ORAL ARGUMENT SCHEDULED FOR JUNE 2, 2016

No. 15-1363 (and consolidated cases)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

STATE OF WEST VIRGINIA, *et al.*,
Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *et al.*,
Respondents.

On Petition for Review of Final Agency Action of the United States Environmental Protection Agency 80 Fed. Reg. 64,662 (Oct. 23, 2015)

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to Circuit Rule 28(a)(1), Petitioners state as follows:

A. Parties, Intervenors, and *Amici Curiae*

These cases involve the following parties:

Petitioners:

No. 15-1363: State of West Virginia; State of Texas; State of Alabama; State of Arizona Corporation Commission; State of Arkansas; State of Colorado; State of Florida; State of Georgia; State of Indiana; State of Kansas; Commonwealth of Kentucky; State of Louisiana; State of Louisiana Department of Environmental Quality; Attorney General Bill Schuette, People of Michigan; State of Missouri; State of Montana; State of Nebraska; State of New Jersey; State of North Carolina Department of Environmental Quality; State of Ohio; State of South Carolina; State of South Dakota; State of Utah; State of Wisconsin; and State of Wyoming.

No. 15-1364: State of Oklahoma *ex rel.* E. Scott Pruitt, in his official capacity as Attorney General of Oklahoma and Oklahoma Department of Environmental Quality.

No. 15-1365: International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers.

No. 15-1366: Murray Energy Corporation.

No. 15-1367: National Mining Association.

No. 15-1368: American Coalition for Clean Coal Electricity.

No. 15-1370: Utility Air Regulatory Group and American Public Power Association.

No. 15-1371: Alabama Power Company; Georgia Power Company; Gulf Power Company; and Mississippi Power Company.

No. 15-1372: CO_2 Task Force of the Florida Electric Power Coordinating Group, Inc.

No. 15-1373: Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc.

No. 15-1374: Tri-State Generation and Transmission Association, Inc.

No. 15-1375: United Mine Workers of America.

No. 15-1376: National Rural Electric Cooperative Association; Arizona Electric Power Cooperative, Inc.; Associated Electric Cooperative, Inc.; Big Rivers Electric Corporation; Brazos Electric Power Cooperative, Inc.; Buckeye Power, Inc.; Central Montana Electric Power Cooperative; Central Power Electric Cooperative, Inc.; Corn Belt Power Cooperative; Dairyland Power Cooperative; Deseret Generation & Transmission Co-operative; East Kentucky Power Cooperative, Inc.; East River Electric Power Cooperative, Inc.; East Texas Electric Cooperative, Inc.; Georgia Transmission Corporation; Golden Spread Electrical Cooperative, Inc.; Hoosier Energy Rural Electric Cooperative, Inc.; Kansas Electric Power Cooperative, Inc.; Minnkota Power Cooperative, Inc.; North Carolina Electric Membership Corporation; Northeast Texas Electric Cooperative, Inc.; Northwest Iowa Power

Cooperative; Oglethorpe Power Corporation; PowerSouth Energy Cooperative; Prairie Power, Inc.; Rushmore Electric Power Cooperative, Inc.; Sam Rayburn G&T Electric Cooperative, Inc.; San Miguel Electric Cooperative, Inc.; Seminole Electric Cooperative, Inc.; South Mississippi Electric Power Association; South Texas Electric Cooperative, Inc.; Southern Illinois Power Cooperative; Sunflower Electric Power Corporation; Tex-La Electric Cooperative of Texas, Inc.; Upper Missouri G. & T. Electric Cooperative, Inc.; Wabash Valley Power Association, Inc.; Western Farmers Electric Cooperative; and Wolverine Power Supply Cooperative, Inc.

No. 15-1377: Westar Energy, Inc.

No. 15-1378: NorthWestern Corporation d/b/a NorthWestern Energy.

No. 15-1379: National Association of Home Builders ("NAHB").

No. 15-1380: State of North Dakota.

No. 15-1382: Chamber of Commerce of the United States of America; National Association of Manufacturers; American Fuel & Petrochemical Manufacturers; National Federation of Independent Business; American Chemistry Council; American Coke and Coal Chemicals Institute; American Foundry Society; American Forest & Paper Association; American Iron & Steel Institute; American Wood Council; Brick Industry Association; Electricity Consumers Resource Council; Lignite Energy Council; National Lime Association; National Oilseed Processors Association; and Portland Cement Association.

No. 15-1383: Association of American Railroads.

No. 15-1386: Luminant Generation Company LLC; Oak Grove Management Company LLC; Big Brown Power Company LLC; Sandow Power Company LLC; Big Brown Lignite Company LLC; Luminant Mining Company LLC; and Luminant Big Brown Mining Company LLC.

No. 15-1393: Basin Electric Power Cooperative.

No. 15-1398: Energy & Environment Legal Institute.

No. 15-1409: Mississippi Department of Environmental Quality; State of Mississippi; and Mississippi Public Service Commission.

No. 15-1410: International Brotherhood of Electrical Workers, AFL-CIO.

No. 15-1413: Entergy Corporation.

No. 15-1418: LG&E and KU Energy LLC.

No. 15-1422: West Virginia Coal Association.

No. 15-1432: Newmont Nevada Energy Investment, LLC, and Newmont USA Limited.

No. 15-1442: The Kansas City Board of Public Utilities – Unified Government of Wyandotte County/Kansas City, Kansas.

No. 15-1451: The North American Coal Corporation; The Coteau Properties Company; Coyote Creek Mining Company, LLC; The Falkirk Mining Company; Mississippi Lignite Mining Company; North American Coal Royalty

Company; NODAK Energy Services, LLC; Otter Creek Mining Company, LLC; and The Sabine Mining Company.

No. 15-1459: Indiana Utility Group.

No. 15-1464: Louisiana Public Service Commission.

No. 15-1470: GenOn Mid-Atlantic, LLC; Indian River Power LLC; Louisiana Generating LLC; Midwest Generation, LLC; NRG Chalk Point LLC; NRG Power Midwest LP; NRG Rema LLC; NRG Texas Power LLC; NRG Wholesale Generation LP; and Vienna Power LLC.

No. 15-1472: Prairie State Generating Company, LLC.

No. 15-1474: Minnesota Power (an operating division of ALLETE, Inc.).

No. 15-1475: Denbury Onshore, LLC.

No. 15-1477: Energy-Intensive Manufacturers Working Group on Greenhouse Gas Regulation.

No. 15-1483: Local Government Coalition for Renewable Energy.

No. 15-1488: Competitive Enterprise Institute; Buckeye Institute for Public Policy Solutions; Independence Institute; Rio Grande Foundation; Sutherland Institute; Klaus J. Christoph; Samuel R. Damewood; Catherine C. Dellin; Joseph W. Luquire; Lisa R. Markham; Patrick T. Peterson; and Kristi Rosenquist.

Respondents:

Respondents are the United States Environmental Protection Agency (in Nos. 15-1364, 15-1365, 15-1367, 15-1368, 15-1370, 15-1373, 15-1374, 15-1375, 15-1376,

15-1380, 15-1383, 15-1398, 15-1410, 15-1418, 15-1442, 15-1472, 15-1474, 15-1475, 15-1483) and the United States Environmental Protection Agency and Gina McCarthy, Administrator (in Nos. 15-1363, 15-1366, 15-1371, 15-1372, 15-1377, 15-1378, 15-1379, 15-1382, 15-1386, 15-1393, 15-1409, 15-1413, 15-1422, 15-1432, 15-1451, 15-1459, 15-1464, 15-1470, 15-1477, 15-1488).

Intervenors and *Amici Curiae*:

Dixon Bros., Inc.; Gulf Coast Lignite Coalition; Joy Global Inc.; Nelson Brothers, Inc.; Norfolk Southern Corp.; Peabody Energy Corp.; and Western Explosive Systems Company are Petitioner-Intervenors.

Advanced Energy Economy; American Lung Association; American Wind Energy Association; Broward County, Florida; Calpine Corporation; Center for Biological Diversity; City of Austin d/b/a Austin Energy; City of Boulder; City of Chicago; City of Los Angeles, by and through its Department of Water and Power; City of New York; City of Philadelphia; City of Seattle, by and through its City Light Department; City of South Miami; Clean Air Council; Clean Wisconsin; Coal River Mountain Watch; Commonwealth of Massachusetts; Commonwealth of Virginia; Conservation Law Foundation; District of Columbia; Environmental Defense Fund; Kanawha Forest Coalition; Keepers of the Mountains Foundation; Mon Valley Clean Air Coalition; National Grid Generation, LLC; Natural Resources Defense Council; New York Power Authority; NextEra Energy, Inc.; Ohio Environmental Council; Ohio Valley Environmental Coalition; Pacific Gas and Electric Company; Sacramento

Municipal Utility District; Sierra Club; Solar Energy Industries Association; Southern California Edison Company; State of California by and through Governor Edmund G. Brown, Jr., and the California Air Resources Board, and Attorney General Kamala D. Harris; State of Connecticut; State of Delaware; State of Hawaii; State of Illinois; State of Iowa; State of Maine; State of Maryland; State of Minnesota by and through the Minnesota Pollution Control Agency; State of New Hampshire; State of New Mexico; State of New York; State of Oregon; State of Rhode Island; State of Vermont; State of Washington; and West Virginia Highlands Conservancy are Respondent-Intervenors.

Philip Zoebisch; Pedernales Electric Cooperative, Inc.; Municipal Electric Authority of Georgia; Pacific Legal Foundation; Texas Public Policy Foundation; Morning Star Packing Company; Merit Oil Company; Loggers Association of Northern California; and Norman R. "Skip" Brown are *amici curiae* in support of Petitioners.

Former EPA Administrators William D. Ruckelshaus and William K. Reilly; Institute for Policy Integrity at New York University School of Law; National League of Cities; U.S. Conference of Mayors; Baltimore, MD; Boulder County, CO; Coral Gables, FL; Grand Rapids, MI; Houston, TX; Jersey City, NJ; Los Angeles, CA; Minneapolis, MN; Pinecrest, FL; Portland, OR; Providence, RI; Salt Lake City, UT; San Francisco, CA; West Palm Beach, FL; American Thoracic Society; American Medical Association; American College of Preventive Medicine; American College of

Occupational and Environmental Medicine; and the Service Employees International Union are *amici curiae* in support of Respondents. American Sustainable Business Council and South Carolina Small Business Chamber of Commerce are movant *amici curiae* in support of Respondent.

B. Rulings Under Review

These consolidated cases involve final agency action of the United States Environmental Protection Agency titled, "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units," and published on October 23, 2015, at 80 Fed. Reg. 64,662.

C. Related Cases

These consolidated cases have not previously been before this Court or any other court. Counsel is aware of five related cases that, as of the time of filing, have appeared before this Court:

(1) *In re Murray Energy Corporation*, No. 14-1112,

(2) *Murray Energy Corporation v. EPA*, No. 14-1151 (consolidated with No. 14-1112),

(3) *State of West Virginia v. EPA*, No. 14-1146,

(4) *In re: State of West Virginia*, No. 15-1277, and

(5) *In re Peabody Energy Corporation*, No. 15-1284 (consolidated with No. 15-1277).

Per the Court's order of January 21, 2016, the following cases are consolidated and being held in abeyance pending potential administrative resolution of biogenic

carbon dioxide emissions issues in the Final Rule: *National Alliance of Forest Owners v. EPA*, No. 15-1478; *Biogenic CO2 Coalition v. EPA*, No. 15-1479; and *American Forest & Paper Association, Inc. and American Wood Council v. EPA*, No. 15-1485.

CORPORATE DISCLOSURE STATEMENTS

Non-governmental Petitioners submit the following statements pursuant to Rule 26.1 of the Federal Rules of Appellate Procedure and Circuit Rule 26.1:

Alabama Power Company is a wholly-owned subsidiary of Southern Company, which is a publicly held corporation. Other than Southern Company, no publicly-held company owns 10% or more of Alabama Power Company's stock. Southern Company is traded publicly on the New York Stock Exchange under the symbol "SO."

American Coalition for Clean Coal Electricity ("ACCCE") is a partnership of companies that are involved in the production of electricity from coal. ACCCE recognizes the inextricable linkage between energy, the economy and our environment. Toward that end, ACCCE supports policies that promote the wise use of coal, one of America's largest domestically produced energy resources, to ensure a reliable and affordable supply of electricity to meet our nation's demand for energy. The ACCCE is a "trade association" within the meaning of Circuit Rule 26.1(b). It has no parent corporation, and no publicly held company owns a 10% or greater interest in the ACCCE.

American Public Power Association ("APPA") is the national association of publicly-owned electric utilities. APPA has no outstanding shares or debt securities in the hands of the public. APPA has no parent company. No publicly held company has a 10% or greater ownership in APPA.

Arizona Electric Power Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Arizona Electric Power Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Associated Electric Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Associated Electric Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Association of American Railroads ("AAR") is a nonprofit trade association whose members include all of the Class I freight railroads (the largest freight railroads), as well as some smaller freight railroads and Amtrak. AAR represents its member railroads in proceedings before Congress, the courts, and administrative agencies in matters of common interest, such as the issues that are the subject matter of this litigation. AAR is a "trade association" within the meaning of Circuit Rule 26.1(b). It

has no parent corporation, and no publicly held company owns a 10% or greater interest in AAR.

Basin Electric Power Cooperative ("Basin Electric") is a not-for-profit regional wholesale electric generation and transmission cooperative owned by over 100 member cooperatives. Basin Electric provides wholesale power to member rural electric systems in nine states, with electric generation facilities in North Dakota, South Dakota, Wyoming, Montana, and Iowa serving approximately 2.9 million customers. Basin Electric has no parent companies. There are no publicly held corporations that have a 10% or greater ownership interest in Basin Electric.

Big Brown Lignite Company, LLC is a wholly owned subsidiary of Luminant Holding Company LLC, which is a Delaware limited liability company and is a wholly owned subsidiary of Texas Competitive Electric Holdings Company LLC ("TCEH"). TCEH is a Delaware limited liability company and is a wholly owned subsidiary of Energy Future Competitive Holdings Company ("EFCH"), which is a Texas corporation and a wholly owned subsidiary of Energy Future Holdings Corp. ("EFH Corp."). Substantially all of the common stock of EFH Corp., a Texas corporation, is owned by Texas Energy Future Holdings Limited Partnership, which is a privately held limited partnership. No publicly held entities have a 10% or greater equity ownership interest in EFH Corp.

Big Brown Power Company, LLC is a wholly owned subsidiary of Luminant Holding Company LLC, which is a Delaware limited liability company and is a wholly owned subsidiary of Texas Competitive Electric Holdings Company LLC ("TCEH"). TCEH is a Delaware limited liability company and is a wholly owned subsidiary of Energy Future Competitive Holdings Company ("EFCH"), which is a Texas corporation and a wholly owned subsidiary of Energy Future Holdings Corp. ("EFH Corp."). Substantially all of the common stock of EFH Corp., a Texas corporation, is owned by Texas Energy Future Holdings Limited Partnership, which is a privately held limited partnership. No publicly held entities have a 10% or greater equity ownership interest in EFH Corp.

Big Rivers Electric Corporation has no parent corporation. No publicly held corporation owns any portion of Big Rivers Electric Corporation, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Brazos Electric Power Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Brazos Electric Power Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Buckeye Institute for Public Policy Solutions ("Buckeye Institute") is a nonprofit organization incorporated in Ohio under Section 501(c)(3) of the Internal Revenue Code. The Buckeye Institute seeks to improve Ohio policies by performing research and promoting market-oriented policy solutions. No parent company or publicly-held company has a 10% or greater ownership interest in the Buckeye Institute.

Buckeye Power, Inc. has no parent corporation. No publicly held corporation owns any portion of Buckeye Power, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Central Montana Electric Power Cooperative has no parent corporation. No publicly held corporation owns any portion of Central Montana Electric Power Cooperative, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Central Power Electric Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Central Power Electric Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

CO_2 Task Force of the Florida Electric Power Coordinating Group, Inc. ("FCG") is a non-profit, non-governmental corporate entity organized under the laws of Florida. The FCG does not have a parent corporation. No publicly held corporation owns 10% or more of the FCG's stock.

Competitive Enterprise Institute ("CEI") is a nonprofit organization incorporated in Washington D.C. under Section 501(c)(3) of the Internal Revenue Code. CEI focuses on advancing market approaches to regulatory issues. No parent company or publicly-held company has a 10% or greater ownership interest in CEI.

Corn Belt Power Cooperative has no parent corporation. No publicly held corporation owns any portion of Corn Belt Power Cooperative, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Coteau Properties Company ("Coteau Properties") is a wholly-owned subsidiary of The North American Coal Corporation ("NACoal"). No publicly held entity has a 10% or greater ownership interest in Coteau Properties. The general nature and purpose of Coteau Properties, insofar as relevant to this litigation, is the mining and marketing of lignite coal as fuel for power generation in North Dakota.

Coyote Creek Mining Company, LLC ("Coyote Creek Mining") is a wholly-owned subsidiary of NACoal. No publicly held entity has a 10% or greater ownership interest

in Coyote Creek Mining. The general nature and purpose of Coyote Creek Mining, insofar as relevant to this litigation, is the mining and marketing of lignite coal as fuel for power generation in North Dakota.

Dairyland Power Cooperative has no parent corporation. No publicly held corporation owns any portion of Dairyland Power Cooperative, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Denbury Onshore, LLC is a wholly owned subsidiary of Denbury Resources Inc., a publicly held corporation whose shares are listed on the New York Stock Exchange. Other than Denbury Resources Inc., no publicly-held company owns 10% or more of any of Petitioner's stock and no publicly-held company holds 10% or more of Denbury Resources, Inc., stock. The stock of Denbury Resources, Inc. is traded publicly on the New York Stock Exchange under the symbol "DNR." Denbury is an oil and gas production company. As a part of its oil recovery operations (generally termed "tertiary" or "enhanced" recovery) that are performed in several states, Denbury, with its affiliated companies, produces, purchases, transports, and injects carbon dioxide for the purpose of the recovery of hydrocarbon resources.

Deseret Generation & Transmission Co-operative has no parent corporation. No publicly held corporation owns any portion of Deseret Generation & Transmission Co-operative, and it is not a subsidiary or an affiliate of any publicly owned corporation.

East Kentucky Power Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of East Kentucky Power Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

East River Electric Power Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of East River Electric Power Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

East Texas Electric Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of East Texas Electric Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Energy-Intensive Manufacturers Working Group on Greenhouse Gas Regulation ("EIM") is a coalition of individual companies. EIM has no outstanding shares or debt securities in the hands of the public. EIM has no parent corporation, and no publicly held company has 10% or greater ownership in EIM.

Entergy Corporation ("Entergy") is a publicly traded company incorporated in the State of Delaware, with its principal place of business in the city of New Orleans, Louisiana. Entergy does not have any parent companies that have a 10% or greater ownership interest in Entergy. Further, there is no publicly-held company that has a 10% or greater ownership interest in Entergy. Entergy is an integrated energy company engaged primarily in electric power production and electric retail distribution operations. Entergy delivers electricity to approximately 2.8 million customers in Arkansas, Louisiana, Mississippi, and Texas.

Falkirk Mining Company ("Falkirk Mining") is a wholly-owned subsidiary of NACoal. No publicly held entity has a 10% or greater ownership interest in Falkirk Mining. The general nature and purpose of Falkirk Mining, insofar as relevant to this litigation, is the mining and marketing of lignite coal as fuel for power generation in North Dakota.

GenOn Mid-Atlantic, LLC exists to provide safe, reliable, and affordable electric power to consumers. It is a limited liability corporation wholly owned by NRG North America LLC, a limited liability corporation wholly owned by GenOn Americas Generation, LLC. GenOn Americas Generation, LLC is a limited liability corporation wholly owned by NRG Americas, Inc. NRG Americas, Inc. is a corporation wholly owned by GenOn Energy Holdings, Inc., a corporation wholly owned by GenOn Energy, Inc. GenOn Energy, Inc. is a corporation wholly owned by NRG Energy, Inc. a Delaware publicly-traded corporation. NRG Energy, Inc. has no parent corporation. As of the last reporting period, T. Rowe Price Associates, Inc. held a 10% or greater ownership in NRG Energy, Inc. As of the last reporting period, T. Rowe Price Associates, Inc. was a subsidiary of T. Rowe Price Group, Inc., a publicly-traded company.

Georgia Power Company is a wholly-owned subsidiary of Southern Company, which is a publicly held corporation. Other than Southern Company, no publicly-held company owns 10% or more of Georgia Power Company's stock. Southern Company is traded publicly on the New York Stock Exchange under the symbol "SO."

Georgia Transmission Corporation has no parent corporation. No publicly held corporation owns any portion of Georgia Transmission Corporation, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Golden Spread Electrical Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Golden Spread Electrical Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Gulf Power Company is a wholly-owned subsidiary of Southern Company, which is a publicly held corporation. Other than Southern Company, no publicly-held company owns 10% or more of Gulf Power Company's stock. Southern Company is traded publicly on the New York Stock Exchange under the symbol "SO."

Hoosier Energy Rural Electric Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Hoosier Energy Rural Electric Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Independence Institute is a nonprofit organization incorporated in Colorado under Section 501(c)(3) of the Internal Revenue Code. The Independence Institute is a public policy think tank whose purpose is to educate citizens, legislators, and opinion makers in Colorado about policies that enhance personal and economic freedom. No parent company or publicly-held company has a 10% or greater ownership interest in the Independence Institute.

Indian River Power LLC exists to provide safe, reliable, and affordable electric power to consumers. It is a limited liability corporation wholly owned by NRG Energy, Inc., a Delaware publicly-traded corporation. NRG Energy, Inc. has no parent corporation. As of the last reporting period, T. Rowe Price Associates, Inc. held a 10% or greater ownership in NRG Energy, Inc. As of the last reporting period, T. Rowe Price Associates, Inc. was a subsidiary of T. Rowe Price Group, Inc. a publicly-traded company.

Indiana Utility Group ("IUG") is a continuing association of individual electric generating companies operated for the purpose of promoting the general interests of the membership of electric generators. IUG has no outstanding shares or debt securities in the hand of the public and has no parent company. No publicly held company has a 10% or greater ownership interest in IUG.

International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers, and Helpers ("IBB") is a non-profit national labor organization with headquarters in Kansas City, Kansas. IBB's members are active and retired members engaged in various skilled trades of welding and fabrication of boilers, ships, pipelines, and other industrial facilities and equipment in the United States and Canada, and workers in other industries in the United States organized by the IBB. IBB provides collective bargaining representation and other membership services on behalf of its members. IBB is affiliated with the American Federation of Labor-Congress of Industrial Organizations. IBB and its affiliated lodges own approximately 60% of the outstanding stock of Brotherhood Bancshares, Inc., the holding company of the Bank

of Labor. Bank of Labor's mission is to serve the banking and other financial needs of the North American labor movement. No entity owns 10% or more of IBB.

International Brotherhood of Electrical Workers, AFL-CIO ("IBEW") is a non-profit national labor organization with headquarters located at 900 7th Street, N.W., Washington, D.C. 20001. IBEW's members are active and retired skilled electricians and related professionals engaged in a broad array of U.S. industries, including the electrical utility, coal mining, and railroad transportation sectors that stand to be impacted adversely by implementation of EPA's final agency action. IBEW provides collective bargaining representation and other membership services and benefits on behalf of its members. IBEW is affiliated with the American Federation of Labor-Congress of Industrial Organizations. IBEW has no parent companies, subsidiaries, or affiliates that have issued shares or debt securities to the public.

Kansas Electric Power Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Kansas Electric Power Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

LG&E and KU Energy LLC is the holding company for Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities Company ("KU"), regulated utilities that serve a total of 1.2 million customers. LG&E serves 321,000 natural gas and 400,000 electric customers in Louisville, Kentucky and 16 surrounding counties, whereas KU serves 543,000 customers in 77 Kentucky counties and five counties in Virginia. LG&E and KU Energy LLC is a wholly-owned subsidiary of PPL Corporation. Other than PPL Corporation, no publicly-held company owns 10% or more of any of LG&E and KU Energy LLC's membership interests. No publicly held company has a 10% or greater ownership interest in PPL Corporation.

Local Government Coalition for Renewable Energy ("Coalition") is a not-for-profit association of local government entities, including cities, counties and special purpose authorities. Working in coordination with the Municipal Waste Management Association, the environmental affiliate of the U.S. Conference of Mayors, the Coalition participates in state and federal regulatory proceedings, as well as judicial review proceedings, that affect operation of waste-to-energy facilities for management of municipal solid waste. None of the Coalition members have issued stock, partnership shares or any similar indicia of ownership interests, and none of the Coalition members have a parent corporation. As noted below, the Coalition joins this brief with respect to Arguments III.A and III.B.

Louisiana Generating LLC exists to provide safe, reliable, and affordable electric power to consumers. It is a limited liability corporation wholly owned by NRG South

Central Generating LLC, a limited liability corporation which in turn is wholly owned by NRG Energy, Inc., a Delaware publicly-traded corporation. NRG Energy, Inc. has no parent corporation. As of the last reporting period, T. Rowe Price Associates, Inc. held a 10% or greater ownership in NRG Energy, Inc. As of the last reporting period, T. Rowe Price Associates, Inc. was a subsidiary of T. Rowe Price Group, Inc. a publicly-traded company.

Luminant Big Brown Mining Company, LLC is a wholly owned subsidiary of Luminant Holding Company LLC, which is a Delaware limited liability company and is a wholly owned subsidiary of Texas Competitive Electric Holdings Company LLC ("TCEH"). TCEH is a Delaware limited liability company and is a wholly owned subsidiary of Energy Future Competitive Holdings Company ("EFCH"), which is a Texas corporation and a wholly owned subsidiary of Energy Future Holdings Corp. ("EFH Corp."). Substantially all of the common stock of EFH Corp., a Texas corporation, is owned by Texas Energy Future Holdings Limited Partnership, which is a privately held limited partnership. No publicly held entities have a 10% or greater equity ownership interest in EFH Corp.

Luminant Generation Company, LLC is a wholly owned subsidiary of Luminant Holding Company LLC, which is a Delaware limited liability company and is a wholly owned subsidiary of Texas Competitive Electric Holdings Company LLC ("TCEH"). TCEH is a Delaware limited liability company and is a wholly owned subsidiary of Energy Future Competitive Holdings Company ("EFCH"), which is a Texas corporation and a wholly owned subsidiary of Energy Future Holdings Corp. ("EFH Corp."). Substantially all of the common stock of EFH Corp., a Texas corporation, is owned by Texas Energy Future Holdings Limited Partnership, which is a privately held limited partnership. No publicly held entities have a 10% or greater equity ownership interest in EFH Corp.

Luminant Mining Company, LLC is a wholly owned subsidiary of Luminant Holding Company LLC, which is a Delaware limited liability company and is a wholly owned subsidiary of Texas Competitive Electric Holdings Company LLC ("TCEH"). TCEH is a Delaware limited liability company and is a wholly owned subsidiary of Energy Future Competitive Holdings Company ("EFCH"), which is a Texas corporation and a wholly owned subsidiary of Energy Future Holdings Corp. ("EFH Corp."). Substantially all of the common stock of EFH Corp., a Texas corporation, is owned by Texas Energy Future Holdings Limited Partnership, which is a privately held limited partnership. No publicly held entities have a 10% or greater equity ownership interest in EFH Corp.

Midwest Generation LLC exists to provide safe, reliable, and affordable electric power to consumers. It is a limited liability corporation wholly owned by Midwest Generation Holdings II, LLC. Midwest Generation Holdings II, LLC is a limited liability corporation wholly owned by Midwest Generation Holdings I, LLC. Midwest Generation Holdings I, LLC is a limited liability corporation 95% of which is owned by Mission Midwest Coal, LLC and 5% of which is owned by Midwest Generation Holdings Limited, which in turn is wholly owned by Mission Midwest Coal, LLC. Mission Midwest Coal, LLC is a limited liability corporation wholly owned by NRG Midwest Holdings LLC, which in turn is a limited liability corporation wholly owned by Midwest Generation EME, LLC. Midwest Generation EME, LLC is a limited liability corporation wholly owned by NRG Energy Holdings Inc. which is a corporation wholly owned by NRG Acquisition Holdings Inc. NRG Acquisition Holdings is a corporation wholly owned by NRG Energy, Inc., a Delaware publicly-traded corporation. NRG Energy, Inc. has no parent corporation. As of the last reporting period, T. Rowe Price Associates, Inc. held a 10% or greater ownership in NRG Energy, Inc. As of the last reporting period, T. Rowe Price Associates, Inc. was a subsidiary of T. Rowe Price Group, Inc. a publicly-traded company.

