

In The
Supreme Court of the United States

STATE OF WEST VIRGINIA, et al.,
Petitioners,

v.

U.S. ENVIRONMENTAL PROTECTION AGENCY, et al.,
Respondents.

THE NORTH AMERICAN COAL CORPORATION,
Petitioner,

v.

U.S. ENVIRONMENTAL PROTECTION AGENCY, et al.,
Respondents.

WESTMORELAND MINING HOLDINGS LLC,
Petitioner,

v.

U.S. ENVIRONMENTAL PROTECTION AGENCY, et al.,
Respondents.

NORTH DAKOTA,
Petitioner,

v.

U.S. ENVIRONMENTAL PROTECTION AGENCY, et al.,
Respondents.

**On Writ Of Certiorari To The United States Court
Of Appeals For The District Of Columbia Circuit**

**BRIEF OF RESPONDENT BASIN ELECTRIC POWER
COOPERATIVE IN SUPPORT OF PETITIONERS**

EMILY C. SCHILLING
Counsel of Record
HOLLAND & HART LLP
901 K Street NW, Suite 850
Washington, DC 20001
ECSchilling@hollandhart.com
Tel: (202) 393-6500
Fax: (202) 747-6574

TINA R. VAN BOCKERN
HOLLAND & HART LLP
555 17th Street, Suite 3200
Denver, CO 80202
TRVanBockern@hollandhart.com
Tel: (303) 295-8107
Fax: (720) 545-9952

Counsel for Respondent Basin Electric Power Cooperative

CORPORATE DISCLOSURE STATEMENT

Basin Electric Power Cooperative is a not-for-profit regional wholesale electric generation and transmission cooperative owned by over 100 member cooperatives. Basin Electric has no parent companies. There are no publicly held corporations that have a 10% or greater ownership interest in Basin Electric.

TABLE OF CONTENTS

	Page
Corporate Disclosure Statement	i
Table of Authorities	iii
Introduction	1
Summary of the Argument	2
Argument	4
I. The Circuit Court Erroneously Assumed That The Nation’s Electrical Grids Could Support Widespread Mandatory Generation Shifting	4
A. The Grids Are Not Fully Intercon- nected	5
B. The Grids Serve Varying Markets With Complex Capacity And Reliability Re- quirements Set By The Federal En- ergy Regulatory Commission	11
C. The Grids Cannot Support Rapid Inte- gration Of Renewable Energy	16
II. The Circuit Court Erroneously Assumed That Growing Demand for Renewable Gen- eration Supports EPA-Mandated Genera- tion Shifting As The Best System Of Emission Reduction Under Section 111(d).....	19
Conclusion.....	26

TABLE OF AUTHORITIES

	Page
CASES	
<i>Am. Lung Ass'n v. Eenvtl. Prot. Agency</i> , 985 F.3d 914 (D.C. Cir. 2021)	1
<i>Del. Dep't of Nat. Res. & Eenvtl. Control v.</i> <i>Eenvtl. Prot. Agency</i> , 785 F.3d 1 (D.C. Cir. 2015)	12, 13
<i>Pac. Gas & Elec. Co. v. State Energy</i> <i>Res. Conservation & Dev. Comm'n</i> , 461 U.S. 190 (1983)	24, 25
STATUTES AND RULES	
18 C.F.R. § 39.2(b)	13
18 C.F.R. § 40.2	13
16 U.S.C. § 824(b)(1)	12
16 U.S.C. § 824o(a)(2)-(3)	13
16 U.S.C. § 824o(b)(1).....	12
16 U.S.C. § 824o(e)	14
42 U.S.C. § 7411(a).....	20
42 U.S.C. § 7411(d).....	<i>passim</i>
H.R. Res. 3684, 117th Cong. (2021).....	18

TABLE OF AUTHORITIES—Continued

Page

OTHER AUTHORITIES

Aaron Bloom et al., <i>Transmission Planning for 100% Clean Electricity</i> , ENERGY SYSTEMS INTEGRATION GROUP (2021), https://www.esig.energy/wp-content/uploads/2021/02/Transmission-Planning-White-Paper.pdf	16
Aaron Bloom et al., <i>The Value of Increased HVDC Capacity Between Eastern and Western U.S. Grids: The Interconnections Seam Study</i> , NATIONAL RENEWABLE ENERGY LABORATORY (Oct. 2020), https://www.nrel.gov/docs/fy21osti/76850.pdf	7
Avi Zevin et al., <i>Building a New Grid Without New Legislation: A Path to Revitalizing Federal Transmission Authorities</i> , 48 ECOLOGY L.Q. 169 (2021)	16, 17
Basin Electric Power Cooperative, <i>2018 Integrated Resource Plan (2019-2028)</i> , https://www.wapa.gov/EnergyServices/Documents/BasinElectric2018.pdf	13
Basin Electric Power Cooperative, <i>2020 Annual Report</i> , https://www.basinelectric.com/_files/pdf/financials/Annual-Report-2020-WEB.pdf	21, 22, 24
Basin Electric Power Cooperative, <i>Comments on Proposed Carbon Pollution Emission Guidelines For Existing Stationary Sources: Electric Utility Generating Units</i> (Dec. 21, 2014), EPA Docket No. EPA-HQ-OAR-2013-0602-23574, https://www.regulations.gov/comment/EPA-HQ-OAR-2017-0355-24401	7

