days rather than the federal process as BLM permitting times are averaging over 170 days.

2b) Would you argue that the measures in the so-called Inflation Reduction Act make federal land much less appealing than state and private lands and in turn, result in less revenues for taxpayers?

Answer. Absolutely. I believe we are already starting to see trends of new production being shifted away from federal lands and increased regulatory burden, red tape, and costs are going to contribute as well.

Question 3. As we know, the Biden administration has held only one onshore lease sale in 26 months. We also know that this is illegal as the Mineral Leasing Act requires quarterly lease sales in all eligible states. What impact will this decision have on production and revenues over time and when will the impacts of this illegal lack of action be felt?

Answer. The impact will be devastating, particularly to state and local economies who count on oil and natural gas revenue as a crucial part of their budgets to make ends meet. But the true effect will not be felt for a few years as production that is coming online right now was scoped a number of years ago. After a company wins

a lease, the exploration phase can take years of seismic testing and data analysis before a company determines potential discovery. Independent producers rely on certainty in the leasing process to make business decisions for years in the future.

Question 4. As you know, the Biden administration canceled the remaining offshore lease sales in the 2017–2023 5-year-plan and the Inflation Reduction Act requires the administration to hold those sales this year. The Biden administration has not yet published a new 5-year-plan, even though the previous one expired in June 2022. Can you discuss the importance of having a 5-year-plan in place and how this delay is impacting planning and investment in offshore development?

Answer. Having a 5-year-plan in place is vitally important to the health of the offshore oil and natural gas industry. Furthermore, the proposed plan that the Administration closed for comments last year gave the option for zero to ten leases in the Gulf of Mexico and one in the Cook Inlet in Alaska. With all due respect, a leasing plan with the possibility of zero lease sales is not a leasing plan. It's a clear signal from the Administration of their priorities and sends a strong message that offshore producers are not valuable.

Question 5. If producing on oil and gas federal lands and waters ceases in the U.S., will demand decrease or will it instead be met from other countries, like Russia?

Answer. Studies and trends all conclude that the demand for oil and natural gas is going to stay strong for many years to come. The U.S. produces the lowest carbon barrels of oil in the world, not to mention our environmental and safety record that far exceed some other nations such as Russia and Venezuela. For every policy that restricts American oil and natural gas, those barrels will be made up for by dirtier foreign sources.

Question 6. On February 14, the Institute for Energy Research published a report titled "The Environmental Quality Index: Environmental Quality Weighted Oil and Gas Production" that quantifies the environmental impact of oil and natural gas produced in different countries around the world. The report shows what many of us already knew, that domestic production is much more environmentally friendly than countries like Russia, Saudi Arabia, Iran, Iraq, and many others.

6a) Would the provisions of this bill help the U.S. take more global market share from these other countries?

Answer. IPAA represents independent American oil and natural gas producers with one goal—to produce American oil and natural gas supplies to the advancement of the American economy. While oil is valued on a global market and OPEC nations often play games to artificially inflate or deflate prices, additional US supplies will help stabilize the oil and natural gas.

6b) Will this bill reduce global emissions?

Answer. As I've said before, America produces the cleanest barrels of oil in the world. In fact, oil produced from the Gulf of Mexico has the carbon intensity of one-half that of other producing regions. In short, this bill will reduce global emissions as it aims to unencumber industry.

Mr. STAUBER. I thank the witness for his testimony.
The Chair now recognizes Mr. Nolan for 5 minutes.

**STATEMENT OF RICH NOLAN, PRESIDENT AND CEO,
NATIONAL MINING ASSOCIATION, WASHINGTON, DC**

Mr. NOLAN. Good morning, Mr. Chairman, Ranking Member, and members of the Subcommittee. I appreciate representing the National Mining Association today to discuss the need to strengthen our domestic supply chains, to secure American energy resources, and to lower electricity cost.

Domestic mining conducted under world-leading environmental safety and labor standards is essential to virtually every key supply chain, and the right policies are needed to unlock U.S. mining's full potential.

Mined materials are an integral part of all current forms of energy. Uranium and coal, which provide 40 percent of the nation's electricity, are key sources of baseload power generation that is available 24 hours a day, 7 days a week. Nickel and titanium are needed for geothermal power. Copper, cobalt, lithium, and silver are essential components to EV batteries, solar panels, and the electrification of the transportation sector. Barite keeps oil and gas producing. Seventy percent of the world's steel requires metallurgical coal for its production, as it takes 100 tons of met coal to build the steel for one wind turbine.

In short, a strong domestic mining industry makes domestic energy security possible.

The mining industry is also the source of high-paying, stable U.S. jobs that provide generous benefits. Across the industry, we directly employ more than 475,000 people who make an average of \$85,000 a year, well over the national average of \$68,000. Those direct jobs support more than 800 additional jobs. Each year our industry generates more than \$119 billion in revenues for the U.S. economy, paying more than \$18 billion in federal, state, and local taxes. Last year alone, Federal coal production amounted to over \$525 million in royalties for the Federal Government.

Mining meets the demands of the manufacturing supply chain with the raw materials needed to begin production of virtually any product, while keeping the lights on and prices affordable. Now, demand for mined materials is expanding exponentially, but we have not seen a corresponding urgency and action to make those mined materials available here in the United States.

Despite all the rhetoric around securing our domestic supply chains, we are now at a crisis point. In 2022, the United States reached its highest record level of mineral import reliance. Imports made up more than one-half of U.S. consumption of 51 mineral commodities. We are more dependent than ever on China and other foreign sources of materials we could be sourcing right here at home.

And with each new announcement of a blocked mine, such as the Twin Metals Project in Minnesota or the 16 foreign source agreements through the OPEC State Department's Mineral Security Partnership with countries that have documented problematic labor practices, this just locks in our position of competitive weakness in the world.

Without permitting reform, the United States will be watching the global competition for energy and mineral dominance from the sidelines. Providing additional Federal funds for incentives for projects that will never be approved does nothing. As the International Energy Agency reported, "Governments must leverage private investment and sustainable mining, but also ensure clear and rapid permitting procedures to avoid potential supply bottlenecks."

Opening or expanding U.S. mines typically involves multiple agencies and tens or even hundreds of permitting processes that are at the federal and state level. Delays arise from duplication among agencies, absence of firm timelines, and failures in agency coordination. Necessary authorizations for hardrock mines take an average of 7 to 10 years or longer, one of the longest permitting

processes in the world. Valid environmental concerns should be fully addressed, but permitting process should not serve as an excuse to trap vital mining projects in limbo of duplicative and unpredictable, endless, and costly review.

The legislation proposed by Congressman Westerman, Chairman Stauber, and Congressman Graves offered common-sense solutions to establish a strong domestic mineral supply chain and ensure continued Federal coal production. These bills prioritize responsible development and certainty to mining companies, investors, and manufacturers by establishing lead agencies, coordinating state and federal processes, improving timelines of decisions, and maintain access to mineralized Federal lands.

We have abundant mineral and coal resources right here at home. Yet, we are stumbling when it comes to meeting the demand of the world markets. The U.S. mining industry stands ready to support and supply our country with a full range of materials needed to power our nation into the future, and we look forward to working with the Committee.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Nolan follows:]

PREPARED STATEMENT OF RICH NOLAN, PRESIDENT & CEO,
NATIONAL MINING ASSOCIATION

Good morning members of the subcommittee. I am Rich Nolan, President and Chief Executive Officer of the National Mining Association (NMA). America's mining industry supplies the essential materials necessary for nearly every sector of our economy—electricity generation, new technologies, healthcare, transportation, steel making and critical infrastructure, and national security. The NMA is the only national trade organization that serves as the voice of the U.S. mining industry and the hundreds of thousands of American workers it employs before Congress, the federal agencies, the judiciary and the media, advocating for public policies that will help America fully and responsibly utilize its vast natural resources. We work to ensure America has secure and reliable supply chains, abundant and affordable energy, and the American-sourced materials necessary for U.S. manufacturing, national security and economic security, all delivered under world-leading environmental, safety and labor standards. The NMA has a membership of more than 275 companies and organizations involved in every aspect of mining, from producers and equipment manufacturers to service providers.

Ever-increasing Demand for Minerals

There is widespread recognition that we are entering the most mineral and metal intensive era in human history.¹ Consequently, the right policies to secure new domestic mineral production and our supply chains are more important than ever.

The international competition for minerals will be fierce. The European Union (EU) has unveiled its "REPowerEU Plan."² The United Kingdom (UK) released its "Resilience for the future: The UK's critical minerals strategy."³ In December, Canada released its "Canadian Critical Minerals Strategy," a generational "plan to position Canada as the global supplier of choice for critical minerals and the clean

¹ Google results for the term "critical minerals" return nearly 24,000 responses (7,000 news specific) for the last month alone.

² Communication from the Commission to the European Parliament, The European Council, The Council, The European Economic and Social Committee and the Committee of the Regions: REPowerEU Plan, [SWD(2022) 230 final], May 18, 2022. https://eur-lex.europa.eu/resource.html?uri=cellar:fc930f14-d7ae-11ec-a95f-01aa75ed71a1.0001.02/DOC_1&format=PDF.

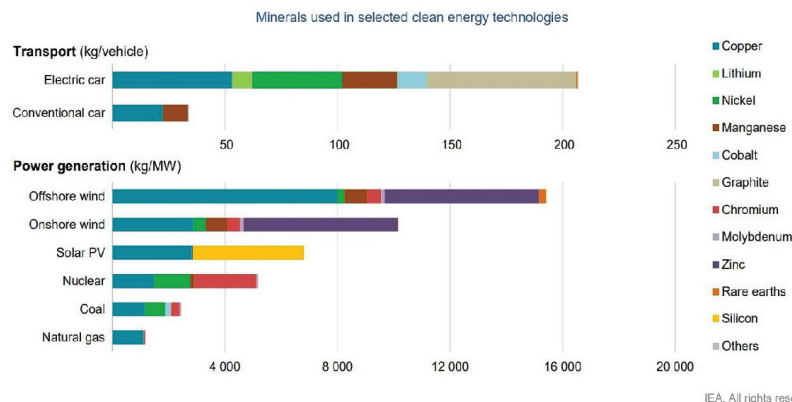
³ Department for Business, Energy and Industrial Strategy, "Resilience for the future: The UK's critical minerals strategy, 22 July 2022. <https://www.gov.uk/government/publications/uk-critical-mineral-strategy/resilience-for-the-future-the-uks-critical-minerals-strategy>

technologies they enable.”⁴ Of course, China, with its much longer planning horizon, moved earlier and more quickly to address the risks to its mineral supply chains. In 1999, the Chinese government announced its aggressive “go global” campaign to secure raw materials. The policy, which was fully implemented around 2002–2003, articulated three main objectives: (1) to support national exports and expand into international markets; (2) to push domestic firms to internationalize their activities as a means of acquiring advanced technologies; and (3) to invest in the acquisition of strategic resources.⁵

Many public analyses evaluate the demand for minerals for new technologies and especially energy generation. Last year the International Energy Agency (IEA) issued a cautionary report about risks related to the mineral supply chains required for energy generation transitions.⁶ IEA estimates and others show that demand for some minerals could grow by more than 40 times by 2040. According to IEA:

- Lithium demand is anticipated to grow by more than 40 times by 2040, followed by graphite, cobalt and nickel at around 20–25 times;
- Copper demand for grid infrastructure and electrification more than doubles by 2040;
- Demand for cobalt is expected to be anywhere from 6 to 30 times higher than today’s levels; and
- Rare earth elements may see three to seven times higher demand in 2040 than today.⁷

The rapid deployment of clean energy technologies as part of energy transitions implies a significant increase in demand for minerals



Notes: kg = kilogramme; MW = megawatt. Steel and aluminum not included. See Chapter 1 and Annex for details on the assumptions and methodologies.

Other major reports echo the findings of the IEA. Wood Mackenzie, the World Bank,⁸ the Wilson Center⁹ and others outline staggering demand increases that are likely to outpace the available minerals supply.

⁴Natural Resources Canada News Release, “Countries Commit to the Sustainable Development and Sourcing of Critical Minerals,” Dec. 12, 2022. <https://www.canada.ca/en/natural-resources-canada/news/2022/12/countries-commit-to-the-sustainable-development-and-sourcing-of-critical-minerals.html>

⁵CRS, “China’s Mineral Industry and U.S. Access to Strategic and Critical Minerals: Issues for Congress,” R43864, March 20, 2015, p. 2. <https://crsreports.congress.gov/product/pdf/R/R43864/6>

⁶International Energy Agency, “The Role of Critical World Energy Outlook Special Report Minerals in Clean Energy Transitions,” May 2021.

⁷Id at pp. 8–10

⁸World Bank Group, “Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition,” 2020. <https://pubdocs.worldbank.org/en/961711588875536384/Minerals-for-Climate-Action-The-Mineral-Intensity-of-the-Clean-Energy-Transition.pdf>

⁹D. Wood, A. Helfgott, M. D’Amico, and E. Romanin, Woodrow Wilson International Center for Scholars, “The Mosaic Approach: a Multidimensional Strategy for Strengthening America’s

According to Wood Mackenzie:

- Demand for copper and aluminum is anticipated to increase by a third by 2040.
- Nickel demand grows by two-thirds and cobalt and lithium by 200 percent and 600 percent, respectively.¹⁰

Matching the speed and scale of this rising demand requires a permitting regime that enables the mining sector to respond to market signals. Current U.S. permitting timelines do not.

As the IEA recently concluded in a July 2022 battery supply chain report:

Electrifying road transport requires a wide range of raw materials. While all stages of the supply chain must scale up, extraction and processing are particularly critical due to long lead times. Governments must leverage private investment in sustainable mining and ensure clear and rapid permitting procedures to avoid potential supply bottlenecks.¹¹

Impacts Down the Supply Chain

End users of minerals have awoken to the challenge of securing mineral supply chains, a development perhaps most pronounced by the automotive sector as it advertises a transition to electric vehicles (EVs). Over the last few years, many of the major U.S. car makers have made ambitious announcements about their EV plans. General Motors has announced it will invest \$35 billion in electric and autonomous vehicle product development until 2025 and that it will phase out petrol and diesel cars by 2035. Volkswagen wants half of its vehicle sales to be electric by 2030 and nearly 100 percent electric sales by 2040. Audi will launch fully electric models only from 2026 and aims for all car sales to be electric by 2030.¹²

At the same time, automakers are warning with ever greater frequency that the coming battery material shortfall could stop the EV revolution in its tracks. As recently noted by RJ Scaringe, CEO of EV start-up Rivian, the auto industry's current semiconductor problems "are a small appetizer to what we are about to feel on battery cells over the next two decades."¹³ No wonder, as the battery supply chain is already facing the pinch of rising material prices as the gap between demand and supply widens. Battery pack costs—which had been on a long downward trend—are now rising. Metals accounted for 40 percent of battery costs in 2015. Today, they account for 80 percent. Where the price of these metals goes, so does the cost of batteries and EVs. According to EV automaker Stellantis CEO Carlos Tavares, there will be a shortage of EV batteries by 2024–2025, followed by a lack of raw materials for the vehicles that will slow availability and adoption of EVs by 2027–2028 as the global automotive industry pivots to EVs to meet an expected increase in consumer demand and government regulations. He recently cautioned that the "speed at which we are trying to move all together for the right reason, which is fixing the global warming issue, is so high that the supply chain and the production capacities have no time to adjust."¹⁴

Automakers have been seeking solutions, including inking deals directly with mining companies. For example, last year Tesla addressed its concern about obtaining the nickel for its EVs by entering into an agreement with BHP to obtain nickel from Australia and more recently with Talon Metals to buy quantities of nickel directly from a mine the company is building in Minnesota. Ioneer has signed a binding offtake agreement with the Ford Motor Company to supply lithium from

Critical Minerals Supply Chain," Oct. 12, 2021, https://www.wilsoncenter.org/sites/default/files/media/uploads/documents/critical_minerals_supply_report.pdf.

¹⁰ Gavin Montgomery, Wood Mackenzie, "COP26: Why battery raw materials are a highly-charged topic—Aggressive EV uptake is needed to meet a 2° C target, but metals supply will struggle to meet demand," 13 October 2021, <https://www.woodmac.com/news/opinion/cop26-why-battery-raw-materials-are-a-highly-charged-topic/>

¹¹ IEA, "Global Supply Chains of EV Batteries," July 2022. <https://www.iea.org/reports/global-supply-chains-of-ev-batteries>.

¹² van Halm, I. and Mullan, C., Feb. 14, 2022, "Booming EV sales challenge critical mineral supply chains," *Energy Monitor* <https://www.energymonitor.ai/sectors/transport/booming-ev-sales-challenge-mineral-supply-chains>

¹³ Wall Street Journal, "Rivian CEO Warns of Looming Electric-Vehicle Battery Shortage," April 2022. <https://www.wsj.com/articles/rivian-ceo-warns-of-looming-electric-vehicle-battery-shortage-11650276000>

¹⁴ Media interview, May 24, 2022, <https://www.cnbc.com/2022/05/24/stellantis-ceo-warns-of-ev-battery-shortage-lack-of-raw-materials.html>

its Rhyolite Ridge lithium-boron project in Nevada.¹⁵ General Motors announced it was investing \$650 million in Lithium Americas to secure access to production from its Nevada operations, which it estimates will contribute to one million EVs annually.¹⁶ For this deal, GM was one of more than 50 automakers and companies competing for a secure supply of minerals from Lithium Americas.¹⁷

At the same time, automakers are urging the ramp up of domestic mining. Last year, the Alliance for Automotive Innovation wrote President Biden expressing concerns that “neither the current trajectory of consumer adoption of EVs, nor existing levels of federal support for supply- and demand-side policies, is sufficient to meet our goal of a net-zero carbon transportation future.”¹⁸ One of the specific policy recommendations offered by the Alliance is to promote national security and economic security enhancements through the development of U.S.-based supplies of critical minerals (extraction, processing and recycling), battery and fuel cell manufacturing, and other critical components, including semiconductors.¹⁹ And as succinctly stated recently by Jim Farley, President and CEO of Ford Motor Co.:

We have to bring battery production here, but the supply chain has to go all the way to the mines . . . So are we going to import lithium and pull cobalt from nation-states that have child labor and all sorts of corruption or all we going to get serious about mining?” . . . We have to solve these things and we don’t have much time.”²⁰

We have our work cut out for us to build our domestic mineral supply chains quickly. As recently reported by The New York Times, how automakers will obtain enough materials for an all-electric lineup remains unclear. Last year, Farley told analysts that only 50 percent of the raw materials needed to meet the auto industry’s announced EV targets were actually available.²¹

Demand Cannot Be Met Without New Mining

The automakers are just one stakeholder group that acknowledges the role of domestic mining in securing our supply chains. Certainly, the federal government has repeatedly noted that boosting sustainable domestic mining must be part of the solution. For example, in May 2021, the White House rebutted reporting from *Reuters* claiming that President Biden will primarily rely on ally countries to supply the bulk of the metals needed to build EVs. In its clarification, the White House noted that the reporting incorrectly characterizes the Biden-Harris administration’s approach:

President Biden is focused on seizing the electric vehicle (EV) market, sourcing and manufacturing the supply chain here in America, and creating good-paying, union jobs. Building American-made EVs and shipping them around the world will include leveraging American-made parts and resources. This includes responsibly pursuing, developing, and mining critical minerals and materials used for EV batteries. As we strengthen our supply chains, we will pursue strong environmental standards and broad, rigorous consultations with local and indigenous communities to support a responsible, fair, and sustainable EV industry.²²

Working with our allies, like Canada, to build these supply chains is smart. But that must complement the essential work of standing up production and these

¹⁵ PR Newswire, “Ioneer Signs Binding Lithium Offtake Agreement with Ford,” July 21, 2022

¹⁶ Lithium Americas General Motors Transaction Announcement, January 31, 2023, <https://www.lithiumamericas.com/news/lithium-americas-provides-general-motors-transaction-details-and-update-on-construction-plan-for-thacker-pass>. Cecilia Jamasmie, January 31, 2023, “GM invests \$650m in Lithium Americas to develop Thacker Pass mine” www.mining.com, <https://www.mining.com/gm-lithium-americas-to-jointly-develop-thacker-pass-mine-in-nevada/>

¹⁷ The Electric, “The New ‘Elephants’—GM Grabs the Biggest Lithium Deposit in the U.S., Feb. 2, 2023. <https://subscriptions.theinformation.com/newsletters/the-electric/archive/the-electric-the-new-elephants-gm-grabs-the-biggest-lithium-deposit-in-the-u-s>

¹⁸ Alliance for Automotive Innovation letter to President Biden, March 29, 2021. <https://www.autosinnovate.org/posts/communications/Auto%20Industry%20EV%20Policy%20Letter%20to%20President%20Biden%20March%2029%202021.pdf>

¹⁹ Id. at 4.

²⁰ Jim Farley remarks, Detroit Homecoming VIII, Live-streamed interview with Mary Kramer (director of the annual event), Sept. 25, 2021. <https://detroithomecoming.com/livestream-events/>

²¹ Boudette, Neal E. 2022. “California E.V. Mandate Finds a Receptive Auto Industry.” The New York Times, August 25, 2022, sec. Business. <https://www.nytimes.com/2022/08/25/business/energy-environment/electric-vehicles-automakers.html>.

²² Statement from Ali Zaidi, Deputy National Climate Advisor, Reuters, Epoch Times etc.: https://www.theepochtimes.com/white-house-denies-report-that-biden-looks-overseas-for-electric-vehicle-metals_3832373.html?welcomeuser=1

supply chains at home. It cannot come in place of it. The State Department's Mineral Security Partnership reportedly funding 16 solely international mining projects while we continue to debate needed permitting improvements domestic production is not a balanced mineral production policy.

Recent withdrawal decisions locking up more than 225,000 acres in federal Forest Service lands in Minnesota from mining for two decades after also withdrawing federal leases nearly sixty years old from projects in the same areas known for some of the nation's largest reserves of nickel, cobalt, copper, platinum, and palladium could only be described at best as short sighted and at worst self-sabotage.²³

Current Permitting Process Discourages Investment in U.S. Mining

With over \$6 trillion worth of mineral resources here in the United States, a highly trained and highly compensated workforce, and world-class environmental and safety standards, the U.S. mining industry is essential to helping the nation meet ever-increasing demand for minerals for electrification, infrastructure and manufacturing needs.

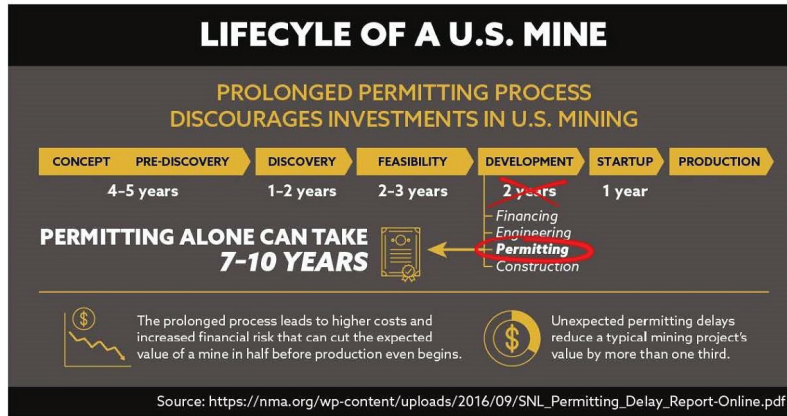
However, there is real room for improvement. To improve supply chain security, we must also have a robust domestic mineral supply chain. That includes more smelting, processing and refining capabilities in the U.S. necessary to claw back these essential processes from geopolitical adversaries like China, which controls more than 80 percent of global rare earth element production, nearly 90 percent of global mineral processing capabilities as well as the market prices for rare earth elements at each step of the process.

Permitting delays have been, and continue to be, one of the most significant risks to meeting domestic mineral production goals. As the permitting process for important projects across the U.S. drags on, geopolitical rivals are taking advantage of our bureaucratic inertia. Opening or expanding a mine in the U.S. typically involves multiple agencies and the navigation of tens or even hundreds of permitting processes at the local, state and federal levels, with little transparency into status, delays arising from duplication among federal and state agencies, an absence of firm timelines for completing environmental assessments, and failures in coordination of responsibilities between various agencies. Necessary government authorizations now take an average of seven to 10 years to secure—one of the longest permitting processes in the world for mining projects—a time period that is completely out of step with the dramatic increases in minerals production that will be needed in the coming decades to keep up new technologies, infrastructure, manufacturing and even with the administration's goals.

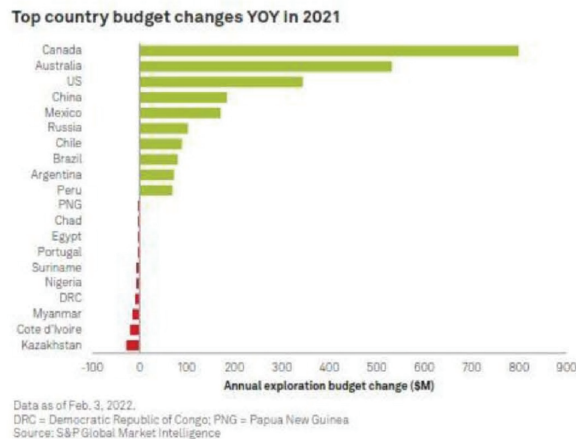
In the U.S., necessary government authorizations place the U.S. at a competitive disadvantage in attracting investment for mineral development. By comparison, permitting in Australia and Canada, which have similar environmental standards and practices as the U.S., take between two and three years. The NMA believes that valid concerns about environmental protection should be fully considered and addressed but permitting processes should not serve as an excuse to trap mining projects in a limbo of duplicative, unpredictable, endless and costly review without a decision point. Moreover, there is little evidence that such delays yield commensurate environmental benefits. The length of the permit process should not be confused with the rigor of review. Ironically, it takes about two years to build a new battery gigafactory, but it takes at least eight years (sometimes more than 10 years) to build a new lithium mine.²⁴

²³ Wall Street Journal, "Biden's Green-Energy Mineral Lockup. The feds block mining that is essential for making EV batteries" January 29, 2023, <https://www.wsj.com/articles/biden-administration-mining-duluth-complex-minnesota-superior-national-forest-deb-haaland-electric-vehicles-11674860178>.

²⁴ Comments of Dr. Qichao Hu, founder and CEO of Massachusetts-based battery maker SES, in an interview with Charged, <https://chargedevs.com/features/the-raw-materials-crunch-how-bad-how-long-how-to-solve-it/#:~:text=Qichao%20Hu%2C%20founder%20and%20CEO,build%20a%20new%20lithium%20mine.%E2%80%9D,> Spring 2022.



Nearly two decades ago, the U.S. attracted almost 20 percent of the world's total mining investment. Unfortunately, in the time since, there has been a sharp decline in U.S. exploration investment. This is not due to lack of resources, but rather a lack of confidence in the U.S. as a viable mining jurisdiction in which to invest hundreds of millions of dollars in upfront costs due to duplicative, inefficient and costly permitting timeframes, making the U.S. more dependent on other countries for metals. In its most recent report of global investment in mining exploration and production, S&P Global consistently rank Canada and Australia as by far the most favored regions for mining investment.



Although investment in some parts of the U.S. remains high, the Fraser Institute releases an annual investment survey among mining companies throughout the world on the areas of the world in which those companies look to invest. The latest survey relayed the following results about the United States under its Policy Perception Index (PPI) meaning the perceptions of mining companies concerning the certainty of the U.S. regulatory environment for mining:

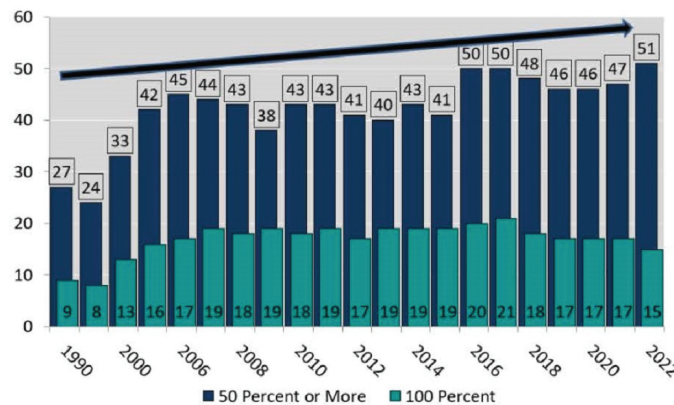
The United States' median investment attractiveness score declined . . . The median PPI score for the United States, however, declined significantly—by almost 13 points—and is no longer the top-ranked region *based on policy alone*. This year, all US states saw a deterioration in their PPI scores. Minnesota (−19.9 points), Idaho (−16.4 points), and New Mexico (−15.0 points) saw the largest PPI score declines.²⁵ (Emphasis added.)

Current Permitting Process Encourages Foreign Dependence

The U.S. is increasingly vulnerable to supply chain disruptions and retaliation from geopolitical adversaries due to our ever-increasing reliance on imports for these essential resources. Less than half of the mineral needs of U.S. manufacturing are met by domestically produced minerals, which leaves our economy and national security at a strategic disadvantage. The U.S. Geological Survey's (USGS) annual commodity summary released only last month makes some key findings:

- Last year, imports made up more than one-half of the U.S. apparent consumption for 51 nonfuel mineral commodities, and the United States was 100 percent net import reliant for 15 of those.
- Of the 50 mineral commodities identified in the “2022 Final List of Critical Minerals,” the United States was 100 percent net import reliant for 12, and an additional 31 critical mineral commodities (including 14 lanthanides, which are listed under rare earths) had a net import reliance greater than 50 percent of apparent consumption.
- Underscoring the vulnerability of U.S. mineral supply chains, China was the leading source of mineral commodities with a greater than 50 percent import reliance providing 26, with significant imports of other essential commodities also coming from Russia.
- The estimated value of U.S. metal mine production in 2022 was \$34.7 billion, 6 percent lower than the revised value in 2021. In 2022, the capacity utilization for the metals mining industry was 61 percent, less than the 63 percent capacity utilization in 2021.²⁶

U.S. Mineral Import Reliance



Source: USGS Mineral Commodity Summaries 1900–2023 editions.

²⁵ Fraser Institute, Annual Survey of Mining Companies 2021, <https://www.fraserinstitute.org/sites/default/files/annual-survey-of-mining-companies-2021.pdf>, pp. 29–31.

²⁶ U.S. Geological Survey, 2023 Commodity Summary, <https://pubs.er.usgs.gov/publication/mcs2023>

While alarming, these findings are the latest in a 20-year trend of net imports that cost our country roughly \$90 billion last year alone. Though the warning signs about our import reliance have been highlighted by a few key legislators for years, overall political concern about minerals supply chains has waxed and waned—with periods of frenzy following unexpected shortages, especially for military applications such as China’s exercise of its dominance over the rare earths’ minerals supply chain—followed by periods of complacency.²⁷

Before the more recent exposure of supply chain vulnerabilities from the pandemic and geopolitical developments of the last few years, the most recent panic occurred in 2010, when China threatened global rare earth supplies. As the Congressional Research Service (CRS) explained:

Chinese export quotas on a type of critical minerals referred to as rare earth elements (REEs) and China’s curtailment of rare earth shipments to Japan over a maritime dispute in 2010 *represented a wakeup call* for the United States on China’s near-monopoly control over global REE supply. The actions of the Chinese led to record high prices for REEs and, as a result, *began to shine a light on the potential supply risks and supply chain vulnerability for rare earths and other raw materials and metals needed for national defense, energy technologies, and the electronics industry*, among other end uses. U.S. legislators have introduced and deliberated on bills that would address the potential supply risk and vulnerability with respect to rare earth supply and bills that would promote domestic rare earth mine development.²⁸ (Emphasis added.)

Unfortunately, none of these past efforts or policies have reversed the U.S. overreliance on foreign sources of minerals despite widespread acknowledgement that this overreliance weakens our economy and endangers our national security. China’s mineral dominance remains a major threat. Currently, China is the leading producer and/or supplier of 66 percent of mineral commodities listed as essential to U.S. economic and national security including lithium, rare earths and other battery metals.²⁹ According to USGS, production concentration has increased markedly over the past few decades for many mineral commodities with the most notable global shift has being the increasing production of mineral commodities in China.³⁰ China’s share of global mineral production and processing has grown markedly since 1990 for many mineral commodities, including aluminum, bismuth, refined cobalt, gallium, lead, magnesite, magnesium metal, mercury, REEs, silicon, steel (raw), titanium, vanadium and zinc.

China’s strong supply chain position stems, in large part, from state investment in processing and manufacturing, rather than an inherent advantage in reserves for most materials. China’s “go global” strategy included \$390 billion in outbound direct investments in the mining sector.³¹ For example, as discussed in a recent White House report on supply chains:

- China is the primary global supplier of cobalt for batteries, despite having very limited reserves, through its aggressive investment in processing capacity coupled with foreign direct investment for ores and concentrates.
- China has a dominant position over the Democratic Republic of Congo cobalt reserves, which constitute half of the known global cobalt reserves.

²⁷See e.g., The Domestic Minerals Program Extension Act of 1953; the Mining and Mineral Policy of 1970; the Federal Land Policy and Management Act; the National Materials and Minerals Policy, Research and Development Act of 1980; and the 1984 National Critical Materials Act.

²⁸Humphries, Marc. Congressional Research Service, “Critical Minerals and U.S. Public Policy.” R45810, June 28, 2019, p. 5. https://www.everycrsreport.com/files/20190628_R45810_b3112ce909b130b5d525d2265a62ce8236464664.pdf

²⁹Notably this reliance comes despite existing U.S. resources. In the 2022 Mineral Commodity Summaries, the USGS indicated the U.S. had an estimated 48 million metric tons (mt) of copper that can be mined and processed economically, 69 million mt of cobalt, 340 million mt of nickel and 750 million mt of lithium. Regardless, in 2021, the U.S. imported 48 percent of U.S. consumption of nickel, 76 percent of cobalt, 45percent of copper, and more than 25 percent of lithium.