Minnesota Power is an operating division of ALLETE, Inc. No publicly-held company has a 10% or greater ownership interest in ALLETE, Inc.

Minnkota Power Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Minnkota Power Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Mississippi Lignite Mining Company ("Mississippi Lignite Mining") is a wholly-owned subsidiary of NACoal. No publicly held entity has a 10% or greater ownership interest in Mississippi Lignite Mining. The general nature and purpose of Mississippi Lignite Mining, insofar as relevant to this litigation, is the mining and marketing of lignite coal as fuel for power generation in Mississippi.

Mississippi Power Company is a wholly-owned subsidiary of Southern Company, which is a publicly held corporation. Other than Southern Company, no publicly-held company owns 10% or more of Mississippi Power Company's stock. Southern Company is traded publicly on the New York Stock Exchange under the symbol "SO."

Montana-Dakota Utilities Co. is engaged in the distribution of natural gas and the generation, transmission, and distribution of electricity in the states of North Dakota, South Dakota, Montana, and Wyoming. Montana-Dakota Utilities Co. is a division of

MDU Resources Group, Inc. No publicly held company has a 10% or greater ownership interest in MDU Resources Group, Inc.

Murray Energy Corporation has no parent corporation and no publicly held corporation owns 10% or more of its stock. Murray Energy Corporation is the largest privately-held coal company and largest underground coal mine operator in the United States.

National Association of Home Builders ("NAHB") is a not-for-profit trade association organized under the laws of Nevada. NAHB does not have any parent companies that have a 10% or greater ownership interest in NAHB. Further, there is no publicly-held company that has a 10% or greater ownership interest in NAHB. NAHB has issued no shares of stock to the public. NAHB is comprised of approximately 800 state and local home builders associations with whom it is affiliated, but all of those associations are, to the best of NAHB's knowledge, nonprofit corporations that have not issued stock to the public. NAHB's purpose is to promote the general commercial, professional, and legislative interests of its approximately 140,000 builder and associate members throughout the United States. NAHB's membership includes entities that construct and supply single-family homes, as well as apartment, condominium, multi-family, commercial, and industrial builders, land developers, and remodelers.

National Rural Electric Cooperative Association has no parent corporation. No publicly held corporation owns any portion of National Rural Electric Cooperative Association, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Newmont Nevada Energy Investment, LLC is a wholly-owned subsidiary of Newmont USA Limited and is the owner and operator of the TS Power Plant, a 242 MW coal-fired power plant located in Eureka County, Nevada, which provides power to Newmont USA Limited's mining operations. No other publicly held corporation owns 10% or more of the stock of Newmont Nevada Energy Investment, LLC.

Newmont USA Limited owns and operates 11 surface gold and copper mines, eight underground mines, and 13 processing facilities in Nevada that are served by the TS Power Plant. Newmont USA Limited is a wholly owned subsidiary of Newmont Mining Corporation and no other publicly held corporation owns 10% or more of its stock.

NODAK Energy Services, LLC ("NODAK") is a wholly-owned subsidiary of NACoal. No publicly held entity has a 10% or greater ownership interest in NODAK.

The general nature and purpose of NODAK, insofar as relevant to this litigation, is the operation of a lignite benefication facility within Great River Energy's Coal Creek Station, a lignite-fired power generating station in North Dakota.

The North American Coal Corporation ("NACoal") is a wholly-owned subsidiary of NACCO Industries, Inc. NACoal is not publicly held, but NACCO Industries, Inc., its parent, is a publicly traded corporation that owns more than 10% of the stock of NACoal. No other publicly-held corporation owns more than 10% of the stock of NACoal. The general nature and purpose of NACoal, insofar as relevant to this litigation, is the mining and marketing of lignite coal as fuel for power generation and the provision of mining services to natural resources companies.

North American Coal Royalty Company ("North American Coal Royalty") is a wholly-owned subsidiary of NACoal. No publicly held entity has a 10% or greater ownership interest in North American Coal Royalty. The general nature and purpose of North American Coal Royalty, insofar as relevant to this litigation, is the acquisition and disposition of mineral and surface interests in support of NACoal's mining of lignite coal as fuel for power generation and the provision of mining services to natural resources companies.

North Carolina Electric Membership Corporation has no parent corporation. No publicly held corporation owns any portion of North Carolina Electric Membership Corporation, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Northeast Texas Electric Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Northeast Texas Electric Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Northwest Iowa Power Cooperative has no parent corporation. No publicly held corporation owns any portion of Northwest Iowa Power Cooperative, and it is not a subsidiary or an affiliate of any publicly owned corporation.

NorthWestern Corporation is a publicly traded company (NYSE: NWE) incorporated in the State of Delaware with corporate offices in Butte, Montana and Sioux Falls, South Dakota. NorthWestern Corporation has no parent corporation. As of February 17, 2016, based on a review of statements filed with the Securities and Exchange Commission pursuant to Sections 13(d), 13(f), and 13(g) of the Securities and Exchange Act of 1934, as amended, BlackRock Fund Advisors is the only shareholder owning more than 10% or more of NorthWestern Corporation's stock.

In addition to publicly traded stock, NorthWestern Corporation has issued debt and bonds to the public.

NRG Chalk Point LLC exists to provide safe, reliable, and affordable electric power to consumers. It is wholly owned by GenOn Mid-Atlantic, LLC. GenOn Mid-Atlantic, LLC is a limited liability corporation wholly owned by NRG North America LLC, a limited liability corporation wholly owned by GenOn Americas Generation, LLC. GenOn Americas Generation, LLC is a limited liability corporation wholly owned by NRG Americas, Inc. NRG Americas, Inc. is a corporation wholly owned by GenOn Energy Holdings, Inc., a corporation wholly owned by GenOn Energy, Inc. GenOn Energy, Inc. is a corporation wholly owned by NRG Energy, Inc., a Delaware publicly-traded corporation. NRG Energy, Inc. has no parent corporation. As of the last reporting period, T. Rowe Price Associates, Inc. held a 10% or greater ownership in NRG Energy, Inc. As of the last reporting period, T. Rowe Price Associates, Inc. was a subsidiary of T. Rowe Price Group, Inc. a publicly-traded company.

NRG Power Midwest LP exists to provide safe, reliable, and affordable electric power to consumers. It is a limited partnership 99% of which is owned by NRG Power Generation Assets LLC and 1% of which is owned by NRG Power Midwest GP LLC, a limited liability corporation wholly owned by NRG Power Generation Assets LLC. NRG Power Generation Assets LLC is a limited liability corporation wholly owned by NRG Power Generation LLC, which is a limited liability corporation wholly owned by NRG Americas, Inc. NRG Americas, Inc. is a corporation wholly owned by GenOn Energy Holdings, Inc., a corporation wholly owned by GenOn Energy, Inc. GenOn Energy, Inc. is a corporation wholly owned by NRG Energy, Inc., a Delaware publicly-traded corporation. NRG Energy, Inc. has no parent corporation. As of the last reporting period, T. Rowe Price Associates, Inc. held a 10% or greater ownership in NRG Energy, Inc. As of the last reporting period, T. Rowe Price Associates, Inc. was a subsidiary of T. Rowe Price Group, Inc. a publicly-traded company.

NRG Rema LLC exists to provide safe, reliable, and affordable electric power to consumers. It is a limited liability corporation wholly owned by NRG Northeast Generation, Inc., a corporation wholly owned by NRG Northeast Holdings Inc. NRG Northeast Holdings Inc. is a corporation wholly owned by NRG Power Generation LLC, a limited liability corporation wholly owned by NRG Americas, Inc. NRG Americas, Inc. is a corporation wholly owned by GenOn Energy Holdings, Inc., a corporation wholly owned by GenOn Energy, Inc. GenOn Energy, Inc. is a corporation wholly owned by NRG Energy, Inc., a Delaware publicly-traded corporation. NRG Energy, Inc. has no parent corporation. As of the last reporting

period, T. Rowe Price Associates, Inc. held a 10% or greater ownership in NRG Energy, Inc. As of the last reporting period, T. Rowe Price Associates, Inc. was a subsidiary of T. Rowe Price Group, Inc. a publicly-traded company.

NRG Texas Power LLC exists to provide safe, reliable, and affordable electric power to consumers. It is a limited liability corporation wholly owned by NRG Texas LLC, which in turn is a limited liability corporation wholly owned by NRG Energy, Inc., a Delaware publicly-traded corporation. NRG Energy, Inc. has no parent corporation. As of the last reporting period, T. Rowe Price Associates, Inc. held a 10% or greater ownership in NRG Energy, Inc. As of the last reporting period, T. Rowe Price Associates, Inc. was a subsidiary of T. Rowe Price Group, Inc. a publicly-traded company.

NRG Wholesale Generation LP exists to provide safe, reliable, and affordable electric power to consumers. It is a limited partnership 99% owned by NRG Power Generation Assets LLC and 1% owned by NRG Wholesale Generation GP LLC, both of which are wholly owned by NRG Power Generation LLC. NRG Power Generation LLC is a limited liability corporation wholly owned by NRG Americas, Inc. NRG Americas, Inc. is a corporation wholly owned by GenOn Energy Holdings, Inc., a corporation wholly owned by GenOn Energy, Inc. GenOn Energy, Inc. is a corporation wholly owned by NRG Energy, Inc., a Delaware publicly-traded corporation. NRG Energy, Inc. has no parent corporation. As of the last reporting period, T. Rowe Price Associates, Inc. held a 10% or greater ownership in NRG Energy, Inc. As of the last reporting period, T. Rowe Price Associates, Inc. was a subsidiary of T. Rowe Price Group, Inc. a publicly-traded company.

Oak Grove Management Company, LLC is a wholly owned subsidiary of Luminant Holding Company LLC, which is a Delaware limited liability company and is a wholly owned subsidiary of Texas Competitive Electric Holdings Company LLC ("TCEH"). TCEH is a Delaware limited liability company and is a wholly owned subsidiary of Energy Future Competitive Holdings Company ("EFCH"), which is a Texas corporation and a wholly owned subsidiary of Energy Future Holdings Corp. ("EFH Corp."). Substantially all of the common stock of EFH Corp., a Texas corporation, is owned by Texas Energy Future Holdings Limited Partnership, which is a privately held limited partnership. No publicly held entities have a 10% or greater equity ownership interest in EFH Corp.

Oglethorpe Power Corporation has no parent corporation. No publicly held corporation owns any portion of Oglethorpe Power Corporation, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Otter Creek Mining Company, LLC ("Otter Creek") is a wholly-owned subsidiary of NACoal. No publicly held entity has a 10% or greater ownership interest in Otter Creek. The general nature and purpose of Otter Creek, insofar as relevant to this litigation, is the development of a mine to deliver lignite coal as fuel for power generation in North Dakota.

PowerSouth Energy Cooperative has no parent corporation. No publicly held corporation owns any portion of PowerSouth Energy Cooperative, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Prairie Power, Inc. has no parent corporation. No publicly held corporation owns any portion of Prairie Power, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Prairie State Generating Company, LLC ("PSGC") is a private non-governmental corporation that is principally engaged in the business of generating electricity for cooperatives and public power companies. PSGC does not have a parent corporation and no publicly-held corporation owns ten% or more of its stock.

Rio Grande Foundation is a nonprofit organization incorporated in New Mexico under Section 501(c)(3) of the Internal Revenue Code. The Rio Grande Foundation is a research institute dedicated to increasing liberty and prosperity for New Mexico's citizens. No parent company or publicly-held company has a 10% or greater ownership interest in the Rio Grande Foundation.

Rushmore Electric Power Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Rushmore Electric Power Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

The Sabine Mining Company ("Sabine Mining") is a wholly-owned subsidiary of NACoal. No publicly held entity has a 10% or greater ownership interest in Sabine Mining. The general nature and purpose of Sabine Mining, insofar as relevant to this litigation, is the mining of lignite coal as fuel for power generation in Texas.

Sam Rayburn G&T Electric Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Sam Rayburn G&T Electric Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

San Miguel Electric Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of San Miguel Electric Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Sandow Power Company, LLC is a wholly owned subsidiary of Luminant Holding Company LLC, which is a Delaware limited liability company and is a wholly owned subsidiary of Texas Competitive Electric Holdings Company LLC ("TCEH"). TCEH is a Delaware limited liability company and is a wholly owned subsidiary of Energy Future Competitive Holdings Company ("EFCH"), which is a Texas corporation and a wholly owned subsidiary of Energy Future Holdings Corp. ("EFH Corp."). Substantially all of the common stock of EFH Corp., a Texas corporation, is owned by Texas Energy Future Holdings Limited Partnership, which is a privately held limited partnership. No publicly held entities have a 10% or greater equity ownership interest in EFH Corp.

Seminole Electric Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Seminole Electric Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

South Mississippi Electric Power Association has no parent corporation. No publicly held corporation owns any portion of South Mississippi Electric Power Association, and it is not a subsidiary or an affiliate of any publicly owned corporation.

South Texas Electric Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of South Texas Electric Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Southern Illinois Power Cooperative has no parent corporation. No publicly held corporation owns any portion of Southern Illinois Power Cooperative, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Sunflower Electric Power Corporation has no parent corporation. No publicly held corporation owns any portion of Sunflower Electric Power Corporation, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Sutherland Institute is a nonprofit organization incorporated in Utah under Section 501(c)(3) of the Internal Revenue Code. The Sutherland Institute is a public policy think tank committed to influencing Utah law and policy based on the core principles of limited government, personal responsibility, and charity. No parent company or

publicly-held company has a 10% or greater ownership interest in the Sutherland Institute.

Tex-La Electric Cooperative of Texas, Inc. has no parent corporation. No publicly held corporation owns any portion of Tex-La Electric Cooperative of Texas, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Tri-State Generation and Transmission Association, Inc. ("Tri-State") is a wholesale electric power supply cooperative which operates on a not-for-profit basis and is owned by 1.5 million member-owners and 44 distribution cooperatives. Tri-State issues no stock and has no parent corporation. Accordingly, no publicly held corporation owns 10% or more of its stock.

United Mine Workers of America ("UMWA") is a non-profit national labor organization with headquarters in Triangle, Virginia. UMWA's members are active and retired miners engaged in the extraction of coal and other minerals in the United States and Canada, and workers in other industries in the United States organized by the UMWA. UMWA provides collective bargaining representation and other membership services on behalf of its members. UMWA is affiliated with the America Federation of Labor-Congress of Industrial Organizations. UMWA has no parent companies, subsidiaries, or affiliates that have issued shares or debt securities to the public.

Upper Missouri G. & T. Electric Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Upper Missouri G. & T. Electric Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

Utility Air Regulatory Group ("UARG") is a not-for-profit association of individual generating companies and national trade associations that participates on behalf of its members collectively in administrative proceedings under the Clean Air Act, and in litigation arising from those proceedings, that affect electric generators. UARG has no outstanding shares or debt securities in the hands of the public and has no parent company. No publicly held company has a 10% or greater ownership interest in UARG.

Vienna Power LLC exists to provide safe, reliable, and affordable electric power to consumers. It is a limited liability corporation wholly owned by NRG Energy, Inc., a Delaware publicly-traded corporation. NRG Energy, Inc. has no parent corporation. As of the last reporting period, T. Rowe Price Associates, Inc. held a 10% or greater ownership in NRG Energy, Inc. As of the last reporting period, T. Rowe Price

Associates, Inc. was a subsidiary of T. Rowe Price Group, Inc. a publicly-traded company.

Wabash Valley Power Association, Inc. has no parent corporation. No publicly held corporation owns any portion of Wabash Valley Power Association, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

West Virginia Coal Association ("WVCA") is a trade association representing more than 90% of West Virginia's underground and surface coal mine production. No publicly-held company has 10% or greater ownership of the WVCA.

Western Farmers Electric Cooperative has no parent corporation. No publicly held corporation owns any portion of Western Farmers Electric Cooperative, and it is not a subsidiary or an affiliate of any publicly owned corporation.

Westar Energy, Inc. ("Westar") is a publicly traded company (symbol: WR) incorporated in the State of Kansas, with its principal place of business in the city of Topeka, Kansas. Westar is the parent corporation of Kansas Gas and Electric Company ("KGE"), a Kansas corporation with its principal place of business in Topeka, Kansas. Westar owns all of the stock of KGE. In addition to Westar's publicly traded stock, both Westar and KGE have issued debt and bonds to the public. Westar does not have any parent companies that have a 10% or greater ownership interest in Westar. Further, there is no publicly-held company that has a 10% or greater ownership interest in Westar.

Wolverine Power Supply Cooperative, Inc. has no parent corporation. No publicly held corporation owns any portion of Wolverine Power Supply Cooperative, Inc., and it is not a subsidiary or an affiliate of any publicly owned corporation.

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[1] The Local Government Coalition for Renewable Energy joins this brief with respect to Arguments III.A and III.B only.

[2] Argument V.C is advanced only by the States of Wyoming and North Dakota.

TABLE OF AUTHORITIES

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Cases

*Authorities upon which we chiefly rely are marked with asterisks.

*Authorities upon which we chiefly rely are marked with asterisks.

Statutes

*Authorities upon which we chiefly rely are marked with asterisks.

Federal Regulations

Federal Register

*Authorities upon which we chiefly rely are marked with asterisks.

Miscellaneous

GLOSSARY OF TERMS

Act (or CAA)	Clean Air Act
BSER	Best System of Emission Reduction
CO_2	Carbon Dioxide
EIA	U.S. Energy Information Administration
EPA	U.S. Environmental Protection Agency
ERCs	Establishing Tradable Emission Reduction Credits
ERCOT	Electric Reliability Council of Texas
JA	Joint Appendix
MWh	Megawatt-Hour
NERC	North American Electric Reliability Corporation
NO_x	nitrogen oxides
Pounds of CO2 per Megawatt Hour	lbs CO_2/MWh
Proposed Rule or Proposal	U.S. Environmental Protection Agency, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830 (June 18, 2014)
RTOs	Regional Transmission Organizations
Rule	U.S. Environmental Protection Agency, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, Final Rule, 80 Fed. Reg. 64,662 (Oct. 23, 2015)

JURISDICTIONAL STATEMENT

Petitioners incorporate by reference the jurisdictional statements included in Petitioners' Opening Brief on Core Legal Issues.

STANDING STATEMENT

Petitioners incorporate by reference the standing statements included in Petitioners' Opening Brief on Core Legal Issues.

STATEMENT OF ISSUES

1. Whether EPA violated section 307 of the Clean Air Act ("CAA" or "Act")[3] by promulgating a rule it never proposed.

2. Whether the Rule violates section 111 because EPA's "best system of emission reduction" is not "adequately demonstrated" and because the Rule's emission guidelines are not "achievable" by regulated sources.

3. Whether the Rule arbitrarily and capriciously excludes certain sources of non-emitting generation from the compliance options available for state plans.

4. Whether EPA failed to consider important aspects of, and has made critical errors in, its emission guidelines, including:

   a. Failing to establish necessary subcategories;

   b. Failing to consider renewable energy limits;

   c. Regulating sources that can only be regulated under section 111(b); and

   d. Conducting a deeply flawed cost-benefit analysis.

5. Whether the Rule is arbitrary and capricious because it fails to accommodate individual States' circumstances, thus causing particular harm to certain States.

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[3] Unless otherwise stated, all statutory references are to the Clean Air Act. The Table of Authorities includes parallel citations to the U.S. Code.

STATUTES AND REGULATIONS

The Rule is codified in 40 C.F.R. Part 60, Subpart UUUU. All applicable statutes and regulations are contained in the addendum attached hereto or the addendum to the Opening Brief of Petitioners on Core Legal Issues.

INTRODUCTION

Even if EPA had authority under section 111(d) to fundamentally transform the electric sector through "generation shifting" and to regulate the activity of owners and operators of sources rather than the sources themselves,[4] the Rule remains fatally flawed.

The Rule is so untethered to what EPA proposed that no one could have divined the Rule EPA finalized—an emission reduction program based on separate, uniform performance rates for coal- and gas-fired units applied nationwide. This violates a bedrock administrative law principle—that the final rule, or at least something akin to it, has actually been proposed, so that the public has a meaningful opportunity to comment.

In part due to this failure, the administrative record does not support EPA's conclusions and aggressive emission reduction goals. Nearly everything in the Rule—from the foundation of EPA's "best system of emission reduction" to the

[4] Petitioners have explained why EPA does *not* have such authority in Petitioners' Opening Brief on Core Legal Issues ("Core Issues Brief").

achievability of the emission guidelines,[5] from the workability of the individual "Building Blocks" to EPA's projections of the renewable and natural gas-fired generating capacity, from the individual emission limits to EPA's broadest emission reduction claims—is based on unfounded assumptions and pure speculation, all made by an agency that by its own admission lacks expertise to restructure the energy sector.

This is not how rulemaking works. The Rule must be vacated.

STATEMENT OF THE CASE

I. The Proposed Rule

EPA's proposed rule would have established emission guidelines in the form of State-specific annual average carbon dioxide ("CO_2") emission rate goals for each of the 49 States with existing fossil fuel-fired units. 79 Fed. Reg. 34,830, 34,957, Table 1 (June 18, 2014), JA__, __ ("Proposed Rule" or "the proposal").[6] Each State-specific goal was designed to reflect the aggregate CO_2 emissions performance of all affected units in that State, adjusted to account for redispatch from coal to gas, EPA's

[5] EPA's emission "guidelines" are in fact binding standards of performance; to avoid confusion, however, this brief refers to them as "guidelines." *See* Core Issues Brief at 74-78.

[6] The Core Issues Brief presents in its Statement of the Case the statutory and regulatory history of section 111; a description of the President's Climate Action Plan and the Rule; and a summary of the Rule's requirements. That Statement of the case also provides a detailed explanation of how EPA devised national "CO_2 emission performance rates" for fossil fuel-fired power plants based on three "Building Blocks." To avoid repetition, this brief incorporates by reference that Statement.

projected generation from qualifying renewable energy sources, and generation "avoided" through consumer-based energy efficiency measures. *Id.* at 34,893-94, JA__-__. EPA based the Proposed Rule's emission guidelines on a "best system of emission reduction" ("BSER") comprising four EPA-identified "Building Blocks." *Id.* at 34,836-37, JA__-__.

Building Block 1 was based on heat rate improvements (*i.e.*, improved combustion efficiency) of 6% at coal units across each State's fleet. *Id.* at 34,859-61, JA__-__.

Building Block 2 was based on displacing some or all of a State's coal-fired generation with increased generation from existing natural gas combined cycle units, until those gas units operate at 70% of their annual nameplate capacity on average or until coal generation is eliminated from the State. *Id.* at 34,862-64, JA__-__. EPA observed that 10% of existing gas units in the nation operated at annual capacity factors (*i.e.*, the ratio of a unit's actual output to its maximum potential output over a year) of 70% or higher in 2012 and assumed the remaining fleet could reach and sustain the same utilization level on average. *Id.* at 34,863, JA__.

Building Block 3 reflected new renewable generation and generation from under-construction and nuclear capacity at risk for retirement. *Id.* at 34,866, JA__.

Finally, Building Block 4 was based on reducing consumers' electricity demand through State-run energy efficiency programs. *Id.* at 34,871, JA__.

EPA calculated each State's unique goal by adjusting 2012 generation and emissions data from the State's regulated units to reflect the theoretical application of each Building Block on a statewide level. *Id.* at 34,895-96, JA__-__. The resulting emission guidelines were binding only on States and were not targeted at—or directly applicable to—individual units. Instead, EPA expected States to develop their own plans to impose legal requirements on a broad class of "affected entities." *Id.* at 34,901, JA__. For example, state plans might oblige entities other than existing fossil-fuel units to develop new renewable generation or implement consumer efficiency programs. *Id.* The Proposed Rule also allowed States to adopt "market-based trading programs" and develop multi-State plans, but trading was not an integral part of the BSER. *See id.* at 34,837, JA__.

II. The Rule

Although the Rule repeats many of the proposal's fundamental legal defects,[7] its core regulatory requirements bear little resemblance to the proposal. In particular, EPA dramatically altered the most fundamental aspect of the emission guidelines, based its definition of BSER and the target implementation levels on an entirely new rate-based methodology, and included emissions trading as an integral part of the Rule. Each of these changes is discussed below.

[7] *See* Core Issues Brief at 29-86.

A. Nationally Uniform Performance Rates

In stark contrast to the proposal, the final Rule establishes two nationally uniform emission rates–(i) one for coal-, oil, and gas-fired steam generating units;[8] and (ii) one for natural gas combined cycle units. 40 C.F.R. part 60, subpart UUUU, Table 1. These rates, and state plans implementing them, only apply to coal and gas units, and not to the broad range of "affected entities" as proposed.

Although the Rule also specifies rate-based and mass-based goals for each State, these are simply alternative expressions of the uniform performance rates. The Rule makes clear the emission rates are the "chief regulatory requirement of th[e] rulemaking," 80 Fed. Reg. at 64,820, 64,823, JA__, __; the State goals, derived from the performance rates, are alternative ways to demonstrate compliance. *Id.* at 64,820, JA__. EPA based the national performance rates on modified versions of three of the four proposed "Building Blocks," applied regionally rather than on the State level. *Id.* at 64,718, JA__.

EPA's adoption of nationally uniform rates that apply only to affected units shifts the burden of assuring that alternative generation would be available away from the States (as in the Proposed Rule) to the owners and operators of affected units. Instead of expecting States to ensure compliance with statewide goals through a broad

[8] The vast majority of steam units are coal units. References in this brief to coal units include the small number of gas- and oil-fired steam units the Rule covers. "Gas units" refers to natural gas combined cycle units.

range of state measures, the Rule effectively imposes on owners and operators of affected units the obligation to do whatever is necessary to comply with the rates, including investing in and shifting generation to alternative sources of generation, subsidizing alternative generation, or shutting down affected units. *Id.* at 64,718, 64,724, JA__, __.

B. BSER Determination and Building Block Targets

As the basis for the national performance rates, EPA determined the BSER would be based on the modified three Building Blocks. *Id.* at 64,744, JA__. Rather than applying the BSER on a State-by-State basis, as proposed, EPA applied the Building Blocks in the aggregate across three broad regions, such that the final Rule's performance rates are not based on measures that can be implemented within many States or reflect achievable targets for individual units. *Id.* at 64,813, 64,816-19, JA__, __-__.

This shift from State-specific goals based on State-by-State analysis to uniform performance rates based on a regional analysis led EPA to find that each Building Block could "achieve" new, and in most cases more aggressive, generation targets. For example, in estimating heat rate improvement targets for coal units under Building Block 1, the Agency disavowed any reliance on "implementation of specific measures." Greenhouse Gas Mitigation Measures Technical Support Document for the Final Rule ("GHG Mitigation Measures TSD") at 2-25, EPA-HQ-OAR-2013-0602-36859, JA__. Instead, EPA *assumed* that units could "maintain [over time] the

better heat rates they have previously achieved" only over a brief period by reducing variation from those heat rates using "good maintenance and operating practices." *Id.* Based on past heat rate data, EPA estimated potential heat rate improvements of 2.1 to 4.3% for the three regions. 80 Fed. Reg. at 64,789, 64,817, JA__, __.

For Building Block 2, EPA altered the target utilization rate for gas units from 70% of net nameplate capacity, to 75% of net summer capacity. *Id.* at 64,795, JA__. The final Rule also expects that under-construction gas units, once completed, can contribute 20% of capacity to displace coal-fired generation. *See id.* at 64,817, JA__.