TABLE OF AUTHORITIES—Continued

	Page
Basin Electric Power Cooperative, <i>Generation Facilities Map</i> , https://www.basinelectric.com/about-us/Generation/index	8
Basin Electric Power Cooperative, <i>North Dakota Ten Year Plan</i> (June 1, 2020), https://psc.nd.gov/database/documents/20-0300/001-010.pdf	8
Basin Electric Power Cooperative, <i>Optional Integrated Resource Plan</i> (June 30, 2021), https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId=%7bE0F5617A-0000-CF1F-95DD-59E10E30D791%7d&documentTitle=20216-175739-01	<i>passim</i>
Basin Electric Power Cooperative, <i>South Dakota Ten Year Plan</i> (2020), https://puc.sd.gov/commission/commissionaction/10yearplan/BasinElectric2020.pdf	23
<i>Bipartisan Infrastructure Investment and Jobs Act Summary, A Road to Stronger Economic Growth</i> , https://www.cantwell.senate.gov/imo/media/doc/Infrastructure%20Investment%20and%20Jobs%20Act%20-%20Section%20by%20Section%20Summary.pdf	18
Glen Anderson et al., <i>Modernizing the Electric Grid: State Role and Policy Options</i> , NATIONAL CONFERENCE OF STATE LEGISLATURES (Nov. 2019), https://www.ncsl.org/Portals/1/Documents/energy/Modernizing-the-Electri-Grid_112519_34226.pdf	16

TABLE OF AUTHORITIES—Continued

	Page
Midcontinent Independent System Operator Tariff, SCHEDULE 34 Allocation of Costs Associated with Compliance Penalty Assessments, https://www.misoenergy.org/legal/tariff/	14
North American Electric Reliability Corporation, <i>NERC Contingency Reserve, BAL-002-WECC-3</i> , https://www.nerc.com/pa/Stand/Reliability%20Standards/BAL-002-WECC-3.pdf	14
North American Electric Reliability Corporation, <i>Reliability Standards for the Bulk Electric Systems of North America</i> (Oct. 1, 2021), https://www.nerc.com/pa/Stand/Reliability%20Standards%20Complete%20Set/RSCompleteSet.pdf	13
The Southwest Power Pool, <i>2020 ELCC Wind and Solar Study Report</i> (July 2021), https://www.spp.org/documents/65169/2020%20elcc%20wind%20and%20solar%20study%20report.pdf	14, 15
Southwest Power Pool Open Access Transmission Tariff, ATTACHMENT AP Allocation of Costs Associated with Reliability Penalty Assessments (June 30, 2021), https://spp.etariff.biz:8443/ViewerDocLibrary/MasterTariffs/5FullTariff.pdf	14

TABLE OF AUTHORITIES—Continued

	Page
Statement by Emily Sanford Fisher, General Counsel, Corporate Secretary & Senior Vice President, Clean Energy Edison Electric Institute, Before the House Select Committee on the Climate Crisis (May 20, 2021), https://docs.house.gov/meetings/CN/CN00/20210520/112657/HHRG-117-CN00-Wstate-SanfordFisherE-20210520.pdf	10
U.S. Energy Information Administration, <i>Annual Energy Outlook 2021</i> (Feb. 2021), https://www.eia.gov/outlooks/aeo/pdf/AEO_Narrative_2021.pdf	20
The White House, <i>FACT SHEET: Biden Administration Advances Expansion & Modernization of the Electric Grid</i> (Apr. 27, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/27/fact-sheet-biden-administration-advances-expansion-modernization-of-the-electric-grid/	10
The White House, <i>FACT SHEET: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies</i> (Apr. 22, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies	17, 18

INTRODUCTION

Basin Electric Power Cooperative (“Basin Electric”) is a not-for-profit regional generation and transmission electric cooperative owned by 131-member cooperative systems. Basin Electric provides wholesale power to its members in nine States, with electric generation facilities in North Dakota, South Dakota, Wyoming, Montana, and Iowa. Its facilities provide power to approximately 3 million customers. Customer demand is met through a diverse energy portfolio consisting of coal, gas, oil, and renewable generation. To provide affordable and reliable energy across its diverse service area, Basin Electric must take advantage of an all-of-the-above energy strategy that relies on aggressive renewable energy development, as well as continuing operation of a fleet of natural gas- and coal-fired baseload, intermediate, and peaking generation.

The decision of the U.S. Court of Appeals for the District of Columbia Circuit in *American Lung Association v. Environmental Protection Agency*, 985 F.3d 914 (D.C. Cir. 2021), paves the way for the U.S. Environmental Protection Agency (“EPA”) to use a narrow provision of the Clean Air Act (“Act”) to require mandatory shifts in the type of electricity generation employed by Basin Electric and other electric generators across the country. The majority’s holding that “Congress imposed *no limits* on the types of measures the EPA may consider” in determining the best system of emission reduction (“BSER”) for power plants under Section 111 of the Act, App. 108 (emphasis added), gives EPA free rein to regulate greenhouse gas emissions through

measures applied well beyond the fence line of stationary sources. EPA can now force energy producers like Basin Electric to shift from natural gas- and coal-fired power plants to its preferred renewable sources—all under the guise of regulating greenhouse gas emissions—without regard to the practical realities of the Nation’s current energy needs, transmission grid limitations, or state and other federal regulatory agencies’ authority to manage the Nation’s power supply. This unlimited grant of power under Section 111(d) of the Act,¹ upends decades of regulatory precedent limiting emission standards to those achievable by individual stationary sources and creates numerous impediments to the flexibility that electric generators require to meet customers’ energy demands.

The D.C. Circuit’s decision is wrong for the many reasons detailed in the brief filed by the States of West Virginia, Alabama, Alaska, Arkansas, Georgia, Indiana, Kansas, Louisiana, Missouri, Montana, Nebraska, Ohio, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Wyoming; and Mississippi Governor Tate Reeves (collectively, the “States”). Basin Electric joins the States and other petitioners in urging the Court to reverse the D.C. Circuit’s decision.



