



**Committee on Natural Resources: Subcommittee on Energy and Mineral Resources  
Oversight Hearing, July 12, 2023 “Examining the Biden Administration’s record on  
Federal Coal Leasing”.**

**Follow Up Questions from Chairman Stauber; Responses from Witness Matthew  
Adams, Vice President, Senior Tax Counsel, Navajo Transitional Energy Company**

**1. As our nation continues to experience severe energy reliability issues, how does  
coal stand in the way of rolling black outs and grid failures?**

Thermal coal provides on demand, reliable energy during day, night, rain, snow, wind, heat, cold, calm, cloudy, sunny and every other weather condition. Furthermore, thermal coal supports the national electric grid by providing baseload electricity at approximately 60 hertz – which is necessary for the stability of the grid. With baseload electricity established and transport frequencies established at approximately 60 hertz, other providers of electricity are then able to supplement the grid with wind, solar, hydro resources. Without coal (or nuclear or gas) maintaining baseload levels, the grid is simply not able to safely carry electricity from these other sources. It’s a matter of physics.

The nation’s coal fleet provides many attributes that are necessary for resource adequacy and operational reliability of the grid:

- Coal has a high accredited capacity value, which is a measure of the dependability of a resource when electricity demand peaks. The accredited capacity value for coal is almost 90%. Only nuclear plants have a higher accredited capacity. Coal is more than two to 40 times more dependable than wind and solar power, according to PJM’s accredited capacity values.
- Coal provides “essential reliability services.” Voltage control, frequency support and ramping capability are critical to operational reliability. Coal and other thermal resources provide these services. Wind and solar do not.
- Coal provides other reliability attributes such as fuel assurance, dispatchability, availability in all seasons, long duration at high output, and flexibility.

Winter Storm Elliott provided a recent example of the importance and dependability of the coal fleet in 2022. During the peak of the storm, coal provided close to 40% of the additional electricity

that was needed to keep the lights and heat on in impacted regions of the country. By comparison, wind and solar contributed a negligible amount when additional electricity was needed most.

**2. It has been quite a long time since a coal fired power plant was built in the U.S. Has technology advanced since that time, particularly in regard to emissions and other air quality controls, and are other countries deploying this new power plant technology? To what affect?**

The three most recently built coal power plants in the U.S. began operation in 2013 and 2014. In 2013, the 805 MW Edwardsport (Indiana) and 1,008 MW Sandy Creek (Texas) plants began operation. Edwardsport utilizes integrated gasification combined cycle technology, and Sandy Creek utilizes supercritical technology. Both are highly efficient technologies. In 2014, Spirit Wood #1 (North Dakota), a cogeneration plant, began operation. This plant uses fluidized bed combustion technology.

Generally, ultra-supercritical (USC) technology is considered to be the most efficient coal-based electric generating technology. (However, supercritical technologies can sometimes be as efficient as USC.) The 609 MW Turk power plant in Arkansas, brought online in 2012, utilizes USC technology, which operates at higher pressures and temperatures than other coal technologies. These capabilities translate into higher efficiency and lower CO<sub>2</sub> emissions. Turk is the only USC plant in the U.S., whereas China and other countries have almost 400,000 MW of USC coal plants in operation.

Combining efficient coal technologies with advanced emission controls for NO<sub>x</sub>, SO<sub>2</sub>, particulate matter, mercury and other hazardous air pollutants contributes to a much smaller environmental impact. These emission control technologies in use today by the coal fleet include, but are not limited to, dry and wet flue gas desulfurization systems (scrubbers), selective catalytic reduction systems (SCR), selective non-catalytic reduction (SNCR), low-NO<sub>x</sub> burners, electrostatic precipitators, fabric filter systems (baghouses), dry sorbent injection systems, and activated carbon injection. Over the past several decades, emissions of conventional air pollutants have been reduced by over 90% per kilowatt-hour of electricity generated. Utilities have invested more than \$90 billion in emissions controls over the past two decades. In addition, a number of coal plants are considering the installation of carbon capture technology to further the development of the technology.

The technology in the world has advanced to the point where a coal plant built today can: 1) burn thermal coal for electricity; 2) separate hydrogen from the coal for further power; 3) separate rare earth minerals from the coal ore for further refinement and utilization; 4) sequestration of the carbon from the plant; all while eliminating more 'pollutants' than at any other time in history. However, the United States has turned away from pursuing this highly efficient use of our massive coal resources which would have significant industrial impacts well beyond providing efficient, cost-effective electricity. Rather, our current energy policy leads us down the path toward black-outs, significantly higher energy costs and energy limitations on our economic growth going forward.