EPA modified Building Block 3 by removing nuclear and existing renewable generation from the BSER and dramatically increasing the incremental renewable generation targets it considers achievable. *Id.* at 64,803, 64,809, JA__, __. Instead of basing state renewable generation targets on the average of neighboring state policies, EPA determined the nationwide maximum year-to-year change in renewable generation from 2010-2014 and added that amount each year after 2023—in addition to aggressive projections of "base case" renewable growth—to develop regional renewable generation targets, more than doubling the amount of new renewable energy predicted under the Proposed Rule. *Id.* at 64,807-08, JA__-__.

Moreover, EPA explained that it assessed whether the BSER was adequately demonstrated, and whether the Building Block targets and the emission guidelines were achievable, on an industry-wide basis rather than for individual affected units. *See id.* at 64,816-19, 64,779, JA__-__, __; CO_2 Emission Performance Rate and Goal

Computation Technical Support Document for CPP Final Rule ("Goal Computation TSD") at 6, EPA-HQ-OAR-2013-0602-3850, JA__. Further, EPA clarified its BSER is not simply based on reducing the operations of fossil units. Instead, fossil generation is being reduced due to a shift to alternative generation, including substantially increased renewable generating capacity that EPA claims will assure that overall demand is met. *See* 80 Fed. Reg. at 64,724 n.352, 64,782, JA__, __. As such, EPA's conclusion that its BSER is adequately demonstrated (and that its emission guidelines are achievable) relies on finding that the resulting generation mix can fully meet demand that was previously served by fossil fuel-fired generation.

C. The Integral Role of Trading Programs

Unlike the proposal, the Rule makes emissions trading programs "an integral part of [EPA's] BSER analysis," establishing tradable emission reduction credits ("ERCs") as the only mechanism available for affected units to achieve the Rule's uniform emission performance rates. *Id.* at 64,734, JA ___.[9] In other words, EPA's assumption that States will "establish standards of performance incorporating emissions trading" is key to its conclusion that the owners and operators of all affected units have tools available to implement the BSER. *Id.* at 64,735, JA__. Likewise, EPA's decision to apply BSER on a regional rather than state level assumes

[9] This is underscored by EPA's proposed federal plan, which requires interstate trading to achieve its standards. 80 Fed. Reg. at 64,966-65,011, (Oct. 23, 2015).

the availability not only of trading, but *interstate* trading, because an affected unit's standard will be based at least partly on emission-reducing opportunities outside its State. *Id.* at 64,666, 64,673, 64,827, JA__, __, __.

The *only* way an affected unit can comply with the Rule's uniform emission performance rates is to generate, purchase, or hold a sufficient number of ERCs through a trading program to calculate a lower (wholly fictional) average emission rate for the source at or below 1,305 pounds of CO_2 per megawatt hour ("lbs CO_2/MWh") (for coal units) or 771 lbs CO_2/MWh (for gas units). 40 C.F.R. § 60.5790(c)(1); *see also* 80 Fed. Reg. at 64,752, JA__ (listing actions affected units can take to achieve limits, all of which include using ERCs). These ERCs are not automatically issued or distributed to affected units. They must be created through the production of qualifying generation, such as new renewable generation, and then transferred. Increased generation from gas units may also create ERCs that can be used for compliance by coal units. 80 Fed. Reg. at 64,905 , JA__. Because increased generation from existing gas units must itself be covered by ERCs from other qualifying sources, the Rule relies doubly on ERCs generated from increased renewable generation. *Id.* at 64,905, JA__. Moreover, ERCs can only exist if they are provided for in a State's plan, and they can only be traded between States if expressly allowed in the plans of both the generating and purchasing States.

Therefore, the Rule's requirements cannot be met if EPA's projected levels of renewables or a sufficiently robust trading program fail to materialize. Any shortfall in

renewable generation will yield a shortfall in ERCs, making it impossible for affected units to obtain the only available compliance tools to generate electricity.

SUMMARY OF ARGUMENT

The final Rule is fatally flawed on myriad procedural and substantive grounds. It was promulgated in a manner flatly at odds with the protections expressly set out in the Act, and its substance is spawned of pure speculation, unsupported by the record. The Rule must be vacated because it is arbitrary, capricious, and contrary to law.

I. Meaningful public participation is an essential element of rulemaking. EPA's Rule could not have been divined from its proposal. By departing so radically from that proposal, EPA promulgated a Rule on which the public had no opportunity to comment.

II. EPA bears the burden to show that its selected "best system of emission reduction" has been adequately demonstrated to be reliable, efficient, and not exorbitantly costly. EPA must also show the emission guidelines derived from that system are "achievable" by individual sources, operating in the real world. Conjecture, speculation, and crystal ball inquiries do not suffice.

Here, because EPA uses a restructuring of the energy supply sector to drive CO_2 emission reductions, EPA must show that its system actually can achieve that result, without impairing the reliability of the nation's electric supply. EPA has not made that showing for its three "Building Blocks," separately or together.

EPA must also show that individual sources can achieve the emission guidelines, consistent with meeting electric demand. EPA concedes that no individual source could install controls that would enable it to meet the guidelines. Instead, the guidelines can only be met if a substantial number of sources shut down and the remaining sources purchase ERCs from EPA-favored generation facilities. That cannot happen without threatening electric supply reliability in many States.

III. The Rule treats the electric sector as a single "grid" comprising all generating sources in the nation. But in selecting which sources can generate emission reduction credits or be counted for compliance purposes, EPA arbitrarily discriminates against many existing, low- or zero-emission generating units that are part of that grid.

IV. Though EPA purports to have taken State-specific circumstances into account in setting the 47 individual state emission goals, in fact it only considered how much coal generation and how much gas generation each State possessed. EPA gave no meaningful consideration to State-specific factors that will make compliance with its emission guidelines impossible, including imminent plant retirements, transmission and pipeline infrastructure, the difficulty of trading between States and Indian tribes, State-specific electric market structure and reliability challenges, historic emission rates that show that EPA's emission guidelines are unrealistic, and earlier voluntary emission reduction efforts that make the Rule's additional required reductions impossible to achieve.

ARGUMENT

I. EPA Violated Section 307 By Promulgating A Never-Proposed Rule.

In the Rule, EPA departed fundamentally from the proposal, turning the rulemaking process into a mockery. "The process of notice and comment rule-making is not to be an empty charade," but instead "a process of reasoned decision-making" in which "interested parties" are afforded "the opportunity . . . to participate in a meaningful way." *Conn. Light & Power Co. v. NRC*, 673 F.2d 525, 528 (D.C. Cir. 1982). Meaningful participation is impossible when EPA proposes one thing and finalizes something else entirely.

A. The Rule Is Fundamentally Different From The Proposal.

As explained above, the final Rule establishes a CO_2 emission reduction program based on uniform, nationally applicable performance rates for two types of units – 1,305 lbs CO_2/MWh for coal, and 771 lbs CO_2/MWh for gas. 80 Fed. Reg. at 64,752, JA__. Every other element of the Rule flows from these two performance rates. Yet neither rate, nor even the concept of such a rate, was noticed in the Proposed Rule. In fact, EPA clearly stated that it had rejected the option of setting uniform rates, emphasizing it was proposing "the use of output-weighted-average emission rates for all affected [units] in a state *rather than nationally uniform emission rates*

for all affected [units] of particular types." 79 Fed. Reg. at 34,894, JA__ (emphasis added).[10] The Rule thus does exactly what EPA said in its proposal it would not do.

EPA had proposed to develop a unique goal for each State based on a complex mathematical formula. *Id.* at 34,896 n.265, JA__. That goal was to be a single, blended rate that applied to both the coal- and gas-fired units in a State. *Id.* at 34,895, JA __. A broad range of "affected entities," including producers of alternative generation, were responsible for implementation of these state goals. Everything was tied to EPA's establishment of these State-specific, blended, output-weighted-average emission rates. EPA thus did not include, or solicit any comment on, *any* emission reduction program based on uniform unit-specific performance rates applicable to general categories of units. Nor did EPA signal that it was considering adopting a rule that would shift all responsibility for implementation from "affected entities" to "owners/operators" of affected units.[11]

Finally, EPA adopted applicability language in the Rule that expanded coverage to units not subject to the proposal. Under the proposal, only facilities "constructed

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[10] The only other reference to "uniform" rates in the proposal is later on the same page, where EPA explains why it is proposing the use of output-weighted-average emission rates *rather than* nationally uniform rates. 79 Fed. Reg. at 34,894, JA__.

[11] This case thus stands in stark contrast to the typical case where EPA proposes to set a standard at a particular level, but also takes comment on other possible levels. *See, e.g.*, 79 Fed. Reg. 1,430, 1,470, 1,487 (Jan. 8, 2014) (soliciting comment on a range of possible new unit standards for the same pollutant and source category regulated here).

for the purpose of" supplying to the grid 1/3 or more of potential output and 219,000 MWh net-electric output were covered. 79 Fed. Reg. at 34,954, JA__. This mirrored decades-old applicability language governing steam generating units under the NSPS, Subpart Da. *See* 40 C.F.R. §§ 60.40Da(a)(1), 60.41Da; *see also* 44 Fed. Reg. 33,580, 33,613 (June 11, 1979). The final Rule expands coverage to include most generators connected to a utility power distribution system and capable of selling more than 25 MW of electricity. 40 C.F.R. § 60.5845.

Simply put, EPA promulgated a final rule it never proposed.

B. EPA's Circumvention of the Rulemaking Process Requires Vacatur.

By finalizing a Rule bearing no resemblance to the proposal, EPA violated its obligations under section 307(d)(3) and circumvented the rulemaking process. By law, EPA must provide in each proposal the factual data on which that proposed rule is based, the methodology used in obtaining and analyzing the data, and major legal interpretations and policy considerations underlying the proposal. CAA § 307(d)(3)(A)-(C). The very purpose of this requirement is to give the public a meaningful opportunity to comment. Here, EPA pulled the ultimate "surprise switcheroo," *Envtl. Integrity Project v. EPA*, 425 F.3d 992, 996 (D.C. Cir. 2005), rendering any comment opportunity illusory.

This is not a "logical outgrowth" case, in which EPA promulgated a rule "that differs in some particulars from its proposed rule." *Small Refiner Lead Phase-Down Task*

Force v. EPA, 705 F.2d 506, 546 (D.C. Cir. 1983). "Whatever a 'logical outgrowth' of [an agency's] proposal may include, it certainly does not include the Agency's decision to repudiate its proposed [position] and adopt its inverse." *Envtl. Integrity Project*, 425 F.3d at 998. For such changes to be lawful, the "necessary predicate" is that the agency "has alerted interested parties to the possibility of the agency's adopting a rule different than the one proposed," so the final rule is a "logical outgrowth" of the proposal. *Kooritzky v. Reich*, 17 F.3d 1509, 1513 (D.C. Cir. 1994).

This doctrine does not extend to a final rule that finds no roots in, and actually adopts the very frame work expressly rejected in, the agency's proposal. "Something is not a logical outgrowth of nothing," and the doctrine is inapplicable where commenters would have had to "divine [the agency's] unspoken thoughts." *Envtl. Integrity Project*, 425 F.3d at 996 (citations omitted). Agencies "may not turn the provision of notice into a bureaucratic game of hide and seek." *MCI Telecomms. Corp. v. FCC*, 57 F.3d 1136, 1142 (D.C. Cir. 1995).

No one could have divined from EPA's proposal that a final rule based on uniform, nationally-applicable performance rates was even a possibility, that units not even addressed in the proposal would be regulated, or that EPA would apply an entirely different methodology with new data in establishing those rates. Such silence in a proposal does more than frustrate meaningful comment; it assures no comment.

EPA should have proposed and taken comment on its new approach, just as EPA did when it took a fundamentally different approach in the CO_2 standards for

new generating units that were promulgated on the same day.[12] That EPA did not take the same easy (and lawful) step here bespeaks the Administration's rush to get the Rule out the door. Unless this Court repudiates EPA's conduct, it invites abuse of the rulemaking process. The Rule must be vacated. If EPA wishes to promulgate this Rule, it must start over, with a proper proposal.

II. EPA'S BSER Is Not "Adequately Demonstrated" And Its Emission Guidelines Are Not "Achievable" Under Section 111.

A. EPA Must Show Both "Adequate Demonstration" Of The BSER And "Achievability" Of The Emission Guidelines.

This Court "ha[s] established a rigorous standard of review under section 111." *Nat'l Lime Ass'n v. EPA*, 627 F.2d 416, 429 (D.C. Cir. 1980). EPA must establish that the BSER is "'adequately demonstrated,'" and that the performance standards derived from the BSER are "'achievable.'" *Id.* (quoting CAA § 111(a)). EPA fails to establish either. Both requirements derive from section 111(a)(1), which defines a "standard of performance" as

> a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction) the Administrator determines has been adequately demonstrated.

[12] EPA first proposed those standards for new generating units on April 13, 2012. 77 Fed. Reg. 22,392. After "receiv[ing] more than 2.5 million comments," along with "new information," EPA formally withdrew that proposal on January 8, 2014, 79 Fed. Reg. 1,352, and initiated a new rulemaking process, 79 Fed. Reg. 1,430.

CAA § 111(a)(1). The two, though interrelated, are legally distinct, and the Rule must satisfy both.

The first demands that EPA "adequately demonstrate[]" that the technology selected as BSER "is one which has been shown to be reasonably reliable, reasonably efficient, and [not] exorbitantly costly in an economic or environmental way." *Essex Chem. Corp. v. Ruckelhaus*, 486 F.2d 427, 433 (D.C. Cir. 1973). Although EPA does not have to show the technology is currently in *regular use*, it must "'adequately demonstrate[]' that there will be 'available technology.'" *Portland Cement Ass'n v. Ruckelhaus*, 486 F.2d 375, 391 (D.C. Cir. 1973) (citation omitted).

The second requires EPA to establish the performance rate to be achieved through application of the BSER is "within the realm of the adequately demonstrated system's efficiency." *Essex Chem. Corp.*, 486 F.2d at 433-34. EPA may not set a rate "at a level that is purely theoretical or experimental," nor may it base its assessment of feasibility on "its subjective understanding of the problem or a 'crystal ball inquiry.'" *Id.* at 433-34 (quoting *Portland Cement*, 486 F.2d at 391); *accord Lignite Energy Council v. EPA*, 198 F.3d 930, 934 (D.C. Cir. 1999) ("EPA may not base its determination … on mere speculation or conjecture"). Rather, EPA must "affirmatively show that its standard reflects consideration of the range of relevant variables that may affect emissions in different plants" and must explain how the standard is "capable of being met under most adverse circumstances which can reasonably be expected to recur." *Nat'l Lime Ass'n*, 627 F.2d at 431 n.46, 433.

B. EPA Failed To Satisfy Its Burdens.

Until this Rule, EPA has always used tests and studies of existing control equipment to determine whether individual sources could apply a particular technology (e.g., a wet scrubber) or operational practice (e.g., fuel switching) to reduce emissions to a specified level. *See, e.g.*, *id.*, at 627 F.2d at 424-25 (baghouses, scrubbers, and other technologies); *Essex Chem. Corp.*, 486 F.2d at 435-46 (SO_2 absorption systems, acid-mist eliminators, and other technologies). The Court would review to ascertain whether EPA had shown both that (1) the technology or practice (the "system of emission reduction") was "adequately demonstrated" and (2) the resulting emission limit was "achievable" on a source-by-source basis. *E.g., Sierra Club v. Costle*, 657 F.2d 298 (D.C. Cir. 1981); *Nat'l Lime Ass'n*, 627 F.2d at 431-48; *Essex Chem. Corp.*, 486 F.2d at 436-41.

Here, EPA's "system of emission reduction" is neither a technology nor an operational process that controls emissions from individual facilities. Instead, it is a "system of alternative electric generation" intended to reduce emissions from the whole industry, primarily by shifting generation from existing coal units to gas units and new renewable resources.

By de-coupling BSER from actions taken at individual sources, and instead reorganizing the industry, EPA does not escape its burden to show the system has been adequately demonstrated and the emission guidelines are achievable. To the contrary, it must now evaluate not just whether individual sources will be able to

reach a certain emission target upon installing a tested technology, but whether the lights will stay on across the country under the Rule. This is critical, because if EPA has guessed wrong, brown-outs, black outs, and severe economic disruption will result.

This Court therefore must "take a 'hard look'" at EPA's facts and reasoning, *Small Refiner Lead Phase-Down Task Force*, 705 F.2d at 520 (citation omitted), and it should not afford any deference to EPA's explanations, as the agency admittedly lacks expertise in the power supply industry. *Unbelievable, Inc. v. N.L.R.B.*, 118 F.3d 795, 805 (D.C. Cir. 1997) (citation omitted) (the "court does not defer to agency decision in matter outside of agency's expertise").[13]

EPA bears an enormous burden. It must show its system of alternative generation will be "reasonably reliable," "reasonably efficient," and not "exorbitantly costly." *Essex Chem.*, 486 F.2d at 433. EPA must show its plan *will work*. This involves complex considerations about how electricity will be generated and distributed, including whether each Building Block can be employed at EPA's assumed levels, where new generating resources will be located, whether sufficient transmission

[13] EPA, Response to Public Comments on Proposed Amendments to National Emission Standards for Hazardous Air Pollutants for Existing Stationary Reciprocating Internal Combustion Engines and New Source Performance Standards for Stationary Internal Combustion Engines at 50, EPA-HQ-OAR-2008-0708-1491 ("The issues related [to] management of energy markets and competition between various forms of electric generation are far afield from EPA's responsibilities for setting standards under the CAA.").

infrastructure will exist to handle the generation shifting the Rule requires, and whether the resulting mix of generating assets can provide reliable power at all times to all customers in all parts of the nation. EPA is required to identify a BSER "that has been demonstrated" to avoid precisely this kind of guesswork.

Because EPA's BSER is not tethered to actions taken at individual sources, even if EPA had adequately demonstrated its system of alternative generation on a sector wide-basis (which it did not), it still would not follow that EPA's emission guidelines are achievable. EPA must independently show that individual existing sources and States can employ the Building Blocks to achieve the emission guidelines on a consistent basis, accounting for "the range of relevant variables that may affect emissions in different plants." *Nat'l Lime Ass'n*, 627 F.2d at 431 n.46, 433. In so doing, EPA may not resort to "mere speculation or conjecture." *Lignite Energy Council*, 198 F.3d at 934. But EPA cannot avoid such speculation, as reorganizing an entire industry to reduce emissions has never before been attempted, much less demonstrated.

EPA has not carried its burden here. It has not shown the three Building Blocks are adequately demonstrated or achievable. It has failed to reasonably assess the substantial new transmission the Rule effectively requires. It has not shown individual sources can achieve its performance rates through application of the BSER. And it illegally requires sources and States to rely on an inadequately demonstrated

emissions trading program to achieve compliance with its emission guidelines and State plan requirements.

1. EPA Has Not Shown That Any Of Its Three Building Blocks Is Adequately Demonstrated Or Achievable.

As explained below, EPA sought to demonstrate its Building Blocks on a regional basis. By so doing, it failed to comply with the statutory requirement to demonstrate that its BSER is adequately demonstrated and its emission guidelines are achievable by sources. *See National Lime Ass'n*, 627 F.2d at 434. But even assuming a regional approach is lawful, EPA also failed to demonstrate that the Building Blocks targets are achievable regionally.

a. Building Block 1.

EPA's first Building Block relies on heat rate improvements to reduce CO_2 emissions at existing coal-fired units. 80 Fed. Reg. at 64,745, JA__. But EPA's heat rate improvement target is based on abstract, arbitrary calculations untied to any specific heat rate improvement measures. *See id.*; GHG Mitigation Measures TSD at 2-25, JA__. Consequently, EPA has failed to establish that any specific measures are adequately demonstrated, or that its Building Block 1 target is achievable.

EPA calculated the average heat rate improvement that would occur if each coal-fired unit could reduce its hourly heat rate by a percentage value (or "consistency factor") based on the lowest historical "benchmark" values reported under similar operating conditions. GHG Mitigation Measures TSD at 2-45 to 2-47, JA__-__. Using

this approach, EPA estimated heat rate improvement targets for each region. *Id.* at 2-50, JA__.[14] Essentially, EPA observed that units' heat rates appeared to be lower at some times or in some years than others, and then assumed that coal units could proactively and continually replicate past optimum heat rate observations simply by using "good maintenance and operating practices." *Id.* at 2-25, 2-45, JA__, __.

Nothing in the record supports this assumption. In fact, the opposite is true: although some units might be able to take steps to marginally improve or maintain their heat rates, heat rate variation is driven by factors beyond their control. UARG Comments at 221, EPA-HQ-OAR-2013-0602-22768, JA__; Southern Company Comments at 81, 91-96, EPA-HQ-OAR-2013-0602-22907, JA__. Yet EPA did not distinguish between variations that are driven by controllable factors and those that are uncontrollable for an existing source, such as unit design, size, cooling conditions, and location. 80 Fed. Reg. at 64,788, JA__; *see also* UARG Comments at 221, JA__.[15]

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[14] EPA claimed two other approaches supported these targets: (i) a calculation of the average improvement if each unit returned to its best two-year average heat rate; and (ii) a similar approach using separate estimates of the best two-year average heat rate under different operating conditions. 80 Fed. Reg. at 64,788-89, JA__-__.

[15] The same logic holds true for numerous other sources for myriad reasons. The Rule did not consider, nor did EPA allow comment on, issues of critical importance to many sources, and space constraints do not permit them to be raised with specificity here. This Court must understand that not raising those issues does not diminish their importance; deficiencies in the Rule were interwoven into the warp and woof of every sentence, requirement, and the very logic underlying the Rule.

For instance, although EPA claims that it controlled for the influence of capacity factor and ambient temperature, two primary drivers of heat rate, units have no way to control their capacity factors, which are driven by demand and each unit's position in the dispatch or local meteorological conditions. 80 Fed. Reg. at 64,788, JA__. Units operate more efficiently at higher loads and on cooler days. *Id.*; *see also* GHG Mitigation TSD at 3-5, JA__ (capacity factor accounts for up to a 50% variation in heat rate); UARG Comments at 209-10, JA__-__; LG&E and KU Energy LLC Comments at 13-14, EPA-HQ-OAR-2013-0602-31932, JA__-__; EPA Memorandum, Best System of Emission Reduction (BSER) for Reconstructed Steam Generating Units and Integrated Gasification Combined Cycle (IGCC) Facilities ("Reconstructed EGU TSD") at 4, EPA-HQ-OAR-2013-0603-0046, JA__ (operating at 50% load can increase heat rate by 10% or more). EPA did not truly "control for the influence of [the] variables" as it claims. 80 Fed. Reg. at 64,788, JA__. Its approach is premised on average operating conditions over the historical period EPA analyzed; it cannot account for changed operating conditions the coal-fired fleet can be expected to face in the future.

Consequently, if the coal fleet faces lower capacity factors (which is the express goal of Building Block 2's shift to gas generation) or higher ambient temperatures (which is likely if Building Block 2 forces more coal units to serve as summertime peak load units), the resulting increase in heat rate could overwhelm any of the fleet's marginal heat rate improvements. By failing to account for uncontrollable factors that

can counteract heat rate improvement efforts, EPA ignored its duties to ensure that its BSER "is reasonably reliable" and to set performance rates that are "achievable under the range of relevant conditions." *Nat'l Lime Ass'n*, 627 F.2d at 431 n.46, 433.

More fundamentally, EPA failed to show that sufficient heat rate-improving measures are available for units to implement to achieve EPA's targets. EPA admits its targets are based on statistical analyses and not on "heat rate improvements that would be achieved by implementation of specific measures." GHG Mitigation Measures TSD at 2-25, JA__. EPA provides a list of "best operating practices" and "equipment upgrades" that are *conceptually* capable of reducing heat rates, *id.* at 2-11, JA__, but fails to analyze whether those measures can yield sufficient improvements, whether they are available to a sufficient number of units, or whether they are already being implemented at units and thus cannot be further deployed. In other words, EPA has no idea whether Building Block 1 will work on the ground.

In reality, the heat rate improvement measures EPA lists—particularly the lower-cost "best operating practices"—are already widely adopted. 80 Fed. Reg. at 64,792, JA__. Many units, having already made such improvements, cannot achieve a reduction in heat rates from 2012 levels, especially because many of the units made modifications to comply with EPA rules that require additional energy to operate and therefore reduce the efficiency of the unit. *See* UARG Comments at 211-28, JA__-__; Gulf Coast Lignite Coalition Comments at 25-27, EPA-HQ-OAR-2013-0602-23394, JA__-__; Southern Company Comments at 80-91, EPA-HQ-OAR-2013-0602-22907,

JA__-__; LG&E and KU Energy LLC Comments at 10-14, JA__-__; Luminant Comments at 53-59, EPA-HQ-OAR-2013-0602-33559, JA__-__. Particularly in energy-deregulated markets such as the Electric Reliability Council of Texas ("ERCOT"), coal generators have installed state-of-the-art technologies to improve thermal efficiencies simply to compete effectively, and there are few additional gains available. *See* Public Utility Comm'n of Texas Comments ("PUCT Comments") at 42, EPA-HQ-OAR-2013-0602-23305, JA__. Also, the actual payoffs of EPA-identified measures are limited, given that they are not compatible with all units, and their benefits are non-additive and degrade over time. UARG Comments at 212-16, JA__-__; Luminant Comments at 55, 57 n.237, JA__, __.

EPA failed to assess whether any specific measures are available for units to achieve its Building Block 1 targets, and did not show that the targeted heat rates have ever been maintained across the coal fleet. There is no basis for assuming that the best historical efficiency ever achieved can be achieved every year in the future.

Because many of EPA's erroneous assumptions were never noticed, *supra* Section I, there was no opportunity to comment on them. By not allowing comment, for example, on incorrect 2012 data, EPA is severely penalizing new units intentionally designed to be highly efficient and provide base load electricity for a 30-year life span. Such a procedurally deficient Rule, with a BSER that fails to meet statutory standards, is arbitrary, capricious, and contrary to law. Prairie State

Generating Company Comments at 3, 6, EPA-HQ-OAR-2013-0602 (Dec. 1, 2014), JA __, __.

b. Building Block 2.

EPA's second Building Block also is not adequately demonstrated and its targets are not achievable, because EPA (i) failed to support its target for increased utilization of existing gas units, (ii) erroneously counted hypothetical "unused" capacity from under-construction gas units, and (iii) improperly relied on capacity from gas units' duct burners for redispatch.

(i) EPA Failed To Support Its Target For Increased Utilization Of Existing Gas Units.

Building Block 2 assumes existing fossil steam generation will shift "to existing [gas units] within each region up to a maximum [gas] utilization of 75% on a net summer basis." 80 Fed. Reg. at 64,795, JA__. EPA bases this 75% capacity factor on speculative assumptions about the level of generation the existing gas fleet can achieve, without assessing the fleet's real-world constraints, accounting for the eventual deterioration and retirement of existing units, or reconciling its assumptions with its modeling results. *See* GHG Mitigation Measures TSD at 3-5 to 3-13, JA__-__. Thus, EPA has not shown that the existing gas fleet can obtain an overall 75% capacity factor, or that its Building Block 2 target is achievable.

EPA relied on three data types to justify its 75% capacity factor; none of these supports its conclusion.

First, EPA cited a statistical analysis based on 2012 generation. *Id.* at 3-6 to 3-11, JA__-__. This reveals the overall average capacity factor of the gas fleet in 2012 was only 46%; more than 20% of the fleet operated at a capacity factor of less than 20%, and only 15% operated at or above the 75% level. *Id.* at 3-6, 3-9, JA__, __. These data—which occurred in a year with historically low natural gas prices that already incentivized the use of gas generation, *see id.* at 3-11, JA__—hardly support a conclusion that a fleet-wide capacity factor of 75% has been demonstrated or is achievable.

In fact, the existing fleet would have to increase its generation by about two-thirds from 2012 levels to meet the 75% capacity factor, and EPA provides no data or analysis suggesting how that level of generation might be accomplished. EPA argues nonetheless that because capacity factors of 75% or more were achieved in each of the electricity interconnections *on at least one day*, this "demonstrate[s] the ability of the natural gas transmission system to support this level of generation." GHG Mitigation Measures TSD at 3-11, JA__. But EPA never explains how these high usage numbers establish that such circumstances could be achieved across the fleet *day-after-day, year-after-year*, and never considers the various site- or region-specific factors such as economics, regional grid restrictions, and regulatory constraints that would inform that question.