SUMMARY OF THE ARGUMENT

The majority erred by relying on a foundation of oversimplified and false assumptions in analyzing

¹ 42 U.S.C. § 7411(d).

whether EPA has authority to consider generation shifting as the “best” system of reducing greenhouse gas emissions under the plain text of Section 111(d).

First, the circuit court erroneously assumed that generation shifting is a simple and cost-effective means of reducing emissions because, at its most basic level, units of electricity delivered to customers on the electric grid are fungible no matter the source—*i.e.*, “there is no coal-generated electricity or renewable-generated electricity; there is just electricity.” App. 78. *See also* App. 77 (“A watt of electricity is a watt of electricity, no matter who makes it, how they make it, or where it is purchased.”). But this overly simplistic view disregards the true nature of the Nation’s power grid, and the exceedingly complex system of state and federal regulatory requirements that already govern electricity generation and transmission. Energy producers cannot simply replace fossil-fuel-fired plants with renewable resources without impacts to their existing energy regulatory obligations, and there is very limited ability to transfer energy across regional grids. Basin Electric’s system straddles the Eastern and Western grids and serves separate markets; it cannot redispatch wind energy generated on the Eastern grid to replace coal-fired energy generated on the Western grid. Shifting energy across the seam between the Western and Eastern Interconnections to prioritize cleaner energy sources would require countless regulatory approvals and a major overhaul of the transmission facilities linking the two interconnections.

Second, the D.C. Circuit erroneously assumed that because the energy markets are already naturally shifting towards cleaner energy sources, that EPA could and should consider forcing additional generation shifting as the “best” system of emission reduction. App. 104–05. But this view ignores the reliance by Basin Electric and other electricity generating utilities on diverse asset portfolios to generate and dispatch electricity in a reliable and cost-effective manner. Even as Basin Electric drives towards greater reliance on renewable energy, coal and gas will remain critical pieces of Basin Electric’s generation puzzle.



ARGUMENT

I. The Circuit Court Erroneously Assumed That The Nation’s Electrical Grids Could Support Widespread Mandatory Generation Shifting.

One of the D.C. Circuit’s foundational assumptions is that existence of a national interconnected grid enables EPA to consider generation shifting across the grid system as a whole when determining the best system of emission reductions under Section 111 of the Act. The court opined that EPA should not be “forbidden [from] consider[ing] emission-reduction measures [*i.e.*, generation shifting] that take into account the nature of the electricity grid in which . . . power plants operate day in and day out.” App. 153. As to the grid’s nature, the court assumed that “units of electricity as delivered to the user are identical, no matter their

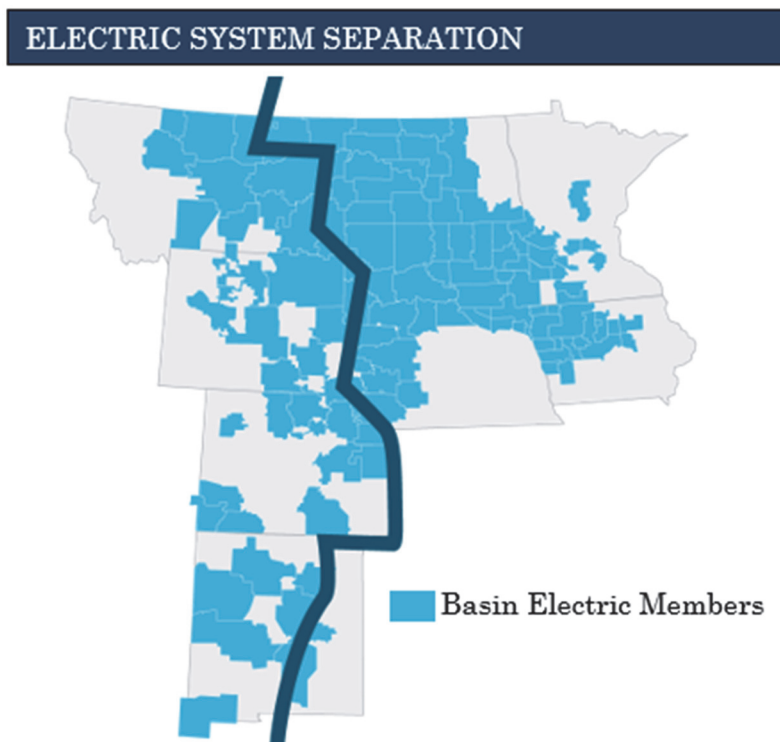
source[.]” App. 78, and that “shifts in generation already occur all the time as a matter of grid mechanics.” App. 86–87 (relying on what “EPA observed” in the Clean Power Plan (“CPP”) without any record citation). These assumptions, however, represent gross generalizations that ignore the practical realities of generating, dispatching, and transmitting electricity across energy markets.

While generation shifts do occur as energy is dispatched to meet customer needs, such shifting can generally only occur within a specific regional grid and energy market. The court’s simplistic view of the grid assumes that: (a) the nationwide grid is fully interconnected; (b) energy resources in each grid interconnection could be replaced with clean energy without regard to existing energy generation capacity and reliability obligations; and (c) the grids could support rapid integration of renewable energy if EPA required generation shifting. Each of these assumptions is false, particularly for Basin Electric.