³⁰Nassar, N.T., Alonso, E., and Brainard, J.L., 2020, Investigation of U.S. Foreign Reliance on Critical Minerals—U.S. Geological Survey Technical Input Document in Response to Executive Order No. 13953 Signed September 30, 2020 (Ver. 1.1, December 7, 2020): U.S. Geological Survey Open-File Report 2020—1127, p. 4. <https://pubs.usgs.gov/of/2020/1127/ofr20201127.pdf>

³¹Humphries, Marc. Congressional Research Service, “China’s Mineral Industry and U.S. Access to Strategic and Critical Minerals: Issues for Congress,” March 20, 2015. <http://fas.org/srgp/crs/row/R43864.pdf>.

- China has billions invested in nickel projects in Indonesia, home to one-quarter of overall global reserves.
- Mexican-based Sonora clay lithium deposit, operated by China-based Gangfeng Lithium, is currently under development, and would increase total lithium production by roughly half of today's production.³²
- Chinese firms have also made multiple and large investments in mining operations around the world to ensure their supply of critical materials like cobalt, nickel and lithium.³³ Last month, China based CATL, the world's largest EV battery manufacturer, beat out U.S. and Russian companies to develop the world's largest lithium deposit in Bolivia.³⁴

As a result of these tactics, China controls significant portions of the global mineral supply chain. The IEA reported in May 2021 that China was responsible for 60 percent of global rare earth elements production and nearly 90 percent of global processing for rare earth elements in 2019.³⁵ And this threat is not limited to rare earths. As noted in USGS criticality methodology, "of the 54 mineral commodities evaluated, China was the leading producer of at least one stage of the supply chain for 35 commodities."³⁶

It did not used to be this way and it does not have to be our future. At every turn, our import dependence is both outsized and unnecessary. As explained in a recent opinion piece published in *The Hill*:

In the 1980s, the U.S. was the mineral capital of the world. Since then, China has developed a juggernaut battery supply chain industry. The industry is centered around chemical processing of battery materials, backed by substantial government funding and coordination. These subsidies led to a wave of outsourcing by American companies across industries from semiconductors to steel. In addition, China has spent the last two decades investing in the mining industry abroad, including major investments and mineral rights in Australia, Africa, Asia and South America. This has led to an overreliance on China—and in turn vulnerable supply chains and a lost economic opportunity at home.³⁷

Our mineral import dependence will be our next Achilles' heel. The U.S. must focus on supplying these metals at home as part of the solution "to diversify supply chains away from adversarial nations and sources with unacceptable environmental and labor standards."³⁸

In order to support new domestic production, a robust domestic supply chain that includes minerals and metals sourced, refined, processed and smelted within our borders, we need to build on the important work done by this committee.

³² White House, "Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-based Growth, 100-Day Reviews under Executive Order 14017," June 2021, p. 94.

³³ See also, USGS 2020 Investigation of U.S. Foreign Reliance on Critical Minerals (There are instances where the mineral deposit or mining and mineral processing operation of a commodity is partially or completely owned and (or) controlled by foreign companies with strong ties to their governments. For example, Chinese firms have purchased equity stake in lithium deposits and operations in Australia and Chile, niobium operations in Brazil, a rare earth deposit in Greenland, and cobalt operations in the D.R. Congo, Papua New Guinea, and Zambia (S&P Global Market Intelligence, 2020). Investigating China's investment in cobalt assets worldwide, Gulley and others (2019) found that when taking into account Chinese companies' ownership in foreign assets on an equity-share basis, China's share of global cobalt production increases from 2 to 14 percent for cobalt mine materials and from 11 to 33 percent for cobalt intermediate materials (figure 6). Furthermore, if the Chinese companies' equity shares of the production from these assets are assumed to be as secure as its domestic production, then these acquisitions have the effect of reducing China's NIR from 97 percent to an adjusted 68 percent, thereby reducing China's exposure to supply disruptions (Gulley and others, 2019).) p. 8.

³⁴ Reuters, "Bolivia taps Chinese battery giant CATL to help develop lithium riches," Jan. 20, 2023. <https://www.reuters.com/technology/bolivia-taps-chinese-battery-giant-catl-help-develop-lithium-riches-2023-01-20/>

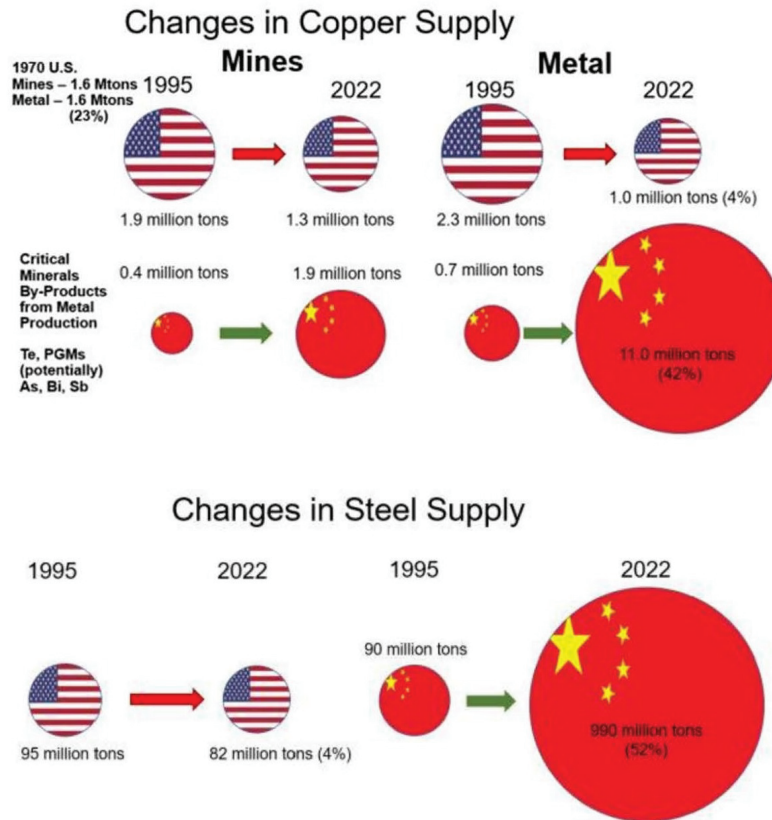
³⁵ International Energy Agency. "The Role of Critical Minerals in Clean Energy Transitions," 2021. <https://iea.blob.core.windows.net/assets/24d5dfbb-a77a-4647-abcc-667867207f74/TheRoleofCriticalMineralsinCleanEnergyTransitions.pdf>

³⁶ 2021 Methodology, p. 7.

³⁷ Ellen Hughes-Cromwick, Ph D. 2022. "How the U.S. Can Secure a Resilient Electric Vehicle Battery Supply Chain." *The Hill*. June 8, 2022. <https://thehill.com/opinion/energy-environment/3516265-how-the-us-can-secure-a-resilient-electric-vehicle-battery-supply-chain/>.

³⁸ "FACT SHEET: Biden-Harris Administration Announces Supply Chain Disruptions Task Force to Address Short-Term Supply Chain Discontinuities." 2021. The White House. June 8, 2021. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/08/fact-sheet-biden-harris-administration-announces-supply-chain-disruptions-task-force-to-address-short-term-supply-chain-discontinuities/>.

The following data from the mining program at the University of Missouri of Science and Technology is an important snapshot which allows us to better understand the domestic supply chain issues impacting production of some of the most widely used industrial metals:



Source: Testimony of Dr. M Moats, University of Missouri of Science and Technology, Feb. 2023³⁹

Federal Coal Leasing Program

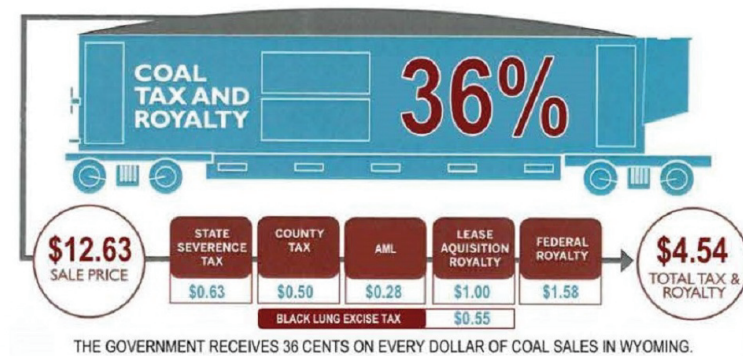
The Federal Coal Leasing Program has been a national energy and economic success story. Over the last decade, the program produced approximately 3.7 billion tons of coal and resulted in \$9.2 billion in revenue collections by the federal government alone. It has provided hundreds of millions of dollars of state and local revenue per year, while also providing a low cost, reliable source of energy for all Americans and material for steel manufacturing. In 2020 alone, the royalties, bonus payments, and rent payments from coal produced on federal land provided over \$525.5 million to the federal government. It simply needs no explanation that delays in awarding leases under the program deprives economic development, job creation and retention, federal revenues, and threatens electricity reliability and U.S. competitiveness in building critical infrastructure.

³⁹ Committee on Natural Resources Subcommittee on Oversight and Investigations, “Dependence on Foreign Adversaries: America’s Critical Minerals Crisis,” Testimony Dr. M. Moats, Professor and Department Chair of Materials Science and Engineering, Missouri University of Science and Technology, https://naturalresources.house.gov/uploadedfiles/testimony_moats.pdf, February, 9, 2023.

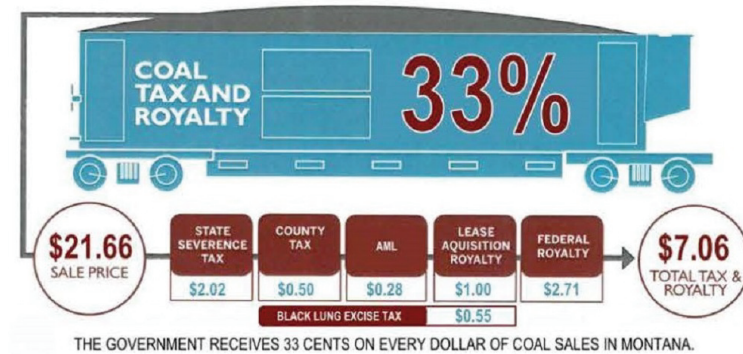
Total coal production through the Federal Coal Leasing Program is significant. The Department of Interior's Office of Natural Resources Revenue and the Department of Energy's Energy Information Administration reported that of 577.4 million short tons of total coal production in the United States in 2021, 266.9 million short tons was produced on federal lands amounting to 46 percent of total production of both thermal and metallurgical coal.⁴⁰

The following data is an important snapshot from the three largest producing states under the Federal Coal Leasing Program showing the total tax and royalty liability to federal, state, and local governments from each dollar of coal production:⁴¹

Wyoming



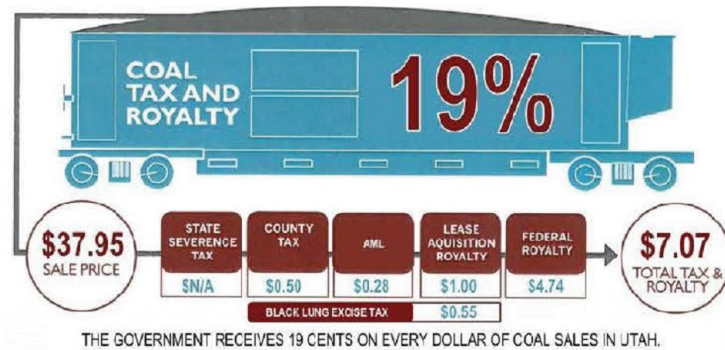
Montana



⁴⁰ See, U.S. Department of Interior Natural Resources Revenue Data at <https://revenuedata.doi.gov/query-data/?dataType=Production>, and U.S. Department of Energy Monthly Energy Review, <https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf>, February 2023, p. 119.

⁴¹ Energy Information Administration, Annual Coal Report, <https://www.eia.gov/coal/annual/>, October 2022, taken from Table 28.

Utah



Certain coal production on federal land has been caught in a back and forth on policy depending on the occupant of the White House. In 2016, former U.S. Department of the Interior (DOI), Secretary Sally Jewell issued Secretarial Order 3388 imposing a three-year moratorium, with exceptions for metallurgical coal production and certain exceptions for thermal coal production, on further coal lease sales pending completion of a programmatic environmental impact statement (PEIS). After a change in presidential administrations, former DOI Secretary Ryan Zinke issued Secretarial Order 3348, that revoked the Order 3388, terminated the ongoing PEIS, and directed Bureau of Land Management (BLM) to simply resume issuing coal leases. Litigation immediately challenged Order 3348, and after another change in presidential administrations, DOI Secretary Deb Haaland issued Secretarial Order 3398 to revoke Order 3348 and update the policies of the Department concerning the Federal Coal Leasing Program.

Finally, in August 2022, the U.S. District Court for the District of Montana issued an order reinstating the Federal Coal Leasing Program moratorium established by former Secretary Sally Jewell in Order 3388.⁴² The order imposes an indefinite nationwide injunction against federal coal leasing with some exceptions until the BLM completes an analysis under the National Environmental Policy Act of the 2017 revocation of the moratorium. Clarification to simply withdraw the original Order 3388 and allow the Department of the Interior to perform its lawful functions to implement the Federal Coal Leasing Program is critically important.

What are the Solutions?

Chairman Westerman's Transparency and Production of American Energy Act and Energy and Mineral Resources Chairman Stauber's Permitting for Mining Needs Act support a new robust domestic mineral supply chain that prioritizes responsible resource development through policies that provide certainty to all mining operations and manufacturers. The bills set lead agencies to coordinate the permitting process; improve the timeliness of the permitting process through deadlines or simply allowing project applicants to complete environment impact statements with federal agency review similar to processes in Canada and Australia; maintains access to mineralized federal lands unless specifically withdrawn by Congress and unless the U.S. Geological Survey can assure that a withdrawal does not threaten supply chains; maintains decades of essential mining regulatory practice to not only ensure U.S. competitiveness but to prevent impediments to domestic production; provides more certainty to timing of legal reviews; supports a domestic uranium industry for critical nuclear energy production; provides new needed regulatory certainty to the Federal Coal Leasing Program allowing new leasing, lease renewals, and eliminating confusing exceptions; and unlocks innovation by not supporting prescriptive policies.

These policy recommendations are commonsense changes that would provide regulatory certainty to investors that the U.S. seeks to once again compete on a global scale in the mineral supply chain. Instead of only seeking to secure mineral supplies from foreign sources or exporting domestically extracted materials for

⁴² See, U.S. District Court of Montana Order in 4:17-cv-00030-BMM, August 12, 2022

further refinement, processing and smelting, the NMA supports improvements in the permitting process would demonstrate that the U.S. intends to secure the entirety of its supply chain, lessening vulnerabilities from outside sources, including geopolitical impacts. These policy recommendations would also provide the needed regulatory certainty to support critical electricity reliability.

Conclusion

The U.S. is at a mining crossroads. Mineral demand is soaring, but our policies are both lagging and impeding production. We must encourage more domestic mining and processing to meet future demand and ensure that the materials required for everything from infrastructure to electrification are readily available from inside our own borders.

Mr. STAUBER. I thank the witness for his testimony, and the Chair now recognizes Mr. Squillace for his 5 minutes.

STATEMENT OF MARK SQUILLACE, PROFESSOR OF LAW, UNIVERSITY OF COLORADO, BOULDER, COLORADO

Mr. SQUILLACE. Thank you, Mr. Chairman, and good morning to you, to the Ranking Member, and to the entire Committee. I want to begin with a discussion about H.R. 209.

Now, I understand that we must acquire the minerals that we need to make a smooth transition away from fossil fuels and toward renewable energy. And I agree that we ought to find ways to streamline the permitting process for mines and related infrastructure. Some of the streamlining strategies that are laid out in the FAST Act, for example, I think could be helpful here. But let's be clear. We can accommodate a rapid transition to renewable energy without sacrificing our public lands. And the need for streamlining cannot be used as an excuse to allow non-compliance with our environmental laws.

I want to focus on two particular problems with H.R. 209.

First, it allows the mine applicant, who has a built-in conflict of interest, to prepare the environmental impact statement. Aside from the fact that this violates NEPA, it makes a mockery of the required alternatives analysis. The alternatives analysis is the heart of the EIS. It is supposed to present the proposal and alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice for the agency and the public.

An alternatives analysis prepared by an applicant is only going to focus on the applicant's proposal. But NEPA requires agencies to consider all reasonable alternatives. In the case of a proposed mine, for example, the agency should consider the very promising alternative of facilitating metals recycling. A recent study found that we can meet 55 percent of our copper needs, 25 percent of our lithium needs, and 35 percent of our cobalt and nickel needs just from robust battery recycling. As this study further shows, a serious metals recycling program could obviate the need for many new mines.

Unlike an applicant, agencies must also consider alternative mining methods. So, for example, an EIS on a proposal for a conventional lithium mine should address the prospects for direct lithium extraction, or DLE, from the massive Salton Sea deposits. DLE promises to be cheaper and to produce far more environmentally friendly lithium than conventional mining. The state of

California, for example, estimates that the Salton Sea deposit could annually meet 40 percent of global lithium needs.

Only by insisting that an alternatives analysis be prepared by the agency can we assure that things like recycling and different mining methods are fairly considered.

Let me now turn to the provisions that would effectively make mining the dominant use of our public lands. H.R. 209 essentially gives a mining company carte blanche to claim mining rights without ever having to even make a discovery of minerals.

In addition, mining companies will have an unfettered right to use whatever public lands they need for ancillary facilities. This would include, for example, the massive mine waste piles that they generate from their mining operations. And mine operators, most of which are foreign-owned, by the way, can take the public's minerals without paying a dime to the U.S. Treasury.

Most worrisome, the proposal is not limited to critical minerals. It would also open our public lands to potentially thousands of mines for certain types of common minerals like limestone, gravel, and clay.

Before we give away our public lands to foreign mining companies, we should step back and consider real mining reform. A leasing program with market-based acquisition fees and royalties should be our top priority.

Finally, let me briefly touch on the proposed TAP American Energy Act. In my written comments to the Committee, I address some specific concerns. In the short time I have left, I would like to address an overarching concern.

To put it bluntly, the TAP American Energy Act's focus on promoting oil and gas development on our public lands and waters aims to fix a problem that doesn't exist.

In the short term, an unprovoked war in Ukraine and OPEC's efforts to constrain oil and gas supplies have caused a spike in oil and gas prices. Those pressures on prices may continue for the next couple of years. But over the next decade, we are going to witness a rapid global transition to electric vehicles and renewable energy, and this will erode the demand for oil and gas significantly. Oil companies see this, and that is why they are largely indifferent to public land leasing, and why they are not developing what they have.

During the Trump administration, the government offered 25 million acres of onshore oil and gas leases and 78 million offshore acres. Only about 10 percent of these lands were actually leased. Oil and gas companies now sit on almost 14 million acres of unused public land leases, despite having received more than 9,600 drilling permits for these leases. Encouraging more leasing at below-market prices, as proposed in the TAP American Energy Act, will further enrich already bloated oil company revenues, while making these public lands unavailable for other important uses. That strikes me as a very bad deal for the American people.

Thank you for the opportunity to offer these comments. I welcome your questions.

[The prepared statement of Mr. Squillace follows:]

PREPARED STATEMENT OF MARK SQUILLACE, UNIVERSITY OF COLORADO LAW SCHOOL

Thank you for the opportunity to appear before the House Subcommittee on Energy and Mineral Resources to offer my views on the proposed “Permitting for Mining Needs Act of 2023,” and the proposed “Transparency and Protection of American Energy Act of 2023.” I am the Raphael J. Moses Professor of Natural Resources Law at the University of Colorado Law School. I teach and work primarily in the fields of environmental, natural resources, and water law and I have written extensively on all of these subjects. My professional experience with public lands issues runs deep. As a law student at the University of Utah College of Law, I worked in the Utah State Office of the Bureau of Land Management (BLM) as a land law examiner—a position that allowed me to review all manner of public lands activities and gain first-hand knowledge about the operation of our public land laws. Following law school, and before entering law teaching, I was hired into the Solicitor’s Honor’s Program at the U.S. Department of the Interior where I gained significant additional experience on public lands and mineral law issues. I took a leave from teaching and returned to the Solicitor’s Office in 2000 as a Special Assistant to the Solicitor where I worked on a wide range of special projects involving public lands. All of this experience both inside and outside of government has helped to inform my understanding of public lands management and the issues surrounding mining and oil and gas development on public lands. Because the two bills currently before the Subcommittee address very different issues, I will take them up separately, beginning with the Permitting for Mining Needs Act.

I. The Permitting for Mining Needs Act: H.R. 209

H.R. 209 has some laudable goals. The transition away from fossil fuels and toward renewable energy requires an adequate supply of the critical minerals needed to produce the batteries, solar panels, and wind turbines that this transition demands. And manufacturers will need to gain access to those minerals in a timely manner. Proposed H.R. 209 appears to be designed, at least in part, to meet those important goals. Unfortunately, it does so in ways that unnecessarily undermine environmental values and the protection of our public lands.

Most worrisome, H.R. 209 proposes to change federal mining law for every kind of “locatable” mineral; i.e., those minerals not subject to lease or sale under current law. This would extend the streamlining provisions afforded “critical” minerals under the Infrastructure Investment and Jobs Act to essentially all minerals that fall under the General Mining Law.¹ But only a very few locatable minerals, like cobalt, lithium, copper or rare earths, are important enough to warrant these advantages. According to the Government Accountability Office (GAO), the vast majority of approved mining plans for locatable minerals on public lands are for minerals that are in no way “critical” to the emerging economy.² More than half of the acreage is devoted to mining gold, which is primarily used for jewelry. Some 114 approved plans mine so-called “uncommon varieties” of widely occurring substances like stone, gravel, and clay. Surely the Congress has no need to streamline the process for approving mining plans for these minerals, especially when these operators take publicly-owned minerals off public lands for free. Yet that is exactly what H.R. 209 proposes to do.

Before addressing my more specific concerns with proposed H.R. 209, I want to acknowledge the potential benefits of promoting timely preparation of environmental documents. The NEPA process often drags out over a period of three years or more. When it takes too long, the staff overseeing the work are more likely to lose focus and some will likely leave for other jobs. This often triggers further delays. To be sure, delays can result, not only from agency failures, but also from the failure of the applicant to provide the agency with important information about their proposal. But agencies should adopt streamlining practices that help keep official on task and on schedule. Streamlining need not and should not mean avoiding or compromising compliance with environmental and other applicable laws. But streamlining strategies, such as those set out in the FAST Act, can help to ensure timely decisionmaking, especially if they are carried out in a flexible way that takes account for the complexity of the proposed action.

Nonetheless, while I support efforts to streamline the NEPA process I cannot support those aspects of the proposed legislation that undermine compliance with

¹30 U.S. § 1607.

²See *Mining on Federal Lands*, GAO-20-461R (2020), available at, <https://www.gao.gov/products/gao-20-461r>; see also, *Federal Land Management*, GAO21299, available at, <https://www.gao.gov/assets/gao-21-299.pdf>.

important federal laws and policies. As set forth below, several provisions in H.R. 209 would do just that.

A. Allowing Applicants to Prepare Environmental Documents Makes a Mockery of the Required Alternatives Analysis

Section 3(h)(3) of H.R. 209 authorizes the lead agency to adopt an environmental impact statement or environmental assessment that is prepared by or for a project applicant. That provision stands in direct conflict with Section 102(2)(C) of NEPA, which requires “a detailed statement [to be prepared] *by the responsible official*”³ Requiring agency officials to prepare environmental documents is critical to the success of the law. In particular, it helps to ensure a fair and robust consideration of all reasonable alternatives to the proposed action as required by Section 102(2)(C)(iii) of NEPA.⁴

Consider, for example, a proposal to open a new copper mine. The project applicant is not likely interested in considering alternatives to mining such as recycling, or alternative locations for a proposed mine, or alternative mining methods. Yet NEPA requires agency officials to consider these and other reasonable options. Recycling in particular warrants careful consideration before new mining is approved, especially where such mining encroaches on our public lands. A recent study from the Institute for Sustainable Futures at the University of Technology Sydney found that “[e]ffective recycling of end of life batteries has the potential to reduce global demand by 2040 by 55% for copper”⁵ As the study further found, this creates “an opportunity to significantly reduce the demand for new mining.”⁶ Beyond battery recycling, recycling copper wire and electronics equipment could help further reduce the demand for virgin copper.

The European Union is a leader in the field of recycling. Its “Waste from Electrical and Electronic Equipment (WEEE)” program,⁷ follows an Extended Producer Principle (EPR) that holds producers responsible for the collection, treatment, and monitoring of such equipment, including solar panels.⁸ Adopting something akin to the WEEE program here in the United States could greatly increase metals recycling and go a long way toward providing manufacturers with the metals they need without new mining. To be sure, we may need some new mining to produce the minerals needed for a successful energy transition. But the smart move would be to focus first on recycling because it is likely a viable alternative to at least some mining proposals. Legislation that adopts an “extended producer principle” for American manufacturers, together with policies to maximize metals recycling should be our first priority. That would help minimize the loss of public lands to large-scale mining operations, while saving money and the environment.

Lithium mining offers another excellent example as to why agency officials must be tasked with preparing the alternatives analysis required by NEPA. Lithium has traditionally been produced in two fundamentally different ways—solar evaporation and hard rock mining. Solar evaporation requires pumping mineralized groundwater into large storage ponds. The water in these ponds evaporates, sometimes over the course of an entire year, creating lithium carbonate. This process requires substantial pumping and adversely impacts the water supply of local communities. It also results in substantial waste piles that are typically left untreated, thereby contaminating the land surface and limiting opportunities for future land uses. Lithium recovery rates using this method are also low—somewhere between 20 and 40%.⁹

A second lithium production method involves hard rock mining for spodumene, the mineral associated with lithium deposits. Lithium mines use traditional open-pit and underground mining methods, with all of their concomitant costs and environmental problems. Processing spodumene also requires large quantities of chemicals, and results in substantial waste rock that is typically disposed of in tailings ponds. This obviously poses additional risks to land, water resources, and

³Emphasis added. 42 U.S.C. § 4332(2)(C). To be fair, the proposed law requires the document to fulfill the requirements of Section 102(2)(C) of NEPA but that provision seems to be intended to encompass the contents of the environmental document and not who prepares it. If it does instead include the latter then it has no force and effect.

⁴See e.g., *Natural Resources Defense Council v. Morton*, 458 F.2d 827 (D.C. Cir. 1972).

⁵Dominish, E., Florin, N., Wakefield-Rann, R., *Reducing New Mining for Electric Vehicle Battery Metals: Responsible Sourcing through Demand Reduction Strategies and Recycling* (2021). The study also found that recycling could reduce the demand for lithium by 25% and for cobalt and nickel by 35%.

⁶Id.

⁷Waste from Electrical and Electronic Equipment (WEEE) (europa.eu).

⁸*Reducing New Mining* report at 47.

⁹

local communities, and results in the further destruction of our public lands for private gain.

A promising alternative to these two traditional methods currently under development is called “direct lithium extraction (DLE).”¹⁰ DLE is a brine extraction method that extracts lithium from geothermal waters, processes the brine to remove the lithium, and then returns more than 98% of the brine back to the groundwater reservoir, thereby avoiding water resource conflicts. The DLE method has many significant environmental and economic advantages over solar evaporation and traditional mining. Geothermal energy can be used to extract the brine, it can recover up to 99% of the lithium, and it has the potential to produce a higher grade of lithium that will sell at a premium. DLE is also a much faster process for producing lithium, is not dependent on weather, and has a much smaller environmental footprint.¹¹ The California Energy Commission recently estimated that the Salton Sea Known Geothermal Resource Area could produce as much 600,000 tons per year of lithium carbonate using the DLE method.¹² That is far more than is currently used in the United States. DLE is quite obviously a promising and reasonable alternative to the traditional methods of lithium extraction. Yet, only by insisting that the responsible agency prepare the EIS is this promising alternative likely to even be considered as an alternative to opening a conventional lithium mine.

For decades, the Council on Environmental Quality described the alternatives analysis as the “heart of the EIS.” It is supposed to “present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public.”¹³ By allowing the project applicant to prepare the EIS for a major mining project, the proposed bill would cut the heart out of any NEPA document.

B. Allowing Operators to Develop Mining Claims without Any Discovery of Minerals Upends the General Mining Law and Unduly Threatens Public Lands

Calls to reform the General Mining Law of 1872 go back more than 100 years. To say that reforms are long overdue is a gross understatement. Most egregiously, mine operators on our public lands, most of which are based in foreign countries, are allowed to take these valuable public resources while paying nothing to the U.S. Treasury—no initial payment to acquire the rights, no royalties and no rental fees. Thus, if changes to the General Mining Law are going to be made, Congress should start by shifting public land mineral development to a leasing program that requires an upfront payment for the fair value of the minerals, with appropriate royalties for the minerals produced, and a performance bond that guarantees safe mining practices and proper reclamation once mining is completed. Even with such reforms, the historic practice of dumping massive quantities of mine tailings on our public lands is likely to continue, but the reform process would at least provide a vehicle for examining alternatives to this problematic practice.

A leasing program could also introduce an abandoned mined land fee, as was established under the Surface Mining Control and Reclamation Act,¹⁴ to help pay for the cost of cleaning up the thousands of abandoned mines left behind by mine operators. These abandoned mines litter our western public lands and cleaning them up will be costly.¹⁵ The mining industry is responsible for this problem and Congress should call upon them to help fix it.

Unfortunately, H.R. 209 fails to make even the tiniest effort to address these serious problems with the existing law. On the contrary, it exacerbates them.

First, Section 8 of H.R. 209 gives mining companies the legal “right to use, occupy, and conduct operations on public land” on payment of a small fee, and goes

¹⁰ Id. See also, Using Direct Lithium Extraction To Secure U.S. Supplies / News / NREL.

¹¹ A Look At Direct Lithium Extraction (“DLE”) And Some Of The DLE Lithium Companies / Seeking Alpha; see also, Direct Lithium Extraction / Cornish Lithium Ltd. available at, As Lithium Drilling Advances at the Salton Sea, Researchers Work Out the Details / News & Community / KCET. An animated diagram can be found here. Direct Lithium Extraction / Cornish Lithium Ltd. See also, <https://www.nrcan.gc.ca/our-natural-resources/minerals-mining/minerals-metals-facts/nickel-facts/20519>.

¹² Ventura, S. et al., Selective Recovery of Lithium from Geothermal Brines. California Energy Commission. Publication Number: CEC500-2020-020. <https://www.energy.ca.gov/sites/default/files/2021-05/CEC-500-2020-020.pdf>; see also Dave Goodman, et al., *Salton Sea Geothermal Development Nontechnical Barriers to Entry—Analysis and Perspectives* (June 2022) available at, <https://www.pnnl.gov/main/publications/external/technical-reports/PNNL-32717.pdf>.

¹³ 40 CFR § 1502.14 (2020).

¹⁴ 30 U.S.C. § 1232.

¹⁵ See, e.g., *Land Management Agencies Should Improve Reporting of Total Cleanup Costs*, GAO-23-105408 (2023).

on to define operations to include “any” activity on public land that has any connection with mineral prospecting or development, including waste dumps, roads, and transmission lines. This eliminates the long-standing requirement of the Mining Law that such activities must be supported by a discovery of valuable minerals.

A “discovery” has been the hallmark of a valid mineral location since the General Mining Law was adopted in 1872. Under the traditional test for determining the validity of a mining claim, the government must find that “a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine.”¹⁶ In *United States v. Coleman*,¹⁷ the U.S. Supreme Court upheld what it described as a “logical complement” to the prudent person test by insisting that claimants show that the minerals they discovered could be marketed at a reasonable profit. The problem is that neither Interior nor the operator can know whether the located minerals can be marketed at a profit without knowing the costs of developing those minerals. As the Department subsequently found, those costs may include, among other things, the cost of acquiring an adequate water supply and any additional land that might be needed for the mining operations, the costs to finance the operation, labor costs, and the cost of complying with relevant federal, state, and local environmental laws, including, for example, the Clean Water Act, the Endangered Species Act, the National Historic Preservation Act.¹⁸ Furthermore, FLPMA requires the BLM to “take any action necessary to prevent unnecessary and undue degradation of [our public] lands”¹⁹ and this allows the agency to impose additional measures that may be appropriate for protecting our public lands. All of these legal requirements must be analyzed during the environmental impact assessment process, and until that is done, and the costs of compliance are determined, neither the government nor the operator can know whether the propped mining operation can be developed at a reasonable profit, and thus whether a valid discovery has been made.

The sponsors of H.R. 209 suggest that when an operator proposes to expend their resources to develop a mine they must have determined that they can make a sufficient profit to justify the operation, and thus can meet the test for a discovery. But that puts the cart before the horse. As suggested above, identifying the constraints that will be imposed on a mining operation should only happen after a robust environmental impact assessment process followed by a government decision as to whether to allow mining, and if so, under what conditions. In other words, developing a mineral property that might appear to be valuable in the abstract may actually be unprofitable or only marginally profitable and insufficient to justify a discovery, after accounting for the true cost of developing the mine. Absent a discovery, the operator has no valid property interest and no right to mine.

A second massive problem with section 8 of H.R. 209 is that it appears to allow mining companies to use, free of charge, as much public land as they might claim to need to dispose of their waste rock and carry on all other activities that are ancillary to mining. For all of its problems, even the General Mining Law does not give a mineral locator carte blanche to use whatever public lands they might desire to facilitate mining. These are, after all, public lands that should be protected, to the fullest extent possible, for public use. H.R. 209 would make private mining of a vast array of substances the dominant use, capable of trumping all other uses, especially those uses enjoyed by the general public.

The consequences of this proposal are potentially alarming. While the mining industry focuses on critical minerals, the proposed language would allow operators who might claim any of the myriad minerals subject to the mining law, including, for example, uncommon varieties of limestone or building stone, and take as much public land for their mining operations as suits them. Our public lands would be overrun with people seeking to take advantage of this opportunity. Those of us who cherish public lands for their recreational, ecological, and aesthetic values would end up paying a huge price of this short-sighted policy.

By explicitly doing away with the bedrock discovery requirement of the General Mining Law, H.R. 209 would effectively gift our public lands to private, often foreign-owned, mining companies.²⁰ It would allow them to take as much of our public lands as they want for mineral development and for dumping their vast quantities of mine waste without any prospect that this land will ever be restored, and without paying a dime to the federal treasury. Anyone who cares about

¹⁶ *Castle v. Womble*, 19 Land Dec. 455 (1894).