Second, EPA presented data suggesting natural gas generation is expected to grow over time. *Id.* at 3-11 to 3-13, JA__-__. This is irrelevant. Such growth will come

to a significant extent from the construction of *new* units. But since new units cannot be used to "average down" the CO_2 emission rates for affected fossil-steam units, 80 Fed. Reg. at 64,801, JA__, EPA's data provides no indication that the capacity factor for the *existing* fleet can increase by the approximately two-thirds EPA assumes.

Third, EPA pointed to the availability of the existing gas fleet, stating that "EPA assumes that [gas] has an availability of 87%" and that certain units may have availability factors as high as 92%. GHG Mitigation Measures TSD at 3-5, JA__. But "availability" (the percentage of hours during a given year a unit is available to not offline due to outages) offers no information about whether those units are capable of operating at sufficiently higher capacity factors over an extended period to meet a fleet-wide capacity factor target of 75%, or are located sufficiently close to coal units to supply the load that the displaced generation would have served. For example, many units with "available" capacity cannot increase utilization due to permit limits on operations, the need to provide dedicated backup capacity for renewable resources, or their location in areas designated as nonattainment for one or more ambient air quality standards. *See* UARG Comments at 230-31, JA__.

EPA never assessed these critical questions. Even if the fleet could physically achieve such a high capacity factor, Building Block 2 can work only if the fleet is located in areas where it can serve demand that would otherwise be supplied by coal generation. For example, it is of little use if a gas unit in Florida can physically operate at a 75% capacity factor if the coal generation it needs to displace is located in North

Dakota, even though both locations are within the eastern interconnection. That is not how electricity transmission works.

These limitations are heightened in Texas, where over 90% of electricity is consumed in ERCOT, which has limited import capacity. *See infra* II.B.2.b.i. In calculating the amount of generation shifting under Building Block 2, EPA did not consider this but instead assumed, wrongly, that generation shifting can occur freely across entire interconnections. Goal Computation TSD at 14-15, JA__-__.

Finally, EPA's Building Block 2 assumption is undermined by its own modeling. EPA used its Integrated Planning Model to show that existing gas units could be operated at a 75% capacity factor. *Id.* at 3-20, JA__. What the model actually showed was that, to achieve that capacity factor, existing gas units would have to displace generation not only from existing coal units, as contemplated under Building Block 2, but also from *new* gas units in significant amounts. *Compare* CPP Base Case Modeling, Base Case RPT Files, RegionalSummaryModelRegionSets, sheet at rows 2335 and 2355, JA__, *with* CPP BB2 75% Modeling, BB2-75% RPT Files, RegionalSummaryModelRegionSets, rows 2335 and 2355, JA__. EPA's model thus demonstrates that the existing gas cannot achieve a 75% capacity factor *through generation shifting from coal units*.

EPA failed to meet its burden with respect to Building Block 2.

(ii) EPA Erroneously Counted "Unused" Capacity From Under-Construction Units.

EPA also erred by counting hypothetical "unused" generating capacity from under-construction gas units as available for redispatch under Building Block 2. EPA assumed gas units that were under-construction or commenced operation in 2012 would operate at a 55% annual capacity factor in the future without the Rule, leaving 20% of their generating capacity available to displace generation from coal units. 80 Fed. Reg. at 64,817, JA__.

This assumption is speculative and unreasonable. EPA ignored key factors that drive a new unit's utilization, particularly whether it was designed to provide baseload or as a load-following unit. UARG Comments at 197, JA__. Subsequent operating data from many of these "under-construction" units show EPA dramatically underestimated their actual utilization. For example, North Carolina's Lee gas unit operated at an 81% annual net capacity factor in its first full year of operation, already well above EPA's 75% Building Block 2 target, let alone its 55% baseline assumption for under-construction units, leaving no room for increased utilization. *Id.* Indeed, for the set of units EPA designated as "under-construction" because they commenced operation during 2012, the generation-weighted average capacity factor was 77% in their first full year of operation. *See id.*, Attachment C at 11 Tbl. 6, JA__. EPA's guidelines call on those units to devote another 20% of their capacity to displacing coal-fired generation, for a total capacity factor of 92%.

This error inflated the level of redispatch under Building Block 2, making the performance standards infeasibly stringent. EPA should have excluded hypothetical generation from under-construction units when calculating the guidelines because it had no rational way to estimate their future unused capacity. EPA claims that even if it overestimated available redispatch capacity, some of the under-construction units' baseline generation will have a "replacement effect instead of an incremental one," yielding the same overall shift from coal- to gas-fired generation. 80 Fed. Reg. at 64,817 n.748. This is more baseless conjecture: EPA offers no evidence this "replacement effect" exits, that it will outweigh EPA's mistakes regarding utilization of under-construction units, or that it will replace generation from coal-fired units rather than more expensive renewable generation.

(iii) EPA Erred By Relying On Capacity From Gas-Fired Units' Duct Burners For Redispatch.

Building Block 2 is further undermined by EPA's erroneous reliance on capacity from gas units' duct burners for redispatch under Building Block 2. Response to Comments ("RTC") Ch. 3 § 3.2 at 172, EPA-HQ-OAR-2013-0602-36876, JA__. Many gas units are equipped with duct burners that can *temporarily* boost power output during peak load periods. UARG Comments at 206, JA__. Continual operation of these duct burners is infeasible: their use introduces thermal stress that the unit is not designed to withstand for prolonged periods, causing accelerated equipment wear. *Id.* Duct burners also operate less efficiently than the rest of the unit, substantially

increasing the unit's heat rate (and thus its CO_2 emission rate). *Id.* EPA's sole response—that "[d]uct burners are a component of [gas] capacity" and are therefore included for redispatch—is conclusory and fails to address the serious problems commenters raised. RTC Ch. 3 § 3.2 at 172, JA__. Consequently, EPA's unsupported 75% capacity factor is in reality significantly higher.

For these reasons, EPA's conclusion that Building Block 2 can achieve the targeted level of generation shifting is precisely the type of "crystal ball" inquiry prohibited by the case law. *Portland Cement*, 486 F.2d at 391.

c. Building Block 3.

Building Block 3 assumes that generation at affected units will be replaced "by using an expanded amount of zero-emitting renewable electricity (RE)." 80 Fed Reg. at 64,803, JA__. EPA determined the amount of available new renewables generation by forecasting the growth in renewables generation anticipated through 2021 in the absence of the Rule, and adding target renewables growth rates for 2022-2030 that EPA predicts can occur as a result of the Rule. *See id.* at 64,807-09, JA__; GHG Mitigation Measures TSD at 4-1 to 4-2, 4-6, JA__-__, __. Both forecasts are based on unsupported, unrealistic assumptions about future growth. EPA thus has not shown that the total renewables required by the Rule are adequately demonstrated, nor shown that its Building Block 3 target is achievable.

EPA calculated growth levels of renewable energy anticipated to occur without the Rule that are significantly greater than those projected by the U.S. Energy

Information Administration ("EIA")—the governmental entity charged with forecasting electricity generation and demand. EPA projected that by 2020 renewable energy generation, other than hydropower, will grow to 406,000 GWh; yet EIA projects that it will grow only to 335,000 GWh. *Compare* Analysis of the Clean Power Plan, Base Case SSR at Summary Tab[16] *with* EIA Annual Energy Outlook 2015 at A-31, EPA-HQ-OAR-2013-0602-36563, JA __. Moreover, EPA's projection in the Rule was significantly greater than its projection in the proposal that renewable energy generation in 2020 would be only 299,000 GWh. *See* Analysis of the Proposed Clean Power Plan, Base Case SSR at Summary tab.[17]

EPA failed to adequately explain why it increased its projections so significantly in the Final Rule, or why the estimation of the entity responsible for such forecasts should be discounted, particularly given that EPA is no expert on these issues. EPA used 2012's growth in renewables as the base growth level, but that year was artificially inflated due to a tax credit that expired on December 31, 2012—causing many projects to be shifted from 2013 to 2012. 21st Century Energy, "What's In a Target," 13-15 (Jan. 2016), http://www.energyxxi.org/sites/default/files/What%27s%20In%20a%20Target%20FINAL.pdf. EPA has failed to

[16] *Available at* http://www.epa.gov/sites/production/files/2015-08/base_case.zip, Base Case SSR Excel file, Summary Tab.

[17] *Available at* http://www.epa.gov/sites/production/files/2015-07/epa_base_for_the_proposed_clean_power_plan.zip, (Base Case-SSR Excel file, Summary Tab.

adequately demonstrate the near-term renewables levels used in its BSER determination.

With regard to renewable generation levels after 2021, EPA assumed that each of the various types of renewables (solar, onshore wind, geothermal, and hydropower) can achieve annual growth rates from 2024-2030 equivalent to the maximum annual growth rate each achieved from 2010-2014. GHG Mitigation Measures TSD at 4-5, JA__. In other words, EPA assumed that each technology will achieve its *highest* historical one-year growth rate for seven consecutive years. EPA failed to explain the basis for this extraordinary assumption. Rather, it appears once again to be the type of "crystal ball inquiry" that cannot support a BSER determination.

A closer look at the numbers reveals how disconnected from reality EPA's assumption truly is. EPA assumed wind power on average can achieve a capacity factor of 41.8%, when historical average capacity factors across the United States from 2008-2014 range between 28.1% and 34%. *Compare GHG* Mitigation Measures TSD at 4-3, JA__, *with* EIA, *Electric Power Monthly* at Table 6.7.B. (Feb. 2014), EPA-HQ-OAR-2013-0602-0162, JA __. While technologies may be expected to improve over time, any such improvements will likely be offset by the need to place an increasing amount of wind generating capacity in less optimal locations. In any event, EPA failed to adequately explain how average wind capacity factors can be increased by the approximately 30% it assumes.

Why does this matter? It matters because, if EPA's crystal ball guesses turn out to be wrong (as the record predicts they will), the results will be disastrous. Under the Rule, because no gas unit can comply with the applicable performance rates, any generation produced by a gas unit must be "offset" by ERCs from Building Block 3. 40 C.F.R. § 60.57954(b). As a result, if no ERCs were available from Building Block 3, there would also be no ERCs for Building Block 2, with the result that *no* gas or coal unit could generate *any* electricity. Every shortfall in the number of Building Block 3 ERCs needed for gas units to increase their capacity factor to 75% will result in a shortfall in ERCs that coal units need to generate electricity. Consequently, if EPA's Building Block 3 assumptions are not supported, not only will there be a shortfall in the generation produced by Building Block 2 and 3, but, even more troubling, generation that could be produced by coal and is needed to meet the shortfall from Building Blocks 2 and 3 will not be able to be produced. This "death spiral" that EPA's "system" creates underscores the critical error EPA made in finding that Building Block 3 is "adequately demonstrated" and "achievable."

In the end, EPA based its Building Block 3 analysis not on historically demonstrated levels of renewable generation, but on unsupported, highly speculative assumptions that far exceed both current projections and average historical growth rates. EPA also failed to assess any of the real world considerations associated with such massive growth, including where the new generating resources will be built, who will build them, and how will they be integrated into the existing electrical grids.

Southern Company Comments at 153-55, JA__. Building Block 3 is thus impermissibly based on speculation and conjecture.

d. EPA Failed To Account For Application Of BSER On Generating Units' Emission Rates.

EPA's Building Blocks also fail to account for how application of the BSER will negatively impact generating units' emission rates. To calculate the guidelines, in each interconnection EPA used the overall average 2012 CO_2 emission rates for coal units (adjusted downward by the Building Block 1 target) and gas units. Goal Computation TSD at 10, 16-17, JA__. But EPA ignored comments demonstrating that implementing BSER will *raise* the CO_2 emission rates of those units above 2012 levels. For coal units, the BSER is based on reducing those units' utilization, which EPA admits *increases* CO_2 emission rates. For some units, low load operation can increase heat rate by 10% or more, eclipsing any Building Block 1 heat rate improvements. GHG Mitigation Measures TSD at 2-34, JA__; Reconstructed EGU TSD at 4, JA__; UARG Comments at 209-10, JA__.

For gas units, implementing BSER will involve increasing utilization of less efficient units that were designed for optimum performance when following load (i.e., not acting as baseload). UARG Comments at 210, JA__. These units emit CO_2 at higher rates when used more heavily, increasing the overall emission rate of the subcategory. *See* 79 Fed. Reg. at 34,980, JA__ (admitting some gas units "are designed to be highly efficient when operated as load-following units" but are less efficient at

baseload). Heavy use of gas units' duct burner capacity, *see supra* at II.B.1.b.iii will also raise those units' CO_2 emission rates. EPA's failure to account for these effects on fleet average emission rates further undermines its BSER calculation.

2. EPA Has Failed To Account For Grid Reliability Or Infrastructure Needs.

EPA's BSER is also fatally flawed because EPA failed to meaningfully assess the massive infrastructure build-out and upgrades that must occur or the Rule's impact on the reliability of the electric grid. EPA has not shown its plan will work, if for no other reason than it has failed to consider fully and adequately the important questions of transmission infrastructure and reliability.

a. EPA Failed To Meaningfully Assess The Need To Build New Infrastructure.

EPA failed to meaningfully assess the new infrastructure that will be required to implement Building Block 2 and 3's generation shifting. Replacing fossil generation with new generation requires transmission infrastructure. EPA thus must establish that the replacement generation contemplated by its BSER can be delivered in a manner that ensures reliable power to meet user demands in all parts of the country. EPA has not made that showing. EPA also failed to demonstrate that the existing gas pipeline infrastructure would be sufficient to meet the substantially increased demand for gas under the Rule. Southern Company Comments at 121-24, 220, JA__.

Instead of assessing how new infrastructure will be created and paid for, EPA incorrectly assumes little additional infrastructure will be needed. *See, e.g.*, 80 Fed. Reg.

at 64,801, 64,810, JA __. EPA failed to demonstrate that this assumption is anything but a speculative, "crystal ball" hope. Indeed, EPA's assumption is belied by the chorus of warnings from the experts.

For example, the North American Electric Reliability Corporation ("NERC"), the regulatory authority charged with ensuring the reliability of the North American bulk power network, concluded that the Rule's "transformative shift" in electricity generation would "lead[] to the need for transmission and gas infrastructure reinforcements." NERC, Potential Reliability Impacts of EPA's Proposed Clean Power Plan at vii, EPA-HQ-OAR-2013-0602-37007, JA__. NERC noted that thousands of miles of new high voltage transmission would be required to satisfy reliability and contingency analysis requirements. *Id.* at vii, 32, 34, JA__. Similarly, Regional Transmission Organizations ("RTOs") charged with operating the system to balance generation and demand warned that substantial new infrastructure was needed to ensure reliability. *See, e.g.*, Midcontinent Independent System Operator, Inc. Comments at 3, EPA-HQ-OAR-2013-0602-22547, JA__; Southwest Power Pool Comments at 3, EPA-HQ-OAR-2013-0602-20757, JA__.

States and utilities also commented on the proposal's lack of transmission capacity to support generation shifting in various parts of the nation. *See, e.g.*, Southern Company Comments at 219-21, JA__-__; Montana Public Service Comm'n Comments at 9, 11-12, EPA-HQ-OAR-2013-0602-23936, JA__, __-__; Mississippi Public Service Commission Comments at 21-23, EPA-HQ-OAR-2013-0602-22931,

JA__; North Dakota Department of Health Comments at 23, EPA-HQ-OAR-2013-0602-24110, JA__; West Virginia Department of Environmental Protection Comments at 35, 62, EPA-HQ-OAR-2013-0602-23540, JA__; Public Utility Commission of Texas ("PUCT") Comments at 42, EPA-HQ-OAR-2013-0602-23305, JA __. For example, commenters noted that in Wyoming there is no significant gas generation to absorb the load EPA mandates be taken from the State's coal plants, which means most of the required generation shifting must go to newly-constructed wind farms; and this new generation will require substantial new transmission infrastructure to ensure reliability. Basin Electric Comments at 25-29, JA__-__.

EPA offered little justification for its contrary conclusion, except to assert the States will somehow work miracles with the "flexibility" allegedly afforded them. *See* 80 Fed. Reg. at 64,801, 64,810, JA__, __. This is not a demonstration; it is an abdication.

b. EPA Failed To Ensure Reliable Electric Supply.

Additionally, to be "adequately demonstrated," any system of emission reduction for fossil units must ensure a reliable electric supply to avoid brownouts and blackouts. EPA has failed to show that its system of alternative electric generation will be reliable—in other words, that the lights won't go out.

EPA conceded both that it lacks the expertise to assess grid reliability and that it did not conduct a true reliability assessment of the generation shifting its "system"

of emission reduction requires. *See* 80 Fed. Reg. at 64,874-81, JA__-__.[18] EPA recognized that "planning authorities and system operators constantly consider, plan for and monitor the reliability of the electricity system with both a long-term and short-term perspective." *Id.* at 64,874, JA__. Further, it acknowledged such reliability assessments are "multidimensional, comprehensive, and sophisticated." *Id.* But nowhere in the record did EPA provide such an assessment showing that application of its ambitious BSER will result in the transmission necessary for a reliable electricity system. Instead, EPA deferred for another day consideration of this critical issue, and assumed States, system planners, and operators could "develop a pathway" to a reliable electricity system. *See id.* at 64,876-77, JA__-__. Thus, this nation's electricity depends on the creation of a new "pathway" engineered by States and system planners that the Rule's architect cannot articulate.

Further, EPA's conclusion that system reliability will not be affected is based not on a legal or technical conclusion, but on an *assumption* baked into its Integrated Planning Model—the model "must maintain adequate reserves in each region" and is

[18] EPA did produce a document purporting to assess the reliability impacts of the final Rule based on its modeling. Technical Support Document: Resource Adequacy and Reliability Analysis ("Reliability TSD") at 1-2, EPA-HQ-OAR-2013-0602-36847, JA __-__. Rather than assessing reliability in a meaningful way, it merely "assumes that adequate transmission capacity exists to deliver any resources located in or transferred to [a] region." *Id.* at 3, JA __. Tellingly, EPA does not even cite its analysis in discussing reliability in the preamble to the Rule. *See* 80 Fed. Reg. at 64,874-81, JA __-__. And EPA concedes that future analysis is required to assess reliability issues. *Id.* at 63,876-77, JA __-__.

built around that assumption. Reliability TSD at 3, JA __; *see* PUCT Comments at 30, JA __.

NERC, the RTOs, and others warned EPA of significant reliability concerns with EPA's proposal to quickly and radically restructure the nation's energy supply. *See, e.g.*, Midcontinent Independent System Operator, Inc. Comments at 3, EPA-HQ-OAR-2013-0602-22547, JA __ (expressing similar concerns); Southwest Power Pool, SPP's Reliability Impact Assessment of the EPA's Proposed Clean Power Plan at 3, 5-6 (Oct. 8, 2014), JA__, ___-___(describing its reliability assessment of the proposed rule); NERC, Potential Reliability Impacts of EPA's Proposed Clean Power Plan, Initial Reliability Review at 19, EPA-HQ-OAR-2013-0602-37006, JA__ ("NERC Reliability Review").

EPA largely brushed off these concerns. It failed to conduct its own meaningful assessment or confront the issues posed by Southwest Power Pool's assessment. It failed to address the need for a reliability safety valve; and its "reliability safety mechanism" does not address the problem, as it provides only temporary relief for catastrophic events like floods and offers States *no* flexibility to adjust either the emission requirements or the schedule to address reliability problems. 80 Fed. Reg. at 64,876, 64,878, JA __, __. Its vague statements about working "with FERC and DOE … to help ensure continued reliable electric generation and transmission" offer no reasoned discussion of the issue and no assurance that its plan will work. And its assurances that the Rule provides "flexibility" and a "gradual" compliance schedule

ducks rather than confronts the issue, *id.* at 64,875-76, JA __, reflecting EPA's wish-upon-a-star approach.

Moreover, the "flexibility" EPA touts is not available in all areas, particularly in ERCOT and in areas served by rural electric cooperatives. In these areas, unique characteristics put such flexibility firmly out of reach, and showcase the reliability problems posed by the Rule that EPA has failed to confront and adequately demonstrate.

(i) The Electric Reliability Council Of Texas

In setting BSER based on national performance rates, EPA irrationally refused to address the unique nature of the electric market in Texas. Texas is the only State that has utilities operating in each of the nation's three electrical interconnections: ERCOT, the western interconnection, and the eastern interconnection. Approximately 90% of Texas electricity consumption (covering 75% of Texas's land mass) occurs within ERCOT. http://www.ercot.com/about/profile/. It is a unique "power island," separated from the nation's eastern and western interconnections by asynchronous ties that inhibit cross-interconnect electric transmission.[19] This means nearly all "generation shifting" would have to occur within Texas. *See* PUCT Comments at 31, JA__; Texas Comm'n on Environmental Quality's ("TCEQ")

[19] ERCOT can import a limited amount of megawatts from outside its grid. *See* ERCOT 2014 State of the Grid Report at 7, http://www.ercot.com/content/news/presentations/2015/2014%20State_of_the_Grid_Web_21015.pdf.

Comments at 2, EPA-HQ-OAR-2013-0602-22305, JA__; Luminant Comments at 49, JA__. Texas thus cannot reduce its coal generation and purchase and import gas-fired or renewable generation from a generator in another State at the levels EPA mandates. PUCT Comments at 31; TCEQ Comments at 2. Compliance with the Rule would pose significant challenges to maintaining reliability within ERCOT.

The Rule would supplant ERCOT's economic dispatch model operating in a uniquely competitive market. PUCT Comments at 10, JA__. Because ERCOT investor-owned utilities have been separated into generation, transmission and distribution, and retail services companies—with only the transmission and distribution function subject to traditional regulation—units bear the risk of owning and operating their assets without guaranteed recovery of their costs or profit through regulated utility rates. *See* Tex. Util. Code Ann. § 39.001; PUCT Comments at 1, 4, JA__, __. In the absence of long-term power contracts, the ERCOT market is operated through unit-specific bidding and dispatch, with ERCOT using the generation with the lowest bids to serve load, subject to transmission constraints. PUCT Comments at 48, JA__. Bids are generally made reflecting the short-run marginal costs of the units and dispatch decisions are made by ERCOT on the basis of those bids. *Id.* at 43, JA__. Therefore, units in this competitive energy-only market are already motivated to make efficiency improvements to their plants. *Id.*

EPA has ignored concerns from PUCT and Luminant regarding these impacts in the ERCOT Market. *See* Luminant Comments at 66-68, JA__-__; PUCT

Comments at 8-10, 37-38, 42-44, 48-51, JA at __-__, __-__, ___-__, __-__. EPA acknowledged that "all of the lower-48 states, *with the exception of Texas*, are part of a multi-state, regional grid." Legal Memorandum for Proposed Carbon Pollution Emission Guidelines for Existing Electric Utility Units at 91, EPA-HQ-OAR-2013-0602-0419, JA__ (emphasis added). The Federal Power Act also recognizes the limited nature of federal jurisdiction over the unique ERCOT market. 16 U.S.C. § 824(b); *see also* PUCT Comments at 8 n.12, JA__. EPA ignored these critical distinctions in the Rule.

EPA's only answer is the Rule's so-called "flexibility." 80 Fed. Reg. at 64,665, 64,880, JA__, __. But EPA's "central" assumption of a multi-state electricity system that provides this "flexibility" and underlies its BSER is simply not applicable to Texas. 79 Fed. Reg. at 34,878, JA__. EPA is not an expert in electric grid reliability, *Del. Dept. of Natural Res. & Envtl. Control v. EPA*, 785 F.3d 1, 18 (D.C. Cir. 2015), and its inexperience is evident here. EPA's refusal to account for ERCOT's unique status and to heed ERCOT's reliability concerns is arbitrary and capricious. *Id.*

(ii) Cooperatives

The Rule also will make it impossible for many electric cooperatives to provide reliable, low cost electricity to rural America (including the poorest parts of the nation) in compliance with their obligations under 7 U.S.C. § 901, *et seq*. Rural electric cooperatives typically serve large, primarily residential, low-density service territories in the poorest and most rural parts of the country. National Rural Electric

Cooperative Association ("NRECA") Comments at 2-3, 129-30, EPA-HQ-OAR-2013-0602-33118, JA__-__, __-__.

The Rule severely restricts generation sources available to cooperatives, *see* NERC Reliability Review at 19, JA__, many of which own a single coal unit and rely on its high-capacity-factor operation for their generation. Generation & Transmission Cooperative Fossil Group Comments ("G&T Fossil Comments") at 21, EPA-HQ-OAR-2013-0602-23164, JA__. These cooperatives have invested billions of dollars to install state-of-the-art emissions controls on their coal units to comply with other regulations. *See* NRECA Comments at 14, JA__; *see also* EPA, Regulatory Impact Analysis for the Final Mercury and Air Toxics Standards 3-13 (Dec. 2011), http://www.epa.gov/ttn/ecas/regdata/RIAs/matsriafinal.pdf. Severely constraining or retiring the operation of coal units will in turn severely challenge cooperatives' ability to serve their members and create substantial financial issues. NRECA Comments at 52, JA__.

For example, the Arizona cooperatives serve 150,000 individual meters, spread across a large rural service area. Arizona Electric Power Co. Comments at 2, EPA-HQ-OAR-2013-0602-22972, JA__. Arizona Electric Power Company will be forced to curtail coal and gas-fired generation or even retire some or all of its steam units by 2022 to comply. *Id.* at 49, JA__. Such closure jeopardizes electric reliability in Southern Arizona. *Id.* at 29, JA__.

Cooperatives do not have shareholders or equity. G&T Fossil Comments at 22, JA __. All increased costs associated with the Rule must be borne by member-customers through increased rates, which will have a devastating impact on the communities served. *Id.*; Western Farmers Electric Cooperative Comments at 14, Dkt. No. EPA-HQ-OAR-2013-0602-23644, JA__. Moreover, because many rural residents do not have access to natural gas and must depend exclusively on electricity or expensive propane and heating oil for warmth during cold months, electric cooperative member-customers lack practical, affordable alternatives when their electric rates rise. NRECA Comments at 2, JA __. In electric cooperative service territories, increases in rates force difficult decisions about whether to heat or cool houses even in extreme weather. *Id.* at 2-3, 129-30, JA __-__, __-__.

By failing to take the unique challenges of rural areas into account in its BSER, EPA has failed to demonstrate its system is reasonably reliable—that rural customers will still have an affordable and reliable electric supply.

3. EPA's BSER Is Not "Demonstrated" Or "Achievable" By Individual Sources.[20]

EPA compounds its first error—its failure to show that the individual Building Blocks are adequately demonstrated on a grid-wide scale or that the individual targets from those Building Blocks are achievable—by then combining them and further speculating about how they will operate together and how individual sources can achieve the performance rates.

EPA acknowledged that the BSER must "be available to an *individual source* … [and] allow it to meet the standard." 80 Fed. Reg. at 64,722, JA__ (emphasis added). Moreover, EPA "recognize[d] the uniqueness and complexity of individual power plants" and was "aware that there are site-specific factors that may prevent some [units] from achieving performance equal to region-level assumptions for a given technology." Goal Computation TSD at 6, JA__. Yet EPA admittedly did not "mak[e] those unit-level evaluations," instead applying assumptions of what the source category *as a whole* might achieve through application of the Building Blocks *on a regional basis*. *Id.*; 80 Fed. Reg. at 64,779, JA__.

[20] As discussed in the Core Issues Brief, EPA's system of emission reduction is unlawful because it is not based on pollution controls or process changes that can be accomplished at the source itself, but instead necessitates the construction of new renewable energy facilities and generation shifting. Even if these activities could be considered to be legally valid components of BSER under section 111(d), EPA would still have to show that individual sources will be able to employ such strategies to meet the ambitious emission guidelines on a per-source basis.

This is fatal to the Rule. And while it may be difficult for EPA to demonstrate that individual units can apply an industry-wide system as opposed to controls or practices implementable at an individual facility, that is EPA's statutory burden with this Rule. It cannot be shirked simply because the scope of EPA's BSER is unprecedented. Further, as in *National Lime Ass'n*, EPA erred by establishing emission guidelines without analyzing whether much of the industry can meet them, given the great "variations in operations" of utilities around the country. 627 F.2d at 434.