A. The Grids Are Not Fully Interconnected.

The Nation’s electric grid is comprised of three regional grids that are not fully interconnected: the Eastern, Western, and Texas Interconnections. App. 77 n.2. Basin Electric’s system straddles two of the regional

grids: the Eastern Interconnection and the Western Interconnection.²



The limited ability to shift energy between the Eastern and Western Interconnections has very real implications on the court’s presumptions around generation shifting. These two grids operate with different

² Basin Electric Power Cooperative, *Optional Integrated Resource Plan*, 2 (June 30, 2021) (“2021 Minnesota O-IRP”), <https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId=%7bE0F5617A-0000-CF1F-95DD-59E10E30D791%7d&documentTitle=20216-175739-01>.

electrical characteristics that prevent electricity on one side of the national grid from being delivered directly to the other.³ For power to be transferred between the east and west systems, alternating current (“AC”) electricity must be converted into direct current (“DC”) electricity to cross the seam between the Eastern and Western Interconnections and then must be converted back to AC.⁴ Electricity cannot, therefore, simply flow between these interconnections.⁵ Moreover, there are only limited amounts of physical transfer capacity between the interconnections. There exist only seven back-to-back DC transmission facilities that allow for a very small amount of capacity, 1,320 megawatts (“MW”) of energy, to flow across the seam.⁶ Basin Electric has increased its transmission rights by approximately 50 MW from west to east, but still only has capability to transfer up to 290 MW in total in the west-to-east direction and 373 MW in total in

³ *Id.*

⁴ Basin Electric Power Cooperative, *Comments on Proposed Carbon Pollution Emission Guidelines For Existing Stationary Sources: Electric Utility Generating Units*, 21–22 (Dec. 21, 2014) (“CPP Comments”), EPA Docket No. EPA-HQ-OAR-2013-0602-23574, <https://www.regulations.gov/comment/EPA-HQ-OAR-2017-0355-24401>.

⁵ *Id.*

⁶ Aaron Bloom et al., *The Value of Increased HVDC Capacity Between Eastern and Western U.S. Grids: The Interconnections Seam Study*, NATIONAL RENEWABLE ENERGY LABORATORY, 1 (Oct. 2020), <https://www.nrel.gov/docs/fy21osti/76850.pdf>.

the east-to-west direction, far less than its total generating capacity of more than 7,000 MW.⁷

As a result, Basin Electric must manage electric generating and transmission resources on both sides of the Eastern and Western Interconnections' seam to serve its member-load requirements.⁸ And, significant differences have developed over time in Basin Electric's generation mix on either side of the seam: coal primarily on the west, where coal resources can be cheaply and dependably obtained, and coal, natural gas, and wind largely on the east, where more potential for extensive wind resources exists.⁹ But because the Eastern and Western grids are not fully interconnected, the development of renewable generation resources on one side of the seam cannot facilitate reducing fossil-fuel generation on the other side. The D.C. Circuit's presumption (and EPA's assertion) that "diversified utilities . . . could achieve most or all of the shift to lower- or no-emission generation by reassessing the dispatch priority of their own assets," App. 87, grossly oversimplifies the dispatch process and, for Basin Electric, is simply not true.

The difficulties with transferring energy across the seam are demonstrated by Basin Electric's coal-fired power plant, the Laramie River Station, near

⁷ See Basin Electric Power Cooperative, *North Dakota Ten Year Plan*, 12 (June 1, 2020), <https://psc.nd.gov/database/documents/20-0300/001-010.pdf>.

⁸ 2021 Minnesota O-IRP, at 2.

⁹ See Basin Electric Power Cooperative, *Generation Facilities Map*, <https://www.basinelectric.com/about-us/Generation/index>.

Wheatland, Wyoming.¹⁰ Units 2 and 3 of the Laramie River Station are electrically connected to the western system; they provide a total of 1,140 MW of power to the western system, of which Basin Electric is entitled to receive 627 MW.¹¹ Unit 1 is electrically connected to the eastern system; it provides 560 MW of power to the eastern system and Basin Electric is entitled to receive 92 MW.¹² Basin Electric has members on both the eastern and western systems, but it cannot provide generation from units 2 and 3 to customers on the east side unless it utilizes certain DC ties along the seam, and Basin Electric is limited to only 160 MW of transfer capability from west to east across the nearby ties. Likewise, if Basin Electric were forced to shut down the Laramie River Station, the loss of 627 MW of power on the western system could not be easily replaced by wind energy generated on the eastern system—the loss of 627 MW of power exceeds the total capacity of transfer rights that Basin Electric has secured across the nearby DC ties.

Thus, without broad changes in both the physical constraints between the Eastern and Western Interconnections, Basin Electric and other utilities that straddle the divide cannot plan to meet member load requirements under a regulatory structure that presumes that it can simply redispatch renewable generation on one side of the grid to replace lost thermal

¹⁰ CPP Comments, at 22–23.

¹¹ *Id.*; see also 2021 Minnesota O-IRP, at 3.

¹² *Id.*

power on the other. Indeed, the Biden Administration recognized these constraints and has made transmission infrastructure a priority to facilitate interstate transmission across these interconnections and the seam separating them¹³—but that effort is decades in the making.¹⁴

The complexities and physical limitations inherent in the nation’s electricity grid undermine a critical assumption underlying reliance on a national grid as an interconnected system—where EPA assumed one MW of electricity generated at a coal-fired power plant in Wyoming can be easily replaced by one MW of renewable electricity in Iowa—and raise serious concerns regarding the majority’s broad presumption that generation shifting appropriately constitutes BSER. *See* App. 154 (“the EPA’s consideration of already-in-use generation shifting as part of the ‘best system of emission reduction’ does nothing to enlarge the Agency’s regulatory domain.”).

¹³ *See* The White House, *FACT SHEET: Biden Administration Advances Expansion & Modernization of the Electric Grid* (Apr. 27, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/27/fact-sheet-biden-administration-advances-expansion-modernization-of-the-electric-grid/>.