¹⁷ 390 U.S. 599 (1968).

¹⁸ *United States v. Pittsburgh Pacific Co.*, 84 Int. Dec. 282 (1977).

¹⁹ 43 U.S.C. § 1732(b).

²⁰ See Multinational Mining Corporations Are Exploiting U.S. Taxpayers—Center for American Progress.

protecting our public lands for future generations should oppose this gift to the mining industry.

II. H.R. ____ : The Transparency and Production of American Energy Act (TAP American Energy Act)

A. The TAP American Energy Act's Goals Are Incompatible with the Long-term Outlook for Oil and Gas

The war in Ukraine and the surge in demand for oil and gas that followed our recovery from the COVID-19 pandemic caused energy prices to spike and created an understandable effort to control oil and gas prices by increasing oil and gas supplies. OPEC's decision to take advantage of this situation and curtail production exacerbated this problem. The TAP American Energy Act is apparently intended to respond to the supply side of the problem by increasing domestic oil and gas production. Almost everything about this proposed legislation, however, would be counter-productive, especially when one considers the long-term outlook for oil and gas.

Like it or not the shift away from oil and gas will accelerate in future years. Within a decade or two, we will witness a rapid transformation of the transportation sector toward electrification. As a result, the demand for oil will plummet. Similarly, renewable energy will become an increasing staple of our domestic electricity supply putting downward pressure on natural gas prices. In the short term, the market will likely remain volatile, rising and falling in response to major events like war. But as time goes on and the pace of the transition accelerates, oil and supplies will likely outstrip demand and lead to price declines. Most of the players in the oil and gas industry understand this and have shied away from major new commitments to oil and gas development, especially those that will take years to develop. Government policy should reflect this understanding.

About a decade ago, some of us were urging the government to manage coal's decline in a responsible way so as to minimize the economic dislocations for workers and coal dependent communities.²¹ Our pleas fell on deaf ears. What followed was a wave of bankruptcies from every major coal company that richly rewarded coal company executives for their mismanagement even as their employees and communities suffered severe losses.

While the parallels between coal and oil and gas development are not perfect the two industries are quite similar. Large companies with significant oil and gas assets face a serious risk of bankruptcy if they fail to anticipate and plan for the inevitable decline of that sector. Congress and the federal government could play an important role in managing the decline of the oil and gas industry in ways that will minimize economic dislocations, especially for workers and dependent communities. What Congress should be asking is how they can facilitate a just and orderly transition away from oil and gas and toward electric vehicles and renewable energy. By promoting more leasing and more oil and gas production at below market rates, the TAP American Energy Act seeks to do just the opposite and will lead us down the same path that faced the coal industry just a few short years ago.

B. Existing Federal Oil and Leases and Permits Far Exceed Current Demand

Currently, 37,496 federal oil and gas leases cover 26.6 million Federal onshore acres. Of that, 12.8 million acres are producing oil and gas from 96,100 wells. That leaves 53% or 13.8 million acres of public land under lease and not producing. The lack of production is not because the BLM has failed to issue drilling permits. More than 9,600 drilling permits have been issued for these lands and are not being used.²² Leases that are not producing, some of which manage to go on for years, due to various extensions beyond the 10-year primary term, tie up our public lands, preventing their use for other purposes, including, for example, renewable energy.

Offshore leasing tells a similar story. Currently 12 million offshore acres are under lease but 55% of these leased lands are not currently producing oil and gas. To be sure, offshore leases can take longer to go from lease to production and the capital costs for developing these leases can be quite high. But it is not as if the industry is begging for new leases. Indeed, just because the government "offers" more federal leases does not guarantee that this will lead to new leases being issued or more oil and gas being produced. The federal government "offers" many leases that receive no bids. During the four years of the Trump Administration, for example, Interior "offered" to lease 25 million acres onshore and 78 million acres

²¹ See e.g., Managing coal's decline—WyoFile.

²² About Oil and Gas / Bureau of Land Management (blm.gov); Report on the Federal Oil and Gas Leasing Program (doi.gov).

offshore. Yet only about 10% of these lands ended up under lease.²³ The TAP American Energy Act also ignores the significant administrative burden on the BLM that results from having to offer too many leases that no one wants.

The recently enacted Inflation Reduction Act requires the federal government to offer at least 2 million acres of onshore acreage for lease and 60 million acres of offshore acreage before it can proceed with renewable energy development. It seems prudent to wait to see how these offers play out before insisting that even more acreage be offered for lease. Indeed, the rush to offer new leases and to issue more drilling permits seems wholly unnecessary in light of all of the existing acreage that is currently under lease and for which drilling permits have already been approved but that are not being developed.²⁴

C. The TAP American Energy Act Would Deny the American Taxpayer a Fair Return Even as Oil Giants Post Record Profits

In 2022, Exxon post record profits of \$55.7 billion. Shockingly, that is \$6.3 million an hour!²⁵ All of the majors posted similar record profits. These oil giants didn't "earn" these record profits because of clever management or good decisions. Their profits are due almost entirely to a rise in oil prices brought on by an unprovoked war by a Russian strongman and an oil cartel that decided to take advantage of this war. A reasonable congressional response to this situation might be to try to claw back some of these profits. Instead, the sponsors of the TAP American Energy Act appear to believe that it is better to add to the already overflowing oil company coffers while short-changing the American people through below market royalties and rental fees, and by reviving the much-criticized noncompetitive leasing program.²⁶ In a November, 2020 report, the GAO found that 98.8 percent of non-competitive BLM oil and gas leases sold between 2003 and 2009 did not enter production during their 10-year primary term.²⁷

The oil and gas industry already sits on almost 14 million acres of public land leases that are not being developed and that could be made available for other uses, including renewable energy development. Offering additional leases that are not likely to be developed, especially under the noncompetitive leasing program, is irresponsible and contrary to the public interest.

The oil and gas provisions of the TAP American Energy Act are trying to solve a problem that doesn't exist, and it would do so in ways that unnecessarily compromise our public lands. For all of the reasons set forth above, Congress should reject the provisions that seek to increase oil and gas leasing as provided in this proposed legislation.

D. The Automatic Suspension of Leases Following an Expression of Interest in an Adjacent Tract by a Lessee Invites Abuse

The Mineral Leasing Act allows the BLM to suspend an oil and gas lease "in the interest of conservation."²⁸ In a 2018 report, the GAO found that the BLM had suspended 2,750 oil and gas leases in 16 states, covering about 3.4 million acres of federally managed land.²⁹ Suspensions for 650 of those leases had lasted for more than 30 years. For 320 more, they lasted between 10 and 30 years. During lease suspensions, no revenues are collected. While there may have been good reasons for some of these suspensions, the GAO was rightly critical of the BLM for failing to set out the reasons for the suspensions. Moreover, the BLM has no process for periodically reviewing these suspensions and they likely go on for years without any review.

Lease suspensions have a significant potential for abuse, and the TAP Energy Act would exacerbate the problem by requiring the Secretary to approve a suspension within 15 days after receiving a request, whether or not that request has merit. Apparently, all the lessee must show is that it has an interest in leasing an adjacent

²³ How much oil and gas comes from federal territory?—USAFacts.

²⁴ About Oil and Gas / Bureau of Land Management (blm.gov); How much oil and gas comes from federal territory?—USAFacts.

²⁵ <https://www.gov.ca.gov/2023/01/31/big-oil-made-record-2022-profits-while-fleeing-california-families/>.

²⁶ See Oil and Gas: Onshore Competitive and Noncompetitive Lease Revenues, GAO-21-138; see also, On Heels of BLM Oil and Gas Lease Sale, Chair Grijalva and Rep. Lowenthal Release GAO Report Showing Extent of Outdated Industry Giveaways, House Natural Resources Committee, December 14, 2020, describing the GAO report.

²⁷ Id.

²⁸ 30 U.S.C. § 209; see also 43 CFR § 3103.4-4.

²⁹ *Oil and Gas Lease Management: BLM Could Improve Oversight of Lease Suspensions with Better Data and Monitoring Procedures*, GAO-18-411 (2018), available at, <https://www.gao.gov/products/gao-18-411>.

tract. As the GAO found, lease suspensions can last for years and during the suspension period the government receives no revenue—no rental payments nor royalties. Furthermore, the law makes no provision for periodically reviewing suspensions and for canceling them when appropriate.

If the government wants to allow suspensions it should do so transparently. A request should be made public, should be subject to public comment, and should be approved only after the BLM provides a written statement of reasons that explains why, through no fault of its own, the lessee is unable to develop the lease. Moreover, once granted, lease suspensions should be reviewed no less than every two years through a public process that ensures that the reasons for the suspension still hold true.

Lease suspensions allow the lessee to hold onto leases and tie up public lands for decades without paying rentals or royalties. Historically, these suspensions have been granted without public notice or review, and without any explanation of the reasons for the suspension. The TAP American Energy Act should fix these problems. Instead it proposes to make them worse.

E. The Proposed Changes to NEPA would Undermine the Law

NEPA has proved a useful scapegoat for those who complain about delays in decisionmaking. Yet the basic idea behind NEPA—that we should take a careful look at the potential consequences of a proposed action before moving forward—is hard to criticize. It is for that reason, that NEPA might very well be the most emulated American law ever written. Most developed countries follow a NEPA-like process and many state and local governments do so as well. To be sure, the NEPA process can bog down and lead to unnecessary delays, but the answer to this problem is not to gut the law, but to make smarter use of it. Unfortunately, the TAP American Energy Act proposes a number of changes to NEPA that would greatly undermine its effectiveness in promoting smarter and better government decisions.

First, Section 202 of the proposed law would codify the Trump era CEQ rules. Those rules have already been partially revised by the Biden Administration and further revisions are expected soon. But what ever one thinks about the merits of the competing versions of these rules, freezing them in place makes no sense. Climate change requires that the CEQ be nimble in responding to new circumstances as they arise. For example, the CEQ likely needs to consider building into its rules adaptive management criteria so that decisions that are impacted over time by changes on the ground can be adapted to reflect the new information. This will also require more careful monitoring so that changes can be detected in a timely fashion. Somewhat relatedly, the revised rules should include stronger mitigation language. Historically, agencies have had discretion as to whether to require mitigation measures as part of their decision. But when reasonable mitigation measures are available as determined by the agency during the NEPA process, those mitigation measures should be mandated. Finally, the Trump era rules make the same mistake as H.R. 209 in allowing a project applicant to prepare an environmental impact statement. For the reasons set forth in my comments on that proposal, such a provision should not be codified as proposed in this bill.

This review of the Trump era CEQ rules is in no way comprehensive and many other concerns might fairly be raised. But the broader point is that the CEQ needs flexibility to decide how best to implement NEPA's important mandates and it should not be subjected to the straight-jacket that would result from codification of the Trump era rules.

Section 205 of the proposed TAP American Energy Act raises a different problem. It provides for the reuse of previous EAs and EISs if the new proposed action is substantially the same as what was previously analyzed, and if the effects of the proposed action are substantially the same. But, at a bare minimum, a new proposal will occur at a different location and it is almost inconceivable that the effects of an action at an entirely different location are going to be the same. Agencies would be wise to reuse the prior analysis of technologies and other information that is not dependent on a particular site, but it seems highly unlikely that they would ever be able to adopt wholesale a previous EA or EIS for a new project that was not the subject of an earlier analysis. Construing this language to allow the adoption of a previous assessment as proposed in Section 205 would violate the spirit if not the letter of NEPA.

Finally, Section 208 of the proposed TAP American Energy Act authorizes the Secretaries of Agriculture and Interior to accept and expend funds to expedite the processing of various energy-related actions and facilities. The law should make clear, however, that these funds should not be accepted from parties with an interest in the agency's decision. Rather, parties who are seeking permits should be

charged reasonable fees for processing their permits as authorized by Section 304(a) of FLPMA.³⁰

F. The Provisions Addressing Public Land Withdrawals in the TAP American Energy Act Handcuff the Land Use Planning Process

Proposed section 301 of the TAP American Energy Act imposes a significant burden on the Secretary of the Interior by denying him the authority to withdraw public lands, as authorized by Section 204 of FLPMA, until she has carried out various assessments and reported on those assessments to various House committees. Withdrawals are an important tool for ensuring that the certain public land values are protected from uses that would compromise them. Yet, section 301 would hobble the Secretary from using protective withdrawals when they might be needed.

Section 301 further burdens the already cumbersome land use planning process by demanding a singular focus on minerals and seeking to skew planning in the direction of more mineral development, even if the agency has previously decided that certain lands are better suited to other uses. This arguably violates the multiple use, sustained yield mandates that both Interior and the Forest Service are required to follow, but it also handcuffs the ability of these agencies to make the critical choices about the appropriate uses that should be allowed and should not be allowed on particular tracts of public lands.

Finally, section 302(a) prohibits the President from “taking any action that would pause, restrict, or delay” the issuance of various leases, permits or approvals unless the land has been withdrawn. Similarly, section 302(b) broadly prohibits, with very limited exceptions, officials in the executive branch from rescinding leases, permits or claims for the extraction and production of any and all manner of minerals, locatable, leasable, or subject to sale under current law, or from taking other actions that could delay or restrict the issuance of new authorizations to produce such minerals. These limits on the executive violate a long tradition of entrusting the public lands agencies with the responsibility to follow a public process and to exercise their discretion in deciding how best to manage our public lands. For these reasons, the restrictions on Secretarial withdrawals under proposed section 301 and 302 should be rejected.

Thank you again for the opportunity to appear before the Committee today. I wish the Committee well as it seeks to address the important issues that surround mineral development on our nation’s public lands.

QUESTIONS SUBMITTED FOR THE RECORD TO MARK SQUILLACE, UNIVERSITY OF
COLORADO LAW SCHOOL

Questions Submitted by Representative Ocasio-Cortez

Question 1. Section 214 of Rep. Westerman’s H.R. _____ “Transparency and Production of American Energy Act of 2023” allows only for the environmental analysis of the areas on and immediately adjacent to the lease plot under analysis, and excludes consideration of the downstream, indirect effects of oil and gas consumption. What are the public health and environmental implications of this section?

Answer. This section would preclude consideration of indirect and cumulative effects as currently required under the Council on Environmental Quality (CEQ) rules. Specifically, by limiting the environmental analysis to a single lease, as provided under the “Transparency and Production of American Energy Act of 2023”, the analysis will deny the public as well as the agency decisionmakers important information about the indirect and cumulative effects of that lease. The CEQ rules rightly require consideration of direct, indirect, and cumulative effects associated with a proposed action.¹ As discussed in more detail below in response to Question 2, an analysis of cumulative effects is especially important in the context of oil and gas development. A single oil and gas well might not contribute a significant amount of greenhouse gases or other air pollutants, but hundreds or thousands of leases located in discrete areas could pose significant consequences to the environment and public health.

In my home state of Colorado, the EPA recently determined that Front Range cities are “severely” out of compliance with the national ambient air quality

³⁰ 30 U.S.C. § 1734(a).

¹ 40 C.F.R. § 1508.1(1)-(3).

standard for ozone.² Atmospheric ozone poses serious health risks, especially to the elderly and people who have difficulty breathing, even at low concentrations.³ Ozone is formed by a mixture of nitrous oxides, volatile organic compounds (VOCs), and sunlight. Oil and gas operations release significant amounts of nitrous oxides and VOCs, especially methane, which is a potent greenhouse gas. Recent data suggests that oil and gas operations on the Front Range are the chief culprit for increased ozone pollution in the region.⁴ Oil and gas operations also release air toxics like benzene, ethylbenzene, and n-hexane.⁵ A single lease might produce a relatively insignificant amount of these pollutants. But hundreds or thousands of leases in a discrete area can have devastating health consequences for people living near these facilities.⁶ These cumulative impacts would simply be ignored if the TAP American Energy Act became law.

Question 2. This legislation codifies the Trump administration's 2020 NEPA regulations that eliminate the cumulative impact analysis requirement. This requirement mandates that federal agencies consider other nearby pollution sources and the cumulative impact a proposed project or permit would have on a community when analyzing the environmental impact of said project. Why are cumulative impact analyses important, and what would be the consequences of eliminating this requirement?

Answer. The current Biden-era CEQ rules define "cumulative effects" as:

effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions, when measured alongside all of the past, present, and reasonably foreseeable future leases and other actions.⁷

Thus, when analyzing an individual action, like a single oil and gas lease, the CEQ rules require the decisionmaker to assess the cumulative impacts of all other leases and other actions that cause cumulative effects. So, for example, activities on public lands like grazing, oil and gas development, and renewable energy projects can impose cumulative impacts on wildlife species, including endangered and threatened species and candidate species like the Greater sage grouse. If we don't want to push the Greater sage grouse into a formal listing, with all of the consequences that that entails, we should be carefully evaluating the cumulative effects on that species, as well as other impacted species, from a wide range of activities. Likewise, many public lands activities release greenhouse gases (GHGs) and otherwise contribute to or are impacted by climate change. Looking at the cumulative effects of these activities will be extremely helpful in developing measures that can avoid, minimize or mitigate the adverse impacts from these activities. An important tool for measuring the social cost of GHGs (SC-GHG) would make it relatively easy for agency decisionmakers to ascertain the cumulative impact on society from past, present, and reasonably foreseeable future actions, when considering a permit application or proposal for an individual project. A draft report recently released by the EPA estimates that cost at about \$190/ton of CO₂. The public would benefit greatly from a transparent discussion of the cost of approving a new permit, when considered alongside other projects that release GHGs into the environment. That discussion will also will allow the decisionmaker to be better informed about the consequences of their decision.

Question 3. In your written testimony, you criticized the proposal to restore non-competitive oil and gas leasing on public lands, which was eliminated in the Inflation Reduction Act. Can you elaborate more about your opposition to non-competitive leasing?

Answer. Noncompetitive leasing promotes speculation. Under the pre-Inflation Reduction Act (IRA) version of the Mineral Leasing Act, a party could obtain a lease

²The Clean Air Act establishes various levels of noncompliance with increasingly strict standards to bring the area into compliance. The levels are: (1) marginal; (2) moderate; (3) serious; (4) severe; and (5) extreme. See <https://crsreports.Congress.gov/product/pdf/RL/RL30853>.

³See Health Effects of Ozone Pollution/US EPA.

⁴See Corrected ozone data estimate fracking and drilling produce more emissions than every Front Range vehicle/Colorado Public Radio (cpr.org). ("... [D]rilling and hydraulic fracturing ... alone appeared likely to account for more ozone-causing emissions than all cars and trucks along the Front Range.")

⁵See Basic Information about Oil and Natural Gas Air Pollution Standards/US EPA.

⁶See Study Explores Demographics of Communities Living Near Oil and Gas Wells/Environmental Defense Fund (edf.org).

⁷40 CFR 1508.1(g)(3) (2021).

on a parcel that received no bids during the competitive auction simply by paying a small filing fee and the first year's rental of \$1.50/acre. In a report issued in 2020, the GAO found that 98.8 percent of these noncompetitive BLM oil and gas leases sold between 2003 and 2009 never produced oil and gas during their 10-year primary term.⁸ Yet these leases tie up our public lands and are unavailable for other uses. Add to this the BLM's tendency to approve lease suspensions without public scrutiny and these leases can tie up our lands for several decades, while providing no return to the public. (When leases are suspended the obligation to pay rent is also suspended.) Most worrisome, is the fact that the TAP American Energy Act would apparently require the BLM to approve these suspensions within 15 days after they are requested just because the operator claims it would be in the interest of conservation. No inquiry, no public notice, and no periodic review of these suspension requests would be required.

The IRA wisely eliminated noncompetitive lease sales. It also set graduated rental rates that make speculation much more costly, and thus far less likely to happen. H.R. 209 would bring back the noncompetitive leasing program and restore the old, below market rental rates. That would be tragic.

Question 4. This legislation would allow the Secretary to accept funds from third parties to expedite the processing of energy-related activities. Can you expand on how this section could invite abuse and undermine NEPA?

Answer. When third parties provide funding to expedite processing for energy-related facilities, they likely want the proposed project approved. Even if the money is not made contingent on a particular outcome, the agency will face substantial pressure to approve the project as desired by the funder. But government decision-makers must approach a proposed action with an open mind and decide on the merits whether the proposal should be approved, approved with changes or rejected. Anything but straight up approval is harder if a third party has paid the bill. Moreover, this is entirely unnecessary.

Section 304 specifically authorizes the BLM to charge "reasonable filing and service fees and reasonable charges, and commissions with respect to applications and other documents relating to the public lands."⁹ Thus, the BLM already has the authority to impose fees sufficient to cover the cost of processing applications. Unfortunately, it seems reluctant to use this authority to cover its full costs. If it were to do so it would not have the need to accept funding from third parties.

Mr. STAUBER. I thank you very much for your testimony.
The Chair now recognizes Mr. Thomsen for 5 minutes.
Mr. Thomsen.

STATEMENT OF PAUL THOMSEN, VICE PRESIDENT OF BUSINESS DEVELOPMENT, AMERICAS, ORMAT TECHNOLOGIES, RENO, NEVADA

Mr. THOMSEN. Thank you, Chairman Stauber, Ranking Member Ocasio-Cortez, and all the Subcommittee members for this very timely hearing on critical geothermal permitting reform.

I will make brief remarks, and I am happy to answer any questions you may have.

By way of introduction, Ormat Technologies is a vertically integrated renewable energy company focused on geothermal energy development. We have been in the United States, headquartered here, since 1965, and are headquartered in Reno, Nevada. And today, we own and operate 1,100 megawatts of generation, primarily in the United States. We also have projects in Kenya, Guatemala, Indonesia, Honduras, and Guadeloupe.

What separates Ormat from other developers is that we not only own and operate geothermal projects, but we design and manufac-

⁸Id.

⁹43 U.S.C. 1734(a).

ture the equipment. Ormat is also responsible for 2 gigawatts of geothermal generation around the world. So, that is about double what we have been able to do here in the United States.

We have extensive experience on U.S. public lands. We have 22 operating geothermal projects on almost a quarter of a million acres of BLM land. We have another 17 projects that are in NEPA review. We have paid about \$2.6 million in royalties, and we pay about \$1 million a year in rentals to the Bureau of Land Management. Our zero-emission binary technology is deployed almost 10 to 1 over other technologies today, and we have avoided about 4.5 million tons of CO₂. And we think the provisions in the TAP Act will help us double that.

We applaud the introduction of the Transparency and Production of American Energy Act of 2023. It provides clarity and consistency in three specific areas that will help meet the goal of deploying at least 25 gigawatts of geothermal energy on public lands by 2025.

So, what does this bill do, exactly? Well, section 109 requires geothermal leasing to occur annually. In states like Nevada, we see the Bureau of Land Management regularly conducting lease sales, which is the critical first step to geothermal development. In other states, we have not seen a lease sale since 2016, even though lands have been nominated for geothermal development.

Section 203 recognizes that the drilling for exploratory geothermal wells, including constructing or improving structure pads for activities that are less than 12 inches in diameter and where the total surface disturbance is less than 5 acres, should not be required to proceed through the full NEPA review, which is currently taking geothermal projects 24 to 36 months.

What does that mean? Before a geothermal developer can even know if there is a geothermal resource today to be able to drill those exploratory wells, we have to go through a full environmental assessment, and that is taking between 2 to 3 years. Then we proceed to a utilization permit to build and construct and operate the power plant, which takes another 2 to 3 years, currently. That is 6 years to develop state-of-the-art, zero-emission geothermal projects that take up less than about a 15-acre pad.

Section 213 of the bill really, again, clarifies that if the Federal Government does not have any rights to the surface estate and less than 50 percent to the subsurface estate, we do not have to go through the NEPA process, but we can work with the local entities in the state to permit these projects.

Non-major Federal actions. Clarifying that temperature gradient holes and other geothermal exploratory wells required for preliminary resource confirmation are non-major Federal actions. This will enable the geothermal industry to deploy more megawatts on public lands, creating new jobs and royalty revenues for our Treasury, local states, and counties. This clarification results from extensive consultation within the industry, white papers, a review by the Department of Energy in their Geo Vision Report, and the National Renewable Energy Laboratory.

I believe we have been discussing this for over a decade, trying to streamline the categorical exclusion so that geothermal is put on the same level playing field as other energy developers, to define where these resources are quickly. For years, Ormat and the

Geothermal Rising, the industry’s trade association, have requested the Department of the Interior or Congress to issue clarifications to the categorical exclusion from NEPA to reduce the permitting burden for geothermal resource confirmation.

Defining geothermal resource confirmation as a non-major Federal action immediately unlocks new projects and their associated economic benefits. But, maybe, most importantly, it allows the BLM field staff to focus on the appropriate permitting priorities of permitting the actual physical power plants that may have an effect on our environment.

This action also provides greater parity between geothermal and oil and gas, which is afforded a broad categorical exclusion for exploration activities, including resource confirmation wells under section 390 of the Energy Policy Act of 2005.

Thank you very much, Mr. Chairman.

[The prepared statement of Mr. Thomsen follows:]

PREPARED STATEMENT OF PAUL A. THOMSEN, VICE PRESIDENT, BUSINESS
DEVELOPMENT—AMERICAS ORMAT TECHNOLOGIES

Chairman Stauber, Ranking Member Ocasio-Cortez, and Members of the Subcommittee, thank you for the opportunity to provide testimony on the “Transparency and Production of American Energy Act of 2023.”

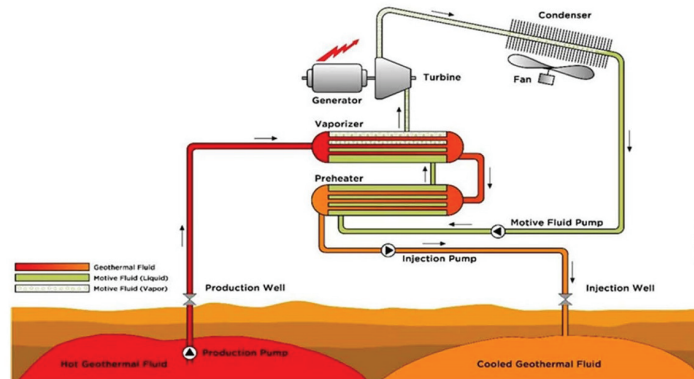
Ormat Overview

By way of introduction, Ormat Technologies, Inc. is a New York Stock Exchange registered company (symbol “ORA”). Headquartered in Reno, Nevada, Ormat Technologies has more than five decades of experience as a global leader in geothermal power and recovered energy generation (REG). A vertically integrated company with 1,400 employees, Ormat designs, develops, manufactures, owns, and operates geothermal power plants all over the world, with more than 3,000 MW of gross capacity in over 30 countries. Ormat has extensive experience on U.S. public lands, with 22 operating facilities (880 acres) utilizing 256,784 acres on Bureau of Land Management (BLM) land in California, Nevada, New Mexico, and Utah. In 2020, Ormat paid \$2.6 M in royalties and \$993,344 in rentals to the Bureau of Land Management.

Ormat’s state-of-the-art, air-cooled binary facilities provide stable and reliable renewable energy 24 hours a day, 7 days a week, with zero carbon emissions. Its geothermal facilities utilize binary technology to further reduce greenhouse gas emissions and decarbonize the power grid. Binary plants reinject 100% of geothermal fluid and maintain reservoir pressures, meaning they are ideal for geothermal reservoirs to maximize sustainability.

Ormat is a pioneer in Organic Rankine Cycle (ORC) technology and a leader in the manufacture of ORC power equipment. Using this technology, geothermal fluid is extracted from an underground reservoir and flows from the wellhead through pipelines to heat exchangers in the Ormat Energy Converter (OEC). Inside the heat exchangers, the geothermal fluid heats and vaporizes a secondary working fluid with a low boiling point. The organic vapors drive the turbine. They are then condensed in a condenser, which is cooled by either air or water. The turbine rotates the generator. Condensed fluid is recycled back into the heat exchangers by a pump, completing the cycle in a closed system.

Air-Cooled Binary Geothermal Power Plant



In March 2022, Ormat signed a 15-year Power Purchase Agreement (PPA) with Peninsula Clean Energy, a Community Choice Aggregator (CCA) that provides more than 3,500 GWh of electricity to San Mateo County and the City of Los Banos, California. Under the terms of the PPA, Peninsula Clean Energy will purchase 26 MW of clean, renewable energy from Ormat's Heber 2 geothermal facility located in Imperial Valley, California. This PPA marks the successful completion of Ormat's first ever solicitation for bids, with a request for bids (RFB) on the Heber 2 facility issued in July 2021.

In May 2022, we announced the execution of two PPAs with NV Energy. Under the first PPA, signed in 2021, NV Energy will purchase 25 MW of power over 25 years generated by the North Valley Geothermal Project, a new facility in Washoe County, Nevada, expected to come online by early 2023. Additionally, NV Energy will purchase up to 135 MW of power generated by a portfolio of the company's new and existing geothermal power plants under a PPA signed in May 2022. The portfolio PPA is subject to the Public Utility Commission's approval.

In June 2022, Ormat announced the execution of a PPA with California Community Power (CC Power), a Joint Powers Agency consisting of numerous CCAs. Energy deliveries under the portfolio PPA are expected to start in the second quarter of 2024, with the expectation that the entire portfolio covered under the new PPA will be online by the end of 2026. The portfolio PPA covers up to 125MW for a term of 20 years and is comprised entirely of new projects currently under construction or in development in Nevada and California. Capacity is subject to California Independent System Operator (CAISO) connection approval.

Demand for geothermal and other renewable energy is growing in the United States as generation costs have become more competitive. We believe that future demand for energy generated from geothermal and other renewable resources in the United States will be driven primarily by a further commitment to carbon-free capacity resources. For example, in California, the Public Utilities Commission has required Electric Load Service Entities (LSEs) to procure 11.5 GW of new clean electricity by 2028. One GW of this procurement must deliver firm power with an 80% capacity factor, produce zero on-site emissions, and be weather independent. With a high capacity factor and firm and flexible generation, geothermal energy addresses these requirements and is the natural replacement for baseload fossil fuels and nuclear generation, which is why the United States are seeing a massive surge in geothermal development.¹

TAP American Energy Act

Many geothermal resources that are commercially viable for energy production using today's technologies are located on public lands. BLM manages all subsurface

¹ Geothermal Power Purchase Agreements on the Rise (<https://www.geothermal-library.org/index.php?mode=pubs&action=view&record=1040017>)

geothermal resource on federal lands, regardless of the federal agency that manages the surface estate (such as the Forest Service). Therefore, almost all geothermal development must conduct a National Environmental Policy Act (NEPA) review. While geothermal is inexpensive to operate and maintain once a project is complete, during the resource discovery, phase developers must drill resource confirmation holes to determine the true quality and quantity of the underground resource. This means the industry has a disproportionate permitting burden at the “front end” of a project, before a revenue payback is guaranteed. A heavy permitting burden means a slow development cycle, and a slow development cycle means developers pay a lot for financing.

Regulatory reform is critical to alleviate barriers to geothermal development in the United States. Ormat appreciates the work of Congressman Bruce Westerman (R-AR), Congressman Pete Stauber (R-MN), and members of this Committee for introducing the “Transparency and Production of American Energy Act of 2023.” The TAP act provides clarity and consistency in three areas that will help meet the administration’s goal of deploying at least 25 GW of geothermal resources on public land by 2025:

- Section 109, Geothermal Leasing: Amends the Geothermal Steam Act to require a yearly lease sale for geothermal energy.
- Section 203, Non-Major Federal Actions: Exempts from NEPA review any drilling for geothermal exploratory wells, including for constructing or making improvement to structure pads for activities that are less than 12 inches in diameter and where total surface disturbance is less than 5 acres.
- Section 213, Access to Federal Energy Resources from Non-Federal Surface Estate: Amends the Geothermal Steam Act to exempt from federal permitting any geothermal exploration and production activities that occur on nonfederal surface estate, provided that the U.S. owns less than 50% interest in sub-surface estate and the operator submits a State permit to the Secretary of the Interior for the activity. Nothing in this section affects royalties owed to the federal government, and this same exemption does not apply to resources managed in trust for tribes.

Section 109, Geothermal Leasing: Ninety percent (90%) of conventional geothermal resources in the United States are located on federally managed lands. Access to more federal land is the critical first step for ensuring additional geothermal production. Lease provisions administered by the Bureau of Land Management (BLM) vary by state in process and frequency. Nevada BLM, for example, has held a geothermal lease sale every year since 2016, while California BLM has not held a geothermal lease sale since 2016. Standardizing annual land quotas, nominations, and decision time frames will create more opportunities for geothermal exploration and utilization.²

Section 203 and 213, Non-Major Federal Actions: Clarifying that temperature gradient holes and other geothermal exploratory wells required for preliminary resource confirmation are Non-Major Federal Actions will enable the geothermal industry to deploy more megawatts on public lands, creating new jobs and royalty revenues for our treasury, local states, and counties. This clarification is the result of extensive consultation within the industry, whitepapers, and a review of geothermal permitting conducted in 2013 and 2014 by the Department of Energy, Geo Vision Report³ and National Renewable Energy Laboratory (NREL).

As the GeoVision Analysis Supporting Task Force Report concluded:

“Reducing the overall project time directly attributable to NEPA, whether by reducing the time of individual NEPA processes or reducing the frequency of NEPA analysis for a particular project, can alleviate some of the major barriers to geothermal development. Reducing NEPA timelines directly decreases overall project timelines which indirectly decreases the perceived risk profile—lowering three of the four barriers to geothermal development identified by industry. Lowering these barriers is in line with one of NEPA’s stated goals: to “enhance the quality of renewable resources.”⁴

² Geothermal Rising, Letter to Secretary Debra Haaland, March 18, 2021, <https://geothermal.org/resources/geothermal-rising-letter-addressing-geothermal-permitting-public-lands>

³ Chapter 5: The GeoVision Roadmap: A Pathway Forward, ENERGY.GOV (2019), <https://www.energy.gov/sites/default/files/2019/06/f63/5-GeoVision-Chap5-opt.pdf>.