4. The Rule is Not Saved by the Presumed Availability of a Trading Program.

EPA concedes that individual sources will not be able to achieve the Rule's performance rates through the Building Blocks, but nonetheless insists that compliance can be achieved through "a wide range of emission reduction measures, *including measures that are not part of the BSER*." RTC Ch.1 §§ 1.0-1.5 at 179, JA__ (emphasis added). In particular, EPA states that emissions trading is "integral" to its assessment of the BSER and the achievability of its emission guidelines. 80 Fed. Reg. at 64,733-35, JA__-__. EPA cannot rely on actions that are not part of the BSER to establish the achievability of its guidelines. It has neither established a trading program nor analyzed the reliability or achievability of any such programs that might be established by the States. Moreover, the restrictions EPA has placed on State trading programs makes it far less likely that sufficiently robust programs will develop.

EPA's admission that sources will need to engage in trading to satisfy the emission guidelines is itself a concession that the guidelines are not "achievable through the application of [BSER]" as required by section 111(a)(1). This is again fatal. EPA cannot establish emission guidelines based on its BSER, acknowledge that those guidelines are unachievable in many cases through application of the BSER, and then tell regulated parties they have the "flexibility" to apply other, non-BSER actions to achieve the guidelines. While regulated parties often have flexibility to choose alternative methods of satisfying a standard that has been shown to be achievable through application of the BSER, that is far different than allowing EPA to rely on non-BSER measures to show that the standard itself is achievable. This Court has rejected this very argument before, holding that "the flexibility appropriate to enforcement will not render 'achievable' a standard which cannot be achieved on a regular basis." *National Lime Ass'n*, 627 F.2d at 431 n.46.

Nor does EPA conduct any meaningful analysis to determine whether, even if it could rely on trading, sufficiently robust trading systems will arise. For trading to be relied upon to justify EPA's BSER, several things must happen. First, because the Rule does not establish (or even require the creation of) any trading mechanism, States must individually adopt trading programs. Second, because in many instances actions within particular States will be insufficient for the sources within the State to comply, State plans must be coordinated to allow for interstate trading. Third,

participants within these coordinated trading programs must generate and trade enough credits to allow compliance for all sources.

EPA offers no analysis showing this will happen; it only "anticipates" that "organized markets will develop." 80 Fed. Reg. at 64,731-32, JA__-__. Anticipation is not demonstration and does not satisfy the requirement that EPA offer a "'satisfactory explanation'" and take a "'hard look at the salient problems.'" *Portland Cement*, 665 F.3d at 187 (citations omitted).

EPA also cites instances where trading has been successfully employed in connection with federal clean air programs. *See* 80 Fed. Reg. at 64,696-97, JA__-__; Legal Memorandum Accompanying Clean Power Plan for Certain Issues at 105-10, EPA-HQ-OAR-2013-0602-36872, JA__-__. But in each case, individual sources could comply without relying on trading if it so chose. That distinction overwhelms any possible comparison to the Rule, where trading is the only way to achieve compliance.

Regardless, the mere fact that trading programs have been used before hardly means trading programs will arise here, or that there will be sufficient credits for sources to comply. Moreover, in each of those instances, an overarching set of federal statutory or regulatory requirements established the trading program. *See* CAA §§ 401-416. The NO_x State Implementation Plan Call, Clean Air Implementation Rule, and Cross-State Air Pollution Rule are all *EPA-imposed* federal implementation plans that set up trading programs for States that contribute significantly to downwind

nonattainment. 80 Fed. Reg. at 64,696, JA__. The Clean Air Mercury Rule established a cap-and-trade program based on mercury reductions that could be achieved by controls installed at individual units. *Id.* at 64,697, JA__. In stark contrast, the Rule here does not establish any trading program, or even require States to allow for trading in their individual State plans. At the same time, the Rule's performance rates cannot be met without ERCs, and EPA acknowledges trading is "integral" to BSER.

Additionally, the Rule imposes affirmative restrictions that will inhibit—rather than encourage the development of—sufficiently robust trading mechanisms. These restrictions include: requiring States to either enter into a formal multi-state plan or adopt emission standards equal to the sub-category performance rates in order to engage in interstate trading, 40 C.F.R. § 60.5750(d); prohibiting issuance of ERCs for resources operating prior to January 1, 2013, *id.* § 60.5800(a)(1), *see infra* at III.B requiring that the credit generating resource be located in a rate-based State, except under limited circumstances, *id.* § 60.5800(a)(3); limiting ERC generation in mass-based States to wind, solar, geothermal, hydro, wave, and tidal sources, *id.* § 60.5800(a)(3); prohibiting credits for CO_2 emission reductions that occur outside the electric power sector, *id.* § 60.5800(c)(3); and offering no meaningful way to take advantage of unit retirements as a means of creating ERCs. These restrictive provisions limit the ability of States to create a trading environment in which adequate ERCs will be available at a reasonable price.

EPA's whole plan collapses if new trading programs do not germinate, yet EPA has not shown they will ever do so.

C. EPA Imposes on States an Impossible Task of Implementing BSER to Achieve Required Emission Reductions.

Section 111(d) obligates the States to establish performance standards that reflect the BSER. However, EPA's BSER is a house of cards that collapses under the weight of reality.

Given EPA's failure to establish the adequate demonstration or achievability of its three individual Building Blocks, it is hardly surprising that the Rule's performance rates are *manifestly* unachievable under "the range of relevant conditions" that affect different sources in different States. *Nat'l Lime Ass'n,* 627 F.2d at 433. Many States lack the resources that EPA's BSER assumes or have unique geographic or infrastructure limitations that prohibit or severely limit their potential to shift generation to lower- or zero- emitting generation. *See* Section II.B.2., *supra*, Section V, *infra*. These States cannot apply the Building Blocks that comprise BSER to even approach the performance rates EPA is imposing on the States and their sources.

For instance, Montana must achieve a nearly 50% reduction in coal unit CO_2 emissions by 2030.[21] But Montana sources cannot apply BSER to achieve this level of

[21] For Montana, the final rate-based CO_2 emission goal for 2030 is 1,305 lbs CO_2/MWh (compared to a baseline rate of 2,481 lbs CO_2/MWh), for a 47.4% emissions rate reduction goal; and the final mass-based goal is 11,303,107 short tons (Continued...)

emission reduction because there are no gas units (or associated transmission) in the State. Goal Computation TSD Appendix 5, JA__. Additionally, while Montana has renewable energy potential, its sources cannot build enough renewable energy to replace 50% of the State's baseload generation or build the necessary transmission capability by 2030. Montana Public Service Comm'n Comments at 9, EPA-HQ-OAR-2013-0602-23936 ("MPSC Comments"), JA__. Its neighbor North Dakota is in a comparable situation, with 99.4% of the fossil-fuel generation in the State coming from coal in 2013.[22] The State faces a 44.9% emission reduction requirement but has no gas units in the State. Goal Computation TSD Appendix 5, JA__.

Similarly, Kentucky faces massive CO_2 reduction requirements, but sources cannot achieve those reductions within the State's borders. Coal generation provides over 90% of the State's electricity needs, LG&E and KU Energy LLC Comments at 3, JA__; the *only* gas unit in Kentucky was under construction during the Rule's comment period, *id.* at 14, JA__; and Kentucky has little wind and solar potential, UARG Comments at 243, JA__.

Kansas, North Dakota, West Virginia, and Wyoming face similar situations, where 90% of their in-state fossil generation comes from coal units but sources within those States have limited ability to replace that generation with gas and renewable

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of CO_2 (compared to an adjusted baseline level of 19,147,321 short tons of CO_2), a 41% emissions reduction goal. Goal Computation TSD, Appendix 5, JA__.

[22] http://www.eia.gov/electricity/state/NorthDakota/.

generation. Wyoming Comments at 14-20, JA__; Kansas Department of Health & Environment Comments at 7, EPA-HQ-OAR-2013-0602-23255, JA__; West Virginia Department of Environmental Protection at 41-42, JA__. Similarly, Texas (operating primarily within the limited ERCOT region) has significantly higher renewable generation than the U.S. average and has already utilized the most promising sites for renewable generation. Luminant Comments at 63-64, JA__-__.

Finally, as discussed above, the fact that EPA would allow States to develop emissions trading systems under their state laws to achieve compliance does not save the Rule. The Act requires States to establish performance standards for existing sources within their own borders. § 111(d). EPA has not shown that it can require States to rely on extraterritorial emissions credits in setting and achieving the performance standards for sources within their borders. While EPA may consider the electric power industry a "highly integrated" and "complex machine," state laws are not. EPA cannot impose on individual States the obligation to look beyond their borders.

EPA therefore has failed to show that all States can apply the BSER to approach EPA's mandated emission guidelines.

III. The Rule Arbitrarily Penalizes Many Sources Of Low- And Non-Emitting Generation Along With Companies And States That Have Already Taken Costly Actions To Reduce Emissions Of Greenhouse Gases.

To justify the Rule's radical approach, EPA asserts the electric industry is unique, that all its sources form an interconnected, "complex machine"—the electric supply system. 80 Fed. Reg. at 64,725, JA__. Thus, it reasons, increases in generation from one source affect generation from other sources, and electrons can freely flow to wherever they are needed when existing units shut down. *Id.* For that reason, EPA invented its new "system" of emission reduction based on forcing the industry to shift to EPA's favored sources of electricity.

EPA's approach is arbitrary and capricious in two ways. First, it ignores a significant part of the existing mix of electric generating sources that plays a substantial role in how fossil fuel-fired units are dispatched and operated. Second, it arbitrarily penalizes zero- and low-emitting generating facilities (including wind, solar, and nuclear) that began operating before 2013. 40 C.F.R. § 60.5800(a)(1). In doing so, EPA significantly disadvantages the States and companies that have been at the forefront of addressing climate change.

A. EPA Arbitrarily Ignores A Large Part Of The Electric Supply System For Compliance Purposes.

It is hypocrisy for EPA to claim its system is based on the whole grid while it ignores large parts of that grid: existing renewable energy, nuclear generation that

provides approximately 20% of the nation's power[23] with zero emissions, hydro-electric generation that supplies the majority of electricity in many regions of the country, co-generation units, and waste-to-energy facilities with very low carbon footprints. All are critical to the electric supply system and to reducing the demand for electricity from fossil fuels. EPA arbitrarily excludes them as compliance options.

The existence of these EPA-disfavored non-fossil resources has driven many companies' electric supply resource decisions. For example, hydroelectric generation dominates the supply of electricity in the Pacific Northwest, giving those States the lowest average emission rates per megawatt hour in the country. *See* Portland General Electric Comments at 18, EPA-HQ-OAR-2013-0602-23507, JA__. The seasonal and variable nature of hydroelectric generation also dominates the other resource decisions in the region. *Id.* at 33, JA__; 80 Fed. Reg. at 64,815, JA__. Yet, EPA failed to consider the importance of maintaining existing hydroelectric power and its unique characteristics in its analysis for Rule compliance. 80 Fed. Reg. at 64,735, JA__. Similarly, companies that have invested in nuclear generation over the years have kept their emission rates lower; yet EPA ignored the huge benefit nuclear units contribute to zero-emission generation. *Id.*; Entergy Comments at 21-22, EPA-HQ-OAR-213-0602-22874, JA__-__ . EPA essentially assumes these generation resources will

[23] EIA, What is U.S. electricity generation by energy source, https://www.eia.gov/tools/faqs/faq.cfm?id=427&t=3 (Mar. 2015).

continue operating at similar levels in perpetuity, and fails to recognize the significant role their continued operation will play in future dispatch and emissions performance of the electricity sector.

Because EPA effectively ignored these resources, it "failed to consider an important aspect of the problem." *Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). EPA cannot base a rule on the assumption that a large part of the "system" it is regulating does not exist or that its status as of 2012 will remain static forever.

B. The Rule Arbitrarily Discriminates Between Low- and Zero-Emitting Sources Built Before And After January 1, 2013.

No good deed goes unpunished. This Rule bears that out. In determining whether a resource can count toward compliance, the Rule discriminates between identical resources based on whether they were constructed before or after January 1, 2013. The existence of *any* cut-off date is arbitrary. It punishes entities that chose to invest in zero- and lower-emission resources early to address the very problem EPA seeks to tackle. It also creates harmful and perverse incentives for the future operation of early-built resources. EPA acknowledges the "clearly emerging growth in clean energy innovation, development and deployment," 80 Fed. Reg. at 64,663; JA__, as critical to reducing greenhouse gas emissions. Yet the Rule makes no allowance for this early action. To the contrary, it uses these early actions as a way to impose on those companies and States even more stringent performance rates.

Several States' experiences are illustrative:

- Over the past fourteen years, New Jersey entities invested $3.27 billion in renewable energy and energy efficiency. New Jersey Department of Environmental Protection Comments at 2, EPA-HQ-OAR-2013-0602-22758; JA__; *see also* New Jersey Technical Comments at 5, EPA-HQ-OAR-2013-0602-22758; JA__.
- In 2012, Kansas entities increased the State's wind generation capacity exponentially. *See* Existing Kansas Wind Farms, http://kansasenergy.org/wind_projects.htm.
- Between 2005 and 2012, Minnesota entities invested $4 billion to reduce CO_2 emissions by almost 21%. Xcel Energy Inc. Comments at 9-10, EPA-HQ-OAR-2013-0602-22748; JA__.
- In the past 15 years, Washington State has invested more than $8 billion in renewable energy sources. Pacific Coast Collaborative Comments at 2, EPA-HQ-OAR-2013-0602-22947, JA__.
- Texas—which produced 23% of all wind energy produced in the United States and more than twice as much wind energy as the next highest wind energy producing state in 2012—is likewise being punished as a first mover in this area. TCEQ Comments at 2, JA__.

Other examples abound.

EPA's arbitrary discrimination between identical power generation resources is contrary to the Administrative Procedure Act and creates perverse market incentives. *See Indep. Petrol. Ass'n of Am. v. Babbitt*, 92 F.3d 1248, 1258 (D.C. Cir. 1996). Even though pre-2013 zero-emission sources provide precisely the same environmental benefit as post-2013 sources, the Rule significantly disadvantages pre-2013 sources without a plausible justification. EPA assumes that resources constructed before 2013 will continue operating at their present rates indefinitely, partially alleviating the need for fossil fuel-based power. *See* 80 Fed. Reg. at 64,737, 64,897, JA__, __. Yet the Rule will lead to the opposite result. EPA's rule discounts the value of existing renewable energy, incentivizes owners to defer or stop maintenance and helps create a fleet of stranded renewable energy assets.

This trend will only increase when pre-2013 generators face diminishing value as the full implementation of the Rule causes ERC value to increase. EPA simply fails to recognize that in creating economic advantage for newer resources, it will render less viable existing resources of *identical* environmental value. EPA should not be in the business of picking winners and losers arbitrarily.

The discriminatory impact of EPA's arbitrary cutoff date for compliance tools is underscored by the circumstances confronting waste-to-energy facilities. Although these facilities provide significant carbon emission reductions—every ton of municipal solid waste directed to a waste-to-energy facility rather than a landfill avoids

more than one ton of greenhouse gas emissions[24]—the technology is expensive, 64.6% more costly than landfilling. LGCRE Comments at 9-11, JA__, __.

That cost disparity jeopardizes communities' continued reliance on waste-to-energy, and ERC eligibility could be pivotal for sustained operation versus shutdown. Pre-2013 facilities need revenue incentives such as ERCs "to make investments to continue producing clean energy." Absent such incentives, operators "may ultimately choose to retire facilities rather than extend their lives." *Id.* at 7-11, JA__, __; *see* http://www.mprnews.org-/story/2010/10/12/ground-level-cities-in-crisis-red-wing (Minnesota waste-to-energy facility closes due to high operating expense and low-cost landfill alternative); http://energyrecoverycouncil.org/wpcontent/uploads/2016/02/DMS-3307817-v3-CREA_Minutes-April_9_2015.pdf (waste-to-energy facility in Los Angeles County faces possible shutdown due to declining electric revenues). Moreover, while EPA acknowledges the role of waste-to-energy and other pre-December 31, 2012 renewables in "keeping CO_2 emissions lower than they would otherwise be," it speculates that denying these sources ERC eligibility will not affect the net carbon reduction EPA projects. 80 Fed. Reg. at 64737, JA __. EPA's speculation is not supported by the record, and such arbitrary "unsupported

[24] *See Air Emissions from MSW Facilities*, EPA, http://www3.epa.gov/epawaste/nonhaz/municipal/wte/airem.htm#7; *see also Bridging the Gap*, UNEP at 37-38 http://www.unep.org/pdf/UNEP_bridging_gap.pdf (United Nations advises that waste sector emissions can be reduced 80% through significant diversion of landfilled waste to waste-to-energy).

suppositions" require reversal. *McDonnell Douglas Corp. v. U.S. Dept. of the Air Force*, 375 F.3d 1182, 1186-87 (D.C. Cir. 2004).

EPA compounds these problems by imposing a discount on waste-to-energy-produced electricity. Although waste-to-energy's throughput is biogenic (paper, food waste, etc.) as well as anthropogenic (e.g., non-recyclable plastics), throughput is typically at least 40% anthropogenic. http://www.ecomaine.org/education/NAWTEC%20Maritatopercent20Hewes%20paper.pdf. Under the Rule, State plans will be allowed to qualify *only the biogenic portion* as renewable. 40 C.F.R. § 60.5800(a)(4)(iii). Aside from contradicting the greenhouse gas emission reduction objective at the heart of the Rule and EPA's recognition of the significant reductions waste-to-energy achieves, the discount will mean lower energy revenues for these facilities and further jeopardize local governments' ability to sustain their higher cost. EPA's rationale for discounting waste-to-energy electricity is nowhere stated. EPA acknowledged comments opposing such a discount, *see* RTC Ch. 3 §§ 3.5-3.12 at 360-63, JA__-__, but did not respond. That failure requires reversal. *Del. Dep't of Natural Res*, 785 F.3d at 11.

The same is true of the nuclear industry. Companies have invested millions of dollars in recent years to increase both the capacity and the capacity factors from nuclear units. For example, Entergy undertook a 178 MW uprate of its Grand Gulf nuclear station in 2012 and began operating at close to its new, higher capacity in September of that year. Entergy's Comments at 21-22, JA__, __. Because nuclear

units operate as baseload generators, the 178 MW of new generation creates over three times the benefit of, for example, wind generation that achieves only a 33% capacity factor. Yet, under the Rule, because Entergy undertook the uprate in 2012 instead of three months later, it receives no credit and never will. New Jersey also made large investments toward increasing the three nuclear power plants' output prior to 2013. *See* New Jersey Department of Environmental Protection Comments at 2, 4, JA__, __; *see also* New Jersey Technical Comments at 22-24, JA__-__.

All these investments produced environmental benefits, reduced emissions and helped spur the renewable energy industry. The cost for those benefits is already being borne by the ratepayers in these States. Yet EPA's Rule provides them with no benefit. Further, EPA simply presumes that all of these good acts will remain in place forever. But EPA's own Rule effectively discourages that outcome.

EPA's date cutoff also arbitrarily penalizes renewable resources that were installed during 2012 and only generated for a portion of the year. EPA states that "generation from . . . [renewable energy] capacity installed prior to 2013 has been excluded from the EPA's calculation of the CO_2 emission performance rates in the emission guidelines." 80 Fed. Reg. at 64,897, JA__. This explanation does not account for renewables that became operational during 2012 because generation from such renewables would not have been present during the entire year. A portion of generation from these sources is completely lost: it is neither part of the baseline nor is eligible to generate compliance credits.

C. EPA Unlawfully Prohibits The Use of Enhanced Oil Recovery That Also Results In Associated CO_2 Storage.

The Rule limits the injection of CO_2 from affected facilities to Subpart RR-compliant facilities. *See* 40 C.F.R. § 60.5860(f)(2). Enhanced oil recovery operators inject CO_2 into oil- and gas-bearing formations to recover stranded hydrocarbons, reporting the quantity of CO_2 injected under 40 C.F.R. Part 98, Subpart UU. The Rule limits the storage of CO_2 from affected units to operations that report under the far more burdensome requirements of Subpart RR. It thus functionally prohibits facilities from using CO_2 in enhanced oil recovery. 40 C.F.R. § 60.5860(f)(2). That is unlawful for two reasons.

First, this requirement was nowhere in the Proposed Rule. In fact, EPA maintained that it was not considering carbon sequestration as a BSER component. *See* 79 Fed. Reg. at 34,857, JA__.

Second, the restriction tramples state mineral property laws and private mineral leases. *See* 58 C.J.S. Mines and Minerals § 403. Compliance is impracticable for many operations that commingle CO_2 from affected units and other sources. And the Rule conflicts with prior EPA statements advocating enhanced oil recovery for carbon sequestration. *See* 79 Fed. Reg. at 1,473-74; *id.* at 1,478-479. Indeed, it undermines the government- and ratepayer-funded plan to use enhanced oil recovery at a first-of-its-kind integrated gasification combined cycle power plant in Kemper County, Mississippi. *See id.* at 1,435. EPA dismissed these concerns as a matter of cost alone.

See 80 Fed. Reg. at 64,884, JA__. That was error. The Subpart RR condition should be vacated.

IV. EPA Has Failed To Consider Important Aspects Of The Rule.

The Supreme Court has repeatedly recognized that an agency decision is arbitrary and capricious where the agency has "failed to consider an important aspect of the problem." *State Farm*, 463 U.S. at 43. "[J]udicial review can occur only when agencies explain their decisions with precision, for '[i]t will not do for a court to be compelled to guess at the theory underlying the agency's action…." *Am. Lung Ass'n. v. EPA*, 134 F.3d 388, 392 (D.C. Cir. 1998) (citing *SEC v. Chenery Corp.*, 332 U.S. 194,196-97 (1947)). EPA has failed to consider important aspects of the Rule and made critical errors in its emission guidelines as a result.

A. The Rule Impermissibly Regulates New Units.

The Rule requires that mass-based state plans include provisions to prevent "leakage," or "shifts in generation to unaffected fossil fuel-fired sources that result in increased emissions, relative to what would have happened had generation shifts consistent with the [BSER] [] occurred." 80 Fed. Reg. at 64,822-23; JA__-__. "Unaffected fossil fuel-fired sources" refers to new units subject to EPA's performance standards under section 111(b). CAA § 111(b). The leakage requirement must be vacated, as EPA has no authority under section 111(d) to require that States prevent the increased dispatch of new units.

Measures to prevent the dispatch of new units unlawfully subject such units, which are regulated under Section 111(b), to a state plan under section 111(d). This violates the plain language of the CAA. *See also* 80 Fed. Reg. at 65,039; JA__. The CAA establishes two avenues for applying performance standards to sources: (i) regulation of "new sources" under section 111(b), or (ii) regulation of "existing source[s]" under section 111(d). These two avenues are mutually exclusive, as a unit cannot be both a new unit and an existing unit. Under section 111(a)(6),"[t]he term 'existing source' means any stationary source *other than a new source*." CAA § 111(a)(6) (emphasis added). In contrast, section 111(a)(2) defines a "new source" as "any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source." *Id.* § 111(a)(2). This statutory language clearly and unambiguously establishes non-overlapping definitions of "new" and "existing" units, leaving no room for any alternative interpretation. *See Chevron v. Natural Res. Def. Council*, 467 U.S. 837, 842-43 (1984). Even EPA recognizes that sources may be subject only to section 111(b) *or* section 111(d), and not both. Proposed Federal Plan, 80 Fed. Reg. at 65,039. Accordingly, EPA has no authority to regulate the dispatch of new units under section 111(d), and the leakage requirement must be vacated. EPA cannot require States to implement rule elements the Agency itself has no authority to implement.

B. EPA Failed to Establish The Necessary Subcategories For Coal Types And Generation Technologies.

For new sources, the Act permits EPA to establish different emissions limitations for subcategories of units, and EPA regularly does so. CAA § 111(b)(2) (EPA "*may* distinguish among classes, types, and sizes within categories" (emphasis added)); *see* 80 Fed. Reg. at 64,760, JA__. EPA's section 111(d) rules go further for existing sources, *mandating* adoption of subcategories where existing sources have unique characteristics. 40 C.F.R. § 60.22(b)(5) (EPA "*will* specify different emission guidelines or compliance times or both for different sizes, types, and classes of designated facilities when costs of control, physical limitations, geographical location, or similar factors make subcategorization appropriate." (emphasis added)).[25] EPA acted arbitrarily and capriciously by failing to do so here, particularly for lignite coal-fired units.

EPA's own past rulemakings and unique lignite unit characteristics demonstrate the necessity of subcategorization. For example, EPA previously established subcategories for lignite-fired coal units in the Mercury and Air Toxics Standards rule under section 112. 77 Fed. Reg. 9,304, 9,379 (Feb. 16, 2012); *see* Luminant Comments at 82-86, JA__-__.

[25] This provision contrasts with others that simply *allow* EPA to subcategorize. *Cf.* CAA § 111(b)(2).

Here, the record shows that mine-mouth lignite units have significantly higher costs of control (i.e., retirement or curtailment) compared to other units in the category. Luminant Comments at 83-84, JA__-__. Lignite-fired units are always located at or near the mine that feeds it due to transportation cost constraints, and retirement of the unit is thus certain to cause shutdown of the mine and breach of long-term fuel supply contracts, with magnified economic impacts on the surrounding communities. *See* NACoal Comments at 20-22, JA__-__. EPA nonetheless treated all coal units the same in the Rule, reasoning that "each affected [unit] can achieve the performance rate by implementing the BSER." 80 Fed. Reg. at 64,760, JA__. Given the unique constraints faced by lignite-fired units, the failure to subcategorize was arbitrary and capricious.

C. EPA Failed to Consider Renewable Energy's Limitations.

EPA failed to consider the inherent limitations on generation and distribution of energy from renewable energy sources in electric markets. The Rule fails to address various issues associated with incorporating substantial amounts of renewable generation into the electric grid, including its substantial reliability impacts (including voltage support, system inertia, and stability issues), as well as transmission planning, siting, and construction issues. Southern Company Comments at 153-56, JA__-__. States like Texas have seen these limitations firsthand. Wind generation in Texas generally produces only a fraction of its output during times of peak demand, thereby making the availability of fossil generation critical for maintaining reliability; the Rule

fails to accommodate this shortcoming. PUCT Comments at 61, JA__ (EPA used a capacity factor for Texas wind of between 39 and 41%, in contrast to a prior ERCOT estimate of 8.7% availability during summer peak demand); Luminant Comments at 71, JA__ (wind generation is volatile); Montana Public Service Comm'n Comments at 11-12, JA__-__ (renewables' transmission constraints). EPA assumed unrealistically optimistic and unsupported capacity factors for renewable energy generation. *See* "What's In a Target," *supra*, at 17-20. It also gamed its analysis to show much lower cost associated with renewables by lowering coal generation substantially below the levels of the Base Case in the Proposed Rule and substantially below EIA's long Term Coal Generation forecast as well. EVA Report 17-24, 64-68, http://www.nma.org/pdf/EVA-Report-Final.pdf.

D. EPA's Cost-Benefit Analysis Is Fundamentally Flawed.

Section 111(a) requires consideration of costs. EPA, however, diminishes the Rule's costs by inflating its purported benefits in a manner outside the CAA's scope. The Rule is therefore arbitrary and capricious. *See Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015) (it is not "rational … to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits").

EPA monetizes the Rule's climate-related benefits using the Global Social Cost of Carbon. The Global Social Cost of Carbon's flaws are well known: the Interior Department calls it "misleading" because it excludes "the social benefits of energy production." Dep't of Interior, Federal Coal Leases COC-0123475 01 and COC-

68590, at 4-26 (Jan. 2016), http://www.wrcc.osmre.gov/initiatives/colowyo/documents/Colowyo_Collom_EA_CH%201-7.pdf. The National Academy of Sciences says it is outdated, inaccurate, and uncertain. Nat'l Academy of Sciences, *Assessment of Approaches to Updating the Social Cost of Carbon*, at 1 (2016). Academics characterize it as "meaningless," "close to useless," and "arbitrary." Robert S. Pindyck, *Climate Change Policy*: *What Do the Models Tell Us?*, J. Econ. Lit. 51(3), 860-72 (2013), http://dspace.mit.edu/openacces-disseminate/1721.1/88036. EPA's reliance on this flawed tool is fatal.