¹⁴ *See* Statement by Emily Sanford Fisher, General Counsel, Corporate Secretary & Senior Vice President, Clean Energy Edison Electric Institute, Before the House Select Committee on the Climate Crisis, 3 (May 20, 2021) (“Transmission projects typically take 7 to 10 years to plan, site, permit, construct, and energize” and there are “many examples of projects that have taken more than a decade from conception to completion. . .”), <https://docs.house.gov/meetings/CN/CN00/20210520/112657/HHRG-117-CN00-Wstate-SanfordFisherE-20210520.pdf>.

B. The Grids Serve Varying Markets With Complex Capacity And Reliability Requirements Set By The Federal Energy Regulatory Commission.

The D.C. Circuit briefly acknowledges that other federal agencies—the Federal Energy Regulatory Commission (“FERC”) and the Department of Energy (“DOE”)—are responsible for ensuring the reliability of the Nation’s electric system, *see* App. 153–54, but nonetheless concludes that “[t]he effects of [EPA’s] environmental regulations on the power grid do not amount to power regulation statutorily reserved to FERC.” App. 158 n. 12. But this conclusion erroneously categorizes EPA’s forced generation shifting as “environmental regulation.” A rule that requires electricity generating utilities across the country to shut down fossil-fuel-fired plants and replace them with renewable energy sources¹⁵ is the very embodiment of “power regulation.” The D.C. Circuit assumed, without any basis, that because forced generation shifting will be required by EPA ostensibly as a regulation of greenhouse gas emission standards, it doesn’t directly regulate the power supply. But regardless of the label, EPA’s attempt at generation shifting intrudes on energy management

¹⁵ The D.C. Circuit’s decision presumes, based on a simplistic reading of the statute, that the States have flexibility in designing and enforcing BSER standards such that the States “need not adopt the best system identified by the EPA[.]” App. 75. However, when EPA’s emission reductions standards are set steep enough to preclude generation from fossil-fuel-fired power plants, the States have little choice but to impose EPA’s preferred generation shifting.

issues that are regulated by other federal, state, and local regulatory bodies, and Basin Electric's compliance with forced generation shifting would have a massive ripple effect on its compliance with capacity and reliability requirements set by FERC and FERC-certified organizations.

Under the Federal Power Act, FERC has jurisdiction over the "transmission of electric energy in interstate commerce,"¹⁶ and is responsible for maintaining the reliability of the electric grid.¹⁷ FERC has certified the North American Electric Reliability Corporation ("NERC") as the nation's "electric reliability organization," and NERC has developed enforceable standards to ensure electric grid reliability.¹⁸ Generation and transmission responsibilities on the Eastern and Western Interconnections are overseen by electricity grid managers or electricity balancing authorities, which include Independent System Operators or Regional Transmission Organizations that are certified by FERC (collectively, "System Operators").¹⁹ The System Operators are responsible for ensuring electric reliability within their regional markets.²⁰ On the eastern system, Basin Electric's obligations are overseen by two System Operators: the Southwest Power Pool and

¹⁶ 16 U.S.C. § 824(b)(1).

¹⁷ *See id.* § 824o(b)(1).

¹⁸ *See Del. Dep't of Nat. Res. & Envtl. Control v. EPA*, 785 F.3d 1, 11 (D.C. Cir. 2015).

¹⁹ *Id.*

²⁰ *Id.*

Midcontinent Independent System Operator.²¹ On the western system: the Rocky Mountain Reserve Group and the Northwest Power Pool.²²

These System Operators regulate the multiple energy and capacity markets that exist within each regional grid.²³ Energy “is the amount of electricity generators actually provide to the grid and is available to be used at any moment.”²⁴ Capacity is “the ability to produce [energy] when necessary.”²⁵ System Operators require utilities like Basin Electric to maintain a certain amount of capacity to ensure reliability during periods of high demand.²⁶ Basin Electric’s energy generation and capacity requirements vary by region, depending on the System Operator’s requirements.

Further, Basin Electric’s system is subject to certain reliability standards established by FERC and NERC.²⁷ These reliability standards require that Basin Electric prudently employ sufficient generation

²¹ See Basin Electric Power Cooperative, *2018 Integrated Resource Plan (2019-2028)*, 142 (“IRP”), <https://www.wapa.gov/EnergyServices/Documents/BasinElectric2018.pdf>.

²² *Id.*

²³ See *Del. Dep’t of Nat. Res. & Env’tl. Control*, 785 F.3d at 11.

²⁴ *Id.* (internal citation omitted).

²⁵ *Id.*

²⁶ *Id.*

²⁷ See 16 U.S.C. § 824o(a)(2)–(3); 18 C.F.R. §§ 39.2(b) and 40.2; see also North American Electric Reliability Corporation, *Reliability Standards for the Bulk Electric Systems of North America* (Oct. 1, 2021), <https://www.nerc.com/pa/Stand/Reliability%20Standards%20Complete%20Set/RSCCompleteSet.pdf>.

capacity accreditation to meet customers' needs.²⁸ If its accredited generation capacity drops below the required levels, NERC can impose civil penalties on Basin Electric directly or the System Operator overseeing Basin Electric's operations, who in turn can assign the penalty responsibility to Basin Electric.²⁹ Basin Electric could face such penalties if it were forced to transition too quickly to renewable energy sources, which have lower value placed on their capacity contributions towards meeting reliability standards due to the intermittent nature of their fuel source.

System Operators value the capacity contribution of intermittent renewable resources like wind and solar significantly lower than the capacity contribution of conventional fossil-fuel-fired resources.³⁰ This is because conventional resources can typically start and run whenever they are needed, while renewable resources can only generate energy when weather permits. Therefore, while conventional resources can be

²⁸ See, e.g., North American Electric Reliability Corporation, *NERC Contingency Reserve, BAL-002-WECC-3*, <https://www.nerc.com/pa/Stand/Reliability%20Standards/BAL-002-WECC-3.pdf>.