⁴ Young, K., A. Levine, J. Cook, D. Heimiller, and J. Ho. 2019. GeoVision Analysis Supporting Task Force Report: Barriers. An Analysis of Non-Technical Barriers to Geothermal Deployment

Defining geothermal resource confirmation drilling as a Non-Major Federal Action will significantly relieve the permitting burden for the geothermal industry without undermining environmental stewardship.

For years, Ormat and Geothermal Rising, the industry's trade association, have requested that Department of Interior (DOI) or Congress issue a new rulemaking or memorandum to expand and clarify existing categorical exclusions (CX) from NEPA to reduce the permitting burden for geothermal resource confirmation and observation. Defining geothermal resource confirmation drilling as a Non-Major Federal Action immediately unlocks new projects and their associated economic benefits, while allowing the hardworking BLM field staff to focus on appropriate permitting priorities. This action also provides greater parity between geothermal and oil and gas, which is afforded a broad CX for exploration activities, including resource confirmation wells, under Section 390 of the Energy Policy Act of 2005.

Next Steps for Geothermal Development on Public Lands

In addition to annual lease sale requirements and categorical exemptions for exploration activities (as currently proposed in the TAP American Energy Act), Ormat asks the committee to consider additional reforms that prioritize renewable geothermal energy development on public lands. Ormat continually updates Congress on permitting timelines and the increasing timelines for Environmental Assessments (EA), Environmental Impact Statements (EIS), and even Geothermal Drilling Permits (GDP). Formation of a geothermal task force within BLM could expedite the review and execution of permits, educate BLM offices less familiar with geothermal development, coordinate U.S. Department of the Interior Office of the solicitor review of BLM actions, and reduce permitting delays caused by the Biden administration moratorium on drilling which impacted geothermal project permitting and increased solicitor review times.

Streamline Geothermal Drilling Permits: BLM manages all subsurface geothermal resources on federal lands, regardless of the federal agency that manages the surface estate (like the U.S. Forest Service), creating a permitting bottleneck due to ineffective collaboration among land and resource managers. While interagency environmental planning remains essential to geothermal utilization at the power plant development phase, there is agency gridlock during review of Geothermal Drilling Permits (GDP) when multiple agencies cannot coordinate review efficiently. The DOI or Congress should establish a maximum two-month, BLM-only administrative approval time limit.

Permit Process Transparency: Ormat understands regulatory processes are essential to ensuring geothermal development is carried out responsibly. Increasing transparency in the permit process would assist in overcoming uncertainty and costs associated with undefined regulatory review timeframes. Ormat has approximately 17 projects currently under review by BLM. On average, permitting geothermal exploration takes four years, though some projects have taken many more years and are still pending NEPA determination. Permit tracking across districts and field offices can provide renewable energy developers clear outcomes, issues identification, improved education of agency staff, and a significantly shorter permitting process.

Remove Agency Redundancy: While geothermal plants are relatively inexpensive to operate and maintain once constructed, the resource discovery phase requires costly permitting and drilling to determine the quantity and quality of an underground resource. This places a disproportionate front-end investment on renewable energy projects. Costs are further exacerbated by cumbersome permitting cycles that put meeting federal and state renewable targets in jeopardy. Removing agency redundancies saves money and time. BLM should not be tasked with responsibilities to evaluate in detail resource issues that are under the jurisdiction or special expertise of federal or state environmental protection agencies. In the case of Nevada, water degradation prevention is already the jurisdictional responsibility of a state subsurface Underwater Injection Control (UIC) program with expertise in basin and range hydrologic and hydrogeologic systems. BLM should be directed to rely on and incorporate by reference the analyses of other state and federal agency with jurisdiction or special expertise, allowing BLM staff to focus on appropriate permitting priorities.

Conclusion

Ormat has unmatched insight into the progress and pitfalls of geothermal development, which is why the company is celebrating with two ribbon cuttings events in 2023, one of which is the first new independent plant in California in over a decade. Ormat remains resolute in its mission to deliver 320 MW in Power Purchase Agreements by 2026, a quantity that could easily double with regulatory reform. In closing, Ormat Technologies supports the House Natural Resources Committee's commitment to energy development, and specifically to the deployment of more megawatts of geothermal production, which will generate new energy, new jobs, and added revenue for the treasury, states, and counties. It is my pleasure to ask this Committee to help ensure geothermal energy remains a pillar of our nation's clean energy future.

QUESTIONS SUBMITTED FOR THE RECORD TO PAUL THOMSEN, VICE PRESIDENT,
ORMAT TECHNOLOGIES

Ormat applauds the work of Congressman Bruce Westerman (R-AR), Congressman Pete Stauber (R-MN), and members of House Committee on Natural Resources for their leadership in regulatory reform to geothermal development barriers in the United States. Further, Ormat appreciates the opportunity to respond to four additional questions pertaining to the geothermal components stated in the "Transparency and Production of American Energy Act of 2023" and H.R. 209 "Permitting for Mining Needs Act of 2023".

Questions Submitted by Representative Westerman

Question 1. Are the tools provided in this package for geothermal exploration consistent with other exemptions that the federal land management agencies offer to other energy sources?

Answer. Specifically this action provides parity between geothermal and oil and gas exploration, which is afforded a broad categorical exclusion for exploration work including resource confirmation wells, under Section 390 of the Energy Policy Act of 2005. We believe the proposed language provides certainty and consistency for the geothermal industry while requiring compliance with all environmental regulations.

Question 2. This bill would require the Department of the Interior to hold annual lease sales for geothermal development.

- *Could you discuss how annual lease sales would help provide certainty for the geothermal industry and how making this change would impact investment in geothermal development?*

Answer. Requiring annual geothermal lease sales is the only way to ensure that federally managed geothermal resources can be evaluated and developed. Ninety percent (90%) of conventional geothermal resources in the United States are located on federally managed lands. Access to more federal land is the critical first step for ensuring additional geothermal production. Annual lease sales are the foundation for developing additional geothermal resources. Standardizing annual land quotas, nominations, and decision time frames will create more opportunities for geothermal exploration and utilization.¹

Question 3. In your testimony you discuss the particularly burdensome permitting process on the front end of a geothermal project.

- *How would this bill expedite the permitting process on the front end of a project?*

Answer. As is the case now, preliminary geothermal exploration is hampered by onerous "front end" permitting requirements. Eliminating burdens in the process results in fixing an unnecessarily slow development cycle which results in significantly higher project financing. This bill facilitates the ability to collect data and make determinations about commercial viability without spending hundreds of thousands of dollars permitting non-commercial resources. The bill also eliminates uncertainty for federal decision makers and allows both the federal land managers and proponents to instead prioritize their valuable resources on viable geothermal developments.

¹Geothermal Rising, Letter to Secretary Debra Haaland (18 March 2021). <https://geothermal.org/resources/geothermal-rising-letter-addressinggeothermal-permitting-public-lands>

Question 4. Without significant permitting reforms will we be able to meet the administration's goal of having 25 gigawatts of geothermal on public lands by 2025?

Answer. No, 25 gigawatts of geothermal on public lands in less than two years is not achievable without significant permitting reform and a Department of Interior commitment to more efficient environmental review.

In summary, the geothermal component of the "Transparency and Production of American Energy Act of 2023" and "Permitting for Mining Needs Act of 2023" provides several specific changes needed to improve geothermal exploration. While we have discussed the benefits and crucial nature of those changes, it is important to reiterate that the proposed changes do not affect the geothermal industry's responsibility and integrity in meeting the highest water quality, reclamation, and well abandonment standards for environmental stewardship.

Mr. STAUBER. Thank you for your testimony.

The Chair will now recognize Members for 5 minutes of questions, and I will start with myself.

I would like to first take a moment to recognize the important work done by our colleagues from Louisiana on the bipartisan effort to increase coastal revenue sharing to 50 percent. Majority Leader Scalise is not only a standard bearer for our conference, but he is also my roommate and friend. I understand the importance of this provision to not only Representative Scalise, but also to my colleague on the Subcommittee, Representative Garret Graves. I am happy the BREEZE Act is included, and I look forward to supporting this legislation into law.

Mr. Nolan, it is great to see you again, and thank you for joining us today. As you know, the Biden administration opted to ban mining in the Superior National Forest, a working forest which partially covers the Duluth Complex, one of the most mineral-rich areas in the world.

After investing more than a half-a-billion dollars, Twin Metals had the rug pulled out from underneath. And the PolyMet project is on year 20 of permitting and fighting frivolous litigation. And by the way, both of these projects have project labor agreements in place with union building trades.

Can you explain why certainty is so vital to mining projects in the United States, and how the Permitting for Mining Needs Act provides certainty to miners?

Mr. NOLAN. Be happy to, Mr. Chairman. The Twin Metals Project is a poster child for what is wrong with the permitting process.

As you just outlined, the mining industry is a very patient group. We can wait, and we have waited. We have waited an incredibly long period of time. That time cost capital, cost jobs, cost trust, cost consultation. We really need to do better. The amount of capital that has been sunk for Twin Metals is a tremendous shame with a resource that can benefit the world and meet the exponential drive toward the minerals that we need to meet the electrification goals of the world economies.

With regards to the legislation itself, the directive is to appoint a lead agency to consult with the other agencies to make sure that timelines and deadlines are getting accomplished through MOUs.

The decision about bringing forward an EIS within 2 years, I think, is somewhat reasonable, from any measure.

It has been mentioned about the Federal Government allowing private entities or states to bring forward EIS work. That is what we see with our competitors in Canada, who can get projects up and running in 2 to 3 years. It is something that the Committee should seriously take a look at. It is included in this bill.

Changes such as that, looking at the land withdrawal process and assessing the minerals that are there before the land is withdrawn. We do not decide whether those minerals are, those were put there. And it is important that we take care of sensitive locations and communities, but at the same time there is a limited supply of locations where we can actually access those materials. Thank you.

Mr. STAUBER. Thank you very much. And, again, those are multi-generational union jobs that were just pulled out from underneath them.

Mr. Naatz, thank you for joining us today. In your testimony, you discuss the long timeliness for drilling permits, which is something we also discussed 2 weeks ago in Hobbs, New Mexico. If the timeliness mirrored those of the states, would that result in more taxpayer revenue and bring down the cost of energy for Americans?

Mr. NAATZ. Certainly, Mr. Chairman, we believe, if the process was streamlined and they got back to the NEPA process as it was originally intended, that would certainly help. Independent producers, the members we operate, are small producers, largely not publicly-traded companies. They roll their profits back into the ground. Many times they are local, operating there. So, it is really important to have a process that they have comfort in, that they understand.

One of the challenges, again, is the instability of the Federal regime, which, if it were clarified and made more streamlined, closer mirroring the states, we believe you would have additional production, both onshore and offshore.

Mr. STAUBER. Thank you very much. Will the TAP Act help reduce timeliness?

Mr. NAATZ. Is that to me? I am sorry—

Mr. STAUBER. Yes.

Mr. NAATZ. Yes, it will. It will. Again, the provisions—first of all, requiring quarterly sales, which is part of the Mineral Leasing Act, which is the law, is really important. It is unfortunate, we believe, that you have to have another law to force the Administration to already move on another law. But yes, we believe the provision in the TAP Act will help timeliness for a variety of reasons.

Mr. STAUBER. Thank you very much. And it was great to see you down in Hobbs, New Mexico, and touring one of the drill rigs. I appreciate that.

My time is up, and I want to refer the next 5 minutes to—

[Pause.]

Ms. OCASIO-CORTEZ. It is Kamlager-Dove.

Mr. STAUBER. Kamlager-Dove. There you go. I am sorry. I had my Ranking Member on my mind.

Ms. KAMLAGER-DOVE. Yes, I am skipping—

Mr. STAUBER. You are up now. Thank you very much.

Ms. KAMLAGER-DOVE. Thank you, Mr. Chair and my Vice Ranking Member for the courtesy.

My district includes the largest urban field in the United States, so my constituents, sadly, know better than many about the environmental and health impacts that come with oil and gas development. And I certainly believe, as do they, that we need stronger, not weaker environmental, climate, and public health protections. And I am concerned that some elements of these bills take us in the wrong direction.

Specifically, this legislation does a lot to limit environmental reviews critical for community input under NEPA. So, I have a couple of questions for Mr. Squillace.

First, I understand that the Federal law requires tribal consultation. So, if during the consultation process, a tribe opposes a public lands mine that would destroy sacred sites, for example, does the mining law empower the Secretary to deny that project?

Mr. SQUILLACE. I would say that the mining law doesn't necessarily give the Secretary that authority. We have a law called the National Historic Preservation Act, which arguably comes in here. It would require consultation with the various parties who would be affected, including the Advisory Council on Historic Preservation. And there could at least be recommendations that the permit be rejected on those grounds. It is not mandatory, but certainly there would be an effort to understand the potential implications on tribal resources, and consider those actions or those impacts in a final decision that was made to allow or not allow that to go forward.

Ms. KAMLAGER-DOVE. But it is discretionary.

Mr. SQUILLACE. Yes, it is discretionary.

Ms. KAMLAGER-DOVE. OK, great. And then, not great, but thank you for the answer.

[Laughter.]

Ms. KAMLAGER-DOVE. And then section 202 of the legislation would codify the Trump administration's disastrous NEPA regulations, which the Biden administration is in the process of replacing. Among other things, this legislation would eliminate the long-standing requirement that Federal agencies consider climate change in their environmental reviews, and also severely restrict the ability for agencies to consider pollution and public health impacts.

So, I would just love your thoughts on what gets covered up, what is not shared when you silence community by removing public input from the process.

Mr. SQUILLACE. Yes, it is a really important question. And I guess I would say that one thing that we kind of have ignored here is the fact that the social cost, if you will, of climate change is enormous, and we have tools that we can use to calculate that cost and factor it in to important decisions.

The EPA recently came out with a proposed study. It is still in draft form, but it suggests that the cost of one additional ton of carbon equivalent into the atmosphere is essentially costing us about \$190 for each ton. And some of these fossil fuels facilities and operations are contributing massive quantities of carbon into the atmosphere.

And if we took those costs into account, and we did so in a cumulative way, which would not be required under the Trump

administration's NEPA rules, I think we would be able to see quite clearly that a lot of these decisions to allow oil and gas to go forward would be arbitrary and capricious. It just wouldn't be appropriate, given the cost to society that we are seeing from climate change.

So, I think that is one of the big concerns with the proposal that has been offered there.

Ms. KAMLAGER-DOVE. Great, thank you very much. I agree with you. Oftentimes, we forget to talk about how much poor public health costs and how, while we are always looking to invest more in how we can have green and clean energy, we forget that when we are trying to circumvent a process or obfuscate it, we end up costing ourselves much more.

I just want to close by saying, I think these regulations and some of our past regulations have already resulted in sacrifice zones like those in Cancer Alley in Louisiana. So, I am certainly dedicated to doing everything that I can to stop legislation like this so that the issues we are facing aren't further exacerbated, and so that communities like mine, people that live in my district, don't suffer that same fate.

So, thank you so much, and I yield back my time.

Dr. GOSAR [presiding]. I thank the gentlewoman. The gentleman from Colorado is recognized for 5 minutes.

Mr. LAMBORN. Thank you, Mr. Chairman.

Horizontal drilling and hydraulic fracturing allow operators to drill numerous wells on a single pad, which reduces the surface disturbance on public lands. This is the least intrusive method that exists for large-scale energy production.

However, many of these pads need numerous wells to be profitable. In many cases, the approval of only a couple of individual drilling permits is not sufficient. Instead, operators may need five or so wells to be economically viable, and they need all of the permits in hand and ready to go to provide the certainty that is needed to develop. So, by failing to efficiently issue drilling permits, this Administration is jeopardizing projects across the West that require multiple permits.

Mr. Naatz, the TAP Act section 104 offers a suspension of operations to companies awaiting adjacent acreage not yet offered for lease. Can you talk about the development process, and why natural gas companies require multiple leases and permits?

Mr. NAATZ. Sure, Congressman, thank you for the question.

You outlined it very well. Many times in the Intermountain West, on Federal lands or anywhere, you have to put together projects in a very complicated system of federal lands, state land, federal minerals, state minerals, private minerals. So, as producers move forward, you just don't get one permit and drill. You need to have a program together, especially, again, smaller independent producers, but all producers, so that you have a program ready to move and secure the drilling rigs, to secure the labor, to secure all the issues that are required, and are importantly required—environmental issues. And that unionization is really important, because it is not just one well you go out and drill. It just would never be economical, it wouldn't work. And that is the challenge.

So, suspending those, again, some of the numbers that come out about the permit delays, that is exactly why you are holding on one permit, paying rent, paying for the lease, but at the same time you have to wait until these other projects or blocks come together. It is very important.

Mr. LAMBORN. OK, thank you. And for you and Mr. Nolan, how do U.S. energy and mining environmental regulations and labor standards compare to countries such as China, or Nigeria, or Russia, or Iran, where not only is the revenue going to countries that don't like us, but to countries that have poor environmental records and labor standards?

Mr. NAATZ. Congressman, just on our side, one of the things we always say is that U.S. oil and gas—and again, it is factual—are the cleanest barrels produced in the Gulf of Mexico, onshore, and especially as you compare to Saudi Arabia, to Venezuela, to Russia. Not only the environmental aspects of what is being done, but labor, the safety of the workers.

Again, the American industry has a record—well, the natural gas industry—second to none. We are very proud of that. We are going to continue to improve. So, it is important, too, when you look at that.

Mr. LAMBORN. And what about mining, Mr. Nolan?

Mr. NOLAN. Congressman Lamborn, the U.S. mining industry complies above and beyond the highest environmental safety and labor standards in the world. This Committee has highlighted this past month what is going on in the cobalt fields across the world right now with child labor. It is unconscionable. We need to invest here at home, where we can create good American jobs in the safest environmental, health, safety, and labor standards in the world.

Mr. LAMBORN. And I am going to finish with a comment, and you can respond if you want to, but you don't have to.

I just find it the height of hypocrisy that environmental extremists want to shut down U.S. energy and mining projects all over the United States wherever they can, when we excel at environmental regulations and labor standards compared to these other countries. I don't see them saying anything about these other countries and their poor labor standards and bad environmental records, and it is even worse because by shutting down U.S. production where they have been able to, that just forces these other countries to expand their operations and create more pollution and worse labor standards, including child labor. So, I just think that is the height of hypocrisy, and I really wish we could do something about that.

Thank you, Mr. Chairman. I yield back.

Dr. GOSAR. I thank the gentleman. The gentlewoman from Michigan, Mrs. Dingell, is recognized for 5 minutes.

Mrs. DINGELL. Thank you, Mr. Chairman. Before us today are two bills that I have to tell you really do raise concerns for me, because they weaken landmark environmental laws, specifically NEPA and the Endangered Species Act, instead of offering meaningful or bipartisan solutions for us to consider.

And I, again, want to reaffirm my commitment to work with my colleagues on real—I know we have to modernize our laws, but we have to do it in a way that protects original intent, but also makes

it better. These don't. And I am serious about working with you on real legislation that would do that. Unfortunately, I don't think these are serious proposals.

But let's first start with the mining law of 1872. I think it is fair to say a lot of things have changed over the 150 years, and I would hope all my colleagues would agree that our law should reflect the times we are in, not the past. I know you are telling me that.

So, Mr. Squillace, Democrats recently secured more than \$1 billion in the Inflation Reduction Act to increase Federal agencies' capacity for environmental reviews, which I was proud to support. So, how would modernizing our 150-year-old mining laws, instead of rolling back NEPA, allow us to better strengthen our domestic supply chain for critical minerals, so we can build the batteries we need to deploy more electric vehicles here in our energy storage solutions and not be dependent on China?

Mr. SQUILLACE. Thank you, Congresswoman, for that question. It is an important question.

And I want to say that I think we are going to have to recognize that we may need some more domestic mining in this country.

Mrs. DINGELL. I agree.

Mr. SQUILLACE. But if we are going to have it, it needs to be done right. We need to look at all those reasonable alternatives that I talked about in my testimony. And we need to make sure we have considered the environmental costs associated with going forward with some of these proposals.

I mean, I do think that the money that has been appropriated is going to help us to get there. But I also think that we owe it to the American people to reform the laws in such a way that these companies are paying a fair return to the people for taking these minerals. They are paying nothing to the American Government for taking our minerals, and most of these companies are foreign-based.

We are essentially allowing foreign companies to come into our country and take our minerals, and they are not paying a dime to the Treasury. I think that is shameful. I think that needs to be fixed. If we fix that, we can have a much more constructive conversation, it seems to me, about what kinds of new mining we are going to allow in this country.

Mrs. DINGELL. Thank you. And, again, I don't think it is either/or. We can do both.

Now I would like to move to the TAP American Energy Act. This is an Endangered Species Act question. The draft section 209 of the TAP American Energy Act would preempt all future environmental review of seismic testing in the Gulf of Mexico. This is problematic.

Section 209 ignores the science, ignores the Endangered Species Act, and the Marine Mammal Protection Act, and greenlights any and all seismic testing in the Gulf of Mexico outside the GOMESA moratorium area. It would be disastrous for the Gulf's marine wildlife and for the Rice's whale, one of the most endangered whale species on the planet. It is estimated that there are just 50 endangered Rice's whales left. NOAA biologists have concluded that seismic blasting is likely to eliminate or seriously degrade the entire species.

Mr. Naatz, yes or no, do you agree that it would be bad for the Rice's whale to go extinct?

Mr. NAATZ. Yes. But I would just like to say again that the Endangered Species Act, our companies comply with it, understand how important it is. So, of course, we want to work with the Committee and find an answer.

But, obviously, we would be concerned about any species going extinct.

Mrs. DINGELL. OK. So, yes or no, do you agree that it is prudent to evaluate the possible impacts of seismic surveys on the Rice's whale, and come up with mitigation and avoidance measures to help keep those remaining 50 whales safe, and help them on the road to recovery?

Mr. NAATZ. We are confident that the industry will work with the Federal regulators, work with the Fish and Wildlife Service to find answers there. And we are confident, again, that the Federal regulators will work with them to answer those questions.

Mrs. DINGELL. I am about to run out of time, but what I am concerned about is that section 209 of the TAP Act would prevent any future environmental reviews of seismic blasting in the Gulf.

I would ask my colleagues on the other side, especially those from Florida and the Gulf states, is the extinction of the endangered Rice's whale in your backyard really the price you are willing to pay for unfettered access to seismic testing in the Gulf of Mexico?

And Mr. Chairman, I ask unanimous consent to enter into the record the NOAA status review on Rice's whales and a statement about Rice's whales from 100 marine scientists that came out last fall.

Thank you, and I yield back.

Dr. GOSAR. Without objection, so ordered.

[The information follows:]

Submissions for the Record by Rep. Dingell

An Open Letter to the Biden Administration

We, the undersigned, are marine scientists united in our concern for the Gulf of Mexico whale, also known as Rice's whale, the only baleen whale known to be resident to the Gulf and one of the most endangered marine mammal species on the planet.

Early last year, in an effort led by the National Oceanic and Atmospheric Administration, scientists confirmed that the whale constitutes a unique species, one that has diverged from other baleen whales through long isolation in the Gulf.¹ A mature Gulf of Mexico whale extends about 40 feet in length and is sleek in form; it has a spectacular vocal repertoire, making a long call that has not been heard in other species.² This cetacean is also critically endangered.³ The agency currently

¹ Rosel, P.E., Wilcox, L.A., Yamada, T.K. and Mullin, K.D. (2021). A new species of baleen whale (*Balaenoptera*) from the Gulf of Mexico, with a review of its geographic distribution. *Marine Mammal Science*, 2021: 1–34, doi.org/10.1111/mms.12776.

² Soldevilla, M.S., Ternus, K., Cook, A., et al. (2022). Acoustic localization, validation, and characterization of Rice's whale calls. *Journal of the Acoustical Society of America*, 151(6): 4264–78.

³ Rosel, P., Corkeron, P., and Soldevilla, M. (2022). *Balaenoptera ricei*. *The IUCN Red List of Threatened Species*, 2022: e.T215823373A208496244. Available at iucnredlist.org/species/215823373/208496244.

estimates that the entire species has a population of only 51 individuals.⁴ With so few whales in limited habitat, the species is highly vulnerable to effects from human activities.

Continued oil and gas development in the Gulf represents a clear, existential threat to the whale's survival and recovery. The government's Natural Resource Damage Assessment on the *Deepwater Horizon* oil spill estimates that nearly 20 percent of Gulf of Mexico whales were killed, with additional animals suffering reproductive failure and disease.⁵ The species is also subject to chronic exposure to noise from seismic oil and gas exploration, which dominates the acoustic environment through much of the northern Gulf.⁶ Airgun surveys have far-reaching effects on baleen whales, including the masking of biologically important sounds and the disruption of activities vital to feeding and reproduction over large ocean areas.^{7,8,9}

Vessel collisions are another significant threat to the species. At night, Gulf of Mexico whales come to rest within the upper 15 meters of the water column, leaving them acutely vulnerable to ship strikes.¹⁰ One stranded whale, a lactating female, was found with injuries consistent with blunt force trauma; another, a free-swimming individual, has been observed with spinal deformities consistent with a collision injury.¹ A number of shipping routes traverse the whales' habitat along the northern Gulf, and the collision risk is likely to increase with new offshore oil and gas development. With abundance so low, the loss of even a single whale threatens the survival of the species.

Gulf of Mexico whales can recover. They continue to produce calves, and our experience with other baleen whales shows that populations can rebound as conditions improve. But Gulf of Mexico whales are on the edge of extinction, and measures are urgently needed to reduce mortality and serious injury as well as to alleviate human stressors. Aquaculture, offshore wind farms, and other new development should always be sited outside of their known habitat, which is limited to a strip of water running along the continental shelf break from the eastern through the central and western Gulf. Vessels transiting through the whales' habitat should be required to slow down and take other measures to reduce the risk of a fatal collision.

In the case of oil and gas development, protecting the species means excluding leasing and other activities from the whale's habitat; prohibiting seismic airgun surveys to prevent exposure of the whales and their habitat to what has become the dominant source of noise in the northern Gulf;⁶ and disallowing drilling in areas both inside and outside of the whale's habitat, such as in the Mississippi Canyon, that pose a catastrophic risk to the species. Habitat in the eastern, central, and western Gulf must be protected. Your Administration is presently considering a new five-year program for offshore oil and gas leasing, as well as a new regulation and related permits and authorizations for seismic surveys in the Gulf of Mexico. Continuing with seismic exploration or drilling in the northern Gulf is antithetical to basic principles of conservation and would jeopardize the species' survival and recovery.

The Gulf of Mexico whale is a unique part of the Gulf's natural history and the only large whale species resident year-round in the waters of the United States. Yet few on-water measures have been established to protect it. Unless significant

⁴Hayes, S.A., Josephson, E., Maze-Foley, K., et al., eds. (2021). U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments 2020, at pp. 160–67. NOAA Tech. Memo. NMFS-NE-271.

⁵DWH NRDA Trustees (2016). Deepwater Horizon oil spill: Final programmatic damage assessment and restoration plan and final programmatic environmental impact statement. Available at www.gulfspillrestoration.noaa.gov/restoration-planning/gulf-plan.

⁶Estabrook, B.J., Ponirakis, D.W., Clark, C.W., and Rice, A.N. (2016). Widespread spatial and temporal extent of anthropogenic noise across the northeastern Gulf of Mexico shelf ecosystem. *Endangered Species Research*, 30: 267–82.

⁷Castellote, M., Clark, C.W., and Lammers, M.O. (2012). Acoustic and behavioural changes by fin whales (*Balaenoptera physalus*) in response to shipping and airgun noise. *Biological Conservation*, 147: 115–22.

⁸Cerchio, S., Strindberg, S., Collins, T., et al. (2014). Seismic surveys negatively affect humpback whale singing activity off Northern Angola. *PLoS ONE*, 9(3): e86464.doi:10.1371/journal.pone.0086464.

⁹Blackwell, S.B., Nations, C.S., McDonald, T.L., et al. (2015). Effects of airgun sounds on bowhead whale calling rates: Evidence for two behavioral thresholds. *PLoS ONE*, 10(6): e0125720.doi:10.1371/journal.pone.0125720.

¹⁰Soldevilla, M.S., Hildebrand, J.A., Fraser, K.E., et al. (2017). Spatial distribution and dive behavior of Gulf of Mexico Bryde's whales: Potential risk of vessel strikes and fisheries interactions. *Endangered Species Research*, 32: 533–50.

conservation actions are taken, the United States is likely to cause the first anthropogenic extinction of a great whale species.^{11,12}

On this, the fiftieth anniversary year of the nation's commitment to whales through the passage of the Marine Mammal Protection Act, we urge you to announce robust conservation measures to protect the Gulf of Mexico whale as well as funding for its recovery.

October 2022

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¹¹Corkeron, P., Roman, J., Kershaw, F., et al. (2022). *Balaenoptera ricei* is also the Gulf of Mexico whale. *Marine Mammal Science*, 38: 847–49.

¹²Corkeron, P., and Kraus, S.D. (2018). Baleen whale species on brink of extinction for first time in 300 years. *Nature*, 554: 169.

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**STATUS REVIEW OF BRYDE'S WHALES (*BALAENOPTERA EDENI*) IN
 THE GULF OF MEXICO UNDER THE ENDANGERED SPECIES ACT**

Patricia E. Rosel, Peter Corkeron, Laura Engleby, Deborah Epperson, Keith D.
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December 2016

This memo is part of the hearing record and is retained in the
 Committee's official files.

It is available for viewing at:

<https://docs.house.gov/meetings/II/II06/20230228/115368/HHRG-118-II06-20230228-SD021.pdf>

Mrs. DINGELL. Thank you.

Dr. GOSAR. The gentleman from Wisconsin, Mr. Tiffany, is recognized.

Mr. TIFFANY. Yes, thank you very much. I would just respond to the good lady from Michigan. All she has to do is look at the upper Midwest states—Michigan, Wisconsin, and Minnesota—to see why the ESA needs to be reformed. And that is because of the wolf, the wolf that has recovered fully and no longer should be on the Endangered Species Act. They are the poster child for why we should reform the ESA.

Mr., or excuse me, Professor Squillace, is the Energy Information Agency, are they incorrect? Because I heard you say that there is going to be less oil and gas use. They are projecting through 2050 we are going to have about a 50 percent increase.

Mr. SQUILLACE. Thank you for the question, Congressman. Yes, I think they are incorrect.

The EIA has consistently over-estimated the amount of fossil fuels that we are going to need. If you look back the last 20, 30 years, particularly on issues like coal and oil and gas, their estimates were way off, in terms of—

Mr. TIFFANY. So, EIA is incorrect, EIA.

What was the price of oil on January 20, 2021, the day President Biden was—

Mr. SQUILLACE. I don't know the answer to that question, Congressman.

Mr. TIFFANY. The answer is it was \$60 a barrel. And what is it now, \$90 a barrel? Something like that.

Mr. SQUILLACE. It is a little under \$90, I believe, yes.

Mr. TIFFANY. Yes, exactly. So, you criticize a company for making huge profits. Why did that happen? All you have to do is look at cause and effect.

And to say that these companies that are—you heard from Mr. Naatz, how he said that it takes years for us to get through the permitting process, and that they are being denied being able to get those permits done. If you are seeing significant delays, you can see how people are pricing in the increase in energy costs as a result of the reduction in energy that is going to be produced right here in America.

It is time to stop the blame game, when we can bring down the price of oil really fast and also make it more affordable for the American people simply by producing more.

Do you agree that plastics pollution is a problem?

Mr. SQUILLACE. Yes.

Mr. TIFFANY. Isn't plastics an alternative to us not mining?

Mr. SQUILLACE. I don't know what you mean by that question. Certainly, plastics can be used as a substitute for some other—

Mr. TIFFANY. We use them for so many things that we used to mine minerals for. Haven't companies factored in the alternative in that way by saying we are not going to go the mineral route, we are going to produce our stuff in other ways?

I would just add a little statement. We just had the former U.S. Forest Service Director here a few months ago, when we were in the Minority last session, and I asked him if it is OK to mine anywhere. Because you lay out this whole issue of alternatives. But every time we said, "Well, how about here," he is like, well, no, we just simply can't do it here, including the mine out in Arizona, Resolution Copper, that, gosh, we can't possibly mine there, because I brought that up.

He said we shouldn't be mining in the upper Midwest, like Twin Metals. And I said, "Well, how about in"—and he said a dry climate would be a better place to go. We said, "Well, how about Resolution Copper?" Well, we can't mine there, either. It seems like every time we bring up an alternative, it is always no.

How many years of private sector experience do you have, Professor?

Mr. SQUILLACE. I would say six to seven. I should say that that was with the Department of the Interior.

Mr. TIFFANY. Yes, so that was not in the private sector. That was a public entity, correct?

Mr. SQUILLACE. That is correct, yes.

Mr. TIFFANY. OK. So, no years of private sector experience, if you exclude that.

Have you ever owned a business?

Mr. SQUILLACE. No.

Mr. TIFFANY. When is the last time you visited an active drill site, either mining or for petroleum?

Mr. SQUILLACE. About a year ago.

Mr. TIFFANY. Which one?

Mr. SQUILLACE. I was up at the Montana mine. I am drawing a blank. The one in Butte, Montana. I was up at that mine.

Mr. TIFFANY. Did you talk to the owners and managers of the facility?

Mr. SQUILLACE. Yes. Yes, we did.

Mr. TIFFANY. Have you ever been to the Eagle Mine in the Upper Peninsula of Michigan?

Mr. SQUILLACE. No, I have not.

Mr. TIFFANY. I would urge you to go there. You will see modern, 21st century mining that goes on up at the Eagle Mine. They actually, the drill hole goes underneath the river. And I would urge you to go there.

If people want to see 21st century mining right in your state, the Eagle Mine. It can be done using existing regulations that are there. The state permitting process can be used there.

Mr. SQUILLACE. Can I briefly respond to some of the comments that you are making here?

Mr. TIFFANY. No, I have only 20 seconds left, and I have to give some time to a couple of other people.

Does the process drive up the cost of minerals, Mr. Nolan? Does this process drive up the cost of us bringing minerals to the marketplace?

Mr. NOLAN. It absolutely does. The time delayed for projects is very expensive, and capital goes elsewhere.

Mr. TIFFANY. And does that ultimately end up coming out of the consumer's pocket?