Further, the CAA expressly forecloses use of the Global Social Cost of Carbon because foreign benefits exceed the cost-benefit analysis' permissible scope. The Act's purpose is exclusively domestic: "[T]o protect and enhance the quality of *the Nation's* air resources [for] … *its* population." CAA § 101(b) (emphases added). EPA has acknowledged this. 74 Fed. Reg. 66,496, 66,514 (Dec. 15, 2009). Congress explicitly says when EPA may consider foreign benefits. *E.g.*, CAA § 115.

Only 10% of the claimed global benefits from reducing CO_2 emissions accrue to the United States. UARG Comments, Supp. No. 12, Social Cost of Carbon TSD at 11, EPA-HQ-OAR-2013-0602-22768, JA __. Stripping foreign benefits from the Rule's cost-benefit analysis reduces climate-related benefits to, at most, $0.3 billion in 2020 and $2.0 billion in 2030. *See* Regulatory Impact Analysis ("RIA") at ES-22, EPA-HQ-OAR-2013-0602-37105, JA__. The Rule's claimed (and underestimated) costs ($2.5 billion in 2020 and $8.4 billion in 2030) dwarf these domestic benefits.

EPA also failed to account for real-world effects that suppress the claimed benefits, further skewing the cost-benefit analysis. The Rule does not account for emissions resulting from the Clean Energy Incentive Program, which enables States to emit up to 300 million tons of CO_2 without it counting against their emission goals. 80 Fed. Reg. at 64,829, JA__. This further diminishes the Rule's benefits. EPA admits this program "is not reflected" in its cost-benefit analysis. RIA at 3-45, JA__.

The Rule also overstates emissions reductions by ignoring that industries respond to energy price increases by shifting production abroad. This depresses benefits because those businesses do not reduce—and may increase—emissions. This result will inevitably occur because the Rule will raise electricity costs. Rather than account for this issue, EPA simply notes the phenomenon and moves on. *Id.* at 5-6, JA__-__.

EPA also failed to consider the 30,000 premature deaths associated with the loss of disposable income resulting from the Rule. Oil and Gas Industry Organizations and Participants-II Comments at 18-20, EPA-HQ-OAR-2013-0602-25423, JA__-__.

Because EPA "entirely failed to consider" these "important aspect[s] of the problem," *State Farm*, 463 U.S. at 43, EPA's cost-benefit analysis cannot support the Rule, and the Rule should be vacated. *Nat'l Ass'n of Home Builders v. EPA*, 682 F.3d 1032, 1040 (D.C. Cir. 2012) ("[A] a serious flaw undermining [cost-benefit] analysis can render the rule unreasonable.").

V. The Rule Should Have Been Tailored To Individual State Circumstances.

The arbitrariness of EPA's actions is demonstrated by the unique harm that will befall many States under the Rule because EPA failed to take into account individual States' circumstances. The resulting harm is exemplified by the following experiences of Arizona, New Jersey, North Carolina, Utah, Wisconsin, and Wyoming.

A. In Calculating Wisconsin's Baseline Emissions, EPA Improperly Disregarded A Nuclear Plant's Imminent Retirement.

EPA improperly disregarded the imminent retirement of a nuclear power plant in using 2012 data to calculate Wisconsin's starting point from which the Plan's reductions are based. 80 Fed. Reg. at 64,813-27, JA__-__. The Kewaunee plant—which EPA acknowledged represented over 7% of Wisconsin's generation in 2012, EPA's RTC Ch. 4, §§ 4.5-4.9 at 25, JA__—was decommissioned in May 2013. Wis. Dep't of Nat. Res. Comments, pt. 3 at 1, EPA-HQ-OAR-2013-0602-23541, JA__ ("WDNR Comments"). The majority of that lost generation was replaced with fossil-fuel generation from the existing fleet in 2013 and beyond.

EPA recognized the retirement in the proposal, 79 Fed. Reg. at 34,870, JA__, but failed to increase the baseline to account for the replacement generation after 2012 in either the Proposed or Final Rule. 80 Fed. Reg. at 64,813-19, JA__-__; *see also* RTC Ch. 4, §§ 4.5-4.9 at 25, JA__. EPA did increase other States' baselines, such as Minnesota's, based on a coal-fired generation unit that was temporarily offline in 2012 but resumed operation in 2013. 80 Fed. Reg. at 64,815, JA__; RTC Ch. 4 §§ 4.5-4.9 at

8-9, JA__. Had EPA applied this approach to Wisconsin's final goal, its target would have been approximately 6.5% higher. Wisconsin raised this issue to EPA, WDNR Comments, pt. 3 at 1, JA__, but EPA ignored it.

EPA's willful blindness is unlawful in three respects. First, its failure to account for the known issues with Kewaunee's retirement, EPA's RTC Ch. 4 §§4.5-4.9 at 25, JA___, demonstrates a failure to "articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *State Farm*, 463 U.S. at 43. Second, failing to treat similarly situated States alike (that is, Wisconsin like Minnesota)—without giving a rational explanation—contravenes the principle that "[a]n agency must treat similar cases in a similar manner unless it can provide a legitimate reason for failing to do so." *Indep. Petrol. Ass'n v. Babbitt*, 92 F.3d 1248, 1258 (D.C. Cir. 1996); *accord Kreis v. Sec'y of Air Force*, 406 F.3d 684, 687 (D.C. Cir. 2005). Finally, by failing to respond to Wisconsin's comments regarding Kewaunee, the agency failed to respond to all "relevant" and "significant" public comments. *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 35-36 & n.58 (D.C. Cir. 1977).

B. EPA Failed To Truly Account For Trading Between States And Indian Tribes in Arizona And Utah.

Even if the Court finds that a trading platform is a lawful basis for establishing BSER under section 111(d), EPA's failure to recognize a uniform method of trading between mass-based and rate-based jurisdictions imposes an arbitrary, capricious, and unlawful hardship on States like Arizona and Utah. In determining States' obligations,

EPA contends it can derive mass-based targets from rate-based targets. 80 Fed. Reg. at 64,743, JA__. If EPA can fairly convert a rate-based goal to a mass-based goal for establishing state carbon emission targets, it follows that these same conversions could be used to facilitate trading between rate- and mass-based States. EPA's failure to allow for such trading prohibits rate- and mass-based States and sovereign Tribes from working together.

This impediment works a unique harm in Arizona, where a substantial component of the State's energy is generated on tribal lands belonging to the Navajo Nation, which will be directly regulated by EPA. 80 Fed. Reg. at 65,033, JA __ (proposing to find it "necessary and appropriate for EPA to regulate units on tribal land). Whatever emission standards are imposed on Arizona's generation will foreclose many potential regulatory avenues that ought to be available. For example, if EPA regulates the Navajo Nation under a mass-based plan, Arizona would be compelled to also adopt a mass-based plan or else forfeit any ability to coordinate with this major aspect of the State's basic infrastructure. Trading between types of plans is critical, if trading is approved by this Court as part of the BSER.[26]

The Bonanza Power Plant owned by Utah-based Deseret Power Electric Cooperative is also located on Tribal lands and is therefore under federal jurisdiction.

[26] This is also important for Utah, a part of the Pacifcorp service territory, which includes States that are currently planning both rate- and mass-based compliance. www.pacificorp.com/about/co.html.

See 80 Fed. Reg. at 64,705, JA__. The plant is an essential part of the Utah power system, and trading between types of plans (if lawful) will be critical.

C. EPA Ignored Wyoming's Unique Circumstances.

EPA's nationally-applicable guidelines ignore a number of State-specific circumstances in Wyoming. 80 Fed. Reg. at 64,816-19, JA__-__. First, EPA's significant changes to the BSER Building Blocks disproportionately imposed stringent emission reduction goals on Wyoming—the 6% reduction it was asked to meet in the Proposed Rule nearly doubled in the Final Rule. *Compare* 79 Fed. Reg. at 34,895, JA__, *with* 80 Fed. Reg. at 64,824, JA__. For Wyoming's coal fleet, with higher emission rates from air-cooled plants, the initial overall rate is 2,331 lbs/MWh, which requires an 11.57% reduction to reach the eastern interconnection rate adjusted for Building Block 1. Wyoming Public Service Comm'n at 34-38, JA__-__ (discussing the impossibility of attaining either set of goals).

EPA also failed to take into account Endangered Species Act concerns specific to Wyoming. In analyzing the Building Blocks, EPA relied on data from the National Renewable Energy Laboratory ("NREL"), 80 Fed. Reg. at 64,807, JA __despite the fact that the NREL explicitly states it did not capture "site-specific challenges of building electricity infrastructure." 2015 Standard Scenarios Annual Report: U.S. Electric Sector Scenario Exploration. National Renewable Energy Laboratory at 19, http://www.nrel.gov/docs/fy15osti/64072.pdf. EPA's goal thus did not take into account the difficulties for Wyoming in developing renewables in the protected sage

grouse corridor. Wyoming Department of Environmental Quality Comments at 20, EPA-HQ-OAR-2013-0602-22977, JA__.

To avoid those difficulties, EPA should have formally consulted under the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531-1544, to determine whether the Rule would jeopardize threatened and endangered species. Under the ESA, federal agencies must ensure "any action authorized, funded, or carried out by such agency" is not likely to jeopardize the continued existence of any endangered or threatened species. *Id.* § 1536(a)(2).

The Rule is no typical CAA rulemaking. EPA designed the Rule to envelop non-jurisdictional assets, like wind farms, and to fundamentally transform the electric sector, resulting in significant new solar and wind power generation projects with the potential to significantly impact threatened and endangered species. 80 Fed. Reg. at 64,926, JA __. Yet EPA refused to consult under the ESA, asserting that the Rule's impacts were not "sufficiently certain to occur so as to require consultation." *Id.* at 64,925-27, JA __-__. This was error. *E.g., Conner v. Burford*, 848 F.2d 1441, 1453 (9th Cir. 1988) (lack of fulsome information not sufficient to justify failure to consult).

EPA's excuse is also belied by past agency actions. For example, when the federal government considered the environmental impacts from siting and authorizing wind farms throughout the Upper Great Plains, the authorizing agency consulted with the Fish and Wildlife Service on a programmatic level, despite the fact that (i) the study area spanned all or part of six States, (ii) the exact location of the possible wind

farms was unknown, and (iii) the proposed action did not authorize planning, construction, or operation of any specific projects. 80 Fed. Reg. 24,914, 24,915 (May 1, 2015).[27] Moreover, the Services' implementing regulations allow an agency to consult with the Services in incremental steps, which EPA neglected to consider. 50 C.F.R. § 402.14(k). Such "[i]ncremental step consultation is most appropriate for long-term, multi-staged activities for which agency actions occur in discrete steps[]." Endangered Species Consultation Handbook at 5-8 (Mar. 1998). That is precisely the situation here. 80 Fed. Reg. 64,663-82, JA __-__. EPA's failure to do so, especially in light of Wyoming's specific concerns, was arbitrary and capricious.

D. The Rule Would Cause Particular Harm to Utah.

Utah also will experience unique harms that demonstrate EPA's arbitrary and capricious actions here: EPA based Utah's emission limits on erroneous and unrepresentative baseline data and the Rule interferes with the State's ability to protect its most sensitive air shed.

1. Utah's Targets Are Unrepresentative Of Historic Utah Emissions.

EPA's Utah CO_2 emission baselines and targets do not represent Utah's true baseline emissions because EPA failed to account for a five-month outage at the State's largest coal-fired power plant, thus unfairly penalizing Utah. Goal

[27] *See generally* http://plainswindeis.anl.gov/documents/fpeis/UGP_Wind_BA.pdf (Apr. 2015).

Computation TSD Appendix, JA__. EPA's arbitrary approach resulted in the establishment of unrepresentative baseline emissions and unfairly stringent performance standards for Utah.

Because EPA used only 2012 emissions to establish the State baselines and goals, it failed to account for the fact that Unit 1 at the Intermountain Power Project ("IPP") plant had a significant outage of five months during 2012. Intermountain Power Agency Comments at 5, EPA-HQ-OAR-2013-0602-24053, JA __. IPP is Utah's largest coal plant and typically represents almost one-third of Utah's annual electric generation, making the outage's impact on EPA's 2012 baseline and Utah's final goal significant. Goal Computation TSD Appendix, JA __. The Intermountain Power Agency and Utah raised this issue with EPA, IPA Comments at 5, JA__; Utah Comments at 9, EPA-HQ-OAR-2013-0602-23100, JA__, but EPA was unresponsive and wrongly assumed that other state power plants had compensated for the outage. In fact, the vast majority of power produced at IPP is sent to California, and Utah plants were not deployed to make up the shortfall. IPA Comments at 6, JA __.

EPA set Utah's 2030 mass-based emissions target at 23,778,193 tons of CO_2. *See* 80 Fed. Reg. at 64,825, JA__. Adjusting Utah's baseline upwards to account for the significant outage at IPP would add potentially two-and-a-half million tons to the target. *See* Goal Computation TSD Appendix, JA__. EPA has imposed arbitrarily more stringent CO_2 goals on Utah that will substantially increase compliance costs. The Rule has set targets for some States that are above their current emissions, *see* 80

Fed. Reg. at 64,825, JA__, Statewide Mass-Based CO_2 Emission Performance Goals, JA__, potentially providing them tradeable value that States like Utah that have limits below their current emissions will need to purchase.

2. The Rule Unlawfully Impedes Utah's Ability to Protect Its Most Sensitive Air Shed.

In developing Utah's targets, EPA arbitrarily assumed Utah's natural gas plants could increase their usage 40 to 50% to run at 75% of summer capacity, interfering with Utah's ability to manage its most sensitive air shed in protection of the health and welfare of its citizens. *See* 80 Fed. Reg. at 64,795, JA__. Utah's coal-fired power plants are located in sparsely populated areas. *See* Utah's Energy Landscape, Utah Geological Survey, Circular 117 at 40 (2014), http://energy.utah.gov/wp-content/uploads/Utahs-Energy-Landscape-3rd-Edition.pdf. All of Utah's major gas plants are located in Utah's most urbanized area, the Wasatch Front, where over 70% of Utah's citizens live.[28] By requiring greater usage of those gas-fired plants, the Rule would increase the emissions directly affecting over 70% of Utah's citizens, and unlawfully interfere with the State's ability to protect its citizens' health and welfare.

Indeed, as part of its state implementation plan, Utah has agreed to run its gas units at lower (moderate) capacities. *See e.g.* Utah State Implementation Plan, Control

[28] Utah Legislature Population Briefing Paper (2014 Session), Office of Legislative Research and General Counsel, le.utah.gov/lrgc/briefings/PopulationBriefing2014.pdf.

Measures for Area and Point Sources, Fine Particulate Matter, PM 2.5 SIP for the Provo, Utah Nonattainment Area, Section IX, Part A.22.[29] This creates numerous legal and practical conflicts with the Rule. All four of Utah's existing gas-fired plants are located in or adjacent to non-attainment areas for $PM_{2.5}$ that face strict limits on NOx emissions as a result. *Id.* Requiring redispatch to higher levels of gas utilization conflicts with the state plan and other environmental requirements. Moreover, EPA recently finalized a more stringent ozone standard, 79 Fed. Reg. 65,292 (Oct. 26, 2015), creating additional uncertainty and constraints.

E. EPA Failed To Take Into Account States Like New Jersey That Have Chosen To Deregulate Energy Services.

The Rule fails to consider the positions of the numerous energy-deregulated States in assuming that state utility regulators can impose the Rule's requirements on affected units. *See, e.g.*, RTC Ch. 1 §§ 1.11-1.15 28-29, 33, 135, JA__- __, __, ___. The Rule will require each energy-deregulated State to pass new legislation specific to its unique energy market structure, infringing upon the States' sovereignty. *See* Core Issues Brief at Section IV.

For example, New Jersey in 1999 deregulated its energy regulatory structure, limiting the jurisdiction of the New Jersey Board of Public Utilities (NJBPU) to the regulation of electric and gas distribution companies. *See* Electric Discount & Energy

[29] http://www.deq.utah.gov/Pollutants/P/pm/pm25/.

Competition Act, N.J.S.A. 48:3-49 *et seq.* (the "N.J. Act"). NJBPU no longer exercises authority over generating units and will therefore require significant legislative and regulatory changes to comply with the Rule. New Jersey Technical Comments at 8, JA__. Other States, like Texas, face similar issues. Luminant Comments at 48-49, JA__-__.

New Jersey would also have to enact new legislation to order the implementation of energy efficiency measures related to the electric transmission system to comply with the Rule. As an energy-deregulated state, New Jersey is a member of PJM Interconnection, LLC, the federally-authorized regional transmission organization. *Id.* at 27, JA__. Implementation of the Rule would involve an extensive reorganization of the power grid and electric distribution within New Jersey and across the entire PJM region.

Additionally, at a minimum, NJBPU would require amendments to New Jersey's existing statutes and regulations governing its renewable portfolio standard. Those regulations[30] require electric suppliers to include minimum renewable energy amounts in the electricity they sell. N.J. Stat. Ann. 48:3-87(d); N.J. Admin. Code 14:8-2.3. The rules specify separate minimum requirements for solar electric generation, Class I renewable energy, and Class II renewable energy. N.J. Admin. Code 14:8-2.3(a), (k). A renewable energy credit or solar renewable energy credit represents all of

[30] Found at N.J.A.C. 14:8-2.1, *et seq.* and authorized by N.J.S.A. 48:3-49, *et seq.*

the environmental benefits or attributes of one megawatt hour of generation from either a Class I or Class II renewable energy or solar energy facility. N.J. Stat. Ann. 48:3-51. By contrast, the Rule provides for an emission reduction credit for only CO_2, which is but one of the environmental benefits in the New Jersey renewable or solar energy credit system. Moreover, the Rule does not account for the out-of-state purchase of RECs. New Jersey's statutes and regulations would need to be revised because the same megawatt hour could not satisfy both requirements.

F. EPA Arbitrarily Excluded From Consideration Prior Emissions Reductions Achieved In North Carolina.

EPA failed to recognize the substantial emission reductions achieved in North Carolina under its 2002 Clean Smokestacks Act ("CSA"). The CSA required stringent emission reductions on coal units to be achieved within ten years. N.C. Gen. Stat. § 143-215.107D(b)-(e). The CSA allowed regulated operators to determine for the units in their systems how to achieve the reductions, rather than imposing specific emission limitations on a unit-by-unit basis. *Id.* § 143-215.107D(f). Additionally, the North Carolina utilities decided starting in 2009 to invest in new gas generating units and close small, inefficient and uncontrolled coal units. N.C. Utilities Comm'n Docket No. E-2, sub 960, Progress Energy Carolina Application To Construct a 950-MW Combined Cycle Natural Gas Fueled Electric Generation Facility in Wayne County (Aug. 18, 2009), JA__.

EPA arbitrarily ignored these emission reductions when it set North Carolina's emission goals. For example, in 2005, the first year in which measures were beginning to be implemented to comply with the CSA, statewide CO_2 emissions from affected North Carolina units totaled 78,000,000 tons. EPA Clean Air Markets Program Data, http://ampd.epa.gov/ampd/. Those same sources' CO_2 emissions dropped to just under 58 million tons in 2012, the Rule's baseline year, a decrease of nearly 25%. Goal Computation TSD Appendix, JA__.

The final mass goal set for North Carolina is 51,266,234 tons of CO_2 annually. 80 Fed. Reg. at 64,825, JA__. But most of the CO_2 emission reductions that can reasonably be achieved have already been achieved through coal retirements and natural gas conversion. Implementation of the "Clean Smokestacks Act": Report to N.C. Envtl. Review Comm'n (May 30, 2014), http://daq.state.nc.us/news/leg/2014_Clean_Smokestacks_Act_Report.pdf. Yet, North Carolina received no credit for this pioneering work.

The aggregate rate goal set for North Carolina is 1,136 lbs CO_2/MWh. *See* 80 Fed. Reg. at 64,824, JA__. In 2012, the baseline year, North Carolina's aggregate rate of CO_2 emissions per megawatt-hour was 1,778. Goal Computation TSD Appendix, JA__. In 2005, the aggregate rate was 1,986. Clean Air Markets Program Data: EIA, form EIA-923 and detailed data, www.eia.gov/electricity/data/eia923. EPA gave no credit to that 11% rate decrease, despite the fact that, in 2012, the North Carolina rate

for coal units was the lowest in the country and its rate for gas facilities the eighth lowest.

North Carolina is being penalized for its exemplary record of clean energy generation well in advance of EPA's efforts a decade later.

CONCLUSION

For the foregoing reasons, as well as those set forth in the Core Issues Brief, the petitions should be granted and the Rule vacated.

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CERTIFICATE OF COMPLIANCE

Pursuant to Rule 32(a)(7)(C) of the Federal Rules of Appellate Procedure and Circuit Rules 32(a)(1) and 32(a)(2)(C), I hereby certify that the foregoing Opening Brief of Petitioners on Procedural and Record-Based Issues contains 19,723 words, as counted by a word processing system that includes headings, footnotes, quotations, and citations in the count, and therefore is within the word limit set by the Court.

Dated: February 19, 2016

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CERTIFICATE OF SERVICE

I hereby certify that, on this 19th day of February 2016, a copy of the foregoing Opening Brief of Petitioners on Procedural and Record-Based Issues was served electronically through the Court's CM/ECF system on all ECF-registered counsel.

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ORAL ARGUMENT SCHEDULED FOR JUNE 2, 2016

No. 15-1363 (and consolidated cases)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

STATE OF WEST VIRGINIA, *et al.*,
Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *et al.*,
Respondents.

On Petition for Review of Final Agency Action of the United States Environmental Protection Agency 80 Fed. Reg. 64,662 (Oct. 23, 2015)

ADDENDUM PURSUANT TO CIRCUIT RULE 28(a)(5) TO OPENING BRIEF OF PETITIONERS ON PROCEDURAL AND RECORD-BASED ISSUES

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ADDENDUM TO OPENING BRIEF OF PETITIONERS ON PROCEDURAL AND RECORD-BASED ISSUES

Except for the following, all applicable statutes and regulations are contained in the Opening Brief of Petitioners on Core Legal Issues.

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Federal Statutes

State Statutes & Regulations

Federal Regulations

16 U.S.C. § 824(b). Declaration of policy; application of subchapter

(b) USE OR SALE OF ELECTRIC ENERGY IN INTERSTATE COMMERCE

(1) The provisions of this subchapter shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but except as provided in paragraph (2) shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this subchapter and subchapter III of this chapter, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter.

(2) Notwithstanding subsection (f) of this section, the provisions of sections 824b(a)(2), 824e(e), 824i, 824j, 824j–1, 824k, 824*o*, 824p, 824q, 824r, 824s, 824t, 824u, and 824v of this title shall apply to the entities described in such provisions, and such entities shall be subject to the jurisdiction of the Commission for purposes of carrying out such provisions and for purposes of applying the enforcement authorities of this chapter with respect to such provisions. Compliance with any order or rule of the Commission under the provisions of section 824b(a)(2), 824e(e), 824i, 824j, 824j–1, 824k, 824*o*, 824p, 824q, 824r, 824s, 824t, 824u, or 824v of this title, shall not make an electric utility or other entity subject to the jurisdiction of the Commission for any purposes other than the purposes specified in the preceding sentence.

16 U.S.C. § 1531. Congressional findings and declaration of purposes and policy

(a) FINDINGS

The Congress finds and declares that—

(1) various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation;

(2) other species of fish, wildlife, and plants have been so depleted in numbers that they are in danger of or threatened with extinction;

(3) these species of fish, wildlife, and plants are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people;

(4) the United States has pledged itself as a sovereign state in the international community to conserve to the extent practicable the various species of fish or wildlife and plants facing extinction, pursuant to—

(A) migratory bird treaties with Canada and Mexico;

(B) the Migratory and Endangered Bird Treaty with Japan;

(C) the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere;

(D) the International Convention for the Northwest Atlantic Fisheries;

(E) the International Convention for the High Seas Fisheries of the North Pacific Ocean;

(F) the Convention on International Trade in Endangered Species of Wild Fauna and Flora; and

(G) other international agreements; and

(5) encouraging the States and other interested parties, through Federal financial assistance and a system of incentives, to develop and maintain conservation programs which meet national and international standards is a key to meeting the Nation's international commitments and to better safeguarding, for the benefit of all citizens, the Nation's heritage in fish, wildlife, and plants.

(b) PURPOSES

The purposes of this chapter are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in subsection (a) of this section.

(c) POLICY

(1) It is further declared to be the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this chapter.

(2) It is further declared to be the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species.

16 U.S.C. § 1532. Definitions

For the purposes of this chapter—

(1) The term "alternative courses of action" means all alternatives and thus is not limited to original project objectives and agency jurisdiction.

(2) The term "commercial activity" means all activities of industry and trade, including, but not limited to, the buying or selling of commodities and activities conducted for the purpose of facilitating such buying and selling: *Provided, however*, That it does not include exhibition of commodities by museums or similar cultural or historical organizations.

(3) The terms "conserve", "conserving", and "conservation" mean to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

(4) The term "Convention" means the Convention on International Trade in Endangered Species of Wild Fauna and Flora, signed on March 3, 1973, and the appendices thereto.

(5)(A) The term "critical habitat" for a threatened or endangered species means—

(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 1533 of this title, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and

(ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 1533 of this title, upon a determination by the Secretary that such areas are essential for the conservation of the species.

(B) Critical habitat may be established for those species now listed as threatened or endangered species for which no critical habitat has heretofore been established as set forth in subparagraph (A) of this paragraph.

(C) Except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.

(6) The term "endangered species" means any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this chapter would present an overwhelming and overriding risk to man.

(7) The term "Federal agency" means any department, agency, or instrumentality of the United States.

(8) The term "fish or wildlife" means any member of the animal kingdom, including without limitation any mammal, fish, bird (including any migratory, nonmigratory, or endangered bird for which protection is also afforded by treaty or other international agreement), amphibian, reptile, mollusk, crustacean, arthropod or other invertebrate, and includes any part, product, egg, or offspring thereof, or the dead body or parts thereof.

(9) The term "foreign commerce" includes, among other things, any transaction—

(A) between persons within one foreign country;

(B) between persons in two or more foreign countries;

(C) between a person within the United States and a person in a foreign country; or

(D) between persons within the United States, where the fish and wildlife in question are moving in any country or countries outside the United States.

(10) The term "import" means to land on, bring into, or introduce into, or attempt to land on, bring into, or introduce into, any place subject to the jurisdiction of the United States, whether or not such landing, bringing, or introduction constitutes an importation within the meaning of the customs laws of the United States.

(11) Repealed. Pub. L. 97–304, §4(b), Oct. 13, 1982, 96 Stat. 1420.

(12) The term "permit or license applicant" means, when used with respect to an action of a Federal agency for which exemption is sought under section 1536 of this title, any person whose application to such agency for a permit or license has been denied primarily because of the application of section 1536(a) of this title to such agency action.

(13) The term "person" means an individual, corporation, partnership, trust, association, or any other private entity; or any officer, employee, agent, department, or instrumentality of the Federal Government, of any State, municipality, or political subdivision of a State, or of any foreign government; any State, municipality, or political subdivision of a State; or any other entity subject to the jurisdiction of the United States.

(14) The term "plant" means any member of the plant kingdom, including seeds, roots and other parts thereof.

(15) The term "Secretary" means, except as otherwise herein provided, the Secretary of the Interior or the Secretary of Commerce as program responsibilities are vested pursuant to the provisions of Reorganization Plan Numbered 4 of 1970; except that with respect to the enforcement of the provisions of this chapter and the Convention which pertain to the

importation or exportation of terrestrial plants, the term also means the Secretary of Agriculture.

(16) The term "species" includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.

(17) The term "State" means any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, the Virgin Islands, Guam, and the Trust Territory of the Pacific Islands.