²⁹ See 16 U.S.C. § 824o(e); see also Midcontinent Independent System Operator Tariff, SCHEDULE 34 Allocation of Costs Associated with Compliance Penalty Assessments, <https://www.misoenergy.org/legal/tariff/>; Southwest Power Pool Open Access Transmission Tariff, ATTACHMENT AP Allocation of Costs Associated with Reliability Penalty Assessments (June 30, 2021), <https://spp.etariff.biz:8443/ViewerDocLibrary/MasterTariffs/5FullTariff.pdf>.

³⁰ The Southwest Power Pool, *2020 ELCC Wind and Solar Study Report*, 1 (July 2021), <https://www.spp.org/documents/65169/2020%20elcc%20wind%20and%20solar%20study%20report.pdf>.

accredited for nearly 100% of their generating capability, an intermittent renewable resource is only accredited for a fraction of its total net generating capability.³¹ For example, in the Southwest Power Pool region, where nearly all of Basin Electric's wind and future solar resources are located, the accredited capacity value of wind resources are currently expected to be valued at approximately 16.8% of their capability in the summer and 17.1% in the winter, and expected to only decrease in value as more wind resources are added to the region.³² Solar resources' accredited capacity are valued at approximately 85% in the summer and 32% in the winter, with a similar expectation that their accreditation value will only decrease as more solar resources are installed in the region.³³ As a result, fossil-fuel-fired resources cannot be directly replaced on a one-to-one basis with the same amount of net generating capability of a wind and/or solar resource. Depending on the applicable reliability standards, an electricity generating utility may need to replace a conventional resource with anywhere from two to ten times the amount of wind or solar generating capability. Put differently, if Basin Electric attempted to replace a 100 MW coal-fired plant with a 100 MW wind project, it could be penalized for failing to comply with applicable reliability standards because renewable resources are intermittent by nature and cannot provide the same consistency in or overall level of generation

³¹ *See id.* at 1–3.

³² *Id.* at 1–2.

³³ *Id.* at 2–3.

output that is required to provide safe and reliable service. Accordingly, the transition to renewable energy sources must take into account the many related capacity and reliability requirements imposed by FERC.

C. The Grids Cannot Support Rapid Integration Of Renewable Energy.

The circuit court’s support for generation shifting on the grid as BSER also assumes that large amounts of renewable generation can be rapidly integrated into the various electric generating systems throughout the country. In fact, there are substantial barriers that must be addressed before such a large-scale integration can be accomplished without negatively impacting the reliability of the electric system.

First, there is not enough available transmission capacity on the grids to connect all of the new or proposed renewable energy projects.³⁴ Indeed, it is universally acknowledged that new transmission capacity is needed across the United States to support a transition towards a decarbonized energy supply.³⁵ Experts

³⁴ See Aaron Bloom et al., *Transmission Planning for 100% Clean Electricity*, ENERGY SYSTEMS INTEGRATION GROUP, 5 (2021), <https://www.esig.energy/wp-content/uploads/2021/02/Transmission-Planning-White-Paper.pdf>.

³⁵ See, e.g., Glen Anderson et al., *Modernizing the Electric Grid: State Role and Policy Options*, NATIONAL CONFERENCE OF STATE LEGISLATURES, 2 (Nov. 2019) (“investment will be needed to incorporate a more diverse energy supply”), https://www.ncsl.org/Portals/1/Documents/energy/Modernizing-the-Electric-Grid_112519_34226.pdf; Avi Zevin et al., *Building a New Grid without New Legislation: A Path to Revitalizing Federal Transmission Authorities*,

predict that reaching President Biden’s goals of achieving a 50–52 percent reduction from 2005 levels in economy-wide net greenhouse gas pollution by 2030 and net-zero emissions economy-wide by 2050³⁶ “will require a doubling or tripling of the size and scale of the nation’s transmission system.”³⁷ There currently exists a shortage of transmission capacity for new wind and solar projects, most of which are built in rural areas away from major cities where the energy is consumed.³⁸ Already, “transmission interconnection queues have amassed over 600 GW of proposed [renewable] generation capacity as many projects are unable to go forward due to a lack of grid access.”³⁹ Mandatory generation shifting without appropriate consideration of transmission capacity as part of EPA’s BSER would exacerbate the already existing capacity constraints.

Second, there is no single entity or governmental body that has the responsibility, authority, or resources

48 ECOLOGY L.Q. 169, 171 (2021) (“[N]ew long-distance high-voltage transmission lines will be indispensable if the United States is to integrate enough renewable energy generation to decarbonize the electric system in a timely manner. . . .”).

³⁶ See The White House, *FACT SHEET: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies* (Apr. 22, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/>.

³⁷ Bloom, *supra* note 34, at 4.

³⁸ *Id.* at 8.

³⁹ *Id.* at 5.

to lead the development of new interstate transmission lines to meet the growing demand.⁴⁰ Developing a system-wide expansion and upgrade of the Nation's grids requires considerable planning, the input from countless private and governmental stakeholders, and significant financial investment.⁴¹ That is why President Biden's Infrastructure and Jobs Act, which was signed into law on November 15, 2021, prioritizes transmission improvements to facilitate his administration's goals.⁴² The new Infrastructure and Jobs Act allocates trillions of dollars to the development of new technologies to enhance grid flexibility and reliability, and directs collaboration between FERC, NERC, the Department of Energy, and the Department of Homeland Security.⁴³ It also grants FERC authority to issue permits for the construction of certain transmission facilities even when state commissions withhold or deny approval for the siting of such facilities.⁴⁴ In short, President Biden's legislation goes a long way towards addressing the technical barriers that currently preclude a rapid transition to renewable resources. But, without the necessary improvements, which are decades in the making, the grid cannot support the type of

⁴⁰ *Id.*

⁴¹ *See id.*

⁴² *See* H.R. Res. 3684, 117th Cong. (2021) (enacted).