Mr. NOLAN. Eventually in the price in the marketplace.

Mr. TIFFANY. I yield back.

Dr. GOSAR. I thank the gentleman. The gentleman from Rhode Island, Mr. Magaziner. Did I say it right?

Mr. MAGAZINER. That is right.

Dr. GOSAR. OK, thank you.

Mr. MAGAZINER. Thank you, Chairman.

This Committee has a responsibility to ensure that America's natural resources benefit the American people and not just the special interests. And over the past year, we have seen vividly what can happen when big energy companies are allowed to put profits ahead of people.

In just 6 months last year, the price of gasoline in this country rose 49 percent. The price of diesel fuel rose 55 percent. Rhode Islanders were paying \$5 a gallon for gas for the first time ever. Families were struggling to heat their homes. And what were the big oil companies doing? Raking in record profits—not revenues, profits. Exxon, Chevron, BP, Shell, Total Energy has recorded profits of nearly \$200 billion in 2022. That is not revenue, that is profits. That is \$600 for every American citizen.

Exxon alone reported more than almost \$80 billion in profits. That is \$6 million an hour. Their CEO made \$18 million last year, and the company recently signed off on a \$50 billion stock buyback plan.

Chevron made \$36 billion in profits, more than double the previous year. Their CEO made \$22 million, all of this while the

industry was sitting on more than 9,000 unused leases on Federal lands.

They want the price to be high. They want the price to be high. So, we cannot have a real conversation about lowering energy costs without addressing runaway profits. The benefit of energy production on public lands should go to the consumer, not the highly-paid executives or the hedge fund managers.

So, now we are being asked to consider legislation that would let the oil and gas industry short-cut environmental reviews to get even more leases faster and to sit on them longer, without any guarantee that it will do anything to lower prices for consumers. We are even being asked to look at gutting the funding that Democrats secured to speed up permitting reviews.

I will say that again: gutting the funding to speed up permitting reviews, because the goal here is not to speed up the process, it is to shortcut the process.

So, we cannot allow oil and gas companies to sit on unused leases for longer, preventing those leases from being used, by the way, for clean energy projects and other purposes that could lower costs for consumers indefinitely. We have to, as a Committee, make sure that we prioritize the interests of the American consumer, not the interests of the CEOs, the executives, the hedge funds, and the like. And I look forward to working with anybody to do that.

My question for Mr. Squillace is, in your testimony, you talked about how these 14 million acres of unused leases in many cases could be used for other productive purposes, including affordable, clean energy projects that could lower prices for consumers. Could you expand on that point, please?

Mr. SQUILLACE. Sure. Thank you for the question, Congressman.

We have tied up a lot of lands, not just for the 10-year primary term of a lease, but oftentimes much longer than that. There was a study done in 2018 that suggested over 2,700 leases had gone well beyond their primary term through these suspensions. The bill, the TAP American Energy Act, would allow almost unfettered access to these additional suspensions, which are supposedly in the interest of conservation.

And the problem with that is that, under the TAP American Energy Act, apparently an oil and gas company could request an extension, basically because they are claiming that they need some adjacent land to develop their oil and gas, and the BLM is required to issue that extension within 15 days, no review, no public process. And these extensions go on and on forever. The GAO report found that for 650 leases, these leases had extended more than 30 years.

So, the problem is that these leases are tying up our public lands and they are not being used for the purposes for which they were made. All those lands are no longer available, not just for renewable energy development, which could be important, but for other public uses that we could make of these lands, including public access, public recreation, and those kinds of things.

So, I think it is really important that we clean up the leases that are not being used, that we find ways to remove them from our public lands, and indeed that we periodically and pretty often

review suspensions of leases to make sure that they have been issued for legitimate reasons.

Mr. MAGAZINER. Thank you.

Dr. GOSAR. I thank the gentleman. The gentleman, Mr. Curtis, is recognized for 5 minutes.

Mr. CURTIS. Thank you, Mr. Chairman.

Professor—and I am going to try to do this—Squillace, did I—

Mr. SQUILLACE. It is Squillace.

Mr. CURTIS. Squillace. Excuse me. I knew I wouldn't get it right, but I wanted to address you.

In your testimony, you state, "Calls to reform the General Mining Law of 1872 go back more than 100 years. To say that reforms are long overdue is a gross understatement." I frequently hear this from a lot of my Democratic colleagues.

But I have noticed in an Op-Ed that you penned yourself on the Antiquities Act, you write, "It would be shortsighted in the extreme for Congress to change a single word of what has been, by practicality, every measure, one of the most fruitful and farsighted laws that has ever been put on the books."

Now, I am not going to disagree that during Western discovery there could be a role for Antiquities Act, but those days are long gone. How do you square—how is it logical to argue one law needs updating due to its age and the changing conditions of the world, but not the other from the same time period?

Mr. SQUILLACE. Thank you for the question, Congressman. I really think it is apples and oranges here.

I think, since the Antiquities Act was passed, there has been increasing demand from the public to protect our public lands for public kinds of uses. If you go back and look at the history of the Antiquities Act, many of our most favorite national parks started as national monuments that were designated under the Antiquities Act.

Mr. CURTIS. So, I am actually going to agree with you on that, although in my district the Antiquities Act has been used to abuse, to tie up vast amounts of land that don't have those same interests, and I would just argue with you that it needs the same changes because of its outdatedness.

Mr. SQUILLACE. Fair enough. Can we talk about the general mining law then, and the need for reform?

Mr. CURTIS. Well, I would like to talk to Mr. Nolan, and address a question to Mr. Nolan.

On average, it takes 4½ years to complete the NEPA permitting and review process. The recent IRA and infrastructure laws have authorized billions of dollars for renewables, but they will go underutilized due to NEPA.

Just yesterday, I met with the CBO Director, who agreed that permitting reform would increase the rate at which these new energy programs are used.

As we all look to cut global emissions and end hard working conditions abroad, shouldn't we prioritize domestic minerals?

Mr. NOLAN. I would fully support that statement. The global forecast for minerals demand are exponential. We are going to have shortages, prices will go up, the consumers will pay the price, manufacturing will pay the price, economic progress will pay the

price. We are 10 to 20 years behind China and the investments that they made, and now we are seeing the results.

Mr. CURTIS. Can you give us a sense of how the people you represent feel about this sense that it is not OK to do here, where we have rigorous standards for human rights, for emissions, for safety, and somehow it is OK—if we can't see it, it is somehow OK?

Mr. NOLAN. Well, the mining industry is a very proud and patient part, a vital part of our economy. We have witnessed an unprecedented growth in demand not seen in this country, not seen globally, probably, since World War II. And the opportunities that afford themselves here in the United States are vast.

And, again, we have been patient with this Administration and the Congress now reaching a bipartisan conclusion that we need these materials. There has been capital investments made through the Department of Energy, through the Defense Production Act that are helpful. But at the same time, if we cannot permit or expand mines here in the United States, none of those resources matter.

Mr. CURTIS. I don't want to put words in your mouth, but you tell me if this is an accurate representation. The people you represent stand ready to meet the highest environmental standards, the highest safety standards, the highest human rights values to meet the needs that we have here in the United States.

Mr. NOLAN. And exceed them, Congressman.

Mr. CURTIS. Excellent. Good. Thank you.

I yield my time.

Dr. GOSAR. I thank the gentleman from Utah. The gentleman from Arizona, the Ranking Member of the Full Committee, Mr. Grijalva, is recognized for 5 minutes.

Mr. GRIJALVA. Thank you, Mr. Chairman. Let me follow up on my colleague's questions, Mr. Nolan.

So, "exceed the highest standards." Do you believe, then, that companies, multi-national companies, corporations that work in other parts of the world that exploit people, child labor, horrible labor standards, no concern for the environment or clean air or clean water, do you feel that these particular entities should be allowed to do business on Federal land and waters if they are violating the laws of other countries? Yes or no, if you wouldn't mind.

Mr. NOLAN. No.

Mr. GRIJALVA. They should not be able to do business with us?

Mr. NOLAN. Congressman, there are specifics around global mining operations and how they operate. But what I can tell you is that the book of law that spans over three dozen Federal environmental laws and regulations, including some of them that have been mentioned here today, including the Antiquities Act, provides a vast—

Mr. GRIJALVA. And I agree. And thank you, Mr. Nolan. I look forward to working with you and my colleagues from across the aisle to address that issue, in particular, through legislation in the future.

If we are going to be consistent, that begs the question not to be consistent. And by banning those entities from doing business on Federal lands and waters, I think we take a step, and keep that

standard high for the rest of the world. I look forward to those discussions.

Mr. Squillace, the bill allows mining companies to do their own environmental assessments. Do you think that leads to, would create conflicts of interest? And how would that, in general, affect the environmental review, if a company does its own analysis?

Mr. SQUILLACE. Yes, I think there is no question, Congressman, that if a company prepares the environmental assessment, they have a biased point of view. They want to do what they are proposing to do. And that is why NEPA was careful to require that the NEPA document be prepared by the responsible official—that is, by the agency. Only by having the agency prepare the environmental documents are we going to get, as I was discussing in my testimony, a robust alternatives analysis that looks at other options.

I mean, in most cases, there are other ways to develop a mineral resource. There are other places, maybe, where you can do it. That is not to say that the government should deny the permit for the applicant, but we need to look at these other opportunities that we have.

I gave the example of lithium. It is kind of a very important issue right now, with what is going on with lithium.

I think we have paid far too little attention to the potential for recycling. You can dismiss recycling and say we are not going there, but we have no program here in the United States for robust metals recycling. And we could go a long way, I think, with solving our problems if we adopted something like what Europe has done with their waste of electric and electronic equipment program.

Mr. GRIJALVA. So, approximately sir, let me follow up with you. How much of our public lands would be open to mining claims if the text in this bill became law?

What kind of restrictions would exist on those that stake a claim where—how long would these claims be good for?

Mr. SQUILLACE. So, Congressman, you have been a champion of mining law reform and trying to avoid a lot of these problems, and many of us are greatly appreciative of that.

But I will say that because of the way that the proposal for H.R. 209 works, it would seem that it would open up all lands that have not otherwise been withdrawn. I think that is in the neighborhood of 300 million acres of public land that would be available. And you won't even have to show that you have made a discovery of valuable minerals. I mean, the only limitation we have really had on the ability of a mining company to go onto public lands and develop minerals is the discovery requirement. And that would be wiped out. As I pointed out in my testimony, it—

Mr. GRIJALVA. So, mining waste would then become, on public land, a mining—

Mr. SQUILLACE. Yes, because the bill defines operations to include all ancillary facilities that are needed for mining. So, all a mining company has to do is say that they need this additional 2,000 or 3,000 acres of public land for their giant mine waste pile, and it is theirs. They can basically take over our public lands with this toxic mine waste, and that land is going to, essentially, be lost forever.

Mr. GRIJALVA. As long as the present mining law exists, the legislation we are talking about today, it only makes matters worse. The law is the fundamental issue that is on the table. Mining industry doesn't seem to have a problem with that, but it does have a problem with public's right to know and public interest balance.

But I yield back, Mr. Chairman.

Dr. GOSAR. I thank the gentleman from Arizona. The gentleman from Idaho, might be increased to be the Greater Idaho, is recognized.

Mr. FULCHER. Not greater yet, but it might be coming here. Thank you, Mr. Chairman, and I am going to have a question for Mr. Thomsen here in just a second.

But given our circumstances, if we try to do anything in a bipartisan fashion, it is difficult because my friends on the other side of the aisle, in terms of energy production, they are not real fond of coal, not real fond of hydro because of dams, not real fond of fossil fuels, certainly nuclear, not even wind and solar when it comes to the point that they don't want us to mine and manufacture what is necessary to do that.

So, for some time I have been trying to think of, all right, unless you just don't like electricity, what are your sources? And one that has been a very strong one in my state of Idaho is geothermal. And I wanted to talk about that just for a moment, and ask you.

You had submitted in your testimony there is significant potential for geothermal resources on Federal lands. And in the past, I have introduced bills to streamline the exploration for such. And I just wanted to ask you, first of all, just in general, to expand on your earlier thoughts and comments about the potential for geothermal on Federal lands.

Mr. THOMSEN. Thank you, Mr. Chairman, through you to Mr. Fulcher. Thank you for the question, and we have discussed this some time ago. The potential for geothermal is huge, and states are starting to recognize that if they want carbon-free, reliable resources, they need to develop more and more geothermal resources.

The year 2022 was incredibly good for Ormat. We signed about 311 megawatts of power purchase agreements for the development of geothermal. We have been a company since 1985, and we operated about 1,000 megawatts. So, a third increase in our total power purchase agreements is staggering. And we are just one company. There are other companies.

California actually put out a request, basically, a mandate looking for 1,000 megawatts of resources from geothermal. So, the demand is increasing exponentially, and the need to be able to permit and develop these projects on Federal lands is also increasing.

However, at the same time, we are seeing the timelines for an environmental assessment, an environmental impact statement, and even a geothermal drilling permit continue to increase.

Mr. FULCHER. That actually takes me to the follow-up question. Please tell the Committee where those specific pinch points on the bureaucratic barriers for geothermal exploration and permitting, where are those pinch points in the bureaucracy?

Mr. THOMSEN. Sure. Mr. Chairman, through you to Congressman Fulcher, I think it is staffing at the Bureau of Land Management. I think it is education. I am incredibly impressed with the funding through the IRA. But it is going to take time to be able to hire the number of employees. We have seen a big loss in the specialty areas.

A lot of Bureau of Land Management employees were excited to get in and look at wildlife management. They are not experts in subsurface hydrogeology, and reservoir engineering, and the things that are required for geothermal development.

Mr. FULCHER. So, you could probably get the idea of where my head is on geothermal, and I think I understand where yours is. But it is very difficult, again, to get my friends on the other side of the aisle to do anything when it comes to energy production, except for turn on the light switch.

Tell us in the remaining minute and 10 seconds that we have, what does that footprint look like when you have a geothermal facility—talk about the disruption of the surface area. Talk about the environmental impact of a geothermal well, a geothermal project.

Mr. THOMSEN. Thank you, Mr. Chairman. Through you to Congressman Fulcher, our footprint usually takes up about a 15-acre disturbance. For the amount of power we produce, our environmental footprint is 22 times smaller than a solar PV project. We have zero emissions utilizing new binary technology. So, as previous comments looked at the climate change impacts, we see that discussion slowing down the development of some projects. We do not see it expediting the development of other projects like geothermal.

Mr. FULCHER. Thank you, Mr. Chairman. Mr. Chairman, I yield back.

Dr. GOSAR. I thank the gentleman from Idaho. The gentlewoman from New York is recognized, the Ranking Member.

Ms. OCASIO-CORTEZ. Thank you. Thank you so much.

And, Mr. Squillace, I just wanted to speak to a little bit of the conduct that was directed toward you earlier. I think that we, in this Committee, I rarely see anyone ask someone if they have a Ph.D. or not. And if they don't have a Ph.D., then their experience is illegitimate, and so on and so forth. And I think it was inappropriate for a Member to attack your extensive experience, just because you don't have an experience as a corporate executive or trying to squeeze families for profit that you shouldn't be listened to. I think that is inappropriate. We wouldn't do that in any other form of experience.

All forms of experience are legitimate, and yours is very necessary here in this hearing, particularly because it does provide that balance, and it speaks more to the state of our body that there seem to be people that think anything outside of corporate experience is illegitimate. So, thank you for being here today. You deserve better than that, but I will dive into it.

One of the pieces of legislation, as has been extensively discussed, that is on the table today is the TAP American Energy Act, and it gives away more and more lands to fossil fuel development, and locks them up from potential productive use, other

productive uses like renewable energy development and climate mitigation, and makes it even easier for industry to avoid public input and the consequences of their actions. So, let's talk about this whole leasing issue.

Mr. Squillace, on average, how many drilling permits are approved each year on Federal land?

Mr. SQUILLACE. Thank you, Congresswoman, and thank you for your kind comments. I have a pretty thick skin, and I am reasonably confident about my own experience and expertise. I was not cowed by the comments of your colleague.

I believe that the number is somewhere in the neighborhood of 3,000. Do I have that right?

Ms. OCASIO-CORTEZ. Yes.

Mr. SQUILLACE. I think it is about 3,000 permits that are issued every year. And as I mentioned in my testimony, we have 9,600 outstanding permits on our public lands. So, it is not as if the oil and gas industry doesn't have the opportunity to develop more public land oil and gas. I think the question is, do we really need to exacerbate the existing problem of all these leases and lands that are not being used, despite the fact that they are tied up for many, many years?

Ms. OCASIO-CORTEZ. And from our data, that is absolutely right. Nearly 3,000 drilling permits are approved each year. And how many wells are drilled annually out of that 3,000?

Mr. SQUILLACE. I don't know the number. I am guessing that you have the number in front of you. But, I think, the broader point that needs to be made here is that there is not a lack of opportunity for the oil and gas industry to develop our public lands. What we really need to think about is a transition.

I talked a little bit in my written testimony about the fact that the coal companies, a decade ago or so, many of us were arguing that we needed to think about the transition away from coal, because it was going to happen, and we couldn't get people to listen to the need to manage the decline, if you will, of coal. And what happened? We saw what happened. The big coal companies all went bankrupt, some several times. And the result was really devastating for a lot of the workers in the coal-dependent communities, while the executives made out like bandits.

And I suspect we are going to see something similar in the oil and gas industry, not today, not in the next couple 2 or 3 years. But if we start looking over the next decade or two, we are likely to see a significant change in that industry. And I think the most important thing is for the American Government to think about that transition. How are we going to manage it to make sure that we don't leave these dependent communities holding the bag, if you will, from the loss of jobs and the loss of an economic opportunity that they have?

I think it can happen. We are seeing a fair amount of transition of oil company employees to renewable energy. That is great. I just think that we need to sort of manage it better at sort of the national level, because I think it is coming whether folks like it or not.

Ms. OCASIO-CORTEZ. I mean, it is such an excellent point, Mr. Squillace, because our goals here are to actually protect and be

proactive for coal workers and fossil fuel workers because they were left holding the bag in the case of the coal industry. This transition was not prepared for, and there was almost this artificial propping up of the coal industry until the market forces just really saw this not work out.

And, in fact, there may be giggling here at that, but we saw even the other side resist pension protections for those coal workers. So, I don't want to hear this giggling at that, because we saw that pensions by the Republican Party were opposed for those fossil fuel workers until Democrats stepped in. But, thankfully, we were able to advance a bipartisan protection of that. But it wasn't until we were able to advance that.

And I think that that planning, that transition is going to be essential. Thank you for raising that point.

Dr. GOSAR. I thank the gentlewoman from New York. The gentlewoman from Colorado is recognized for 5 minutes.

Mrs. BOEBERT. Thank you, Mr. Chairman. I appreciate you holding this important hearing today.

With the average price of gasoline nationwide currently sitting at \$3.35, and the average hardrock mining project taking 7 to 10 years to go through the NEPA permitting process, clearly we must do more to streamline the permitting process and encourage responsible energy production.

And I must just add that I am not thrilled to hear the remarks from Mr. Squillace and the Ranking Member. It is coming, whether people like it or not, the Green New Deal? Wind? Solar? It is coming, whether people like it or not? We are not even going to allow the markets to decide? The markets were deciding with fossil fuels and it was a reliable and efficient energy source. And then the Federal Government came in and shut them down, and highly subsidized, heavily subsidized wind and solar—so-called renewables that are not renewable—and now we hear it is coming, whether people like it or not. You are going to learn to like it because the Federal Government is going to put the restrictions and regulations to force you to have it, and you are going to like it, whether you want to or not. Praise the Lord.

Look, I am proud to support both of these well-crafted bills that we are here to discuss today that will do the work that is needed to streamline the permitting process and encourage responsible energy production here in America. I am also thrilled that the TAP American Energy Act also includes the American Energy Act that I introduced. My bill, H.R. 1067, is important to the people in my district, and will help reduce gas prices by providing certainty for energy producers.

Chief Operating Officer Naatz, you talk about this in your testimony, but the Biden administration continues to ignore the leasing mandates in the Mineral Leasing Act and the Outer Continental Shelf Lands Act. Will this bill force the Administration and future administrations to comply with the law?

Mr. NAATZ. Well, it certainly should. Again, thank you for the question. As I said earlier, the laws are there, but the Biden administration has not enforced the Mineral Leasing Act and OCSLA. This bill will require quarterly lease sales, which is very important to get that process both onshore and offshore.

And I just want to also stress again how important, or how negative the President has been. I can't tell you the impact that the Administration saying no more drilling on Federal lands, no more drilling offshore, the President saying again no ability for the oil industry to provide to continue to drill, period, has a—

Mrs. BOEBERT. He wants to end fossil fuels. That was his campaign promise.

Mr. NAATZ [continuing]. Dampening effect on small producers that we represent to get out there and operate.

And the one other thing I would say is, you are talking about the energy renaissance that happened with hydraulic fracturing. Nobody knew that. So, if you are talking about "we know what is going to happen," we know the market decided that. Energy producers, independent producers, took huge risks to go down, hydraulically frack horizontal, and the energy renaissance has happened. Thank God that happened. Thank God that now that we have a situation in Ukraine and elsewhere, that people didn't say, "Oh, we are done." Our producers, American producers went out and said, "We are going to take the risk," small producers, and that has benefited all of us.

Mrs. BOEBERT. Yes. Thank you, Mr. Naatz.

It was reported yesterday that President Biden was incorrect about his assertions that the industry is sitting on 9,000 drilling permits, according to the BLM. In reality, those numbers are much lower, potentially due to a clerical error—how convenient—or a computer system malfunction.

Mr. Naatz, will you explain to those in this Subcommittee who have echoed those same remarks that Joe Biden said, what the revised number means, and why the industry might not be able to use a permit immediately upon receipt?

Mr. NAATZ. So, the numbers were—again, as we talk about 9,000—we are, by the agency's own admission, reduced down to 6,600. Again, that will tell you how unclear the agency is on what is happening. The President of the United States himself used a 9,000 figure, which was wrong.

Mrs. BOEBERT. Correct.

Mr. NAATZ. Second of all, many of those approved permits are tied up in litigation, lawsuits from the environmental community. Both in New Mexico and Wyoming, leases are tied up. So, as you are talking about leasing, it is really important to understand they are tied up in litigation.

And then, finally, it is not just a spigot that you open up. Once you get a permit, it takes a huge amount of work. This doesn't happen overnight. So, we certainly take exception to this idea that you can just turn these projects on and off overnight.

Mrs. BOEBERT. Right. Thank you, Mr. Naatz. My time is expired. And thank you to the witnesses who are here today.

Dr. GOSAR. I thank the gentlewoman from Colorado. The gentleman from Montana is recognized for 5 minutes.

Mr. ROSENDALE. Thank you, Mr. Chair, I appreciate it.

My friends across the aisle, when we talk about the cost of energy, choose to ignore the impacts of supply and demand and our domestic production being intentionally reduced by nearly 2 million barrels a day at the very offset of the Biden administration. They

never bring up the amazing profits from renewable energy companies, much of which was extracted from taxpayers with no choice in the matter in the form of Federal subsidies. It came directly from tax dollars, and not because they actually consumed any energy whatsoever.

So, I would just like to list a few of these. Some of the biggest profit margins in the country last year, 2022, we didn't hear about this. All we hear is about the oil and gas. GE Renewable Energy, \$5.84 billion net profits 2022; Iberdrola, \$4.99 billion net profit; NextEra, \$3.83 billion; Vestas, \$1.9 billion net profits; Daqo New Energy, \$1.63 billion; Brookfield Renewable, \$887 million. These are all net profit numbers. We never hear about that. All we hear about are the oil and gas companies that had major profit margins. But, again, my friends across the aisle refuse to acknowledge the facts of supply and demand and this global market.

Mr. Naatz, in your testimony, you mentioned that while it is a small percentage of all federally owned land, oil and gas development on Federal lands results in substantial revenue and investment in those communities that it is produced near. Could you tell me more about the impact of oil and natural gas leases to these rural communities?

Mr. NAATZ. Congressman, again, it is hugely important. The revenue source from both onshore and offshore is key to local communities, even throughout the West. The impact on jobs, economic development, schools are so dependent on this mineral revenue, which is a great resource.

So, again, we feel that our industry is reducing its footprint, doing a much better job of addressing issues. At the same time that the footprint is getting smaller, we are producing more oil and natural gas from single well pads. So, the impact on the land, the impact on the environment is reduced. In addition, if you look at any data, CO₂ has gone down, methane has gone down, SO_x has gone down, NO_x has gone down.

So, this is really a great story that we need to continue to do better, continue to do a better job of. But the impact on that—when I talked about multiple use—of using those lands for a variety of uses—and I want to stress not just oil and natural gas, a variety of uses—is really a backbone of those Western economies.

Mr. ROSENDALE. And this is something that I had spoke with the ranker about just last week, and that is there are so many people that have been lifted out of impoverished conditions, provided cleaner water, energy to their homes because of having access to not only these natural resources, but the revenue that is provided by them.

Mr. Naatz, you also mentioned in your testimony that no modern economy can function without oil and natural gas production. I understand that you are petroleum expert, so I hope it is not unfair to ask you a policy question. But energy is a commodity that is based on the global conditions and influences. Given your expertise, do you believe that significantly reducing the number of oil and gas leases in the United States could make us more vulnerable to foreign adversaries?

Mr. NAATZ. Absolutely. Again, we talked about the American production being the cleanest barrel of oil that is going to be

produced, and that not only goes from the environmental benefits, but the labor, the safety. We are very proud of our safety record across the board.

If you reduce that, and you saw the Administration have to do that, immediately you have to start looking at other countries—Venezuela, Saudi Arabia—which don't produce as cleanly, as safely. And that is going to have a huge impact when you, again, significantly reduce the production on Federal lands, both onshore and offshore, it is bound to have an impact of causing the United States to have to look abroad at sources that are far dirtier and far less safe.

Mr. ROSENDALE. And outside of the environmental impacts, we have already demonstrated that there are actually more gases in the environment right now than prior to the Biden administration because of these other countries producing the energy at a lower quality environmental standard. What do you believe it does to our national security when we start relying more upon these adversaries for our energy?

Mr. NAATZ. It is, again, something we always talk about, which is more than even energy independence, it is energy security. It benefits the world when the United States is an energy superpower. And the renaissance that happened in the oil and natural gas shale revolution really has given us the ability—again, just look at any headline in today's paper, what is happening. Imagine if the United States didn't have a robust oil and natural gas industry to address that. And it is something, again, that we think is really important for energy security.

Mr. ROSENDALE. Thank you very much.

Mr. Chair, I yield back.

Dr. GOSAR. I thank the gentleman from Montana. I will recognize myself for 5 minutes.

Mr. Thomsen, I have a question for you. Can you tell me what minerals you use in your geothermal? A lot of iron?

Mr. THOMSEN. Mr. Chairman, yes, we do. Iron ore for the piping for our geothermal facilities is critical.

Dr. GOSAR. So, I guess my question, and I am coming back to you, is how do you explore for geothermal?

Mr. THOMSEN. Mr. Chairman, we need to go out and drill exploratory wells to determine if there is a geothermal resource at depth. What separates geothermal from other renewable developers is it is not just an above-surface exercise. We can't put out an anemometer and know where the sun and the wind is going to blow. We have to go drill and, using geology, look for these unique areas where we have geothermal resources close to the Earth's crust.

Dr. GOSAR. So, pretty prevalent, if I am not mistaken, in Wyoming, Idaho, Utah, Colorado, right, in the West?

Mr. THOMSEN. Correct, Mr. Chairman.

Dr. GOSAR. Well, I think you said the magic word about the problem here, and that is called drilling. The similarity that each one of you have is drilling. We don't want to perforate that sub-surface and that surface. I think that is what the biggest problem is here, because you, of all the industries, are the most renewable asset we have.

Mr. Squillace, I have a dilemma here. A previous Minority witness had said that recycling was robust in this country in regards to solar panels and critical and rare earths. You said otherwise. What gives?

Mr. SQUILLACE. Well, Congressman, thank you for the question. I do not think that we have a robust recycling program in this country. It may exist in some local communities, and even in a few states. But I wouldn't call it anything close to robust, particularly with respect to all of the electrical and electronic equipment that we have that is generally disposed of in landfills.

You think about all the old computers, hard drives, other kinds of equipment that has lots of valuable minerals embedded in it. And what Europe has done has basically adopted what they call the "extended producer principle," which basically requires the producer of those materials, of those things, to take them back and recycle the metals that are in them. And if we were able to do that, I think it is a great idea. There is no there is no downside, I think, to requiring that we reclaim the minerals that we have already mined.

Dr. GOSAR. Well, let me interrupt you there.

Mr. SQUILLACE. Sure.

Dr. GOSAR. My understanding of the process is it is still pretty caustic in regards to reclaiming those metals and purifying them. But I thank you very much for giving me a better understanding from previous witnesses.

Now, Mr. Nolan, in regards to, I want to talk about the mining process, particularly within the designation of Russia, Kazakhstan, and Uzbekistan, particularly with uranium.

Anybody that I have seen that has any macho in regards to renewable energy understands you cannot do renewables without uranium. Tell me how this was nearsighted by not keeping them on the critical minerals list.

Mr. NOLAN. Uranium is critical to baseload power in this country. Combined with coal, it makes up 40 percent of our electricity generation here. Right now, only 5 percent of that uranium is coming from domestic sources, and the majority of that is in stockpiles. So, we don't have it.

Dr. GOSAR. So, where do most of the rods come from? Russia, right?

Mr. NOLAN. Russia, Kazakhstan.

Dr. GOSAR. And Uzbekistan.

Mr. NOLAN. And Australia and Canada.

Dr. GOSAR. So, very, very problematic, because if I am not mistaken, most of it is in Russia, Uzbekistan, and Kazakhstan.

Mr. NOLAN. That is correct.

Dr. GOSAR. So, when you are looking at something so critical for baseload power—and I want to make sure we get this right. Baseload power is different than temporary power, right?

Mr. NOLAN. Pardon. The question, sir?

Dr. GOSAR. They are very different, aren't they?

Mr. NOLAN. Very much so.

Dr. GOSAR. So, baseload power, 24/7, you flip the switch and it comes on. If the wind doesn't blow, the sun doesn't shine, we don't have energy on the temporary marketplace.

In regards to the permitting process, why is it important that the mining companies have work outside of the United States? Can you give us a kind of a portfolio breakdown for us, and why?

Mr. NOLAN. They work outside the United States because there are jurisdictions measured—and any CEO or executive or mining exploration geologist can tell you—that are more attractive. This country, 10 years ago, was the No. 1 destination for capital. We now fall into No. 3. China is literally cleaning our clock. There are jurisdictions in Canada and Australia that can get through the process and stand up mines within 2 to 3 years. As this Committee knows, it takes at least 7 to 10 in this country, and that is before you get to litigation, which can add another 1 to 3 years on top of that.

Dr. GOSAR. So, just to summarize it, you have to have other portfolio aspects to keep your company alive while you are waiting for something in the United States.

Mr. NOLAN. That is correct.

Dr. GOSAR. We are going to go to a second round real quick. So, with that, I am going to recognize the gentleman from Montana for his 5 minutes.

COMMITTEE STAFF VOICE. She goes first.

Dr. GOSAR. No?

COMMITTEE STAFF VOICE. No.

Dr. GOSAR. No, we go first and then they go. It is the same process. And then I will come back to you, then me. Yes, go ahead.

Mr. ROSENDALE. We tried going ladies first.

Mr. Nolan, as you can see, everything that I have been talking about today has had the national security focus on it, the national security vent, if you will. You brought up international competition for minerals in your testimony. Specifically, you mentioned China's Go Global campaign to secure raw materials.

Do you believe that support for mining is an issue of national security as China aggressively pursues minerals?

Mr. NOLAN. Congressman, I do. The testimony is accurate. The Chinese have been at this investment strategy for over a decade. They have managed to corner the market in many materials, and especially including the finishing of those materials, processing and refining. And that is a big problem. That is why it is important to continue to invest.

At the same time, we are talking about standing up new and expansive mine operations in this country. We also need to bring forward processing, and development, and smelting here in the United States. We ought not to be mining these materials, sending them overseas, just to buy them back. We need to do it all at once here, and we are behind.

Mr. ROSENDALE. So, basically, like a colony producing raw materials and then shipping them overseas, having them turn into a product, and then purchasing them back again?

Mr. NOLAN. It is an unfortunate practice, but that is what happens now.

Mr. ROSENDALE. And why would you, in your opinion, say that we have to send all of these raw materials overseas for that refining and processing?

Mr. NOLAN. There has been a lack of will and investment here in the United States, based on the limitations that have been put forward in standing up processing facilities from cost and environmental compliance standards.

Mr. ROSENDALE. So, basically, it is a risk versus reward and the inability to have predictability. Not to put words in your mouth, but on the outcome of that investment.

Mr. NOLAN. It is less risky.

Mr. ROSENDALE. OK. By any chance, do you know of the rough numbers of the 10 critical elements or minerals that we most depend upon, how much of those China currently has control over?

Mr. NOLAN. About 60 percent.

Mr. ROSENDALE. About 60 percent of the top 10—

Mr. NOLAN. That is correct.

Mr. ROSENDALE. We have all been talking about supply chain problems for the last several years. I think if we didn't recognize anything else, when we went through COVID, that the reliance that America has on, whether it is for pharmaceuticals or for computer chips, to be bringing that in from overseas is very problematic and, quite frankly, very dangerous to our country and to the people that live here.

Do you think that transitioning too quickly or too aggressively to electric vehicles could create supply chain problems here in the United States?

Mr. NOLAN. Absolutely. I think you have already seen just about every major EV company take investment stocks and agreements with mining companies here in the United States and North America to de-risk those supply chains. Time will tell if that will be effective. If we don't get the permitting process right, those investments will not be proven out.

Mr. ROSENDALE. So, I am not sure who would be the best one suited to answer this question across the panel there.

But as I go around the state of Montana, a lot of the communities are extremely dependent upon small co-ops. It is a very rural state. We have spread-out communities, and we don't have that many large energy providers. And the local co-ops are telling me that they have substantial barriers and issues that are looming on the horizon in order to provide the electricity that is going to be necessary if we were to throw a switch today and say we are going to mandate all of these EVs.