(18) The term "State agency" means any State agency, department, board, commission, or other governmental entity which is responsible for the management and conservation of fish, plant, or wildlife resources within a State.

(19) The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

(20) The term "threatened species" means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

(21) The term "United States", when used in a geographical context, includes all States.

16 U.S.C. § 1533. Determination of endangered species and threatened species

(a) GENERALLY

(1) The Secretary shall by regulation promulgated in accordance with subsection (b) of this section determine whether any species is an endangered species or a threatened species because of any of the following factors:

(A) the present or threatened destruction, modification, or curtailment of its habitat or range;

(B) overutilization for commercial, recreational, scientific, or educational purposes;

(C) disease or predation;

(D) the inadequacy of existing regulatory mechanisms; or

(E) other natural or manmade factors affecting its continued existence.

(2) With respect to any species over which program responsibilities have been vested in the Secretary of Commerce pursuant to Reorganization Plan Numbered 4 of 1970—

(A) in any case in which the Secretary of Commerce determines that such species should—

(i) be listed as an endangered species or a threatened species, or

(ii) be changed in status from a threatened species to an endangered species,

he shall so inform the Secretary of the Interior; who shall list such species in accordance with this section;

(B) in any case in which the Secretary of Commerce determines that such species should—

(i) be removed from any list published pursuant to subsection (c) of this section, or

(ii) be changed in status from an endangered species to a threatened species,

he shall recommend such action to the Secretary of the Interior, and the Secretary of the Interior, if he concurs in the recommendation, shall implement such action; and

(C) the Secretary of the Interior may not list or remove from any list any such species, and may not change the status of any such species which are listed, without a prior favorable determination made pursuant to this section by the Secretary of Commerce.

(3)(A) The Secretary, by regulation promulgated in accordance with subsection (b) of this section and to the maximum extent prudent and determinable—

(i) shall, concurrently with making a determination under paragraph (1) that a species is an endangered species or a threatened species, designate any habitat of such species which is then considered to be critical habitat; and

(ii) may, from time-to-time thereafter as appropriate, revise such designation.

(B)(i) The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 670a of this title, if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.

(ii) Nothing in this paragraph affects the requirement to consult under section 1536(a)(2) of this title with respect to an agency action (as that term is defined in that section).

(iii) Nothing in this paragraph affects the obligation of the Department of Defense to comply with section 1538 of this title, including the prohibition preventing extinction and taking of endangered species and threatened species.

(b) BASIS FOR DETERMINATIONS

(1)(A) The Secretary shall make determinations required by subsection (a)(1) of this section solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species and after taking into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or other conservation practices, within any area under its jurisdiction; or on the high seas.

(B) In carrying out this section, the Secretary shall give consideration to species which have been—

(i) designated as requiring protection from unrestricted commerce by any foreign nation, or pursuant to any international agreement; or

(ii) identified as in danger of extinction, or likely to become so within the foreseeable future, by any State agency or by any agency of a foreign nation that is responsible for the conservation of fish or wildlife or plants.

(2) The Secretary shall designate critical habitat, and make revisions thereto, under subsection (a)(3) of this section on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.

(3)(A) To the maximum extent practicable, within 90 days after receiving the petition of an interested person under section 553(e) of title 5, to add a species to, or to remove a species from, either of the lists published under subsection (c) of this section, the Secretary shall make a finding as to whether the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted. If such a petition is found to present such information, the Secretary shall promptly commence a review of the status of the species concerned. The Secretary shall promptly publish each finding made under this subparagraph in the Federal Register.

(B) Within 12 months after receiving a petition that is found under subparagraph (A) to present substantial information indicating that the petitioned action may be warranted, the Secretary shall make one of the following findings:

(i) The petitioned action is not warranted, in which case the Secretary shall promptly publish such finding in the Federal Register.

(ii) The petitioned action is warranted, in which case the Secretary shall promptly publish in the Federal Register a general notice and the complete text of a proposed regulation to implement such action in accordance with paragraph (5).

(iii) The petitioned action is warranted, but that—

(I) the immediate proposal and timely promulgation of a final regulation implementing the petitioned action in accordance with paragraphs (5) and (6) is precluded by pending proposals to determine whether any species is an endangered species or a threatened species, and

(II) expeditious progress is being made to add qualified species to either of the lists published under subsection (c) of this section and to remove from such lists species for which the protections of this chapter are no longer necessary,

in which case the Secretary shall promptly publish such finding in the Federal Register, together with a description and evaluation of the reasons and data on which the finding is based.

(C)(i) A petition with respect to which a finding is made under subparagraph (B)(iii) shall be treated as a petition that is resubmitted to the Secretary under subparagraph (A) on the date of such finding and that presents substantial scientific or commercial information that the petitioned action may be warranted.

(ii) Any negative finding described in subparagraph (A) and any finding described in subparagraph (B)(i) or (iii) shall be subject to judicial review.

(iii) The Secretary shall implement a system to monitor effectively the status of all species with respect to which a finding is made under subparagraph (B)(iii) and shall make prompt use of the authority under paragraph 7 [1] to prevent a significant risk to the well being of any such species.

(D)(i) To the maximum extent practicable, within 90 days after receiving the petition of an interested person under section 553(e) of title 5, to revise a critical habitat designation, the Secretary shall make a finding as to whether the petition presents substantial scientific information indicating that the revision may be warranted. The Secretary shall promptly publish such finding in the Federal Register.

(ii) Within 12 months after receiving a petition that is found under clause (i) to present substantial information indicating that the requested revision may be warranted, the Secretary shall determine how he intends to proceed with the requested revision, and shall promptly publish notice of such intention in the Federal Register.

(4) Except as provided in paragraphs (5) and (6) of this subsection, the provisions of section 553 of title 5 (relating to rulemaking procedures), shall apply to any regulation promulgated to carry out the purposes of this chapter.

(5) With respect to any regulation proposed by the Secretary to implement a determination, designation, or revision referred to in subsection (a)(1) or (3) of this section, the Secretary shall—

(A) not less than 90 days before the effective date of the regulation—

(i) publish a general notice and the complete text of the proposed regulation in the Federal Register, and

(ii) give actual notice of the proposed regulation (including the complete text of the regulation) to the State agency in each State in which the species is believed to occur, and to each county, or equivalent jurisdiction in which the species is believed to occur, and invite the comment of such agency, and each such jurisdiction, thereon;

(B) insofar as practical, and in cooperation with the Secretary of State, give notice of the proposed regulation to each foreign nation in which the species is believed to occur or whose citizens harvest the species on the high seas, and invite the comment of such nation thereon;

(C) give notice of the proposed regulation to such professional scientific organizations as he deems appropriate;

(D) publish a summary of the proposed regulation in a newspaper of general circulation in each area of the United States in which the species is believed to occur; and

(E) promptly hold one public hearing on the proposed regulation if any person files a request for such a hearing within 45 days after the date of publication of general notice.

(6)(A) Within the one-year period beginning on the date on which general notice is published in accordance with paragraph (5)(A)(i) regarding a proposed regulation, the Secretary shall publish in the Federal Register—

(i) if a determination as to whether a species is an endangered species or a threatened species, or a revision of critical habitat, is involved, either—

(I) a final regulation to implement such determination,

(II) a final regulation to implement such revision or a finding that such revision should not be made,

(III) notice that such one-year period is being extended under subparagraph (B)(i), or

(IV) notice that the proposed regulation is being withdrawn under subparagraph (B)(ii), together with the finding on which such withdrawal is based; or

(ii) subject to subparagraph (C), if a designation of critical habitat is involved, either—

(I) a final regulation to implement such designation, or

(II) notice that such one-year period is being extended under such subparagraph.

(B)(i) If the Secretary finds with respect to a proposed regulation referred to in subparagraph (A)(i) that there is substantial disagreement regarding the sufficiency or accuracy of the available data relevant to the determination or revision concerned, the Secretary may extend the one-year period specified in subparagraph (A) for not more than six months for purposes of soliciting additional data.

(ii) If a proposed regulation referred to in subparagraph (A)(i) is not promulgated as a final regulation within such one-year period (or longer period if extension under clause (i) applies) because the Secretary finds that there is not sufficient evidence to justify the action proposed by the regulation, the Secretary shall immediately withdraw the regulation. The finding on which a withdrawal is based shall be subject to judicial review. The Secretary may not propose a regulation that has previously been withdrawn under this clause unless he determines that sufficient new information is available to warrant such proposal.

(iii) If the one-year period specified in subparagraph (A) is extended under clause (i) with respect to a proposed regulation, then before the close of such extended period the Secretary shall publish in the Federal Register either a final regulation to implement the determination or revision concerned, a finding that the revision should not be made, or a notice of withdrawal of the regulation under clause (ii), together with the finding on which the withdrawal is based.

(C) A final regulation designating critical habitat of an endangered species or a threatened species shall be published concurrently with the final regulation implementing the determination that such species is endangered or threatened, unless the Secretary deems that—

(i) it is essential to the conservation of such species that the regulation implementing such determination be promptly published; or

(ii) critical habitat of such species is not then determinable, in which case the Secretary, with respect to the proposed regulation to designate such habitat, may extend the one-year period specified in subparagraph (A) by not more than one additional year, but not later than the close of such additional year the Secretary must publish a final regulation, based on such data as may be available at that time, designating, to the maximum extent prudent, such habitat.

(7) Neither paragraph (4), (5), or (6) of this subsection nor section 553 of title 5 shall apply to any regulation issued by the Secretary in regard to any emergency posing a significant risk to the well-being of any species of fish or wildlife or plants, but only if—

(A) at the time of publication of the regulation in the Federal Register the Secretary publishes therein detailed reasons why such regulation is necessary; and

(B) in the case such regulation applies to resident species of fish or wildlife, or plants, the Secretary gives actual notice of such regulation to the State agency in each State in which such species is believed to occur.

Such regulation shall, at the discretion of the Secretary, take effect immediately upon the publication of the regulation in the Federal Register. Any regulation promulgated under the authority of this paragraph shall cease to have force and effect at the close of the 240-day period following the date of publication unless, during such 240-day period, the rulemaking procedures which would apply to such regulation without regard to this paragraph are complied with. If at any time after issuing an emergency regulation the Secretary determines, on the basis of the best appropriate data available to him, that substantial evidence does not exist to warrant such regulation, he shall withdraw it.

(8) The publication in the Federal Register of any proposed or final regulation which is necessary or appropriate to carry out the purposes of this chapter shall include a summary by the Secretary of the data on which such regulation is based and shall show the relationship of such data to such regulation; and if such regulation designates or revises critical habitat, such summary shall, to the maximum extent practicable, also include a brief description and evaluation of those activities (whether public or private) which, in the opinion of the Secretary, if undertaken may adversely modify such habitat, or may be affected by such designation.

(c) LISTS

(1) The Secretary of the Interior shall publish in the Federal Register a list of all species determined by him or the Secretary of Commerce to be endangered species and a list of all species determined by him or the Secretary of Commerce to be threatened species. Each list shall refer to the species contained therein by scientific and common name or names, if any, specify with respect to each such species over what portion of its range it is endangered or threatened, and specify any critical habitat within such range. The Secretary shall from time to time revise each list published under the authority of this subsection to reflect recent determinations, designations, and revisions made in accordance with subsections (a) and (b) of this section.

(2) The Secretary shall—

(A) conduct, at least once every five years, a review of all species included in a list which is published pursuant to paragraph (1) and which is in effect at the time of such review; and

(B) determine on the basis of such review whether any such species should—

(i) be removed from such list;

(ii) be changed in status from an endangered species to a threatened species; or

(iii) be changed in status from a threatened species to an endangered species.

Each determination under subparagraph (B) shall be made in accordance with the provisions of subsections (a) and (b) of this section.

(d) PROTECTIVE REGULATIONS

Whenever any species is listed as a threatened species pursuant to subsection (c) of this section, the Secretary shall issue such regulations as he deems necessary and advisable to provide for the conservation of such species. The Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 1538(a)(1) of this title, in the case of fish or wildlife, or section 1538(a)(2) of this title, in the case of plants, with respect to endangered species; except that with respect to the taking of resident species of fish or wildlife, such regulations shall apply in any State which has entered into a cooperative agreement pursuant to section 1535(c) of this title only to the extent that such regulations have also been adopted by such State.

(e) SIMILARITY OF APPEARANCE CASES

The Secretary may, by regulation of commerce or taking, and to the extent he deems advisable, treat any species as an endangered species or threatened species even though it is not listed pursuant to this section if he finds that—

(A) such species so closely resembles in appearance, at the point in question, a species which has been listed pursuant to such section that enforcement personnel would have substantial difficulty in attempting to differentiate between the listed and unlisted species;

(B) the effect of this substantial difficulty is an additional threat to an endangered or threatened species; and

(C) such treatment of an unlisted species will substantially facilitate the enforcement and further the policy of this chapter.

(f) RECOVERY PLANS

(1) The Secretary shall develop and implement plans (hereinafter in this subsection referred to as "recovery plans") for the conservation and survival of endangered species and threatened species listed pursuant to this section, unless he finds that such a plan will not promote the conservation of the species. The Secretary, in developing and implementing recovery plans, shall, to the maximum extent practicable—

(A) give priority to those endangered species or threatened species, without regard to taxonomic classification, that are most likely to benefit from such plans, particularly those species that are, or may be, in conflict with construction or other development projects or other forms of economic activity;

(B) incorporate in each plan—

(i) a description of such site-specific management actions as may be necessary to achieve the plan's goal for the conservation and survival of the species;

(ii) objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of this section, that the species be removed from the list; and

(iii) estimates of the time required and the cost to carry out those measures needed to achieve the plan's goal and to achieve intermediate steps toward that goal.

(2) The Secretary, in developing and implementing recovery plans, may procure the services of appropriate public and private agencies and institutions, and other qualified persons. Recovery teams appointed pursuant to this subsection shall not be subject to the Federal Advisory Committee Act.

(3) The Secretary shall report every two years to the Committee on Environment and Public Works of the Senate and the Committee on Merchant Marine and Fisheries of the House of Representatives on the status of efforts to develop and implement recovery plans for all species listed pursuant to this section and on the status of all species for which such plans have been developed.

(4) The Secretary shall, prior to final approval of a new or revised recovery plan, provide public notice and an opportunity for public review and comment on such plan. The Secretary shall consider all information presented during the public comment period prior to approval of the plan.

(5) Each Federal agency shall, prior to implementation of a new or revised recovery plan, consider all information presented during the public comment period under paragraph (4).

(g) MONITORING

(1) The Secretary shall implement a system in cooperation with the States to monitor effectively for not less than five years the status of all species which have recovered to the point at which the measures provided pursuant to this chapter are no longer necessary and which, in accordance with the provisions of this section, have been removed from either of the lists published under subsection (c) of this section.

(2) The Secretary shall make prompt use of the authority under paragraph 7 [2] of subsection (b) of this section to prevent a significant risk to the well being of any such recovered species.

(h) AGENCY GUIDELINES; PUBLICATION IN FEDERAL REGISTER; SCOPE; PROPOSALS AND AMENDMENTS: NOTICE AND OPPORTUNITY FOR COMMENTS

The Secretary shall establish, and publish in the Federal Register, agency guidelines to insure that the purposes of this section are achieved efficiently and effectively. Such guidelines shall include, but are not limited to—

(1) procedures for recording the receipt and the disposition of petitions submitted under subsection (b)(3) of this section;

(2) criteria for making the findings required under such subsection with respect to petitions;

(3) a ranking system to assist in the identification of species that should receive priority review under subsection (a)(1) of this section; and

(4) a system for developing and implementing, on a priority basis, recovery plans under subsection (f) of this section.

The Secretary shall provide to the public notice of, and opportunity to submit written comments on, any guideline (including any amendment thereto) proposed to be established under this subsection.

(i) SUBMISSION TO STATE AGENCY OF JUSTIFICATION FOR REGULATIONS INCONSISTENT WITH STATE AGENCY'S COMMENTS OR PETITION

If, in the case of any regulation proposed by the Secretary under the authority of this section, a State agency to which notice thereof was given in accordance with subsection (b)(5)(A)(ii) of this section files comments disagreeing with all or part of the proposed regulation, and the Secretary issues a final regulation which is in conflict with such comments, or if the Secretary fails to adopt a regulation pursuant to an action petitioned by a State agency under subsection (b)(3) of this section, the Secretary shall submit to the State agency a written justification for his failure to adopt regulations consistent with the agency's comments or petition.

16 U.S.C. § 1534. Land acquisition

(a) IMPLEMENTATION OF CONSERVATION PROGRAM; AUTHORIZATION OF SECRETARY AND SECRETARY OF AGRICULTURE

The Secretary, and the Secretary of Agriculture with respect to the National Forest System, shall establish and implement a program to conserve fish, wildlife, and plants, including those which are listed as endangered species or threatened species pursuant to section 1533 of this title. To carry out such a program, the appropriate Secretary—

(1) shall utilize the land acquisition and other authority under the Fish and Wildlife Act of 1956, as amended [16 U.S.C. 742a et seq.], the Fish and Wildlife Coordination Act, as amended [16 U.S.C. 661 et seq.], and the Migratory Bird Conservation Act [16 U.S.C. 715 et seq.], as appropriate; and

(2) is authorized to acquire by purchase, donation, or otherwise, lands, waters, or interest therein, and such authority shall be in addition to any other land acquisition authority vested in him.

(b) AVAILABILITY OF FUNDS FOR ACQUISITION OF LANDS, WATERS, ETC.

Funds made available pursuant to the Land and Water Conservation Fund Act of 1965, as amended [16 U.S.C. 460*l*–4 et seq.], may be used for the purpose of acquiring lands, waters, or interests therein under subsection (a) of this section.

16 U.S.C. § 1535. Cooperation with States

(a) Generally

In carrying out the program authorized by this chapter, the Secretary shall cooperate to the maximum extent practicable with the States. Such cooperation shall include consultation with the States concerned before acquiring any land or water, or interest therein, for the purpose of conserving any endangered species or threatened species.

(b) MANAGEMENT AGREEMENTS

The Secretary may enter into agreements with any State for the administration and management of any area established for the conservation of endangered species or threatened species. Any revenues derived from the administration of such areas under these agreements shall be subject to the provisions of section 715s of this title.

(c) COOPERATIVE AGREEMENTS

(1) In furtherance of the purposes of this chapter, the Secretary is authorized to enter into a cooperative agreement in accordance with this section with any State which establishes and maintains an adequate and active program for the conservation of endangered species and threatened species. Within one hundred and twenty days after the Secretary receives a certified copy of such a proposed State program, he shall make a determination whether such program is in accordance with this chapter. Unless he determines, pursuant to this paragraph, that the State program is not in accordance with this chapter, he shall enter into a cooperative agreement with the State for the purpose of assisting in implementation of the State program. In order for a State program to be deemed an adequate and active program for the conservation of endangered species and threatened species, the Secretary must find, and annually thereafter reconfirm such finding, that under the State program—

(A) authority resides in the State agency to conserve resident species of fish or wildlife determined by the State agency or the Secretary to be endangered or threatened;

(B) the State agency has established acceptable conservation programs, consistent with the purposes and policies of this chapter, for all resident species of fish or wildlife in the State which are deemed by the Secretary to be endangered or threatened, and has furnished a copy of such plan and program together with all pertinent details, information, and data requested to the Secretary;

(C) the State agency is authorized to conduct investigations to determine the status and requirements for survival of resident species of fish and wildlife;

(D) the State agency is authorized to establish programs, including the acquisition of land or aquatic habitat or interests therein, for the conservation of resident endangered or threatened species of fish or wildlife; and

(E) provision is made for public participation in designating resident species of fish or wildlife as endangered or threatened; or

that under the State program—

(i) the requirements set forth in subparagraphs (C), (D), and (E) of this paragraph are complied with, and

(ii) plans are included under which immediate attention will be given to those resident species of fish and wildlife which are determined by the Secretary or the State agency to be endangered or threatened and which the Secretary and the State agency agree are most urgently in need of conservation programs; except that a cooperative agreement entered into with a State whose program is deemed adequate and active pursuant to clause (i) and this clause shall not affect the applicability of prohibitions set forth in or authorized pursuant to section 1533(d) of this title or section 1538(a)(1) of this title with respect to the taking of any resident endangered or threatened species.

(2) In furtherance of the purposes of this chapter the Secretary is authorized to enter into a cooperative agreement in accordance with this section with any State which establishes and maintains an adequate and active program for the conservation of endangered species and threatened species of plants. Within one hundred and twenty days after the Secretary receives a certified copy of such a proposed State program, he shall make a determination whether such program is in accordance with this chapter. Unless he determines, pursuant to this paragraph, that the State program is not in accordance with this chapter, he shall enter into a cooperative agreement with the State for the purpose of assisting in implementation of the State program. In order for a State program to be deemed an adequate and active program for the conservation of endangered species of plants and threatened species of plants, the Secretary must find, and annually thereafter reconfirm such finding, that under the State program—

(A) authority resides in the State agency to conserve resident species of plants determined by the State agency or the Secretary to be endangered or threatened;

(B) the State agency has established acceptable conservation programs, consistent with the purposes and policies of this chapter, for all resident species of plants in the State which are deemed by the Secretary to be endangered or threatened, and has furnished a copy of such plan and program together with all pertinent details, information, and data requested to the Secretary;

(C) the State agency is authorized to conduct investigations to determine the status and requirements for survival of resident species of plants; and

(D) provision is made for public participation in designating resident species of plants as endangered or threatened; or

that under the State program—

(i) the requirements set forth in subparagraphs (C) and (D) of this paragraph are complied with, and

(ii) plans are included under which immediate attention will be given to those resident species of plants which are determined by the Secretary or the State agency to be endangered or threatened and which the Secretary and the State agency agree are most urgently in need of conservation programs; except that a cooperative agreement entered into with a State whose program is deemed adequate and active pursuant to clause (i) and this clause shall not affect the applicability of prohibitions set forth in or authorized pursuant to section 1533(d) or section 1538(a)(1) of this title with respect to the taking of any resident endangered or threatened species.

(d) ALLOCATION OF FUNDS

(1) The Secretary is authorized to provide financial assistance to any State, through its respective State agency, which has entered into a cooperative agreement pursuant to subsection (c) of this section to assist in development of programs for the conservation of endangered and threatened species or to assist in monitoring the status of candidate species pursuant to subparagraph (C) of section 1533(b)(3) of this title and recovered species pursuant to section 1533(g) of this title. The Secretary shall allocate each annual appropriation made in accordance with the provisions of subsection (i) of this section to such States based on consideration of—

(A) the international commitments of the United States to protect endangered species or threatened species;

(B) the readiness of a State to proceed with a conservation program consistent with the objectives and purposes of this chapter;

(C) the number of endangered species and threatened species within a State;

(D) the potential for restoring endangered species and threatened species within a State;

(E) the relative urgency to initiate a program to restore and protect an endangered species or threatened species in terms of survival of the species;

(F) the importance of monitoring the status of candidate species within a State to prevent a significant risk to the well being of any such species; and

(G) the importance of monitoring the status of recovered species within a State to assure that such species do not return to the point at which the measures provided pursuant to this chapter are again necessary.

So much of the annual appropriation made in accordance with provisions of subsection (i) of this section allocated for obligation to any State for any fiscal year as remains unobligated at the close thereof is authorized to be made available to that State until the close of the succeeding fiscal year. Any amount allocated to any State which is unobligated at the end of the period during which it is available for expenditure is authorized to be made available for expenditure by the Secretary in conducting programs under this section.

(2) Such cooperative agreements shall provide for (A) the actions to be taken by the Secretary and the States; (B) the benefits that are expected to be derived in connection with the conservation of endangered or threatened species; (C) the estimated cost of these actions; and (D) the share of such costs to be borne by the Federal Government and by the States; except that—

(i) the Federal share of such program costs shall not exceed 75 percent of the estimated program cost stated in the agreement; and

(ii) the Federal share may be increased to 90 percent whenever two or more States having a common interest in one or more endangered or threatened species, the conservation of which may be enhanced by cooperation of such States, enter jointly into an agreement with the Secretary.

The Secretary may, in his discretion, and under such rules and regulations as he may prescribe, advance funds to the State for financing the United States pro rata share agreed upon in the cooperative agreement. For the purposes of this section, the non-Federal share may, in the discretion of the Secretary, be in the form of money or real property, the value of which will be determined by the Secretary, whose decision shall be final.

(e) REVIEW OF STATE PROGRAMS

Any action taken by the Secretary under this section shall be subject to his periodic review at no greater than annual intervals.

(f) CONFLICTS BETWEEN FEDERAL AND STATE LAWS

Any State law or regulation which applies with respect to the importation or exportation of, or interstate or foreign commerce in, endangered species or threatened species is void to the extent that it may effectively (1) permit what is prohibited by this chapter or by any regulation which implements this chapter, or (2) prohibit what is authorized pursuant to an exemption or permit provided for in this chapter or in any regulation which implements this chapter. This chapter shall not otherwise be construed to void any State law or regulation which is intended to conserve migratory, resident, or introduced fish or wildlife, or to permit or prohibit sale of such fish or wildlife. Any State law or regulation respecting the taking of an endangered species or threatened species may be more restrictive than the exemptions or permits provided for in this chapter or in any regulation which implements this chapter but not less restrictive than the prohibitions so defined.

(g) TRANSITION

(1) For purposes of this subsection, the term "establishment period" means, with respect to any State, the period beginning on December 28, 1973, and ending on whichever of the following dates first occurs: (A) the date of the close of the 120-day period following the adjournment of the first regular session of the legislature of such State which commences after December 28, 1973, or (B) the date of the close of the 15-month period following December 28, 1973.

(2) The prohibitions set forth in or authorized pursuant to sections 1533(d) and 1538(a)(1)(B) of this title shall not apply with respect to the taking of any resident endangered species or

threatened species (other than species listed in Appendix I to the Convention or otherwise specifically covered by any other treaty or Federal law) within any State—

(A) which is then a party to a cooperative agreement with the Secretary pursuant to subsection (c) of this section (except to the extent that the taking of any such species is contrary to the law of such State); or

(B) except for any time within the establishment period when—

(i) the Secretary applies such prohibition to such species at the request of the State, or

(ii) the Secretary applies such prohibition after he finds, and publishes his finding, that an emergency exists posing a significant risk to the well-being of such species and that the prohibition must be applied to protect such species. The Secretary's finding and publication may be made without regard to the public hearing or comment provisions of section 553 of title 5 or any other provision of this chapter; but such prohibition shall expire 90 days after the date of its imposition unless the Secretary further extends such prohibition by publishing notice and a statement of justification of such extension.

(h) REGULATIONS

The Secretary is authorized to promulgate such regulations as may be appropriate to carry out the provisions of this section relating to financial assistance to States.

(i) APPROPRIATIONS

(1) To carry out the provisions of this section for fiscal years after September 30, 1988, there shall be deposited into a special fund known as the cooperative endangered species conservation fund, to be administered by the Secretary, an amount equal to 5 percent of the combined amounts covered each fiscal year into the Federal aid to wildlife restoration fund under section 669b of this title, and paid, transferred, or otherwise credited each fiscal year to the Sport Fishing Restoration Account established under 1016 of the Act of July 18, 1984.

(2) Amounts deposited into the special fund are authorized to be appropriated annually and allocated in accordance with subsection (d) of this section.

16 U.S.C. § 1536. Interagency cooperation

(a) FEDERAL AGENCY ACTIONS AND CONSULTATIONS

(1) The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this chapter. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 1533 of this title.

(2) Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an "agency action") is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to subsection (h) of this section. In fulfilling the requirements of this paragraph each agency shall use the best scientific and commercial data available.

(3) Subject to such guidelines as the Secretary may establish, a Federal agency shall consult with the Secretary on any prospective agency action at the request of, and in cooperation with, the prospective permit or license applicant if the applicant has reason to believe that an endangered species or a threatened species may be present in the area affected by his project and that implementation of such action will likely affect such species.

(4) Each Federal agency shall confer with the Secretary on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under section 1533 of this title or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. This paragraph does not require a limitation on the commitment of resources as described in subsection (d) of this section.