⁴³ *Id.* at §§ 40103, 40106–07; *see also Bipartisan Infrastructure Investment and Jobs Act Summary, A Road to Stronger Economic Growth*, at 67–71, <https://www.cantwell.senate.gov/imo/media/doc/Infrastructure%20Investment%20and%20Jobs%20Act%20-%20Section%20by%20Section%20Summary.pdf>.

⁴⁴ *See* H.R. Res. 3684, 117th Cong. § 40105.

forced generation shifting that the majority finds to be within EPA's authority when determining BSER.

II. The Circuit Court Erroneously Assumed That Growing Demand for Renewable Generation Supports EPA-Mandated Generation Shifting As The Best System Of Emission Reduction Under Section 111(d).

Critical to the majority's determination that mandatory generation shifting should reasonably be considered BSER is the presumption that the market is already driving towards renewable energy at the expense of coal- and gas-fired generating assets. Once again, the broad generalizations underlying the circuit court's rationale fail to account for the important role that fossil-fuel-fired baseload and intermediate (peaking) generating assets continue to play in the diverse portfolios managed by cooperatives like Basin Electric—and the substantial impact that forced mandatory generation shifting driven by environmental factors will have on delivery of reliable and cost-efficient electricity.

At the outset of its statutory text analysis, the D.C. Circuit detoured to criticize the ACE Rule's rejection of generation shifting, accusing EPA of "turn[ing] its back on" the natural shifts in the energy market. App. 105. EPA did no such thing. Instead, in the ACE Rule, EPA correctly recognized that forcing generation shifting towards cleaner energy sources was outside the scope of its statutory authority. App. 1741–42. The circuit

court nonetheless proceeded to analyze the availability of generation shifting under Sections 111(a) and 111(d),⁴⁵ as if the CPP correctly concluded generation shifting could and should be considered BSER *because* the market was already shifting towards low- or zero-emission energy sources. *See* App. 104–05. For example, the court opined that “[t]he statutory scheme simply gives no quarter to the proposition that, in following Congress’ directive to regulate electricity-producing power plants, the EPA is categorically forbidden to consider . . . generation-shifting measures that power plants are already actually using to meet emission requirements.” App. 153; *see also* App. 154 (“the EPA’s consideration of already-in-use generation shifting as part of the ‘best system of emission reduction’ does nothing to enlarge the Agency’s regulatory domain.”). But the court’s assumption that *forced* generation shifting is the same as *natural* market shifts is flawed and disregards the flexibility energy producers require to dispatch all available sources of energy to meet customers’ growing demands.

The Nation’s energy supply is undoubtedly shifting towards more renewable sources. The U.S. Energy Information Administration’s “Annual Energy Outlook 2021” predicts that non-hydroelectric renewable energy will be the fastest growing energy source through 2050.⁴⁶ This is because policies at the state and federal

⁴⁵ 42 U.S.C. §§ 7411(a) and 7411(d).

⁴⁶ *See* U.S. Energy Information Administration, *Annual Energy Outlook 2021*, 7 (Feb. 2021), https://www.eia.gov/outlooks/aeo/pdf/AEO_Narrative_2021.pdf.

level have encouraged investment in renewable resources for electricity generation and new technologies have driven down the cost to install wind and solar generation, further increasing their competitiveness in the market.⁴⁷

Consistent with these predictions, Basin Electric continues to diversify its energy portfolio, with substantially greater reliance on renewable generation. Between 2013 and 2021, Basin Electric entered into thirteen wind and solar Power Purchase Agreements for a total of 1,518 MW and, as of June 2021, 1,054 MW of the wind projects were operational.⁴⁸ However, coal and gas generation remain critical to Basin Electric's ability to supply reliable and affordable energy to its members. In the last decade, Basin Electric's load has grown almost fifty percent.⁴⁹ Eighty percent of that load growth has been met with wind, natural gas, and market purchases.⁵⁰ Basin Electric's current energy supply includes 2,835.7 MW of coal, 1,776.4 MW of wind, and 1,353.7 MW of natural gas.⁵¹ But with the recent purchase of power from new wind and solar projects, Basin Electric's forecasted green and renewable portfolio will reach 2,415 MW by 2025.⁵² Basin Electric

⁴⁷ *Id.*

⁴⁸ 2021 Minnesota O-IRP, at 5.

⁴⁹ See Basin Electric Power Cooperative, *2020 Annual Report*, 5 ("2020 Annual Report"), https://www.basinelectric.com/_files/pdf/financials/Annual-Report-2020-WEB.pdf.

⁵⁰ *Id.*

⁵¹ *Id.* at 19.

⁵² 2021 Minnesota O-IRP, at 5.

also owns 2,513 miles and maintains 2,536 miles of high-voltage transmission.⁵³ Basin Electric forecasts that its entire member system will grow by more than 1,300 MW between 2022 and 2050.⁵⁴

To provide low cost power to a load that varies every hour on an electric power system, Basin Electric relies upon four different types of generating capacity: (1) baseload units (such as coal-fired steam-cycle power plants, nuclear, and hydroelectric plants) that are capable of running at full-capacity continuously; (2) intermediate capacity units (such as oil and gas-fired steam cycle plants and some hydroelectric plants) designed to be cycled; (3) peaking capacity units (such as combustion turbines or internal combustion engine plants) only operated during peak load periods and emergencies; and (4) intermittent capacity units (such as wind and solar) that are only capable of producing energy when weather conditions are ideal.⁵⁵ While wind and solar are increasingly available energy sources, they are too unreliable to be considered sources of baseload generating capacity.⁵⁶

Each of these sources of generation capacity plays an important role in managing existing electricity demand and planning for future load growth. For example, to serve its customers in the Eastern Interconnection, Basin Electric relies on a broad mix of its own

⁵³ 2020 Annual Report, at 25.