Are you getting any feedback about how we could actually produce—it is not just a question of producing the energy, but actually a question of having the infrastructure available to deliver that in, as well. Can anyone comment on that?

Mr. NOLAN. I can take a stab at it. We certainly made tremendous investments in infrastructure and electrification in this economy over the last Congress. But now we are coming up against the concerns that we have been talking about here today: there are not enough engineers, there are not enough permits, and there is not enough time to transition quickly enough to make sure we have the electricity we need. And that goes in spades for the co-ops, who are, as you say, small business operators.

Mr. ROSENDALE. So, the last thing I would say, Mr. Nolan, is that I have also been quite the advocate to make sure that we have

baseload electricity. And while it is great to utilize these renewables when they are available—including hydroelectricity, which still fails to be identified as a renewable energy—when we start looking at when they are actually going to be able to be utilized, the most efficient form that I have seen on a wind farm was about 40 percent that they could run at full capacity. So, that leaves about 60 percent of the time, according to my real quick math, that they are not going to be able to.

How are we supposed to provide the energy consistently, efficiently for that balance of that 60 percent?

Mr. THOMSEN. Mr. Chairman, if I may, to Congressman Rosendale, geothermal provides that baseload power with zero emissions. And the provisions in the TAP Act would allow us to develop our projects twice as fast, reducing the permitting time in half. The Department of Energy has said that would unleash about 6.5 gigawatts of additional energy, primarily in places like Montana, the West. So, when you look at the solution to EVs, it is expediting the exploration and development of renewable resources and drilling for projects like geothermal.

I would be remiss if I didn't say that 6.5 gigawatts of additional geothermal generation represents about a \$30 billion investment in construction, thousands of jobs, and about a half a billion dollars in local royalties paid to co-ops and folks who are taking advantage of these type of projects throughout the West.

Mr. ROSENDALE. Thank you.

And Mr. Chair, I will yield back with one final comment—not question—and that is that is great to have all that energy being produced, but then we run into the problem of permitting the transmission lines to get it where it is actually going to be consumed. Thank you very much, Mr. Chair. I yield back.

Dr. GOSAR. I thank the gentleman from Montana. The gentlelady, the Ranking Member, from New York is acknowledged.

Ms. OCASIO-CORTEZ. I thank the Chair. I want to quickly touch on Representative Stauber's Permit MN bill that is being discussed today that would update our mining laws to largely favor mining interests.

My colleagues on the other side of the aisle have suggested here and in another forums that environmental review is a key bottleneck in developing critical resources, and that reforms to the National Environmental Policy Act are necessary, that it creates all of these headaches, and there are all these issues in NEPA, and we need to really streamline it and reopen it for editing and review.

Mr. Nolan, you are the CEO of the National Mining Association. Do you know what percent of NEPA decisions have a significant enough environmental impact to require an environmental impact statement?

Mr. NOLAN. I don't have that, but I am happy to get it to the Committee. I am sure you may have it in front of you.

I would say, though, that just about every EIS for a modern mining project is challenged in court after the decision is made.

Ms. OCASIO-CORTEZ. I see here the GAO estimates it is about 1 percent of all NEPA decisions require an EIS. Do you know how

many of those NEPA decisions require an environmental assessment?

Mr. NOLAN. The GAO methodology is somewhat suspect, because that EIS component is limited, and that sample size in that report is something I would like to further discuss.

Ms. OCASIO-CORTEZ. So, given that, and I register that. But on top of that 1 percent, we are also seeing that the estimates are less than 5 percent of all NEPA decisions requiring an EA. And, specifically, when it comes to hardrock mining, Mr. Nolan, the industry says it takes roughly 10 years to permit a mine. Is that correct?

Mr. NOLAN. Yes, ma'am.

Ms. OCASIO-CORTEZ. I would also like to introduce to the record a GAO report that shows hardrock mines average, in their assessment, about 2 years to permit. So, when we talk about permitting reform, which in the case of this bill, guts a lot of environmental review, what we really, I think, should be focusing on is the more than the \$1 billion in the Inflation Reduction Act to increase Federal agency capacity for those environmental reviews, which I think would actually speed up time.

But I want to turn now to questions around royalties for hardrock mines. Mr. Nolan, how many abandoned hardrock mines are there in the United States?

Mr. NOLAN. Hundreds of thousands, ma'am.

Ms. OCASIO-CORTEZ. Yes. And according to another report, we are looking at over more than 400,000 abandoned hardrock mines in this country. Also, according to that same study, cleaning up these abandoned mines costs billions upon billions of dollars. These abandoned hardrock mines currently have no source of funds for cleanup at all. And that means that the communities nearby these abandoned mines are left with the burden, the burden of toxic waste and pollution, and the burden of paying for that cleanup themselves, if it ever even does get cleaned up. And those communities are very often Indigenous, low-income, or already overburdened.

The toxic health effects of these communities can be generational. In fact, a quarter of Navajo Nation women today have extremely high levels of radioactive uranium in their bodies decades after uranium mining stopped on the Nation's lands. And their newborn babies have equally high levels of toxic uranium.

Mr. Nolan, do you believe that the public, public funds and taxpayers, should be responsible for paying for the remediation of these sites? And do you believe that these overburdened communities should be left with this mess that they didn't make?

Mr. NOLAN. I would say that the legacy of abandoned mines is something we all need to work on. Modern mining did not create this mess, you mentioned 20 years, 2 decades ago.

But we are working in partnership with this Committee and the NGOs to address the problem. Whether it is Senator Heinrich's edition of \$6 million in the Bipartisan Infrastructure Law or our partnership with Trout Unlimited to put forward bipartisan Good Samaritan legislation, we would like to continue to work with the Committee to address AMLs.

Ms. OCASIO-CORTEZ. Thank you. I appreciate that. And would you support a royalty of some kind to help give Americans a fair

return for mining companies' production of publicly owned minerals, and to help fund the cleanup of some of these abandoned hardrock mines?

Mr. NOLAN. Certainly, we have been on the record as supporting a fair return to the public, but we believe that that has to be done carefully. Right now, our total tax contribution is similar to our global competitors. And at the time we are trying to incentivize the electrification of the economy, bring these mineral projects forward, we have to do this very carefully.

Ms. OCASIO-CORTEZ. And are you aware that in this bill there isn't any such kind of royalty of this kind?

Mr. NOLAN. I am.

Ms. OCASIO-CORTEZ. OK. And with that, I yield back.

Mr. STAUBER [presiding]. Thank you very much. I am going to yield for questioning in his round one for Mr. Westerman, the Full Chair of the Natural Resources.

Mr. Westerman.

Mr. WESTERMAN. Thank you, Chairman Stauber, and thank you to the witnesses. It is good that Congress is back at work. A lot of us have been not just slipping out and taking a break, we have been going back and forth to other Committees, where we are having markups. But there is no Committee hearing on Capitol Hill today that I believe is more important than this Committee hearing.

And there was something I wanted to give Mr. Nolan a minute to clear up. There have been concerns expressed about provisions in the Permitting for Mining Needs Act, which affirms that exploration and mine support activities can take place with or without the discovery of a valuable mineral deposit. Could you explain why this language is crucial to current and future mining projects?

Mr. NOLAN. The provision in the draft allows for mine infrastructure, such as roads, ancillary use, buildings, and waste disposal without a discovery requirement. This simply codifies existing regulations, BLM's 4809 regs, Forest Service's 228 regs, and returns to the historical platform that has been the basis of mining on public lands.

What we have seen recently is Judge Miranda Du, an Obama appointee, actually looked at the Rosemont finding with regards to Thacker Pass, and rejected the interpretation that the Rosemont decision about ancillary use was "long settled law," and that was not persuasive. So, this rectifies and returns the mining practice to where it should be.

Mr. WESTERMAN. Thank you for clarifying that.

Mr. Squillace, in your testimony, and I will read from it, it says, "To say that reforms are long overdue is a gross understatement. Most egregiously, mine operators own our public lands, most of which are based in foreign countries, are allowed to take these valuable public resources while paying nothing to the U.S. Treasury, no initial payment to acquire the rights, no royalties, and no rental fees." And you say Congress should start by shifting public land mineral development to a leasing program.

So, is it your testimony that the main problem with mining is an economic issue, and fair pay to the U.S. Treasury?

Mr. SQUILLACE. I would say that is a significant problem with the current mining—

Mr. WESTERMAN. You said it was the most egregious problem, and that is where Congress should start.

Mr. SQUILLACE. Well, I think what is egregious is the failure of Congress to adopt mining law reform more broadly. So, mining law reform would presumably include some issues dealing with permitting and environmental protection.

But I do think that the failure to provide the American people with a fair return on their minerals is wrong.

Mr. WESTERMAN. Mr. Chairman, I would like to submit to the record a report from the U.S. Geological Survey and U.S. Department of Commerce that talks about the economic return from minerals in the United States. And this chart, it shows, when you net out mining and recycling, that you come up with a value of minerals of about \$120 billion.

But when you go further and process those minerals in the United States, that multiplies up to \$900 billion of value from those minerals. And those minerals also, when they go into manufacturing, adds \$3.7 trillion to the U.S. economy, to the GDP.

Would you say that is any economic benefit to the U.S. taxpayer in jobs and other tax revenue that comes from developing those minerals?

Mr. SQUILLACE. Of course it is. But if you were developing those minerals on private land or on state land, you would be paying a royalty, and probably an acquisition fee for those minerals. So, this is not to say that mining doesn't promote economic development in some communities. Of course it does, and I think that is important. The question is whether the American people are going to get a fair return for the minerals that they are providing to companies, often foreign companies, I might add.

Mr. WESTERMAN. Mr. Nolan, in your testimony you have some very interesting bubble charts that show the production of U.S. minerals in the 1990s, compared to China, and the production of those minerals today. And on copper, for instance, it is showing .7 million tons is what China made in 1995, and the United States made 2.3 million tons. Today, the United States produces 1 million tons, and China produces 11 million tons.

My understanding is there are 2 copper smelters in the United States and 50 in China. What impact could producing our domestic copper have to the U.S. economy?

Mr. NOLAN. The forecast for copper demand, whether it is wind turbines or electric vehicles that take a tremendous amount of copper, are off the charts. If we can bring the smelting and processing back home and incentivize new mines, we could recapture that, and really advance our economic future in electrification.

Mr. WESTERMAN. Does anybody see a way to do the proposed electrification of the economy without copper?

Mr. NOLAN. It is impossible.

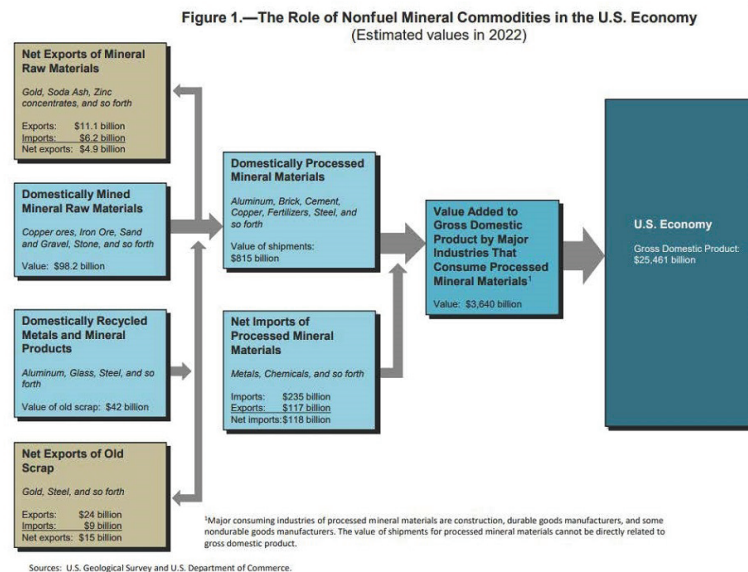
Mr. WESTERMAN. I am out of time, Mr. Chairman. I yield back.

Mr. STAUBER. Mr. Westerman, did you want to submit that? And if so, so moved, without objection.

[The information follows:]

Submission for the Record by Rep. Westerman

United States Geological Survey's Figure 1



Mr. STAUBER. Mr. Gosar, you are recognized for 5 minutes.

Dr. GOSAR. Thank you.

Mr. Nolan, our colleagues often talk about how the demand for coal is non-existent. Could you please reflect reality at home and abroad, and can you discuss how coal is actually being used more?

Mr. NOLAN. Absolutely. Coal has a critical role to play in certainly navigating the energy transition we just discussed.

Just yesterday, another regional grid operator warned about the capacity and blackout limitations going forward in this country. We saw blackouts and brownouts during Christmas Storm Elliot. As prices for other baseload power shot up, coal remained steady and kept the lights on in many regions of the country.

We need the options now, more than ever, when renewables are not there, the sun doesn't shine, and the wind doesn't blow. It is incredibly important to note that during the Ukraine crisis and what has happened here and in Europe, as Bloomberg reports, over 40 U.S. power plants that rely on coal have extended their lifetimes and their shutdown deadlines based on the demand for electricity and the limitations on other fuel sources. In Europe, 26 plants were also brought back online to maintain energy demand and supply in a half a dozen European countries.

So, we certainly want to value and continue to value coal as a reliable source of power, and certainly agree that technology can and continues to need to be developed, and investments need to be

made in CCUS and CCS to meet the climate goals that we know are important for the nation and the world.

Dr. GOSAR. So, continuing that conversation, if the whole grid goes down, it is not very easy to get it started back up. Is that true?

Mr. NOLAN. That is accurate.

Dr. GOSAR. My understanding is we were a minute away from having that happen, particularly in the Western United States. Is that true?

Mr. NOLAN. Yes, sir.

Dr. GOSAR. Wow. That is pretty amazing, that we got to this point. Because I saw earlier in the discussion is that we don't care about markets. We can pursue and push new technology.

Now, there was a comment in regards to actual work on the ground, and I applaud a Ph.D., but there comes a time when you learn things on the ground, things that are practical, things that are impractical. Would you agree with that, Mr. Nolan?

Mr. NOLAN. It is important to have, certainly, aspirational goals, but there is reality. And if you don't take that into balance, people can get hurt.

Dr. GOSAR. So, in regards to Resolution Copper, we talked about mitigation for mine sites. Did Resolution spend over \$1 billion mitigating a current mine site there?

Mr. NOLAN. Yes, there was an adjacent site that was on the edge of being on the Superfund list, and they voluntarily cleaned up the entire thing at their own expense.

Dr. GOSAR. And to specifications, right?

Mr. NOLAN. And they met all the modern environmental specifications, sir.

Dr. GOSAR. Now, we have constantly come to the grounds to mitigate some of these orphaned mines, or these abandoned mines. But the other side refuses to allow it, because they want to keep continually having them liable, whoever does it, the liability, even though they are doing it to the same context as the law stipulates. And these are groups like Audubon Society, Trout Unlimited, and they have been forbade to actually mitigate some of these. So, there are lots of possibilities here.

The second-to-the-last question I have, Mr. Nolan, is we now have new smelting and extraction processes, particularly for critical minerals in regards to ore. It is very green, uses very little water, and extracts all minerals out of the ore, leaving a silicate base, which our semi-conductor base actually needs. How will this actually help us keep those types of programs here, instead of sending them abroad?

Mr. NOLAN. There have been tremendous strides made in additional modern environmental techniques, including in situ and brine extraction that my colleague had mentioned. And I think it is important to bring those technologies forward and invest in them as well, because the demand, again, as I have said repeatedly today, is so dramatic that we are going to need all sources, including brines in situ, as well as recycling.

Dr. GOSAR. Mr. Naatz, I am going to make a statement. It would take a revolutionary scientific advancement in battery storage for renewables to actually take the place of oil and gas. Is that true?

Mr. NAATZ. Again, I am not an expert on battery, but I can tell you, yes, about 70 percent of the current U.S. energy is either oil or natural gas.

Dr. GOSAR. Mr. Nolan?

Mr. NOLAN. Correct.

Dr. GOSAR. Mr. Thomsen?

Mr. THOMSEN. I am sorry, can you repeat the question?

Dr. GOSAR. Yes. It would take a revolutionary discovery in science for batteries to replace oil and gas, or even improving your place in the world, in geothermal.

Mr. THOMSEN. I think batteries don't produce electricity to begin with. They have to be charged and discharged. So, to make that clarification, I think, is critical.

And the renewable resources, geothermal is one of the few that is baseload-producing power 24 hours a day. And for the intermittent resources to charge that, you would need a very large amount of batteries or a new technology, yes.

Dr. GOSAR. Last, Mr. Squillace. I am a big recycler, so I really want to see the push.

Mr. SQUILLACE. I appreciate your including me in the conversation here.

There are some remarkable technologies that are being developed for what we call metal air batteries, iron air batteries, zinc air batteries, and some other things that are really, I think, going to revolutionize the storage of energy.

I should also mention that there are a number of proposals now that are coming up for pumped hydro facilities. And I happened to prepare an environmental assessment for a company in Colorado that is doing a pumped hydro facility, which is basically a battery-type storage facility.

So, we are not there yet, I think, with the kind of storage that we are going to need to overcome the baseload issues, but we are getting there. So, I think we are going to see that revolution in storage technology in the not-too-distant future.

Dr. GOSAR. Time will tell. Thank you.

Mr. STAUBER. Thank you, Mr. Gosar.

You are up next, Mr. Webster.

Mr. WEBSTER. Thank you, Mr. Chair. I actually have a question of you, and it is kind of a long one, but I am supportive of many of the provisions in these bills because they make the permitting process for domestic energy and material production more efficient and reduces America's reliance on our adversaries for the resources.

I also share your strong opposition to the mineral withdrawal recently imposed by the Biden administration in the Superior National Forest, which prevents the development of vast copper resources there. This Administration should be taking action to develop resources domestically before going out to our adversaries and nations, and significantly lowering environmental and labor standards.

However, I am concerned about how the bill could impact Florida and the eastern Gulf of Mexico. Florida's Gulf Coast is a world-renowned tourist attraction, and the bases, important military training and weapons testing. I have long opposed drilling there.

There are large, vital training areas east of the military mission line and require open space for fighter jet training. There are also many significant Department of Defense installations. The DOD refers to the Eastern Gulf as an irreplaceable national asset.

The unique capabilities in the region have been developed over decades. We spent billions of taxpayer dollars as an investment. The Trump administration recognizes the importance of protecting the area and worked with the Florida delegation to extend a drilling moratorium. The Trump moratorium is in effect until 2032. I am glad this bill will not impact the existing moratorium.

Will you commit to working with my office and the Florida delegation to ensure this bill includes, that the reporting requirement in section 301 does not have unintended consequences for national security and our way of life?

Mr. STAUBER. Mr. Webster, as a husband to an Iraq War veteran, I totally understand your concern for the military, and I appreciate your concern for our way of life, as well, in northern Minnesota, and our desire to develop our vast resources for the benefit of the country and the world.

Like in my opening statement, these provisions are something I believe we can all get behind. And I understand your concerns about similarly protecting the way of life of Floridians, and I do commit to work with you before advancing this bill out of Committee. I am confident in our ability to get to a yes, and we will work together.

And I yield back to my colleague from Florida for the remainder of his 5 minutes.

Mr. WEBSTER. Thank you very much, Mr. Chairman, and I yield back.

Mr. STAUBER. And do you have anybody that needs to go to round two?

Ms. OCASIO-CORTEZ. No, I don't.

Mr. STAUBER. OK. I am going to take my round two questioning, and Ranking Member Ocasio-Cortez, I want to thank you for allowing the second round of questioning for this important Committee work, and I really appreciate you being—when I was out of the room, it was your decision to do that, and I want to thank you.

Mr. THOMSEN, Congress has created categorical exclusions for agencies to stop doing the same work over and over again, yet agencies still decide not to use a categorical exclusion. How would the TAP Act avoid issues with the unpredictable usage of categorical exclusions?

Mr. THOMSEN. Thank you, Mr. Chairman. You are absolutely correct that we have seen some district offices for the Bureau of Land Management deploy the categorical exclusions for geothermal and others not do that. So, the provisions in the TAP Act would make it clear that when we are doing exploration drilling with less than 5 acres of disturbance, it does not need to take the time of the hardworking BLM employees, and would let them focus on the projects that are backlogging the process today, the utilization planning for geothermal projects that have found a resource and will continue on to development.

Mr. STAUBER. Thank you very much.

Mr. Nolan, a mining project, even a permitted project, can be challenged 6 years after a final Federal action. How does forcing any litigation sooner in the process help with getting new U.S. mining production?

Mr. NOLAN. I think we are talking about trust and upfront consultation with communities, tribal groups, Indigenous populations in the process, so there is more transparency. It is something the Committee can work on so that those challenges are known and can be addressed to the benefit of both the project and the community. So, I think that is something that the bill speaks to and can be worked on.

Mr. STAUBER. Yes, in the Permit for Mining Needs Act, there is a 120-day period after a Federal decision, and you and your folks support that?

Mr. NOLAN. We do. We think it is a tremendous improvement.

Mr. STAUBER. OK. That is really all the questions I have.

Let me finish up here. One second.

[Pause.]

Ms. OCASIO-CORTEZ. And Mr. Stauber, while you arrange that, would it be all right—I have some documents that I would like to submit to the record. May I seek unanimous consent to submit that?

Mr. STAUBER. Without objection, so ordered.

Ms. OCASIO-CORTEZ. Thank you.

[The information follows:]

Submissions for the Record by Rep. Ocasio-Cortez

Combined Leasing Report As of February 1, 2023

Planning Areas by Region ¹	Total Blocks	Total Acres	Number of Active Leases ³	Acreage of Active Leases	Number of Producing Leases ³	Acreage of Producing Leases	Number of Non-Producing Leases ^{3,4}	Acreage of Non-Producing Leases
Gulf of Mexico⁴								
Western	5,240	28,576,813	307	1,752,780	26	149,000	281	1,603,780
Central	12,409	66,446,351	1,786	9,475,897	440	2,289,845	1,346	7,186,052
Eastern	11,537	64,357,859	13	74,880	0	0	13	74,880
Region Subtotal	29,186	159,381,023	2,106	11,303,557	466	2,438,845	1,640	8,864,712
Pacific⁵								
Southern California	16,164	88,979,051	30	152,578	30	152,578	0	0
Region Subtotal	16,164	88,979,051	30	152,578	30	152,578	0	0
Alaska⁶								
Beaufort Sea	11,876	65,075,663	6	21,257	3	10,424	3	10,833
Cook Inlet	1,093	5,356,420	14	76,615	0	0	14	76,615
Region Subtotal	12,969	70,432,083	20	97,872	3	10,424	17	87,448
Totals	58,319	318,792,157	2,156	11,554,007	499	2,601,847	1,657	8,952,160

Updated Monthly

Footnotes/Definitions:

1. A Planning Area is a large, contiguous portion of the OCS, consisting of defined OCS blocks, considered as an entity for administrative planning purposes. The quantity and size of a planning area can vary by Region.
2. An Active Lease is a lease that has been executed by the Lessor and the Lessee(s), has an effective date and has not been relinquished, expired, or terminated. Some leases have more than one block. Blocks are generally 9 square miles but can be vary. Slight numerical discrepancies are the result of the processes used during the rounding of acreage.
3. A Producing lease is an active lease that has produced product i.e. oil or gas, or both. A non-producing lease is an active lease that has not produced product. NOTE: There can be a difference in the definition for producing and non-producing leases between BOEM and ONRR (i.e. time lag, fiscal versus calendar year, etc) because of different purposes in collecting data (i.e. operations versus revenue collection.)
4. There are currently no active leases split between CGOM and EGOM; thus there is no longer a small variation in acreage and production.
5. There are 4 planning areas in the Pacific Region but only 1 planning area with existing leases.
6. There are 15 planning areas in the Alaska Region, but only two planning areas with leases.



United States Government Accountability Office

Report to Congressional Requesters

April 2014

NATIONAL ENVIRONMENTAL POLICY ACT

Little Information Exists on NEPA Analyses

GAO-14-369

The full GAO report is part of the hearing record and is being retained in the Committee's official files.

It is available for viewing at:

<https://www.gao.gov/assets/gao-14-369.pdf>



United States Government Accountability Office

Report to the Chairman, Committee on
Natural Resources, House of
Representatives

January 2016

HARDROCK MINING

BLM and Forest Service Have Taken Some Actions to Expedite the Mine Plan Review Process but Could Do More

GAO-16-165

The full GAO report is part of the hearing record and is being retained in the Committee's official files.

It is available for viewing at:

<https://www.gao.gov/assets/gao-16-165.pdf>



United States Government Accountability Office

Report to the Ranking Member,
Subcommittee on Interior, Environment,
and Related Agencies,
Committee on Appropriations,
U.S. Senate

March 2020

ABANDONED HARDROCK MINES

Information on
Number of Mines,
Expenditures, and
Factors That Limit
Efforts to Address
Hazards

GAO-20-238

The full GAO report is part of the hearing record and is being retained in the Committee's official files.

It is available for viewing at:

<https://www.gao.gov/assets/gao-20-238.pdf>

House Republican fires opening salvo on energy permitting

E&E News, January 10, 2023 by Emma Dumain



Rep. Pete Stauber (R-Minn.) on Capitol Hill in 2021 discussing critical minerals policy. Francis Chung/E&E News

A senior House Natural Resources Committee Republican offered an early preview Monday of how the GOP will seek to overhaul the permitting process for energy projects with its new House majority.

While the approach, which deals with the hardrock mining industry, is one that's sure to galvanize Republicans, it isn't likely to attract the bipartisan coalition necessary for passage in the Democratic-controlled Senate.

That won't deter Rep. Pete Stauber of Minnesota, incoming chair of the Subcommittee on Energy and Mineral Resources, who is looking to forge ahead with a legislative agenda that mirrors the party's larger willingness to revisit the National Environmental Policy Act—a sacrosanct law to most Democrats—and cut regulations in the pursuit of U.S. energy independence and dominance.

The first bill Stauber has introduced in the 118th Congress is the "Permitting for Mining Needs Act" (https://stauber.house.gov/sites/evo-subsites/stauber.house.gov/files/evo-media-document/hardrockpermit_01.xml.pdf), which is designed to increase domestic production of critical minerals necessary for meeting defense, technology and clean energy needs in the United States.

Stauber told E&E News in an interview that he views it as either a stand-alone bill that could move through the Natural Resources Committee or one that could become a part of a larger permitting reform package the committee's chair, Rep. Bruce Westerman (R-Ark.), has pledged to make a priority.

"This is important," Stauber said of his legislation. "America needs this to become critical mineral dominant again."

Stauber's bill, which enjoys support from the National Mining Association, among other groups, would shorten the hardrock mining permitting review process under NEPA so that environmental assessments would take no more than 12 months and environmental impact statements would take no longer than two years.

It would prohibit lawsuits against permitting decisions more than 120 days after such a decision has been made and would designate a lead federal agency to review applications and grant approvals.

Crucially, the legislation also would allow an individual to pursue hardrock mining activities "with or without the discovery of a valuable mineral deposit" beforehand—a distinction critics like Aaron Mintzes, senior policy counsel for Earthworks, said would create "Wild West claim-staking," opening up vast swaths of land to indiscriminate disruption.

This distinction is significant for Stauber, for whom this bill fills a parochial need beyond simply bolstering the larger party platform: His district is home to the Boundary Waters Canoe Area Wilderness, around where Twin Metals has for years been engaged in legal battles with environmentalists to mine for copper and nickel.

The “Permitting for Mining Needs Act” would, in fact, be nicknamed the “PERMIT-MN Act,” a nod to Stauber’s home state.

The legislation benefits from a system that’s been in place ever since passage of the General Mining Act of 1872. Under this law, companies seeking to do specific hardrock mining activities in the Intermountain West only need to make claims and payments for their desired land. They do not need to secure a lease beforehand, as is the case for non-hardrock mining.

In Minnesota, where mining activities are subject to leasing, Stauber’s legislative proposal could create new workarounds for Twin Metals to proceed with its ambitions.

Pitch to Democrats

Stauber isn’t shy about his bill’s home state connections.

“We have tremendous mineral wealth across this nation, and it’s simply unacceptable that, in one case in northern Minnesota, they are pushing 20 years for permitting, yet in the same watershed, in the country of Canada, they permit a mine within three years,” Stauber said, referring to the Boundary Waters.

He is also quick to argue that it’s imperative for the United States to promote domestic critical mineral mining as a means discourage the business relationship with the Democratic Republic of Congo, where cobalt is frequently mined using child labor.

Democrats should embrace the bill, Stauber insisted.

“I think we all can agree to allow an [environmental impact study] to go forward [that] lets the facts, the truth and the science dictate a project,” said Stauber. “The radical, anti-jobs, anti-mining groups sue at every turn. If they support the transition to alternative sources of energy—for instance, solar and EVs—they have to look at my legislation, and other legislation that comes out of our Natural Resources Committee. They know, with 100 percent certainty, that 75 percent of cobalt is mined by slave labor. That is immoral.”

But Democrats probably won’t.

Even amid bipartisan interest in tackling broader permitting reform—inspired by Senate Energy and Natural Resources Chair Joe Manchin (D-W.Va.), who convinced his party leadership to endorse the push as a condition of his supporting the Inflation Reduction Act—overhauling mining laws more narrowly has been a consistently insurmountable task.

Democrats last year tried to take their own approach to revising the General Mining Act of 1872. Rep. Raúl Grijalva (D-Ariz.), then chair of the House Natural Resources Committee, and Sen. Martin Heinrich (D-N.M.) were pushing for the “Clean Energy Minerals Reform Act.” The proposal would have brought all hardrock mining activities under a leasing system and created a first-ever hardrock mining royalty.

‘Royalties are dead’

Consideration of the Grijalva-Heinrich framework in the House was ultimately derailed amid concerns even among Democrats about the dangers of putting guardrails on an industry that’s so sorely needed to help with the advent of a clean energy economy.

Still, Democrats have largely rallied around the need to establish a royalty system for mining activities, and Stauber last night declared that “royalties are dead.” It’s not clear whether the two parties will be able to overcome that difference.

In a statement, Grijalva—who will be the ranking member of the Natural Resources Committee this year—said that while there is “no question that our 150-year-old mining laws need reform,” Stauber’s proposal “isn’t even an honest attempt.”

Grijalva continued, “the mining industry uses up our public lands, ignores tribes’ concerns, spills their toxic waste into our communities and waterways, and leaves their messes for the rest of us to clean up . . . the Republicans’ bill does nothing to solve any of these problems and instead just makes it easier for industry to do more of the same, inevitably ending in more destruction and more lawsuits.”

Mintzes said there are “minor” opportunities for Democrats and Republicans to find compromise on small-scale mining reforms in this Congress—for instance, directing excess claim maintenance fees toward hardrock abandoned mine lands, or legislation to make it easier to volunteer to participate in hardrock mine cleanup.

But Rep. Mark Amodei (R-Nev.), who has sought to engage colleagues on mining overhaul efforts in the past, said he is pessimistic that anything truly ambitious could survive the Senate gantlet.

“Mining law reform for minerals—if you scrub out all that political demagoguery, there’s room to run in there and do the right thing for the resource, for the country, and all that stuff,” he said. “But the problem is, nobody can resist sticking in the knife and twisting it.”

US official: Research finds uranium in Navajo women, babies

AP News, October 7, 2019 by Mary Hudetz

ALBUQUERQUE, N.M. (AP)—About a quarter of Navajo women and some infants who were part of a federally funded study on uranium exposure had high levels of the radioactive metal in their systems, decades after mining for cold war weaponry ended on their reservation, a U.S. health official Monday.

The early findings from the University of New Mexico study were shared during a congressional field hearing in Albuquerque. Dr. Loretta Christensen—the chief medical officer on the Navajo Nation for Indian Health Service, a partner in the research—said 781 women were screened during an initial phase of the study that ended last year.

Among them, 26% had concentrations of uranium that exceeded levels found in the highest 5% of the U.S. population, and newborns with equally high concentrations continued to be exposed to uranium during their first year, she said.

The research is continuing as authorities work to clear uranium mining sites across the Navajo Nation.

“It forces us to own up to the known detriments associated with a nuclear-forward society,” said U.S. Rep. Deb Haaland, who is an enrolled member of Laguna Pueblo, a tribe whose jurisdiction lies west of Albuquerque.

The hearing held in Albuquerque by U.S. Sen. Tom Udall, Haaland and U.S. Rep. Ben Ray Lujan, all Democrats from New Mexico, sought to underscore the atomic age’s impact on Native American communities.

The three are pushing for legislation that would expand radiation compensation to residents in their state, including post-1971 uranium workers and residents who lived downwind from the Trinity Test site in southern New Mexico.

The state’s history has long been intertwined with the development of the nation’s nuclear arsenal, from uranium mining and the first atomic blast to the Manhattan project conducted through work in the once-secret city of Los Alamos. The Federal Radiation Exposure Compensation Act, however, only covers parts of Nevada, Arizona and Utah that are downwind from a different nuclear test site.

During the hearing, Haaland said one of her own family members had lost his hearing because of radiation exposure. At Laguna Pueblo, home to her tribe, the Jackpile-Paguate Mine was once among the world’s largest open-pit uranium mines. It closed several decades ago, but cleanup has yet to be completed.

“They need funds,” Haaland said. “They job was not completed.”

David Gray, a deputy regional administrator for the U.S. Environmental Protection Agency, said the mine illustrates uranium mining and milling’s lingering effects on Indian Country.

On the Navajo Nation, he said, the EPA has identified more than 200 abandoned uranium mines where it wants to complete investigation and clean up under an upcoming five-year plan, using settlements and other agreements to pay for the work that has taken decades.

Udall, who chaired the hearing, acknowledged federal officials had shown progress but that the pace of cleanup has proven frustrating for some community members.

“They feel an urgency,” Udall said. “They feel that things need to happen today.”

In her testimony, Christensen described how Navajo residents in the past had used milling waste in home construction, resulting in contaminated walls and floors.

From the end of World War II to the mid-1980s, millions of tons of uranium ore were extracted from the Navajo Nation, leaving gray streaks across the desert landscape, as well as a legacy of disease and death.

While no large-scale studies have connected cancer to radiation exposure from uranium waste, many have been blamed it for cancer and other illnesses.

By the late 1970s, when the mines began closing around the reservation, miners were dying of lung cancer, emphysema or other radiation-related ailments.