**3. Do regulations and policies placed on the coal mining industry match the demand for electricity, especially considering the administration's push to electric vehicles and ongoing grid reliability concerns?**

- **Do you think that the speed of increasing renewable energy sources is outpacing our ability to sustain electricity demand, should conventional energy sources like coal continue to be stymied?**

Some studies have estimated that the electric vehicle incentives in the Inflation Reduction Act will increase the peak demand for electricity by as much as 40% by 2030. In addition, some regions face additional demands for electricity. For example, the PJM region is home to the world's largest concentration of data centers. Because of the increase in demand growth and coal retirements, PJM indicated in February of this year that new electric generating capacity "would be insufficient to keep up with expected retirements and demand growth by 2030."

At the same time electricity demand is growing, coal retirements continue to increase. In fact, announced coal retirements total almost 80,000 MW during 2023-2030. These announced retirements represent approximately 40% of the existing coal fleet - which has already experienced more than 100,000 MW of retirements through last year - and do not include the impact of new EPA rules. While there is a large amount of wind and solar capacity lined up in interconnection queues, only 14% of this amount is estimated to be brought online, and interconnection wait times have increased to roughly five years.

In addition, EPA regulations will cause even more coal retirements and exacerbate the risk of electricity shortages in many regions of the country. EPA has proposed or finalized four rules over a period of only three months this year: Effluent Limitations Guidelines (proposed), Mercury and Air Toxics Standards (proposed), Clean Power Plan 2.0 (proposed) and Ozone Transport Rule (finalized). Each is projected to cause more coal retirements unless steps are taken to moderate them.

**4. How would abandoning coal mining as a source of energy impact communities like Navajo Nation or the Crow Tribe that seek to develop and utilize their own energy resources?**

The abandonment of thermal coal as a source of energy before we have the technology to replace it will impact each and every community in America and beyond. It is not hyperbole or embellishment to state that elimination of thermal coal power would be catastrophic if it happens before there is a replacement that is: 1) reliable, 2) readily available and 3) for a substantially similar cost or less.

There are two distinct impacts from the elimination of coal in communities like the Navajo Nation. The first impact is the loss of revenue and jobs associated with the mining and production of coal and electricity. The Navajo Nation is one of the most marginalized communities in the United States, with shocking unemployment rates, meager wages, and minimal infrastructure over its 27,000 square miles. Through the taxes and royalties paid to the Navajo Nation, NTEC accounts for nearly 1/3 of the annual general fund. When combined with the taxes and revenue from our 7% interest in the Four Corners Power Plant (which is fed from the coal at the Navajo Mine), NTEC is currently responsible for 40% of the Navajo Nation general fund on an annual basis. There is no replacing that level of funding, especially from 'green energy'. If the Biden Administration wins its war on coal, the end result may very well also be the elimination of the Navajo culture through economic starvation.

The second impact of elimination of coal as a source of electricity is the straight reduction of cheap, reliable, ever available power. Electricity through the central corridor of the country is managed by three Regional Transmission Organizations (RTOs); Midcontinent Independent System Operator, Inc (MISO), Southwest Power Pool (SPP) and Electric Reliability Council of Texas (ERCOT). Each of these RTOs have very easy to use mobile apps or websites where you can see the energy mix they are utilizing in real-time. The PJM Interconnection (PJM) also has a mobile app with real-time data for their region (which include the mid-Atlantic region and Washington DC for those who may be inclined). Whether the day is hot or cold, windy, sunny, cloudy or calm it is rare to see a fuel source other than coal or natural gas dominate the electricity production throughout MISO, SPP and ERCOT. In other words, The middle corridor of the United States – from Louisiana up through Michigan and Wisconsin; Texas up through the Dakotas and Eastern half of Montana – all heavily rely on coal power.