⁵⁴ 2021 Minnesota O-IRP, at 5.

⁵⁵ IRP, at 100.

⁵⁶ *See* 2020 Annual Report, at 5–6.

coal- and natural-gas fired units to generate baseload power and operate as peaking units; power supply contracts with member cooperatives for purchase of intermediate and baseload power; large-scale wind projects both constructed by Basin Electric and developed in partnership with other cooperatives; and numerous long-term power purchase agreements for wind and solar generation.⁵⁷ Even the largest wind projects constructed by Basin Electric offer less megawatt capacity than coal- and natural gas-fired resources. For example, the Antelope Valley Station in Beulah, North Dakota is a 900 MW coal-fired baseload facility that serves the Eastern Interconnection, while the wind projects constructed by Basin Electric range from a capacity of 2.6 MW to 172 MW.⁵⁸ These resources cannot simply be swapped out at a one-for-one MW ratio based on the arbitrary directives of a regulatory agency. If EPA has authority to use the concept of BSER to reduce by half the operation of Basin Electric's coal- and natural-gas fired generation serving the Eastern Interconnection, that will result in an approximate 1,500 megawatt decrease in accredited capacity that counts towards maintaining system reliability. That accredited capacity could not simply be made up by increasing generation from renewables.

The availability of resources to serve increasing demand for electricity directly affects Basin Electric's

⁵⁷ See Basin Electric Power Cooperative, *South Dakota Ten Year Plan*, §§ 20:10:21:04 and 20:10:21:16 (2020), <https://puc.sd.gov/commission/commissionaction/10yearplan/BasinElectric2020.pdf>.

⁵⁸ See *id.* at § 20:10:21:16.

assessment of cost-effectiveness and reliability.⁵⁹ Each type of power generation performs an important function within Basin Electric’s portfolio and artificially driving generation away from a particular resource will have myriad short- and long-term impacts on reliability. First, wind and solar only generate power when the weather permits. Until economical and proven battery storage technology is commercially available, wind and solar cannot be considered reliable sources of baseload generating capacity.⁶⁰ Coal generation may be less flexible—because it cannot be quickly cycled to follow wind in meeting market demand—but it is reliable and cost efficient, especially because most of Basin Electric’s power plants are located adjacent to coal mines, which eliminates the costs to transport the fuel.⁶¹

Second, Basin Electric is required to plan its resource development around complicated models that predict load growth years (and even decades) in advance.⁶² Integrated resource planning is, in part, an exercise of predicting short- and long-term trends in federal regulations, and choosing options that are most likely to be (a) permitted under the regulations, and (b) built in a timely way to meet changing generation and

⁵⁹ 2020 Annual Report, at 6.

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² See *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n*, 461 U.S. 190, 201 (1983) (recognizing utilities’ development of new facilities “requires considerable advance planning”).

transmission resource needs.⁶³ For example, Basin Electric’s latest planning document, developed and submitted in 2018 to the U.S. Department of Energy’s Western Area Power Administration, analyzes long-term system needs and provides justification for new energy resources that may be needed through 2028.⁶⁴ Basin Electric must engage in advanced planning to identify member load forecasts, review power supply needs, assess various power supply regions’ needs (including neighboring utilities and whether excess power is available for purchase), and compare the market power costs to the costs of building new resources.⁶⁵ Forced generation shifting imposes countless hurdles to overcome in the planning process.⁶⁶

Basin Electric depends on regulatory certainty and the ability to employ an all-of-the-above energy strategy. By utilizing diversified resources, Basin Electric is able to meet its members’ energy needs through reliable sources, and also better manage its carbon footprint by incorporating resources into its diversified portfolio that have either low or no carbon emissions.⁶⁷ But imposing another round of regulation that

⁶³ IRP, at 16.

⁶⁴ *Id.* at 1.

⁶⁵ *Id.* at 4.

⁶⁶ *See Pac. Gas & Elec. Co.*, 461 U.S. at 203 (finding that because the Court resolved the legal question governing utilities, “there is little likelihood that industry behavior would be uniquely affected by whatever uncertainty surrounds the [statute’s] provisions”).

⁶⁷ IRP, at 101.

artificially increases demand for renewables without considering the importance of maintaining baseload generation will upend Basin Electric's strategic planning towards greater investment in renewables. The D.C. Circuit's decision granting EPA the authority to eliminate whole swaths of the Nation's energy supply through forced generation shifting is dangerous and contrary to Section 111(d)'s purpose.



CONCLUSION

The judgment of the D.C. Circuit should be reversed.

Respectfully submitted,

EMILY C. SCHILLING
Counsel of Record
 HOLLAND & HART LLP
 901 K Street NW, Suite 850
 Washington, DC 20001
 ECSchilling@hollandhart.com
 Tel: (202) 393-6500
 Fax: (202) 747-6574

TINA R. VAN BOCKERN
 HOLLAND & HART LLP
 555 17th Street, Suite 3200
 Denver, CO 80202
 TRVanBockern@hollandhart.com
 Tel: (303) 295-8107
 Fax: (720) 545-9952

Counsel for Respondent Basin Electric Power Cooperative