“The government is so unjust with us,” said Leslie Begay, a former uranium miner who lives in Window Rock, an Arizona town that sits near the New Mexico border and serves as the Navajo Nation capital. “The government doesn’t recognize that we built their freedom.”

Begay, who said he has lung problems, attended the hearing with an oxygen tank in tow. The hearing held in the Southwest was especially meaningful for him after traveling in the past to Washington to advocate for himself and others, he said.

The vitality of the modern American economy is firmly rooted in the ready availability of metals and minerals that are essential to our way of life and our economic security. The United States ranks among the world's largest producers and consumers of minerals and metals, which provide key components to consumer and industrial technologies and play a critical role in shaping America's national security through their use in the manufacture of military equipment.

Public lands in the Western states account for 75 percent of America's domestic metals production. The Mining Law established the framework for obtaining mineral rights on public lands for hardrock mineral deposits, which are difficult to find and expensive to develop. The Mining Law needs to be updated to provide a predictable legal and regulatory framework for developing America's mineral potential on public lands. This framework is essential for the domestic mining community to meet the nation's mineral needs.

Legislation

The National Mining Association supports targeted changes to the Mining Law to ensure a fair, predictable and efficient legal and regulatory framework that fosters the exploration for and development of hardrock minerals. Specifically, we support:

- Payment of a fair return to the public through a net income production payment or royalty for minerals produced from new mining claims;
- Creation of an Abandoned Mined Land fund financed by the revenue generated from a net income production payment or royalty to help reclaim abandoned mines;
- Preservation of self-initiated rights and ensuring the security of tenure necessary to attract investment by clarifying and linking rights to existing claims maintenance fees;
- Assurance that public lands shall remain open and available for the mineral exploration and development vital to our nation's well being;
- Recognition of the existing comprehensive framework of federal and state environmental laws that regulate all aspects of mining from exploration through mine reclamation and closure.

The "Hardrock Mining and Reclamation Act of 2009" (H.R. 699), does not meet our objectives and would seriously jeopardize the viability of domestic mining, increase the nation's dependence on foreign sources of minerals and export high-paying jobs by:

- Imposing a royalty on the gross revenues generated (rather than profits), without deductions for the costs of mining, processing or refining, thereby removing incentives for investment in mineral development and discouraging maximum recovery of mineral resources;
- Removing vast areas of the public lands from mineral exploration;
- Establishing a duplicative environmental regulatory framework that conflicts with existing programs administered by the Bureau of Land Management and the Forest Service and regulations imposed under a wide range of state and federal environmental laws including the Clean Water Act, Resource Conservation and Recovery Act and the National Environmental Policy Act.

Background

America's mining community currently provides nearly 50 percent of the metals our nation's manufacturers need to operate, including copper, gold, iron ore, phosphate, zinc, silver and molybdenum. Most of these metals come from public lands. However, America is ceding control of its future by increasing its reliance on foreign sources for minerals that our nation has in abundance. Congress should not ignore the impact of our growing import dependency in an era of global resource nationalism.

In today's global economy, capital investments crucial for successful mineral development go to countries that offer stable public policy climates. For this reason, the World Bank has advised nations that to attract the necessary investment to sustain viable mining industries, governments must adopt the fundamental principle of "no surprises" in the enactment and administration of laws and policies.

For more information about the Mining Law visit www.nma.org.

OUTDOOR ALLIANCE

March 6, 2023

Hon. Pete Stauber, Chairman
 Hon. Alexandria Ocasio-Cortez, Ranking Member
 Subcommittee on Energy and Mineral Resources
 House Natural Resources Committee
 1324 Longworth House Office Building
 Washington, DC 20515

Re: Energy and Mineral Resources Subcommittee legislative hearing February 28, 2023

Dear Chairman Stauber and Ranking Member Ocasio-Cortez:

On behalf of the human-powered outdoor recreation community, we write to express our community's views on the Permitting for Mine Needs Act (PERMIT-MN Act) and the Transparency and Production of American Energy Act of 2023 (TAP American Energy Act), which were considered during February 28's Energy and Mineral Resources Subcommittee legislative hearing. While we appreciate the Subcommittee's attention to improving federal permitting processes, we are highly concerned that the changes proposed in these bills would unnecessarily accelerate mining and fossil fuel development in a way that fails to account for other public lands values, including outdoor recreation. As a result, Outdoor Alliance opposes both bills and encourages the Subcommittee to instead explore how reforms can better protect recreation access, a healthy environment, and the \$862 billion outdoor recreation economy.

Outdoor Alliance is a coalition of ten member-based organizations representing the human powered outdoor recreation community. The coalition includes Access Fund, American Canoe Association, American Whitewater, International Mountain Bicycling Association, Winter Wildlands Alliance, The Mountaineers, the American Alpine Club, the Mazamas, Colorado Mountain Club, and Surfrider Foundation and represents the interests of the millions of Americans who climb, paddle, mountain bike, backcountry ski and snowshoe, and enjoy coastal recreation on our nation's public lands, waters, and snowscapes.

Our community is highly familiar with the National Environmental Policy Act (NEPA) process, as well as the protections afforded by the Clean Water Act and other environmental laws referenced during February 28's hearing. Through our advocacy in support of sustainable recreation access on federal public lands and waters, we experience both the invaluable public protections afforded by these laws, as well as the challenges that sometimes accompany permitting new projects. We are also eager to see recent federal investments in clean energy—including those from the Inflation Reduction Act—expeditiously put into action to address the climate crisis.

With these perspectives in mind, we are open to an honest dialogue about how to modernize and improve federal permitting. Unfortunately, the proposals laid out in the PERMIT-MN Act and the TAP American Energy Act would advance fossil fuel and mineral development in a way that would not facilitate informed, science-based decision making, transparency, and robust public input, and would not protect recreation resources on public lands. We encourage the Subcommittee to consider additional perspectives, including from frontline communities, Tribes, scientists, and recreation advocates, as you continue to consider permitting reform.

Our comments on individual bills are provided below.

Permitting for Mine Needs Act (H.R. 209)

The PERMIT-MN Act primarily addresses the permitting process for mining on federal lands. The outdoor recreation community is profoundly affected by mining on federal lands, both through mining proposals that threaten to degrade valuable recreation lands, and through the ongoing impacts of legacy mining pollution. We are highly interested in reforms to mining policy that will help address these impacts while providing regulatory certainty for mine developers and meeting the growing demand for critical minerals.

Unfortunately, instead of striking a necessary balance between mining and other public land values, the PERMIT-MN Act would instead further cement the harmful mining policies of the past two centuries. In particular, we are concerned by Section 8, which would change long-standing policy under the 1872 Mining Law to allow for validating mining claims before a claimant has proven mineral discovery. We are

similarly concerned by other provisions of the bill that would that would set an arbitrary 120-day limit for communities and tribes to seek judicial review for mining projects (Section 10), allow for exploratory mining without NEPA review (Section 7), and arbitrarily shorten the timeline for environmental reviews for mining projects.

Transparency and Production of American Energy Act of 2023

The discussion draft of the TAP American Energy Act primarily addresses fossil fuel leasing and energy infrastructure on federally-managed lands and waters. This bill would mandate a substantial increase in fossil fuel production and would undo hard fought protections for environmental, cultural, and recreational resources that are affected by energy development. We are highly concerned about provisions of the bill that:

- Undo important fiscal reforms to the oil and gas leasing process established by the Inflation Reduction Act (IRA) that provide a fairer return to taxpayers from energy development.
- Restrict the President and the Interior Secretary's long-standing authority to withdraw federal lands from mining and oil and gas development. Mineral withdrawals can be critical for protecting valuable recreation lands.
- Arbitrarily require the Department of Interior to hold quarterly onshore oil and gas lease sales in every state with oil and gas reserves, as well as off-shore lease sales twice per year.
- Codify the 2020 NEPA regulations promulgated by the Council of Environmental Quality under the Trump administration, and otherwise weaken the public input and judicial review process for fossil fuel development projects.

Together, these changes and others proposed in the TAP American Energy Act would make it more difficult for federal agencies to balance fossil fuel development with sustainable recreation access and other uses of public lands and waters.

Thank you for considering our community's input as you consider legislation to make changes to federal permitting processes. We look forward to working with you to ensure that reforms provide adequate protections for outdoor recreation, local communities, cultural resources, and the environment.

Best regards,

LOUIS GELTMAN,
Policy Director

Mr. STAUBER. And then, a great reminder, I too would like to enter into the record that the following organizations support one or both of these bills today, and I am going to quickly read them: The National Association of Building Trades Unions; American Exploration and Mining Association; National Mining Association; Better in our Backyard; Uranium Producers of America; Citizens for Responsible Energy Solutions; Range Association of Municipalities and Schools; Women's Mining Coalition; National Stone, Sand, and Gravel Association; and the Essential Minerals Association.

I would also request that, if there is no objection, to enter into the record the following pieces of material that I have: the letters of the record from API; Essential Minerals Association; American Exploration and Mining Association; and, again, Women's Mining Coalition; the Louisiana Mid-Continent Oil and Gas Association that have supported one or more of these bills.

Without objection, so ordered.

[The information follows:]

Submissions for the Record by Rep. Stauber**AMERICAN PETROLEUM INSTITUTE**

February 24, 2023

Hon. Bruce Westerman, Chairman
Hon. Raúl Grijalva, Ranking Member
House Committee on Natural Resources
1324 Longworth House Office Building
Washington, DC 20515

Dear Chairman Westerman & Ranking Member Grijalva:

The American Petroleum Institute (API) writes regarding legislation to be considered during the upcoming legislative hearings on Tuesday, February 28, 2023: *The Transparency and Production of American Energy Act of 2023* (TAP Act) in the Energy and Mineral Resources Subcommittee and *Building United States Infrastructure through Limited Delays and Efficient Reviews Act of 2023* (BUILDER Act) in the full Committee. API is committed to meeting the challenge of providing affordable and reliable energy while continuing to reduce emissions. As the leading trade association representing the entire value chain of the U.S. oil and natural gas industry, API supports policies that strengthen our nation's energy security and our economy, and that protect our environment.

Last month, API released industry priorities for 2023 that include the adoption of policies that make, move and improve American energy and recognize U.S. oil and natural gas as a long-term strategic asset. API commends Chairman Westerman and Congressman Garret Graves (R-LA) for introducing important legislation that advances those priorities and we write to offer our support in these efforts.

The TAP Act discussion draft provides a sensible roadmap to renew our nation's commitment to onshore and offshore leasing of oil and natural gas. Federal lands and waters provide 25% of the oil and 11% of the natural gas we produce in the United States. A robust federal leasing program is essential to maintaining our nation's energy security and providing critical conservation funding throughout the country. Additionally, reforms to our permitting processes are critical to help move energy from where it is produced in the United States to where it is needed. This legislation will help streamline the nation's permitting processes to maintain America's energy advantage.

The BUILDER Act brings much-needed reform to the National Environmental Policy Act (NEPA). A recent study from Rystad Energy commissioned by API cited Council of Environmental Quality findings that showed between 2010 and 2018, the average NEPA Environmental Impact Statement took more than 4.5 years to complete and exceeded 600 pages. Delays in the NEPA process are costing billions of dollars in energy investment and locking up critical oil and natural gas resources that could reduce energy costs and enhance our energy security. The BUILDER Act will help expedite this process and unlock critical resources our nation needs.

As the push for energy legislation and permitting reform progresses in Congress, API stands ready to support policies that strengthen America's energy security and promote economic development and environmental stewardship.

We look forward to continuing to work with Members of the Committee and their colleagues in the House and Senate to support legislation that will restore America's energy leadership.

Sincerely,

AMANDA E. EVERSOLE,
*Executive Vice President
& Chief Advocacy Officer*

ESSENTIAL MINERALS ASSOCIATION
Arlington, VA

February 27, 2023

Hon. Pete Stauber, Chairman
Subcommittee on Energy and Mineral Resources
House Committee on Natural Resources
1324 Longworth House Office Building
Washington, DC 20515

Dear Chairman Stauber:

On behalf of the members of the Essential Minerals Association (EMA), I write to thank you for your continued leadership on the issue of mineral permitting reform. The EMA supports H.R. 209, the Permitting for Mineral Needs (PERMIT-MN) Act of 2023 as a terrific first step in the process of reforming a system that all can agree is broken.

The EMA represents the interests of more than 80 member companies that mine, process, or support the minerals that are critical to nearly all aspects of everyday life. According to the most recent figures from the United States Geological Survey, the metal/non-metal industry generates approximately \$98 billion in production with an estimated 1.3 million direct and indirect jobs, of which EMA's members are significant contributors. This production contributes significant tax revenues to the nation's local, state, and federal governments.

The minerals produced by EMA's members are vital to the manufacturing processes for many, if not all, of the products we use every day. These minerals are used in agricultural feed, fertilizers, baking products, water purification needs, batteries, protective masks, dialysis machines, semiconductors, solar panels, glass, ceramics, paper, plastics, rubber, detergents, insulation, pharmaceuticals, cosmetics, foundry cores and molds used for metal castings, paints, filtration, metallurgical applications, refractory products, and specialty fillers. These are just a few of the many uses of our members' essential minerals.

It has become increasingly clear in recent years that the federal permitting system is fundamentally flawed. The current process is onerous and duplicative in nature, and does not provide definitive timelines for reviews to occur. Even after going through the regulatory process, a company then faces the uncertainties of litigation which creates further delays. If the United States is to establish a more secure domestic supply chain of the minerals that are vital to our manufacturing and agricultural needs, then we must have a much more efficient process in place to provide mining entities with the predictability and clarity they need.

From comments seen from both sides of the aisle in recent Natural Resources Committee hearings, we believe there is now bipartisan agreement on the need to reform our permitting system for the minerals sector. The transition to a greener economy relies upon an adequate and reliable domestic minerals supply, but the system currently in place in the United States makes it exceedingly difficult for a company to justify making the tens of millions of dollars of investments necessary to begin production. The current process is almost comical when compared to similar countries like Canada and Australia that can permit a mine in under three years

with very similar environmental standards, whereas in the United States it routinely takes over a decade.

Our country's national and economic security depend on strong domestic supply chains for mineral resources. Continuing to rely upon our strategic adversaries for the resources we need is an untenable policy, and streamlining the permitting for domestic mineral operations is a crucial step toward rectifying that dependence. We are currently being held hostage by China, Russia, and others for many of these minerals that we rely on for every aspect of our lives, and global geopolitical conditions globally continue to worsen by the day. China, Belarus, and Russia currently control 60 percent of the global supply of fertilizer, and they also control the supply of dozens of other minerals that are vital for agriculture and manufacturing. We are still seeing the impacts of the supply chain disruption from Covid-19. This is an unacceptable dynamic, but one that can largely be rectified if Congress does the right thing by passing the PERMIT-MN Act to secure our domestic mineral supply chains.

We need to address this issue swiftly, and it must be bipartisan. All sides need to come to the table and reach a commonsense solution that allows for the rapid, environmentally safe development of the domestic mineral resources we have here at home. Producing more minerals domestically will allow those minerals to be extracted and processed under the protections of U.S. environmental laws and regulations, as well as those protecting worker health and safety. EMA member companies strive every day to protect vital land, air, water, and cultural resources while conducting operations, in addition to providing exemplary protection for the health and safety of their workers. This is in stark contrast to countries like Russia and China who have abysmal environmental standards and little or no regard for worker health and safety. Developing more domestic mineral production will benefit the environment, the workforce, and our country as a whole, and H.R. 209 will help achieve that objective.

In particular, we strongly support the PERMIT-MN Act's provision to require federal agencies to complete Environmental Assessments required under the National Environmental Policy Act (NEPA) within 12 months and Environmental Impact Statements within 24 months. The clarity and predictability these timelines would provide will incentivize U.S. mining entities to invest in domestic operations. Many EMA members have seen permit applications languish for 10 years or more with no guarantee of any decision ever being made, which deters development of essential mineral resources. We can and must do better, and the timelines in H.R. 209 are a key step in the right direction.

We also support the PERMIT-MN's narrow and specific focus on permitting reform for the mining sector. While there may be partisan disagreement in Congress about permitting for other resources, there is bipartisan agreement on the need to increase domestic mineral resources. Permitting reforms in the previous Congress failed because of the disagreement over the inclusion of energy resources in those reforms, and we do not wish to see that same result in this Congress.

The EMA believes that in order for this issue to be addressed and for meaningful changes to occur in a timely manner, we must have a minerals-specific bill like the PERMIT-MN Act. Including other, more controversial resources in the permitting reform debate will only serve to slow the process down and prevent this needed change from occurring. With this in mind, the EMA strongly encourages the Natural Resources Committee and House leadership to allow the PERMIT-MN Act to remain a stand-alone vehicle and remain a minerals-only bill.

Enacting meaningful permitting reform legislation is vital to the future of the American economy as well as our national security. Increased domestic mineral production will create jobs across the country and will better enable our economy to complete the transition to renewable energy technologies; ensure farmers have adequate and affordable supplies of fertilizer, feed, and seed; support domestic manufacturing; provide resources to the healthcare sector; allow quality and affordable housing to be constructed; and supply our military with the sophisticated weapons and equipment to defend our country and our freedom both now and into the future.

EMA strongly supports the PERMIT-MN Act as a long overdue step to promoting mineral development in the United States.

We recognize and support that there must be changes to this bill to ensure that all sides' concerns are heard throughout not just the process of finalizing this bill, but in the implementation of the bill as well. Congress must enact the bill on a bipartisan basis as soon as possible to secure our domestic supply chains for essential mineral resources that are vital to the everyday life of millions of Americans. We look forward to continuing to work with you and your colleagues on both sides of the aisle to accomplish this goal.

Please do not hesitate to reach out if we can be helpful in any way.

Respectfully,

CHRIS GREISSING,
President

AMERICAN EXPLORATION & MINING ASSOCIATION
Spokane Valley, WA

February 27, 2023

Hon. Bruce Westerman, Chairman
Hon. Raúl Grijalva, Ranking Member
House Natural Resources Committee
1324 Longworth House Office Building
Washington, DC 20515

Hon. Pete Stauber, Chairman
Hon. Alexandria Ocasio-Cortez, Ranking Member
Subcommittee on Energy and Mineral Resources
House Natural Resources Committee
1324 Longworth House Office Building
Washington, DC 20515

Re: AEMA Statement for the Record for the February 28, 2023 House Natural Resources Subcommittee on Energy and Minerals Resources Hearing on the discussion draft for the Transparency and Production of American Energy Act of 2023 and the Permitting for Mining Needs Act (H.R. 209)

Dear Chairman Westerman, Ranking Member Grijalva, Chairman Stauber, and Ranking Member Ocasio-Cortez:

The American Exploration & Mining Association wishes to express our strong support for H.R. 209, the Permitting for Mining Needs Act of 2023, and the concepts in the discussion drafts of the Building United States Infrastructure Through Limited Delays and Efficient Reviews Act of 2023 (BUILDER Act) and the Transparency and Production of (TAP) American Energy Act of 2023. As noted in President Biden's Executive Order 14017 (America's Supply Chains), "the United States needs resilient, diverse, and secure supply chains to ensure our economic prosperity and national security," and mineral production is the first link to reaching these goals. The recent global pandemic and geopolitical events have led to an increased recognition of the importance of a strong *domestic* mineral supply chain. We believe H.R. 209 and the discussion drafts will strengthen our ability to responsibly produce the minerals needed for our national and economic security.

Who We Are and the Importance of the U.S. Minerals Mining Industry

The American Exploration & Mining Association (AEMA) is a 128-year-old, 1,400-member national trade association representing the mineral development and mining industry, with members residing across 46 states, 7 Canadian provinces or territories and 10 other countries. AEMA is the recognized national representative for the exploration sector, the junior mining sector, as well as mineral developers interested in maintaining access to public lands. Thus, AEMA represents the entire mining life cycle, from exploration to mineral extraction and then to reclamation and closure. More than 80 percent of our members are small businesses or work directly for small businesses.

American miners continue to play an indispensable role in building and defending our Nation. From foundations to roofs, power plants to wind farms, roads and bridges to communications grids and data storage centers, America's infrastructure

begins and ends with minerals and mining. As just one example, steel resulting from mining operations directly supplies the construction and development of roads, railways, appliances, buildings, stadiums, bridges, airports, conventional and renewable energy facilities, and other structures. Steel is used to reinforce concrete and other construction materials and 6 billion tons of steel are used across the U.S. National Highway System. Steel requires iron ore for its production, and sixty-five percent of the global zinc consumption is used to coat steel, for purposes of making it resistant to corrosion. Other metals important to steel alloys, including manganese, chromium, nickel, aluminum, vanadium, tungsten, titanium, cobalt, and niobium, are specifically identified on the U.S. Geological Survey's (USGS') final 2022 list of critical minerals.¹

Another example is copper, with its flexibility, conformity, conductivity, and resistance to corrosion, that make it an ideal and essential clean energy metal.² Forty-three percent of U.S. copper demand comes from the construction industry, as the average American home contains 439 pounds of copper. An electric vehicle (EV) uses approximately four times as much copper as a conventional car.

Infrastructure improvement and development at all levels depends on metals and mining. Beyond hard-rock mining, AEMA also represents the industrial minerals industry. Industrial minerals include any rock or mineral with economic value that is not used as a source for metals, gemstones, or energy production. Industrial minerals are classified as non-fuel minerals and differ from construction aggregates like sand, gravel, and crushed stone. Many different types of industrial minerals serve multiple uses, some of which are considered critical minerals and many of which are essential to our nation's economic and national security. The most widely used industrial minerals include limestone, clays, diatomite, kaolin, bentonite, silica, barite, gypsum, potash, pumice, and talc.

Similarly, there is no substitute for phosphorus in agriculture and in the development of our Nation's food supply. Phosphorus is essential for plant nutrition and plays a vital role in photosynthesis, energy transfer, root formation, seed formation, plant growth and improvement of the quality of fruits and vegetables. China has been the leading producer of phosphates, followed by the United States. The Society for Mining, Metallurgy & Exploration's (SME) website³ provides a deeper introduction to industrial minerals and explains why securing domestic production is essential to America's future.

There is no question that the minerals we produce are indispensable to modern society. They are also essential to fighting climate change, and for zero-emission technologies such as wind turbines, solar panels, storage batteries and EVs. As these technologies are deployed in ever-greater numbers, the demand for minerals is skyrocketing, and our Nation must do more to keep up. The International Energy Agency (IEA) published a report at the end of July 2022 titled "Global Supply Chains of EV Batteries," and noted that demand for EV batteries will increase from 340 GWh today to about 3500 GWh by the year 2030. To meet that demand, 50 new lithium mines, 60 more nickel mines and 17 more cobalt mines would need to come into production.⁴

Congress has taken note of this surge in demand, and through the Infrastructure Investment and Jobs Act of 2021 and the Inflation Reduction Act of 2022, has decided—and we agree—that it is inappropriate, unwise and dangerous to rely on hostile, untrustworthy or unstable countries to supply our country's minerals. Notably, the Inflation Reduction Act contains provisions requiring automakers to source significant portions of their EV batteries and components from domestic supply chains, or from countries with which the United States has free trade agreements. Congress has sent a clear message—**Now is the time to get serious about building a reliable mineral supply chain** (emphasis supplied). AEMA and its members stand ready to help build that supply chain right here in America.

Our members take great pride in producing the metals and other important minerals America needs for national and economic security, as well as the materials people use in their everyday lives. We are proud of our members' contributions across the communities and regions where they operate, many of which are rural areas facing significant economic and social development challenges. Notably, the

¹ <https://www.federalregister.gov/documents/2022/02/24/2022-04027/2022-final-list-of-critical-minerals>

² According to the World Bank, copper is used in ten low-carbon energy technologies. <https://pubdocs.worldbank.org/en/961711588875536384/Minerals-for-Climate-Action-The-Mineral-Intensity-of-the-Clean-Energy-Transition.pdf>

³ <https://www.smenet.org>

⁴ <https://iea.blob.core.windows.net/assets/4eb8c252-76b1-4710-8f5e-867e751c8dda/GlobalSupplyChainsOfEV Batteries.pdf>

U.S. mining industry is the safest, most environmentally responsible mining industry in the world. Our members have repeatedly demonstrated that mining and protecting the environment are compatible, as mineral producers make possible the development of society's basic needs and consistently minimize modern society's impacts on the environment.

We Need a Reliable Domestic Mineral Supply Chain

Recent global events have exposed the United States' supply chain vulnerabilities, highlighting the importance of an abundant and affordable supply of domestic minerals for America's future.

The fact is, global mineral demand is skyrocketing. As noted in a report from the International Energy Agency, keeping global temperature rise to below 2 degrees Celsius above preindustrial levels will quadruple the demand by 2040 for the minerals needed to build wind turbines, solar panels, and electric vehicles. A faster energy transition—reaching net zero globally by 2050 as the Biden administration has called for—would require critical mineral inputs to increase sixfold by 2040.

Solar panels require silver, tin, copper, and lead; wind turbines use rare earths, copper, aluminum, and zinc; electric vehicles are built with copper, aluminum, iron, molybdenum; and rechargeable storage batteries use lithium, vanadium, nickel, cobalt, and manganese. Approximately 40% of the gold now produced is used in electronics and computer chips that are needed for clean energy technologies to meet carbon emission reduction objectives to address climate change.

President Biden has promised to convert the entire U.S. government fleet—about 640,000 vehicles by 2030—to EVs. That plan alone could require a 12-fold increase in U.S. lithium production to manufacture the lithium-ion batteries that power EVs, according to Benchmark Minerals Intelligence, as well as increases in output of domestic copper, nickel, and cobalt—and that's just for the U.S. government vehicle fleet. The magnitude of the minerals needed for a 100 percent EV market is even more staggering, and simply cannot be ignored.

Unfortunately, a lack of access to economically viable mineral deposits and a lengthy, inefficient federal permitting system has resulted in the U.S. being increasingly dependent on foreign sources of strategic and critical minerals. It's time that we, as a Nation, recognize this vulnerability and the vital importance of minerals to our national security, our economy, and our everyday lives. We have heard a lot over the years about the importance of energy independence, but it is equally as important, if not more so, that we are minerals independent.

In September 2016, the Government Accountability Office ("GAO") published a report titled "Strengthened Federal Approach Needed to Help Identify and Mitigate Supply Risks for Critical Raw Materials." This report evaluated "certain metals, minerals, and other 'critical' raw materials [that] play an important role in the production of advanced technologies across a range of industrial sectors and defense applications." The GAO report found several limitations in the scope of federal critical mineral programs that are inconsistent with the directives in the National Materials and Minerals Policy, Research and Development Act of 1980. (30 U.S.C. §§ 1602–1605), hereinafter referred to as the 1980 Act.

In the 1980 Act, Congress found:

"the United States lacks a coherent national materials policy and a coordinated program to assure the availability of materials critical for national economic well-being, national defense, and industrial production, including interstate commerce and foreign trade." (30 U.S.C. § 1601(7)).

In response to this finding, Congress declared:

"... it is the continuing policy of the United States to promote an adequate and stable supply of materials necessary to maintain national security, economic well-being and industrial production with appropriate attention to a long-term balance between resource production, energy use, a healthy environment, natural resource conservation, and social needs." (30 U.S.C. § 1602)

As important as recycling is, it cannot meet the world's burgeoning mineral demand. The IEA's report estimates that by 2040, recycling metals from spent batteries could only supply about ten percent of the minerals that will be needed.

Made in America must include "mined in America" and sourcing minerals from U.S. mines that use state-of-the-art environmental protection measures, put a premium on worker health and safety, and have financial assurances that guarantee reclamation when mining is complete.

Permitting Mines in the United States

Effective implementation of the Infrastructure Investment and Jobs Act of 2021 (also known as the Bipartisan Infrastructure Law) is dependent on the critical and strategic minerals and materials that our members mine. However, according to a 2021 report by the Wilson Center:

The United States faces a troubling scenario when it comes to the supply chain for critical minerals. Rapidly increasing demand, under-developed national resources, intense international competition, and years of neglect in this issue area place the U.S. at a distinct disadvantage vis-à-vis China in securing access to the metals and Rare Earth Elements that are vital for the energy transition and for geopolitical ambitions. [emphasis in original]

Most notably, we are failing to develop infrastructure or critical minerals projects in a timeframe that would allow the United States to achieve its ambitious clean energy objectives, reduce our reliance on China and other adversaries for critical minerals, and strengthen our critical minerals supply chains. This is largely due to lengthy permitting delays and uncertainties which place the United States at a competitive disadvantage for purposes of attracting investments in mineral development.

Notably, the permitting of comparable mining projects in Australia and Canada, which have similar environmental standards and practices as the United States, takes between two and three years, compared to the seven to ten years or more required to permit a mine in the United States. Given the comprehensive scope and effectiveness of U.S. environmental protection laws and the federal land management agencies' regulations governing mineral projects, these delays do not yield any substantive environmental benefits. However, they contribute significantly to the additional costs and risks that project proponents are required to bear. The adverse impacts stemming from permitting delays extend far beyond corporate boardrooms—as they hurt local communities that must wait for the jobs, tax revenues, and other investments and socioeconomic benefits associated with exploration and mining.

There are real world consequences caused by permitting delays. The unpredictable nature of delays, alone, can reduce a typical mining project's value by more than one-third, or as much as one-half before production even begins. The challenges of our federal environmental review and permitting processes, and how they adversely affect our supply chain of critical minerals, were recently detailed as part of the aforementioned Wilson Center report.⁵

Domestic permitting delays chill investment in U.S. mining projects. Yet, our Nation needs these investments to remain competitive and to improve our supply chain independence. According to the USGS' Mineral Commodity Summaries 2023, our country's import dependence for key mineral commodities has doubled over the past two decades, with the United States now 100 percent import-reliant for 15 of its key minerals and more than 50 percent import-reliant for an additional 36 key mineral commodities. This foreign reliance continues despite the existence of significant mineral deposits of many of these commodities within our borders. Moreover, U.S. mineral import reliance continues to increase as mineral demand from essential industries, such as energy and transportation, soars. Notably, the World Bank sees mineral demand for advanced energy technologies jumping by nearly 500 percent by the year 2050.⁶ Copper demand alone may rise as much as 350 percent by 2050, according to one estimate.⁷

AEMA wants to emphasize that it does not generally view compliance with substantive environmental protection laws and regulations to be a problem, because our members' projects are designed and operated with state-of-the-art environmental safeguards, and all our mining projects are fully bonded, and are carefully reclaimed when mineral exploration and mining activities are complete. Instead, it is the federally mandated permitting process—and associated litigation and administrative delays—that have caused major problems. For mine projects that involve federal permits and authorizations, the National Environmental Policy Act (NEPA) process consistently causes lengthy federal permitting delays and frequently results in subsequent litigation. In July 2020, CEQ issued a report and supporting materials (<https://ceq.doe.gov/nepa-practice/eis-timelines.html>) compiling information related to the timelines for preparing Environmental Impact Statements (EISs) from

⁵ https://www.wilsoncenter.org/sites/default/files/media/uploads/documents/critical_minerals_supply_report.pdf

⁶ <https://pubdocs.worldbank.org/en/961711588875536384/Minerals-for-Climate-Action-The-Mineral-Intensity-of-the-Clean-Energy-Transition.pdf>

⁷ <https://www.sciencedirect.com/science/article/abs/pii/S0959378016300802>

2010 through 2018. While the CEQ's Forty Questions state that the time for an EIS, even for a complex project, should not exceed 1 year, CEQ found that, across the federal government, the average time from issuance of a Notice of Intent (NOI) to completion of an EIS and issuance of a Record of Decision (ROD) was more than 4.5 years. Only one quarter of the EISs evaluated took less than 2.2 years, and another quarter required more than 6 years.

In recognizing the challenges associated with NEPA, the impacts of litigation must be considered because lawsuits are frequently the final step of any significant NEPA process. Typically, it is the NEPA analyses and federal permits for hardrock mining projects which are litigated in federal courts. Because NEPA litigation is so common, our members routinely anticipate at least two to three years, or more, of litigation delays when planning their proposed mining projects. While some level of litigation risk is a reality we will always have in the United States, the mining industry faces consistent and unnecessary litigation hurdles based on the fact that NEPA policies and procedures are developed and implemented on a project-by-project basis. This project-by-project approach leads to inconsistencies that make various courts the arbiters of compliance and cause confusion across the industry as to how NEPA should be applied. Costly and time-consuming lawsuits burden projects and federal agencies and hurt communities waiting for jobs, tax revenues and other project-related benefits to materialize.

Most mining companies that progress mineral exploration to the stage of starting a mine are sophisticated and quite familiar with NEPA's requirements and related timing. They also understand their environmental obligations and—through the work of preparing complete applications for a Plan of Operations and other federal permits—have identified associated environmental permitting obligations, reclamation requirements, and both mine start-up and reclamation bonding costs. Although these applicants generally anticipate the time required for the NEPA review process, there are widespread concerns about the length of time it takes federal agencies to complete the process, which creates considerable uncertainty and complicates business plans and decisions and discourages investment.

Mining companies frequently engage private consultant experts to assist in preparing the required environmental baseline studies, environmental impact analyses, and mitigation plans. The applicants and their experts are generally the most familiar with the project proposal and are required to submit technical information to support analysis of environmental, cultural, and socioeconomic impacts, but may sometimes be restricted from preparing the NEPA document. When that happens, a draft EA or EIS is likely to include factual errors or incomplete information that results in delays and additional litigation risk and cost. It is the litigation delay and cost that are the wild cards for any proposed mining project, often with the result that NEPA litigation delays render a project uneconomic or more difficult to finance. The 2020 CEQ regulations made it clear that applicants have a substantive role in the process and may even prepare an EIS for agency review.

Specifically, CEQ's 2020 regulations provided many commonsense, procedural changes to the NEPA process that AEMA believes are essential to improving its implementation and reducing the litigation risk that inconsistency brings; while still adhering to the basic tenets of the statute that allow for meaningful public input and support the federal decision-making process. These include well-reasoned bounds on timing, with exceptions for extraordinary situations, page limits, guidelines on proponent involvement, and particularly rules for interagency cooperation including procedures for issue resolution. They also provide for high level agency accountability for not adhering to the requirements, which is especially important given the potentially significant implications on the viability of the critical and strategic mineral projects that our members represent.