When the electricity shuts off (brownout, blackout, rationed power) not everyone is impacted the same. As pointed out in a Reuters article from February of this year (South African Cities Scramble to Keep the Lights On, <https://www.reuters.com/world/africa/south-african-cities-scramble-keep-lights-2023-02-21>) those that are harmed the most from the push away from fossil fuel generation plants are those that cannot afford solar units for their homes. On Navajo Nation, the per capita income was \$10,220 in 2020 (about 1/3<sup>rd</sup> the national level). If the Biden Administration is able to accomplish their goal of shutting down cheap, reliable coal and gas generating plants across the country, those harmed the most will be those most at risk. Inner-city and rural populations, low income and fixed income citizens will be most affected by higher energy costs. The Biden energy policy end-results will be devastating to those that we should be working the hardest to protect. To note, NTEC has approximately 350 registered Navajo on our payroll at the Navajo mine with an average salary of approximately \$87,000. Obviously, under the Biden Administrations war on coal all those jobs are at risk.

Of note, NTEC is working very hard to try to meet some of the requirements that have been laid out by the EPA over the past two years. We were recently selected as a Department of Energy CCS project for the Four Corners Power Plant. However, EPA requirements as presented in the "Clean Power Plan 2.0" rules are simply not attainable and we doubt that any company will be able to meet any of the standards required to stay open. For example, coal plants must have CCS up and running at a 90% level on 1/1/2030 under the rules. This is a completely unrealistic deadline given the amount of engineering that has yet to be analyzed, created and deployed. The permitting alone will take years (if not a decade) at current rates. There are currently 117 Class 6 wells on the waiting list. It certainly appears to NTEC that EPA's intention is not to develop rules that allow for development of technology to enhance emissions. Rather, EPA's intention appears to be to develop rules that are not attainable, thereby requiring the elimination of all power plants that have any emissions. This philosophy will undoubtedly lead to a significant reduction in reliable power, a massive decrease in economic output from our nation's industry, a material change in our national security and a complete change in our way of life.

**5. You testified about making bonus bid payments years in advance of getting approval to actually mine a federal lease. If NTEC made the determination to invest differently, could NTEC terminate that federal lease and obtain return of its bonus bid payments? If so, what is the process? If not, why not?**

Under current law and regulations, if NTEC had made some (or all) of the bonus bids related to a Lease by Application or a Lease by Modification then 'changed its mind' on the investment, NTEC would not only forfeit all payments made to date, but it would also require permission from the Bureau of Land Management (BLM) to avoid future payments as well.

Under the Mineral Leasing Act of 1920 ("MLA") and the Mineral Leasing Act for Acquired Lands of 1947, BLM is responsible for the leasing of Federal coal and regulation of the development of that coal on the acres of mineral estate owned by the Federal Government. With limited exceptions, Federal lands available for coal leasing must be sold by competitive bid, with BLM receiving fair market value for the lease. BLM coal leasing regulations provide for two separate competitive coal leasing processes: (1) regional leasing, where BLM selects tracts within a region for competitive sale; and (2) leasing by application, where an industry applicant nominates a particular tract of coal for competitive sale. The Federal Government receives revenue from coal leasing in three ways: (1) a bonus that is paid at the time BLM issues a lease; (2) rental fees; and (3) production royalties.

Under BLM's regulations, a lessee can surrender a coal lease by filing a relinquishment with the BLM office that has jurisdiction over the leased lands. A lease relinquishment must be approved by an authorized officer and can only be approved upon a determination that the relinquishment will not impair the public interest, that the accrued rentals and royalties have been paid and that all the obligations of the lessee under the regulations and terms of the lease have been met. If a lease is relinquished (or cancelled or terminated), all deferred bonus payments must be paid immediately and all rentals and royalties, including advance royalties, already paid or due, are forfeited to the United States.

Accordingly, under BLM's regulations, a Federal coal lessee would not be able to recover its advance royalties if it decides to relinquish its lease prior to its expiration. There is no case law providing an exception to these regulations for situations where the lease cannot be successfully operated.

The MLA's mechanism for addressing changed circumstances during a lease period is the suspension, waiver, or reduction of the rental or the reduction of royalties. The MLA and its implementing regulations empower BLM to waive, suspend or reduce the rental, or reduce the royalty, on a Federal lease (1) for the purpose of encouraging the greatest ultimate recovery of Federal coal, *and* (2) in the interest of conservation of Federal coal and other resources, whenever (a) in his judgment it is necessary to promote development, *or* (b) if he finds that the Federal lease cannot be successfully operated under its terms. The MLA prohibits BLM from waiving, suspending, or reducing advance royalties. While the MLA's implementing regulations state that the BLM may not reduce to zero any royalty on a producing Federal lease, the MLA does not contain such a restriction.

In practice, a lessee would typically seek a reduction in the royalty rate when a lease cannot be successfully operated. BLM has issued Supplemental Guidance on Processing Royalty Rate Reduction Applications ("Supplemental Guidance") to its Washington Office and Field Officials. In the Supplemental Guidance, BLM includes a checklist of items to be analyzed within a royalty rate reduction decision. One of the criteria is to "[a]nalyze, describe, and document how mining operations are not profitable under the terms of the lease." While BLM's website states that the BLM can "*temporarily* reduce the royalty rate" for a specific area of coal, neither the MLA nor its implementing regulations require that the reduction be temporary.

In addition to reducing a royalty, as mentioned above, BLM can also waive, suspend or reduce the rental on a Federal lease. Under the MLA's implementing regulations, a lessee can request that BLM waive, suspend, or reduce the rental or, reduce the royalty, by submitting an application with BLM that includes certain mine information and "a detailed statement of expenses and costs of operating the entire mine, the income from the sale of coal, and all facts indicating whether the mine can be successfully operated

under the Federal rental and royalty provisions fixed in the Federal lease or why the reduction is necessary to promote development.”

**6. If you could change the federal coal leasing law, would you include a bonus payment reimbursement provision to enable coal lessees to obtain a refund of their money if they are not able to access their lease within a reasonable timeframe?**

I believe there are a number of changes that need to be considered for the current leasing laws and regulations as a result of the impacts of legal pressure and economic pressure on the industry over the past 4+ decades. The rules have been put in place to enable, and to entice, the production of minerals from federal land for the benefit of the owners – the United States citizens. With respect to thermal coal, citizens benefit from ownership of the mineral in a number of ways. First, the United States receives payment for the purchase of the coal (bonus bids). Second, the United States receives a percentage of the value of the mineral sold as a royalty (regardless of whether or not the sale is profitable to the producer). Third, in the case of domestically sold thermal coal, the vast majority of the coal is utilized for the production of low cost and reliable electricity.

Under current regulations, if a producer abandons a coal production project after a winning bid – but prior to production from the lease, the producer may not recover any bonus bid payments made toward acquisition of the lease. Historically, this was never/very rarely a concern since the time lapse between a winning bid and production from the lease was a matter of less than 5 years at most. However, in today’s litigious and heavily regulated environment a producer has no expectation of revenues from a new lease within 8 years – and perhaps longer than 12 years after winning a bid. Under this scenario, and given the rapidly changing viewpoints on whether or not the United States should have reliable electricity on demand, it is egregious that there is no mechanism for a producer to have no recourse should they change strategies.

For illustrative purposes, assume hypothetical company Coal Co is a coal producer in Wyoming which also owns a coal generated power plant. Assume Coal Co won a bid for coal in Wyoming in 2018 for 500 million tons at \$1 per ton with the expectation that the tons will be used by the power plant in 2040 through 2060. This new lease would require payments of \$100 million in 2018, 2019, 2020, 2021 and a final payment in 2022. If the Carbon Rule that was issued by the Biden EPA in 2023 goes final in 2024, Coal Co’s power plant will need to convert to carbon capture by January 1, 2030 (which is an impossible task but assume otherwise for this illustration). Under the current federal coal lease rules,

Coal Co would not be able to terminate the process of obtaining the new coal lease to reallocate the \$500 million toward building carbon capture facilities. As such, it is high possible in today's environment that the fact that Coal Co was being prudent and using advanced planning in 2018 to acquire coal to generate electricity for its customers for decades to come could actually end up forcing its economic downfall.

The rules around federal coal leasing need to be examined and changed. If the timeframe cannot be dramatically shortened between winning a lease bid and economic production from the coal, then allowance for contingencies needs to be permitted. Further, the provision of coal for reliable electricity needs to be viewed as a positive 'return' for the citizenry. While this is not an 'economic return' per se, it is a very real benefit that is being provided to the owner of the land, which is allowing utilities to provide lower cost electricity than they would otherwise. Producers are struggling economically due to significantly increased legal costs related to frivolous lawsuits, dramatically increasing compliance standards, increased costs of capital due to ESG movements and lower efficiencies at mines due to low employment. Royalty rates, bonus bids and rents should all be analyzed to seek a balance between the risk factors, costs and provisions of electricity.