Mineral Withdrawals Must be Limited

According to the GAO, the federal government manages about 650 million acres, or 29 percent, of the 2.27 billion acres of land in the United States.⁸ Former Department of Interior Solicitor, John Leshy (now a professor at the University of California Hastings College of Law), estimated in 2021 that of the approximate 650 million acres of public lands, roughly 400 million acres are set aside for conservation and preservation purposes and are functionally off-limits to mining.⁹ He also calculated that during the period from 1980 to 2020, the acres of conservation and

⁸ GAO Letter report to Senator Tom Udall entitled "Hardrock Mining: Availability of Selected Data Related to Mining on Federal Lands," May 16, 2019, available at: <https://www.gao.gov/assets/gao-19-435r.pdf>.

⁹ John D. Leshy, *America's Public Lands—A Look Back and Ahead*, 67th Annual Rocky Mountain Mineral Law Institute, July 19, 2021.

preservation lands grew from 250 million acres to 400 million acres.¹⁰ Federal lands have been withdrawn from mineral entry to protect a variety of “special places,” from national monuments and wilderness areas to military bases. For example, the national conservation lands system already includes 35 million acres of pristine, culturally diverse and scientifically important sites that have been withdrawn from mineral entry, including: 122 national monuments, 28 of which are managed by BLM; 23 national conservation areas; 30 National Scenic and Historic Trails; 200 designated Wild and Scenic Rivers; 260 congressionally designated wilderness areas; and 491 wilderness study areas.¹¹ Congress has closed or withdrawn areas to mineral exploration in favor of other uses, including for the following:

- National Parks;
- National Monuments;
- Indian reservations;
- Various types of Bureau of Reclamation projects;
- Military reservations;
- Scientific testing areas;
- Wildlife protection areas;
- National Wilderness Preservation System and Wilderness study lands; and
- Wild and Scenic River designated and study areas.¹²

More withdrawals seem likely under Executive Order 14008 in which President Biden set a goal of preserving and restoring 30 percent of U.S. lands and waters by 2030.¹³

Shrinking the available land base where mineral exploration and mining are allowed would reduce the number of future mineral discoveries that can become mines. This would ultimately increase the Nation’s reliance on foreign minerals and thwart the country’s goals to increase domestic production and become more mineral independent. The 1980 House Subcommittee report discussed above recognized that removing lands from operation of the Mining Law was a serious threat to mineral security:

The most precious asset and the most fundamental requirement, access to land—primarily the mineral-rich public land—in which to search for minerals could well become the scarcest component in America’s mineral supply future.¹⁴

Rather than asking whether additional lands need to be withdrawn, it would be more appropriate to ask whether some previously withdrawn lands with high mineral potential should become available for mineral exploration and development to address current critical minerals availability challenges. In light of our untenable and dangerous reliance on foreign minerals, it would be in the public’s best interests to determine whether certain withdrawn lands that are not part of the National Park System or congressionally designated wilderness are more valuable for their mineral resources compared to scenic, cultural, recreational or other land uses. This evaluation should consider how the modern environmental protection standards that would apply to potential mineral development would minimize environmental impacts, maximize protection of cultural resources and scenic landscapes, require reclamation when mining is complete, and enable multiple uses on these lands for mining and nearby recreational uses both during and after mining.

As one example of how mineral withdrawals play out to this nation’s detriment, in 2012, then-Secretary of Interior, Ken Salazar, finalized the withdrawal of 1 million acres of land well outside Grand Canyon National Park in Arizona. Although there was already a buffer around the park boundary in which many activities, including mining, are prohibited, advocates of the withdrawal successfully argued that an additional “buffer beyond the buffer” was necessary. Similar arguments were made with the recent withdrawal of 225,000 acres in the Superior National Forest in Minnesota.

¹⁰ *Id.*

¹¹ BLM website: <https://www.blm.gov/programs/national-conservation-lands>.

¹² See BLM website: <https://www.blm.gov/programs/energy-and-minerals/mining-and-minerals/locatable-minerals/mining-claims/locating-a-claim>; see also Attachment 5, “List of Select Federal Laws Amending or Affecting the Mining Law of 1872,” identifying principal laws under which federal lands have been withdrawn from mineral entry.

¹³ See Executive Order 14008 “Tackling the Climate Crisis at Home and Abroad” (January 27, 2021) and the “America the Beautiful Initiative.”

¹⁴ 1980 Subcommittee Report, *op cit.* page xv.

As AEMA noted in our comments on the Arizona withdrawal at the time,¹⁵ the United States was already importing 90 percent of its uranium in 2009, and northern Arizona holds “42% of the nation’s estimated undiscovered uranium endowment . . . To withdraw this critical resource from location and entry under the Mining Law, with no environmental benefit or necessity, is short-sighted and dangerous.” In the wake of Russia’s invasion of Ukraine on February 24, 2022, the United States has found the will to ban the import of all manner of Russian goods and commodities, but it is unable to wean itself off of Russian uranium imports—a troubling situation for domestic power generation and national security.

The Grand Canyon withdrawal is a real-world example of a problem AEMA has frequently raised in theory, and that is now playing out before us. The federal government placed federal lands off-limits to mineral entry that could have provided the uranium needed for power generation and national security purposes from highly regulated, state-of-the-art mining operations. The United States has often withdrawn federal public lands from mineral entry before fully understanding the mineral potential of the withdrawn lands. Although the United States had a considerable understanding of the deposits in northern Arizona, policy makers failed to fully weigh the long-term ramifications of the withdrawal, which are now coming into clearer focus. At a time when the need for carbon-free, baseload power is ramping up, some of the nuclear power industry’s best domestic sources of uranium are inaccessible. This is a self-inflicted wound. Uranium is not currently listed as a “critical mineral,” but has been designated as such in the past and given its strategic importance, should be returned to the list in the future.

AEMA and our members oppose removing lands from mineral entry, but at the very least, every time a withdrawal or land use restriction is proposed to remove federal land from mineral entry, the decision makers should develop a full understanding of the land’s mineral endowment. Otherwise, the United States runs the risk of repeating the same short-sighted land management exemplified with the Grand Canyon withdrawal, which has put much-needed uranium resources off limits to mining.

Conclusion

Since 1970, Congress has consistently and repeatedly recognized that minerals and mining are essential to all facets of our economy, society, and national defense. For example, the MMPA (1970), the FLPMA (1976), the MMPRDA (1980), the Energy Act (2020), the IIJA (2021), and most recently the IRA (2022) all direct the Executive Branch agencies to respond to the Nation’s need for domestic minerals.

Unfortunately, these Congressional directives have gone largely unheeded as more lands continue to be withdrawn from mineral entry and permitting timelines, costs, and risks have become intolerable. Our risky reliance on imported minerals is a direct result of five decades of ignoring Congress’ clear directives that minerals should be mined from public lands to help satisfy the Nation’s need for minerals. Despite the urgent need to increase domestic mining and reduce our dependency on foreign minerals, today it can take 10 years or more to permit a mine.

The Departments of the Interior and Agriculture must start complying with the law; compliance is not discretionary. Through their land management agencies, BLM and the Forest Service, these departments must reverse the trend of the last 50 years during which it has become increasingly difficult to access potentially mineralized public lands and to secure the necessary permits to explore for minerals and build mines.

The findings in the IIJA that “critical minerals are fundamental to the economy, competitiveness, and security of the United States” and that “the Federal permitting process has been identified as an impediment to mineral production and the mineral security of the United States” must result in constructive action to streamline permitting and eliminate permitting impediments.

¹⁵Northwest Mining Association (now AEMA), Comment Letter on Notice of Proposed Withdrawal, 74 Fed. Reg. 35887, October 19, 2009.

For the aforementioned reasons, we wholeheartedly support H.R. 209, the Permitting for Mining Needs Act of 2023, and the concepts in the discussion drafts of the Building United States Infrastructure Through Limited Delays and Efficient Reviews Act of 2023 (BUILDER Act) and the Transparency and Production of (TAP) American Energy Act of 2023. We look forward to continuing to work with you to ensure America has a secure and affordable supply of the minerals and metals needed for our modern society.

Sincerely,

MARK COMPTON,
Executive Director

WOMEN'S MINING COALITION
Reno, Nevada

February 27, 2023

Hon. Pete Stauber, Chairman
Subcommittee on Energy and Mineral Resources
House Committee on Natural Resources
1324 Longworth House Office Building
Washington, DC 20515

Re: Support for H.R. 209 and the TAP American Energy Act Discussion Draft

Dear Chairman Stauber:

The Women's Mining Coalition (WMC) is writing to voice our strong support for your bill, *Permitting for Mining Needs (PERMIT MN) Act*, H.R. 209, and for Chairman Westerman's Discussion Draft of the *TAP American Energy Act*. Both bills address the significant barriers that the protracted, costly, and uncertain permitting processes create for the timely development of U.S. oil, gas, coal, and mineral resources.

Recent events like the war in Ukraine clearly underscore the need to strengthen the Nation's critical minerals supply chains in order to reduce our dangerous reliance on foreign adversaries for the minerals essential to our national defense, economy, infrastructure, manufacturing and technology sectors, and our clean energy future. China's hegemony over many critical minerals constitutes a serious threat to the U.S.

The Biden Administration's aggressive goals to reduce greenhouse gas emissions to address climate change through policies advocating nationwide electrification are unachievable without the minerals that are the raw materials needed to build EVs and energy storage batteries to supplement fossil fuels. The permitting obstacles that stand in the way of exploring for, developing, and responsibly mining domestic minerals like lithium, rare earths, copper, cobalt, and nickel must be solved before the U.S. can truthfully say we have implemented effective climate change policies. Without these minerals, the country's climate change policies are nothing more than hollow gestures.

Similarly, the country urgently needs to increase the production of fossil fuels in order to provide sources of reliable energy during the transition to renewable energy sources. This transition is going to take longer than the 2030 and 2050 deadlines established in current policies. In fact, it is likely to take many decades. Once the renewable energy transition goals have been met in the future, the U.S. will still need long-term sources of domestically-produced fossil fuels for the petrochemical industry and other purposes. Chairman Westerman's TAP American Energy Act discussion draft addresses the permit streamlining that needs to occur to support the long-term and responsible development of the country's fossil fuel and mineral resources.

We applaud your proposal in H.R. 209 to amend Section 40206 of the Infrastructure Investment and Jobs Act of 2021 by extending its applicability to *all* minerals—not just those minerals on the U.S. Geological Survey's (USGS') list of critical minerals. There are no “unimportant” minerals. All minerals are needed to support our economy, national defense, clean and conventional energy infrastructure, and our manufacturing and technology sectors.

For example, the chart below from the World Bank Group's May 2020 report entitled *Minerals for Climate Action* emphasizes the importance of many minerals in our energy sector. Please note that copper, which is not currently in the USGS' critical minerals list, is needed for all types of energy infrastructure. Recognizing the critical need to increase domestic production of copper, Chairman Manchin along with five of his Senate colleagues recently sent a letter to Secretary of the Interior, Deb Haaland, requesting that she direct the U.S. Geological Survey to add copper to the critical minerals list.

	Wind	Solar photovoltaic	Concentrated solar power	Hydro	Geothermal	Energy Storage	Nuclear	Coal	Gas	Carbon capture and storage	Import Reliance	Exporting Countries
Aluminum*											> 75%	Jamaica, Brazil, Guinea, Guyana
Chromium											72%	Norway, Japan, China, Canada
Cobalt											78%	South Africa, Kazakhstan, Russia
Copper											35%	Chile, Canada, Mexico
Graphite											100%	China, Mexico, Canada, India
Indium											100%	China, Canada, Republic of Korea, Taiwan
Iron Ore											21%	Canada, Brazil, Republic of Korea
Lead											30%	Canada, Mexico, Republic of Korea, India
Lithium											>25%	Argentina, Chile, China
Manganese											100%	South Africa, Gabon, Australia, Georgia
Molybdenum											<20%	Peru, Chile, Canada, Mexico
Rare Earths**											100%	China, Estonia, Japan, Malaysia
Nickel											47%	Canada, Norway, Australia, Finland
Silver											68%	Mexico, Canada, Peru, Poland
Titanium											86%	Japan, Kazakhstan, Ukraine, China, Russia
Vanadium											94%	Austria, Canada, Russia, Republic of Korea
Zinc											87%	Canada, Mexico, Australia, Peru
Total	10	8	2	8	6	11	11	9	8	6		

* Bauxite, ** Neodymium

Source: <https://www.worldbank.org/en/topic/extractiveindustries/brief/climate-smart-mining-minerals-for-climate-action>

The U.S. is fortunate to have a significant geologic endowment of many minerals and fossil fuels. Unfortunately, the Biden Administration has implemented policies that put significant mineral and fuel resources off-limits to exploration and development. For example, the recent pre-emptive vetoes of proposed copper projects in Alaska and Minnesota will categorically prevent the responsible development of two world-class copper deposits. WMC strongly supports Chairman Westerman's proposal in his discussion draft to put limits on the use of executive fiat to make mineral and fossil fuel resources unavailable for development.

WMC has focused for many years on the Nation's dangerous reliance on imports of critical minerals from foreign countries like China and Russia and the paucity of domestic mineral processing facilities. Today, the need to significantly increase the number of domestic mines, smelters, and refining facilities is more urgent than ever as the Biden Administration implements the Infrastructure Investment and Jobs Act of 2021 and the Inflation Reduction Act of 2022, which both require secure domestic sources of minerals.

We also believe that an "all-of-the-above" approach to meeting our energy needs is the only viable policy for the foreseeable future. It is inappropriate and unproductive to pit one form of energy against another. We need all forms of renewable and conventional energy to support our economy and keep our country safe. We have the technologies needed to produce these energy resources in a safe and environmentally responsible manner.

For these reasons, WMC supports both H.R. 209 and Chairman Westerman's TAP American Energy Act Discussion Draft. We urge this committee to advance both proposals.

WMC is a grassroots organization whose mission is to advocate for today's modern domestic mining industry, which is essential to our Nation. Our membership includes over 200 women who work nationwide in hardrock, coal, and industrial minerals mining and in the energy, manufacturing, transportation, and service industry sectors.

We will be in Washington, D.C. from April 17–21 for our annual Fly-In and hope to have the opportunity to meet you and your staff to discuss the importance of strengthening the U.S. hardrock and coal mining sectors to supply the country with the mineral and energy resources needed for national security and our economic and social wellbeing. In the meantime, please contact us if you have any questions or would like additional information.

Thank you for your consideration and this opportunity to submit this letter for the record for the February 28, 2023 hearing before the House Subcommittee on Energy and Mineral Resources.

Sincerely yours,

Emily Hendrickson,
WMC President

Wanda Burget,
WMC Manager

LOUISIANA MID-CONTINENT OIL & GAS ASSOCIATION
Baton Rouge, LA

February 28, 2023

Hon. Bruce Westerman, Chairman
Hon. Raul Grijalva, Ranking Member
House Committee on Natural Resources
1324 Longworth House Office Building
Washington, DC 20515

Dear Chairman Westerman & Ranking Member Grijalva:

Since 1923, Louisiana Midcontinent Oil and Gas Association (LMOGA) represents all sectors of the oil and gas industry in Louisiana and across the Gulf of Mexico. Importantly, LMOGA represents the energy producers and refiners along the Gulf Coast who produce nearly 20% of our nation's energy, refine 45% of the total U.S. petroleum, and process 51% of the nation's natural gas. Our industry supports thousands of high wage jobs across the Gulf South, serviced by businesses in every state in the Union. In Louisiana alone, the oil and gas activities are 26% of Louisiana's GDP, and the industry accounts for over \$4 billion in state and local tax revenue.

We write today to voice our support for the *TAP American Energy Act* as it will bring much needed certainty to our industry in the Gulf of Mexico so that we can continue to produce energy that meets nearly 16% of our nation's energy demand and will strengthen our communities' resiliency to coastal land loss. Importantly, the legislation would mandate two area-wide lease sales in the Gulf of Mexico, direct the Department of the Interior to complete a new Five-Year OCS leasing Program this year, and improve the development of leasing programs and lease sales moving forward by setting predictable and achievable timeframes.

When President Biden paused federal oil and gas lease sales in the Gulf of Mexico, our industry faced unprecedented uncertainty leading to record-high gas prices for consumers. The recently announced Lease Sale 259, issued in accordance with mandates in the Inflation Reduction Act, is the first in 15 months since the Department of the Interior held a lease sale after federal court action. For the first time ever, there is a lapse in the Five Year Leasing Program for the Outer Continental Shelf. The TAP American Energy Act would build on the leasing provisions in the Inflation Reduction Act and ensure lease sales will continue in the Gulf of Mexico and the Department of the Interior will issue a five-year plan for the subsequent years in a timely manner.

The TAP American Energy Act also provides Gulf coast energy producing states with a larger share of revenue from offshore energy development, bringing much-

needed investments to our Coast, especially in Louisiana, to combat coastal land loss. LMOGA strongly supports these provisions and believes strongly that we must restore our coast to sustain both our livelihoods and our environment for generations to come.

LMOGA also supports the *BUILDER Act* sponsored by Louisiana Representative Garret Graves. As the Representative knows well, permitting delay and uncertainty, largely due to the arduous administrative review process often holds up much needed infrastructure needed for our members to bring American energy to market. Louisiana in particular is at the precipice of a robust amount of new infrastructure build out as it works to develop and deploy new renewable energy offshore and its carbon capture utilization and storage (CCUS) industry. From permit renewals for the nearly 50,000 miles of existing pipelines in Louisiana, build out of new infrastructure to capture carbon, or laying cable in the Outer Continental Shelf for offshore wind development, the *BUILDER Act* will help bring certainty to the process and make our energy system in Louisiana transformative. We thank the Committee for considering these bills and urge their swift passage.

Sincerely,

TOMMY FAUCHEUX,
LMOGA President

**Supporting Organizations for H.R. 209 (Stauber),
the Permitting for Mining Needs Act**

- National Association of Building Trades Unions;
- American Exploration and Mining Association;
- National Mining Association;
- Better in Our Backyard;
- Uranium Producers of America;
- Citizens for Responsible Energy Solutions;
- Range Association of Municipalities and Schools (RAMS);
- Women's Mining Coalition;
- National Stone Sand and Gravel Association; and the
- Essential Minerals Association
- MICHAuto

Mr. STAUBER. And then I would just like to close up this hearing by thanking the witnesses for your great testimony.

Here is how we officially close. Again, I want to thank the witnesses for your time and your expert testimony, all of you. We value what you had to say to us tonight.

The members of the Subcommittee may have some additional questions for the witnesses, and we will ask you to respond to these in writing.

Under Committee Rule 3, members of the Committee must submit questions to the Committee Clerk by 5 p.m. on Friday, March 3. The hearing record will be held open for 10 business days for these responses.

If there is no further business, without objection, the Committee stands adjourned.

[Whereupon, at 12:43 p.m., the Subcommittee was adjourned.]

[ADDITIONAL MATERIALS SUBMITTED FOR THE RECORD]

Submissions for the Record by Rep. Grijalva**NATIONAL PARKS CONSERVATION ASSOCIATION
Washington, DC**

February 27, 2023

Re: NPCA Position on H.R. 209, the Permitting for Mining Needs Act of 2023, and the TAP American Energy Act of 2023

Dear Chairman Stauber, Ranking Member Ocasio-Cortez, and Members of the Energy and Mineral Resources Subcommittee:

Since 1919, the National Parks Conservation Association (NPCA) has been the leading voice of the American people in protecting and enhancing our National Park System. On behalf of our 1.6 million members and supporters nationwide, I write to share our positions on H.R. 209, the Permitting for Mining Needs Act of 2023, and the TAP American Energy Act of 2023.

H.R. 209—Permitting for Mining Needs Act of 2023: NPCA opposes this legislation which risks key conservation lands that help protect our national parks and the health and wellbeing of our communities. While mining is not permitted within national parks, mining activities pollute the air and water that crosses the boundaries of other nearby protected lands. NPCA does not oppose additional mining for minerals critical to the clean energy transition and we acknowledge that growing demand for certain materials may require new hardrock mines, including some on federal public lands. However, there are better ways to source minerals than by allowing entities to stake claims prior to the discovery of a mineral deposit or imposing arbitrary environmental review timelines. Insufficiently regulated mining in the name of clean energy development promotes a false choice and we must do better.

NPCA has specific concerns with sections 3, 8, and 10 of this bill:

Section 3—This section sets arbitrary timelines for key steps in the National Environmental Policy Act (NEPA) process for mine permitting. According to the Government Accountability Office, the two most cited challenges that affected the length of time to review hardrock mine plans were the low quality of information operators provided in their mine plans and the agencies' limited allocation of resources for their hardrock mining programs.¹ This bill addresses neither of those problems and instead sets a time limit of 12 months for an Environmental Assessment (EA) and 24 months for an Environmental Impact Statement (EIS) without properly funding the agencies tasked with performing these reviews. This will dramatically reduce the quality of these reviews and opens the door to greater threats to water, land, sacred sites, and communities.

Section 8—This section would exacerbate the issues with the current claim system by validating mining claims under the Mining Law of 1872 before the claimant has proven a mineral discovery. Currently, mining rights fully vest only after valuable minerals are discovered. Under H.R. 209, a claimant would no longer need to prove they discovered valuable minerals. Instead, any person could "claim" mining rights on unwithdrawn public lands merely by grounding a stake, paying a fee and filing some paperwork. This would effectively lock out most other uses of public lands and establish mining as the highest and best-use of the land.

Section 10—This section sets an arbitrary 120-day limit for communities to legally challenge mine projects in court. This 4-month limit severely restricts the ability of communities and Tribes to protect their water, land, air and sacred sites from toxic mining pollution. Restricting the ability of local communities to provide adequate input degrades the public trust in these industries and does little to expedite the permitting process.

¹ <https://www.gao.gov/assets/gao-16-165.pdf>

Congress has already invested significant time and resources into permitting reform for mining. The Inflation Reduction Act (IRA) included \$1 billion to support timely and effective environmental reviews across federal agencies, which should lead to better, more equitable outcomes and help avoid litigation. The Permitting for Mining Needs Act of 2023 would not meaningfully address the underlying issues with mine permitting or supply of clean energy minerals but would exacerbate the conditions for more hardrock mines to pollute the watersheds of our national parks.

H.R. ____—Transparency and Production of American Energy Act of 2023: NPCA **opposes** this legislation which would allow unrestrained oil and gas development on federal lands and waters with no consideration for the negative effects it would have on national parks and communities. The bill effectively ends the long-standing policy of “multiple-use” on public lands in favor of fossil fuel extraction over recreation and conservation and would have drastic implications for the president’s ability to protect cultural, natural and sacred spaces. This legislation also makes unnecessary changes to NEPA, our nation’s bedrock environmental protection law, including arbitrarily shortening timelines and limiting the public’s ability to participate in the permitting and siting processes.

While this legislation is problematic by effectively making extraction the dominant use on BLM and USFS lands, NPCA has specific concerns with the following titles:

Title I—This title would force the federal government to lease large swaths of public lands and waters for oil and gas development with no regard to the effects on climate or national parks and communities. This ends the decades-long precedent of deferring to the president and secretary of the Interior on determining when and where to hold lease sales. It also requires the federal government to lease more public lands for coal mining while fast tracking the leasing and permitting process at the expense of environmental reviews and community input. We believe the future of energy development must include renewable energy, this title would hamper the federal government’s effort to transition to clean energy including wind and solar.

Title III—This title modifies the way a president may withdraw or conserve public lands from fossil fuel and mineral extraction. It also requires the administration to survey for additional mineral and fuel deposits on lands already protected through administrative withdrawal or Antiquities Act designation, allowing for the potential removal of these protections for fossil fuel development and mineral extraction. These changes upend the way public lands are protected and used, undermining our country’s long-standing commitment to conservation and protecting resources for the enjoyment of future generations.

Additionally, this title forces the federal government to prioritize oil and gas development and coal and mineral mining on federal lands over all other uses. This could make lands unusable for conservation and recreation purposes, including hiking, hunting and fishing, and end the long-standing policy of “multiple-use”.

As this would apply to all Bureau of Land Management and U.S. Forest Service lands that have not already been removed from oil and gas development by administrative withdrawal, lands protected through legislative designations or under the Wilderness Act could lose those protections and become open to drilling and mining.

Title IV—This title rescinds the commonsense changes to the oil and gas leasing program that NPCA supported in the Inflation Reduction Act, including updated royalty rates and the end to non-competitive leasing. By lowering royalty rates, this title would take money from conservation funding programs and leave it in the hands oil and gas companies. By reinstating non-competitive leasing, federal land could be given away for oil and gas development for up to half as much as it would sell for at auction.

Title V—This title makes drastic changes to the revenue sharing structure from energy production on federal lands and waters and would take funding away from multiple conservation programs, including the National Parks and Public Lands Legacy Restoration Fund created by the Great American Outdoors Act, the Land and Water Conservation Fund, and the Historic Preservation Fund. This title also abolishes administrative fees that help the Department of the Interior facilitate its leasing programs, effectively defunding the department’s ability to manage its leasing program which Titles I and III of this bill seek to grow exponentially.

The TAP American Energy Act of 2023 does not increase America's energy independence, security or diversification in a meaningful way—which can only be done by increasing the use of renewable energy. It does, however, eviscerate some of our most important and long-standing protections for natural, cultural and sacred spaces.

Thank you for considering our views.

Sincerely,

CHRISTINA HAZARD,
Legislative Director, Government Affairs

February 28, 2023

Re: Energy and Mineral Resources Subcommittee Legislative Hearing

Dear Chairman Stauber, Ranking Member Ocasio-Cortez, and members of the House Natural Resources Energy and Mineral Resources Subcommittee:

As your subcommittee considers Mr. Stauber's legislation, H.R. 209, *the Permitting for Mine Needs (PERMIT-MN) Act*, **we urge you oppose this bill** and instead prioritize efforts that would balance public health, community input, and the protection of watersheds, wildlife habitat, and cultural and historic resources on America's public lands and wildlife. **The PERMIT-MN Act would exacerbate deficiencies in the existing mining law and result in an unnecessary increase in mining on federal public lands and puts at risk irreplaceable protected lands, special places, endangered and sensitive wildlife, tribal sacred sites, and culturally significant sites.**

In particular, Section 8 of the legislation upends more than a century of practice by validating mining claims under the Mining Law of 1872 before the claimant has proven a mineral discovery. Currently, mining claims do not become valid just because the claimant says so: mining rights fully vest *only after* the miner discovers valuable minerals. Yet, under H.R. 209, a claimant would no longer need to actually prove they discovered valuable minerals. Instead, any person could "claim" mining rights on unwithdrawn public lands merely by grounding a stake, paying a fee, and filing some paperwork. **The PERMIT-MN Act would effectively lock out most other uses of public lands, prioritizing mining instead.**

H.R. 209 rigs the legal system in favor of mining companies by reducing opportunities for communities to understand their government's mining decisions and to protect themselves from project impacts. Some of those impacts occur, and others become foreseeable, during mining exploration. Yet Section 7 allows exploratory mining with no community notice and removes environmental review under the National Environmental Policy Act (NEPA). Worse, Section 10 restricts the ability of nearby communities and Tribal nations to protect their water, land, air, and sacred sites from toxic mining pollution by arbitrarily closing the courthouse door to legal challenges brought more than one year following the permit, license, and/or approval.

We urge all Members of Congress to oppose this legislation.

Improvements to the Mine Permitting Process

We acknowledge that growing demand for certain materials may require new hardrock mines, including some on federal public lands. However, there are better ways to source minerals than allowing entities to validate mine claims prior to the discovery of a mineral deposit or imposing arbitrary environmental review timelines. Necessary changes include those considered last Congress in the Clean Energy Minerals Reform Act of 2022. Converting to a leasing system for hardrock minerals, just like the one that oil and gas companies use today, would help provide certainty to the permitting process and result in more timely and socially acceptable decisions.

Congress has already invested significant time and resources into permitting reform for mining. The Inflation Reduction Act (IRA) included \$1 billion to support timely and effective environmental reviews across federal agencies, which should

lead to better, more equitable outcomes, and help avoid litigation. Additionally, the Fiscal 2023 budget will help fund public lands management agencies to perform more thorough mining reviews.

These resources for mine permitting build upon those in the Infrastructure Investment in Jobs Act (IIJA). IIJA made permanent the Fixing America's Surface Transportation Act Permitting Council (Permitting Council), which, in January 2021, added hardrock mining as a covered sector. In November 2022, the Biden administration announced the Permitting Council will devote \$5 million in support of more meaningful consultations with federally recognized tribes in hardrock mine permitting.

IIJA also required the Interior Department to identify process improvements to hardrock mine permitting. A coalition of tribes, indigenous-led organizations, and conservation groups have also petitioned Interior for rules that, if finalized, would result in more timely decisions for hardrock mine permits without sacrificing necessary public input. In response to both, the administration convened the mining reform Interagency Working Group which should recommend mining rule improvements, consistent with the petition. These updates would also help lead to a fair hardrock mine permitting process, delivering more certainty to both claimants and impacted communities.

Mining Law Must Be Modernized, Centering Historically Impacted Communities

Current mining law has allowed for the pollution of America's environment and waterways, placing additional unjust burdens on communities who have already borne the brunt of our nation's toxic mining legacy. Already, GAO estimates America is littered with hundreds of thousands of abandoned mines while the Environmental Protection Agency (EPA) estimates hardrock mines have polluted 40% of the headwaters of western U.S. watersheds and will cost taxpayers more than \$50 billion to clean up. Under current law, taxpayers are potentially liable for billions more in cleanup costs at currently operating mines—including treatment of water in perpetuity, risking the health of already threatened Western watersheds—because the legal requirements for mining companies to remediate lands and waters remain inadequate. **H.R. 209 does nothing to address the legacy of abandoned mines or promote remediation of American lands and waters.**

Mining companies have already left a lingering toxic legacy and enjoy generous access to minerals with insufficient environmental safeguards; all of which has led to severely negative consequences. A prime example of the ongoing toxic mining legacy is found in the Navajo Nation's experience with uranium mining, milling, and toxic pollution. The Navajo Nation is situated directly in America's uranium mining belt, and in the 1950's and 1960's fervent uranium development left residents with myriad health risks due to radiation exposure through polluted water and land. Today over 500 of these mines remain unremediated across the Navajo Nation, where they continue to impact residents' health. Navajo Nation residents are 67 times more likely to live without running water than other residents across the country—and many water sources on the Navajo Nation are contaminated as a result of uranium mining and milling operations. The Navajo Nation is not alone: past and ongoing impacts of uranium operations on Native communities are extensive.

The Pinyon Plain uranium mine (formerly called Canyon Mine) sits less than ten miles from the south rim of the Grand Canyon on the Kaibab National Forest and within the Red Butte Traditional Cultural Property, a sacred site to the Havasupai Tribe. The mine was permitted in the late 1980's, but nearly four decades later, the mine has yet to commence mining operations. However, under the permissive 1872 Mining Law, the mine is allowed to continue to occupy sacred tribal and public lands. The mine's owner has constructed a close to 1,500 foot deep mine shaft, which has exposed mineralized rock and pierced groundwater aquifers that overlie a deeper regional aquifer—all part of a complex, interconnected, and little-understood groundwater system that flows through karst and fractured rock. The overlain aquifer serves as the only water supply to the Havasupai's remote village of Supai, is the source of Havasu Creek, which flows through Supai, and is connected to an unknown number of seeps and springs inside of Grand Canyon National Park. The mine's existence has impacted the Havasupai Tribe's cultural practices and is viewed by the tribe as an existential threat.¹

¹Silversmith, Shondiin. "Havasupai Tribe: Pinion (sp) Plain Uranium Mine Threatens Our Existence." *AZ Mirror*. June 28, 2022. <https://www.azmirror.com/2022/06/28/havasupai-tribe-pinion-plain-uranium-mine-threatens-our-existence/>

Any Changes to Mine Permitting Must Explicitly Include Protections for America's Special Places

Expanding mineral activities on federal public lands without modernizing our mining laws could threaten some of our nation's most treasured areas. Previous mine permitting proposals have sought to scale back protections for millions of acres of tribal sacred sites, culturally significant places, and iconic natural places. While mining is not permitted within the boundaries of National Parks, mining activities pollute the air and water that crosses the boundaries of protected lands. Insufficiently regulated mining in the name of clean energy development promotes a false choice by risking key lands that we need to conserve for our own health and wellbeing. We urge the committee to reject any legislation that puts important American lands, waters, and wildlife at risk of pollution and degradation.

Conclusion

We urge Members of the House Natural Resources Energy and Minerals Subcommittee to oppose the PERMIT-MN Act, a bill that would exacerbate deficiencies in the existing mining law and result in an unnecessary increase in mining on federal public lands—risking irreplaceable protected lands, special places, tribal sacred sites, wildlife, and culturally significant sites.

Sincerely,

The Wilderness Society	Earthjustice
League of Conservation Voters	Sierra Club
Earthworks	Natural Resources Defense Council
Defenders of Wildlife	Conservation Lands Foundation
Center for Biological Diversity	Nuestra Tierra Conservation Project
Information Network for Responsible Mining	Cook Inletkeeper
Southern Utah Wilderness Alliance	Soda Mountain Wilderness Council
Citizens to Protect Smith Valley, NV	Grand Staircase Escalante Partners
Californians for Western Wilderness	Progressive Leadership Alliance of Nevada
Change the Chamber	Wilderness Workshop
New Mexico Interfaith Power and Light	Endangered Species Coalition
Multicultural Alliance for a Safe Environment	New Mexico Climate Justice
The Rachel Carson Council (RCC)	Friends of the Sonoran Desert
Black Hills Clean Water Alliance	Friends of the Earth
Winter Wildlands Alliance	Interfaith Power & Light
Conservation Northwest	Grand Canyon Trust
Environmental Protection Information Center	Western Environmental Law Center
Southern Utah Wilderness Alliance	Los Padres ForestWatch

Endangered Species Coalition

Northeastern Minnesotans for
Wilderness

Bluewater Valley Downstream
Alliance (BVDA)

Earth Action, Inc.

Hispanic Federation

Seven Circles Foundation

Ocean Conservation Research