(b) OPINION OF SECRETARY

(1)(A) Consultation under subsection (a)(2) of this section with respect to any agency action shall be concluded within the 90-day period beginning on the date on which initiated or, subject to subparagraph (B), within such other period of time as is mutually agreeable to the Secretary and the Federal agency.

(B) In the case of an agency action involving a permit or license applicant, the Secretary and the Federal agency may not mutually agree to conclude consultation within a period exceeding 90 days unless the Secretary, before the close of the 90th day referred to in subparagraph (A)—

(i) if the consultation period proposed to be agreed to will end before the 150th day after the date on which consultation was initiated, submits to the applicant a written statement setting forth—

(I) the reasons why a longer period is required,

(II) the information that is required to complete the consultation, and

(III) the estimated date on which consultation will be completed; or

(ii) if the consultation period proposed to be agreed to will end 150 or more days after the date on which consultation was initiated, obtains the consent of the applicant to such period.

The Secretary and the Federal agency may mutually agree to extend a consultation period established under the preceding sentence if the Secretary, before the close of such period, obtains the consent of the applicant to the extension.

(2) Consultation under subsection (a)(3) of this section shall be concluded within such period as is agreeable to the Secretary, the Federal agency, and the applicant concerned.

(3)(A) Promptly after conclusion of consultation under paragraph (2) or (3) of subsection (a) of this section, the Secretary shall provide to the Federal agency and the applicant, if any, a written statement setting forth the Secretary's opinion, and a summary of the information on which the opinion is based, detailing how the agency action affects the species or its critical habitat. If jeopardy or adverse modification is found, the Secretary shall suggest those reasonable and prudent alternatives which he believes would not violate subsection (a)(2) of this section and can be taken by the Federal agency or applicant in implementing the agency action.

(B) Consultation under subsection (a)(3) of this section, and an opinion issued by the Secretary incident to such consultation, regarding an agency action shall be treated respectively as a consultation under subsection (a)(2) of this section, and as an opinion issued after consultation under such subsection, regarding that action if the Secretary reviews the action before it is commenced by the Federal agency and finds, and notifies such agency, that no significant changes have been made with respect to the action and that no significant change has occurred regarding the information used during the initial consultation.

(4) If after consultation under subsection (a)(2) of this section, the Secretary concludes that—

(A) the agency action will not violate such subsection, or offers reasonable and prudent alternatives which the Secretary believes would not violate such subsection;

(B) the taking of an endangered species or a threatened species incidental to the agency action will not violate such subsection; and

(C) if an endangered species or threatened species of a marine mammal is involved, the taking is authorized pursuant to section 1371(a)(5) of this title;

the Secretary shall provide the Federal agency and the applicant concerned, if any, with a written statement that—

(i) specifies the impact of such incidental taking on the species,

(ii) specifies those reasonable and prudent measures that the Secretary considers necessary or appropriate to minimize such impact,

(iii) in the case of marine mammals, specifies those measures that are necessary to comply with section 1371(a)(5) of this title with regard to such taking, and

(iv) sets forth the terms and conditions (including, but not limited to, reporting requirements) that must be complied with by the Federal agency or applicant (if any), or both, to implement the measures specified under clauses (ii) and (iii).

(c) BIOLOGICAL ASSESSMENT

(1) To facilitate compliance with the requirements of subsection (a)(2) of this section, each Federal agency shall, with respect to any agency action of such agency for which no contract for construction has been entered into and for which no construction has begun on November 10, 1978, request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action. If the Secretary advises, based on the best scientific and commercial data available, that such species may be present, such agency shall conduct a biological assessment for the purpose of identifying any endangered species or threatened species which is likely to be affected by such action. Such assessment shall be completed within 180 days after the date on which initiated (or within such other period as is mutually agreed to by the Secretary and such agency, except that if a permit or license applicant is involved, the 180-day period may not be extended unless such agency provides the applicant, before the close of such period, with a written statement setting forth the estimated length of the proposed extension and the reasons therefor) and, before any contract for construction is entered into and before construction is begun with respect to such action. Such assessment may be undertaken as part of a Federal agency's compliance with the requirements of section 102 of the National Environmental Policy Act of 1969 (42 U.S.C. 4332).

(2) Any person who may wish to apply for an exemption under subsection (g) of this section for that action may conduct a biological assessment to identify any endangered species or threatened species which is likely to be affected by such action. Any such biological assessment must, however, be conducted in cooperation with the Secretary and under the supervision of the appropriate Federal agency.

(d) LIMITATION ON COMMITMENT OF RESOURCES

After initiation of consultation required under subsection (a)(2) of this section, the Federal agency and the permit or license applicant shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section.

(e) ENDANGERED SPECIES COMMITTEE

(1) There is established a committee to be known as the Endangered Species Committee (hereinafter in this section referred to as the "Committee").

(2) The Committee shall review any application submitted to it pursuant to this section and determine in accordance with subsection (h) of this section whether or not to grant an exemption from the requirements of subsection (a)(2) of this section for the action set forth in such application.

(3) The Committee shall be composed of seven members as follows:

(A) The Secretary of Agriculture.

(B) The Secretary of the Army.

(C) The Chairman of the Council of Economic Advisors.

(D) The Administrator of the Environmental Protection Agency.

(E) The Secretary of the Interior.

(F) The Administrator of the National Oceanic and Atmospheric Administration.

(G) The President, after consideration of any recommendations received pursuant to subsection (g)(2)(B) of this section shall appoint one individual from each affected State, as determined by the Secretary, to be a member of the Committee for the consideration of the application for exemption for an agency action with respect to which such recommendations are made, not later than 30 days after an application is submitted pursuant to this section.

(4)(A) Members of the Committee shall receive no additional pay on account of their service on the Committee.

(B) While away from their homes or regular places of business in the performance of services for the Committee, members of the Committee shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in the Government service are allowed expenses under section 5703 of title 5.

(5)(A) Five members of the Committee or their representatives shall constitute a quorum for the transaction of any function of the Committee, except that, in no case shall any representative be considered in determining the existence of a quorum for the transaction of any function of the Committee if that function involves a vote by the Committee on any matter before the Committee.

(B) The Secretary of the Interior shall be the Chairman of the Committee.

(C) The Committee shall meet at the call of the Chairman or five of its members.

(D) All meetings and records of the Committee shall be open to the public.

(6) Upon request of the Committee, the head of any Federal agency is authorized to detail, on a nonreimbursable basis, any of the personnel of such agency to the Committee to assist it in carrying out its duties under this section.

(7)(A) The Committee may for the purpose of carrying out its duties under this section hold such hearings, sit and act at such times and places, take such testimony, and receive such evidence, as the Committee deems advisable.

(B) When so authorized by the Committee, any member or agent of the Committee may take any action which the Committee is authorized to take by this paragraph.

(C) Subject to the Privacy Act [5 U.S.C. 552a], the Committee may secure directly from any Federal agency information necessary to enable it to carry out its duties under this section. Upon request of the Chairman of the Committee, the head of such Federal agency shall furnish such information to the Committee.

(D) The Committee may use the United States mails in the same manner and upon the same conditions as a Federal agency.

(E) The Administrator of General Services shall provide to the Committee on a reimbursable basis such administrative support services as the Committee may request.

(8) In carrying out its duties under this section, the Committee may promulgate and amend such rules, regulations, and procedures, and issue and amend such orders as it deems necessary.

(9) For the purpose of obtaining information necessary for the consideration of an application for an exemption under this section the Committee may issue subpenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents.

(10) In no case shall any representative, including a representative of a member designated pursuant to paragraph (3)(G) of this subsection, be eligible to cast a vote on behalf of any member.

(f) PROMULGATION OF REGULATIONS; FORM AND CONTENTS OF EXEMPTION APPLICATION

Not later than 90 days after November 10, 1978, the Secretary shall promulgate regulations which set forth the form and manner in which applications for exemption shall be submitted to the Secretary and the information to be contained in such applications. Such regulations shall require that information submitted in an application by the head of any Federal agency with respect to any agency action include, but not be limited to—

(1) a description of the consultation process carried out pursuant to subsection (a)(2) of this section between the head of the Federal agency and the Secretary; and

(2) a statement describing why such action cannot be altered or modified to conform with the requirements of subsection (a)(2) of this section.

(g) APPLICATION FOR EXEMPTION; REPORT TO COMMITTEE

(1) A Federal agency, the Governor of the State in which an agency action will occur, if any, or a permit or license applicant may apply to the Secretary for an exemption for an agency action of such agency if, after consultation under subsection (a)(2) of this section, the Secretary's opinion under subsection (b) of this section indicates that the agency action would violate subsection (a)(2) of this section. An application for an exemption shall be considered initially by the Secretary in the manner provided for in this subsection, and shall be considered by the Committee for a final determination under subsection (h) of this section after a report is made pursuant to paragraph (5). The applicant for an exemption shall be referred to as the "exemption applicant" in this section.

(2)(A) An exemption applicant shall submit a written application to the Secretary, in a form prescribed under subsection (f) of this section, not later than 90 days after the completion of the consultation process; except that, in the case of any agency action involving a permit or license applicant, such application shall be submitted not later than 90 days after the date on which the Federal agency concerned takes final agency action with respect to the issuance of the permit or license. For purposes of the preceding sentence, the term "final agency action" means (i) a disposition by an agency with respect to the issuance of a permit or license that is subject to administrative review, whether or not such disposition is subject to judicial review; or (ii) if administrative review is sought with respect to such disposition, the decision resulting after such review. Such application shall set forth the reasons why the exemption applicant considers that the agency action meets the requirements for an exemption under this subsection.

(B) Upon receipt of an application for exemption for an agency action under paragraph (1), the Secretary shall promptly (i) notify the Governor of each affected State, if any, as determined by the Secretary, and request the Governors so notified to recommend individuals to be appointed to the Endangered Species Committee for consideration of such application; and (ii) publish notice of receipt of the application in the Federal Register, including a summary of the information contained in the application and a description of the agency action with respect to which the application for exemption has been filed.

(3) The Secretary shall within 20 days after the receipt of an application for exemption, or within such other period of time as is mutually agreeable to the exemption applicant and the Secretary—

(A) determine that the Federal agency concerned and the exemption applicant have—

(i) carried out the consultation responsibilities described in subsection (a) of this section in good faith and made a reasonable and responsible effort to develop and fairly consider modifications or reasonable and prudent alternatives to the proposed agency action which would not violate subsection (a)(2) of this section;

(ii) conducted any biological assessment required by subsection (c) of this section; and

(iii) to the extent determinable within the time provided herein, refrained from making any irreversible or irretrievable commitment of resources prohibited by subsection (d) of this section; or

(B) deny the application for exemption because the Federal agency concerned or the exemption applicant have not met the requirements set forth in subparagraph (A)(i), (ii), and (iii).

The denial of an application under subparagraph (B) shall be considered final agency action for purposes of chapter 7 of title 5.

(4) If the Secretary determines that the Federal agency concerned and the exemption applicant have met the requirements set forth in paragraph (3)(A)(i), (ii), and (iii) he shall, in consultation with the Members of the Committee, hold a hearing on the application for exemption in accordance with sections 554, 555, and 556 (other than subsection (b)(1) and (2) thereof) of title 5 and prepare the report to be submitted pursuant to paragraph (5).

(5) Within 140 days after making the determinations under paragraph (3) or within such other period of time as is mutually agreeable to the exemption applicant and the Secretary, the Secretary shall submit to the Committee a report discussing—

(A) the availability of reasonable and prudent alternatives to the agency action, and the nature and extent of the benefits of the agency action and of alternative courses of action consistent with conserving the species or the critical habitat;

(B) a summary of the evidence concerning whether or not the agency action is in the public interest and is of national or regional significance;

(C) appropriate reasonable mitigation and enhancement measures which should be considered by the Committee; and

(D) whether the Federal agency concerned and the exemption applicant refrained from making any irreversible or irretrievable commitment of resources prohibited by subsection (d) of this section.

(6) To the extent practicable within the time required for action under subsection (g) of this section, and except to the extent inconsistent with the requirements of this section, the consideration of any application for an exemption under this section and the conduct of any hearing under this subsection shall be in accordance with sections 554, 555, and 556 (other than subsection (b)(3) of section 556) of title 5.

(7) Upon request of the Secretary, the head of any Federal agency is authorized to detail, on a nonreimbursable basis, any of the personnel of such agency to the Secretary to assist him in carrying out his duties under this section.

(8) All meetings and records resulting from activities pursuant to this subsection shall be open to the public.

(h) GRANT OF EXEMPTION

(1) The Committee shall make a final determination whether or not to grant an exemption within 30 days after receiving the report of the Secretary pursuant to subsection (g)(5) of this section. The Committee shall grant an exemption from the requirements of subsection (a)(2) of this section for an agency action if, by a vote of not less than five of its members voting in person—

(A) it determines on the record, based on the report of the Secretary, the record of the hearing held under subsection (g)(4) of this section and on such other testimony or evidence as it may receive, that—

(i) there are no reasonable and prudent alternatives to the agency action;

(ii) the benefits of such action clearly outweigh the benefits of alternative courses of action consistent with conserving the species or its critical habitat, and such action is in the public interest;

(iii) the action is of regional or national significance; and

(iv) neither the Federal agency concerned nor the exemption applicant made any irreversible or irretrievable commitment of resources prohibited by subsection (d) of this section; and

(B) it establishes such reasonable mitigation and enhancement measures, including, but not limited to, live propagation, transplantation, and habitat acquisition and improvement, as are necessary and appropriate to minimize the adverse effects of the agency action upon the endangered species, threatened species, or critical habitat concerned.

Any final determination by the Committee under this subsection shall be considered final agency action for purposes of chapter 7 of title 5.

(2)(A) Except as provided in subparagraph (B), an exemption for an agency action granted under paragraph (1) shall constitute a permanent exemption with respect to all endangered or threatened species for the purposes of completing such agency action—

(i) regardless whether the species was identified in the biological assessment; and

(ii) only if a biological assessment has been conducted under subsection (c) of this section with respect to such agency action.

(B) An exemption shall be permanent under subparagraph (A) unless—

(i) the Secretary finds, based on the best scientific and commercial data available, that such exemption would result in the extinction of a species that was not the subject of consultation under subsection (a)(2) of this section or was not identified in any biological assessment conducted under subsection (c) of this section, and

(ii) the Committee determines within 60 days after the date of the Secretary's finding that the exemption should not be permanent.

If the Secretary makes a finding described in clause (i), the Committee shall meet with respect to the matter within 30 days after the date of the finding.

(i) REVIEW BY SECRETARY OF STATE; VIOLATION OF INTERNATIONAL TREATY OR OTHER INTERNATIONAL OBLIGATION OF UNITED STATES

Notwithstanding any other provision of this chapter, the Committee shall be prohibited from considering for exemption any application made to it, if the Secretary of State, after a review of the proposed agency action and its potential implications, and after hearing, certifies, in writing, to the Committee within 60 days of any application made under this section that the granting of any such exemption and the carrying out of such action would be in violation of an international treaty obligation or other international obligation of the United States. The Secretary of State shall, at the time of such certification, publish a copy thereof in the Federal Register.

(j) EXEMPTION FOR NATIONAL SECURITY REASONS

Notwithstanding any other provision of this chapter, the Committee shall grant an exemption for any agency action if the Secretary of Defense finds that such exemption is necessary for reasons of national security.

(k) EXEMPTION DECISION NOT CONSIDERED MAJOR FEDERAL ACTION; ENVIRONMENTAL IMPACT STATEMENT

An exemption decision by the Committee under this section shall not be a major Federal action for purposes of the National Environmental Policy Act of 1969 [42 U.S.C. § 4321 et seq.]: *Provided*, That an environmental impact statement which discusses the impacts upon endangered species or threatened species or their critical habitats shall have been previously prepared with respect to any agency action exempted by such order.

(l) COMMITTEE ORDER GRANTING EXEMPTION; COST OF MITIGATION AND ENHANCEMENT MEASURES; REPORT BY APPLICANT TO COUNCIL ON ENVIRONMENTAL QUALITY

(1) If the Committee determines under subsection (h) of this section that an exemption should be granted with respect to any agency action, the Committee shall issue an order granting the exemption and specifying the mitigation and enhancement measures established pursuant to subsection (h) of this section which shall be carried out and paid for by the exemption applicant in implementing the agency action. All necessary mitigation and enhancement measures shall be authorized prior to the implementing of the agency action and funded concurrently with all other project features.

(2) The applicant receiving such exemption shall include the costs of such mitigation and enhancement measures within the overall costs of continuing the proposed action. Notwithstanding the preceding sentence the costs of such measures shall not be treated as project costs for the purpose of computing benefit-cost or other ratios for the proposed action. Any applicant may request the Secretary to carry out such mitigation and enhancement measures. The costs incurred by the Secretary in carrying out any such measures shall be paid by the applicant

receiving the exemption. No later than one year after the granting of an exemption, the exemption applicant shall submit to the Council on Environmental Quality a report describing its compliance with the mitigation and enhancement measures prescribed by this section. Such a report shall be submitted annually until all such mitigation and enhancement measures have been completed. Notice of the public availability of such reports shall be published in the Federal Register by the Council on Environmental Quality.

(m) NOTICE REQUIREMENT FOR CITIZEN SUITS NOT APPLICABLE

The 60-day notice requirement of section 1540(g) of this title shall not apply with respect to review of any final determination of the Committee under subsection (h) of this section granting an exemption from the requirements of subsection (a)(2) of this section.

(n) JUDICIAL REVIEW

Any person, as defined by section 1532(13) of this title, may obtain judicial review, under chapter 7 of title 5, of any decision of the Endangered Species Committee under subsection (h) of this section in the United States Court of Appeals for (1) any circuit wherein the agency action concerned will be, or is being, carried out, or (2) in any case in which the agency action will be, or is being, carried out outside of any circuit, the District of Columbia, by filing in such court within 90 days after the date of issuance of the decision, a written petition for review. A copy of such petition shall be transmitted by the clerk of the court to the Committee and the Committee shall file in the court the record in the proceeding, as provided in section 2112 of title 28. Attorneys designated by the Endangered Species Committee may appear for, and represent the Committee in any action for review under this subsection.

(o) EXEMPTION AS PROVIDING EXCEPTION ON TAKING OF ENDANGERED SPECIES

Notwithstanding sections 1533(d) and 1538(a)(1)(B) and (C) of this title, sections 1371 and 1372 of this title, or any regulation promulgated to implement any such section—

(1) any action for which an exemption is granted under subsection (h) of this section shall not be considered to be a taking of any endangered species or threatened species with respect to any activity which is necessary to carry out such action; and

(2) any taking that is in compliance with the terms and conditions specified in a written statement provided under subsection (b)(4)(iv) of this section shall not be considered to be a prohibited taking of the species concerned.

(p) EXEMPTIONS IN PRESIDENTIALLY DECLARED DISASTER AREAS

In any area which has been declared by the President to be a major disaster area under the Disaster Relief and Emergency Assistance Act [42 U.S.C. § 5121 et seq.], the President is authorized to make the determinations required by subsections (g) and (h) of this section for any project for the repair or replacement of a public facility substantially as it existed prior to the disaster under section 405 or 406 of the Disaster Relief and Emergency Assistance Act [42 U.S.C. § 5171 or 5172], and which the President determines (1) is necessary to prevent the recurrence of such a natural disaster and to reduce the potential loss of human life, and (2) to involve an emergency situation which does not allow the ordinary procedures of this section to

be followed. Notwithstanding any other provision of this section, the Committee shall accept the determinations of the President under this subsection.

16 U.S.C. § 1537. International cooperation

(a) FINANCIAL ASSISTANCE

As a demonstration of the commitment of the United States to the worldwide protection of endangered species and threatened species, the President may, subject to the provisions of section 1306 of title 31, use foreign currencies accruing to the United States Government under the Food for Peace Act [7 U.S.C. § 1691 et seq.] or any other law to provide to any foreign country (with its consent) assistance in the development and management of programs in that country which the Secretary determines to be necessary or useful for the conservation of any endangered species or threatened species listed by the Secretary pursuant to section 1533 of this title. The President shall provide assistance (which includes, but is not limited to, the acquisition, by lease or otherwise, of lands, waters, or interests therein) to foreign countries under this section under such terms and conditions as he deems appropriate. Whenever foreign currencies are available for the provision of assistance under this section, such currencies shall be used in preference to funds appropriated under the authority of section 1542 of this title.

(b) ENCOURAGEMENT OF FOREIGN PROGRAMS

In order to carry out further the provisions of this chapter, the Secretary, through the Secretary of State, shall encourage—

(1) foreign countries to provide for the conservation of fish or wildlife and plants including endangered species and threatened species listed pursuant to section 1533 of this title;

(2) the entering into of bilateral or multilateral agreements with foreign countries to provide for such conservation; and

(3) foreign persons who directly or indirectly take fish or wildlife or plants in foreign countries or on the high seas for importation into the United States for commercial or other purposes to develop and carry out with such assistance as he may provide, conservation practices designed to enhance such fish or wildlife or plants and their habitat.

(c) PERSONNEL

After consultation with the Secretary of State, the Secretary may—

(1) assign or otherwise make available any officer or employee of his department for the purpose of cooperating with foreign countries and international organizations in developing personnel resources and programs which promote the conservation of fish or wildlife or plants; and

(2) conduct or provide financial assistance for the educational training of foreign personnel, in this country or abroad, in fish, wildlife, or plant management, research and law enforcement and to render professional assistance abroad in such matters.

(d) INVESTIGATIONS

After consultation with the Secretary of State and the Secretary of the Treasury, as appropriate, the Secretary may conduct or cause to be conducted such law enforcement investigations and research abroad as he deems necessary to carry out the purposes of this chapter.

16 U.S.C. § 1538. Prohibited acts

(a) GENERALLY

(1) Except as provided in sections 1535(g)(2) and 1539 of this title, with respect to any endangered species of fish or wildlife listed pursuant to section 1533 of this title it is unlawful for any person subject to the jurisdiction of the United States to—

(A) import any such species into, or export any such species from the United States;

(B) take any such species within the United States or the territorial sea of the United States;

(C) take any such species upon the high seas;

(D) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such species taken in violation of subparagraphs (B) and (C);

(E) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of a commercial activity, any such species;

(F) sell or offer for sale in interstate or foreign commerce any such species; or

(G) violate any regulation pertaining to such species or to any threatened species of fish or wildlife listed pursuant to section 1533 of this title and promulgated by the Secretary pursuant to authority provided by this chapter.

(2) Except as provided in sections 1535(g)(2) and 1539 of this title, with respect to any endangered species of plants listed pursuant to section 1533 of this title, it is unlawful for any person subject to the jurisdiction of the United States to—

(A) import any such species into, or export any such species from, the United States;

(B) remove and reduce to possession any such species from areas under Federal jurisdiction; maliciously damage or destroy any such species on any such area; or remove, cut, dig up, or damage or destroy any such species on any other area in knowing violation of any law or regulation of any State or in the course of any violation of a State criminal trespass law;

(C) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of a commercial activity, any such species;

(D) sell or offer for sale in interstate or foreign commerce any such species; or

(E) violate any regulation pertaining to such species or to any threatened species of plants listed pursuant to section 1533 of this title and promulgated by the Secretary pursuant to authority provided by this chapter.

(b) SPECIES HELD IN CAPTIVITY OR CONTROLLED ENVIRONMENT

(1) The provisions of subsections (a)(1)(A) and (a)(1)(G) of this section shall not apply to any fish or wildlife which was held in captivity or in a controlled environment on (A) December 28, 1973, or (B) the date of the publication in the Federal Register of a final regulation adding such fish or wildlife species to any list published pursuant to subsection (c) of section 1533 of this title: *Provided*, That such holding and any subsequent holding or use of the fish or wildlife was not in the course of a commercial activity. With respect to any act prohibited by subsections (a)(1)(A) and (a)(1)(G) of this section which occurs after a period of 180 days from (i) December 28, 1973, or (ii) the date of publication in the Federal Register of a final regulation adding such fish or wildlife species to any list published pursuant to subsection (c) of section 1533 of this title, there shall be a rebuttable presumption that the fish or wildlife involved in such act is not entitled to the exemption contained in this subsection.

(2)(A) The provisions of subsection (a)(1) of this section shall not apply to—

(i) any raptor legally held in captivity or in a controlled environment on November 10, 1978; or

(ii) any progeny of any raptor described in clause (i);

until such time as any such raptor or progeny is intentionally returned to a wild state.

(B) Any person holding any raptor or progeny described in subparagraph (A) must be able to demonstrate that the raptor or progeny does, in fact, qualify under the provisions of this paragraph, and shall maintain and submit to the Secretary, on request, such inventories, documentation, and records as the Secretary may by regulation require as being reasonably appropriate to carry out the purposes of this paragraph. Such requirements shall not unnecessarily duplicate the requirements of other rules and regulations promulgated by the Secretary.

(c) VIOLATION OF CONVENTION

(1) It is unlawful for any person subject to the jurisdiction of the United States to engage in any trade in any specimens contrary to the provisions of the Convention, or to possess any specimens traded contrary to the provisions of the Convention, including the definitions of terms in article I thereof.

(2) Any importation into the United States of fish or wildlife shall, if—

(A) such fish or wildlife is not an endangered species listed pursuant to section 1533 of this title but is listed in Appendix II to the Convention,

(B) the taking and exportation of such fish or wildlife is not contrary to the provisions of the Convention and all other applicable requirements of the Convention have been satisfied,

(C) the applicable requirements of subsections (d), (e), and (f) of this section have been satisfied, and

(D) such importation is not made in the course of a commercial activity,

be presumed to be an importation not in violation of any provision of this chapter or any regulation issued pursuant to this chapter.

(d) IMPORTS AND EXPORTS

(1) IN GENERAL

It is unlawful for any person, without first having obtained permission from the Secretary, to engage in business—

(A) as an importer or exporter of fish or wildlife (other than shellfish and fishery products which (i) are not listed pursuant to section 1533 of this title as endangered species or threatened species, and (ii) are imported for purposes of human or animal consumption or taken in waters under the jurisdiction of the United States or on the high seas for recreational purposes) or plants; or

(B) as an importer or exporter of any amount of raw or worked African elephant ivory.

(2) REQUIREMENTS

Any person required to obtain permission under paragraph (1) of this subsection shall—

(A) keep such records as will fully and correctly disclose each importation or exportation of fish, wildlife, plants, or African elephant ivory made by him and the subsequent disposition made by him with respect to such fish, wildlife, plants, or ivory;

(B) at all reasonable times upon notice by a duly authorized representative of the Secretary, afford such representative access to his place of business, an opportunity to examine his inventory of imported fish, wildlife, plants, or African elephant ivory and the records required to be kept under subparagraph (A) of this paragraph, and to copy such records; and

(C) file such reports as the Secretary may require.

(3) REGULATIONS

The Secretary shall prescribe such regulations as are necessary and appropriate to carry out the purposes of this subsection.

(4) RESTRICTION ON CONSIDERATION OF VALUE OR AMOUNT OF AFRICAN ELEPHANT IVORY IMPORTED OR EXPORTED

In granting permission under this subsection for importation or exportation of African elephant ivory, the Secretary shall not vary the requirements for obtaining such permission on the basis of the value or amount of ivory imported or exported under such permission.

(e) REPORTS

It is unlawful for any person importing or exporting fish or wildlife (other than shellfish and fishery products which (1) are not listed pursuant to section 1533 of this title as endangered or threatened species, and (2) are imported for purposes of human or animal consumption or taken in waters under the jurisdiction of the United States or on the high seas for recreational purposes) or plants to fail to file any declaration or report as the Secretary deems necessary to facilitate enforcement of this chapter or to meet the obligations of the Convention.

(f) DESIGNATION OF PORTS

(1) It is unlawful for any person subject to the jurisdiction of the United States to import into or export from the United States any fish or wildlife (other than shellfish and fishery products which (A) are not listed pursuant to section 1533 of this title as endangered species or threatened species, and (B) are imported for purposes of human or animal consumption or taken in waters under the jurisdiction of the United States or on the high seas for recreational purposes) or plants, except at a port or ports designated by the Secretary of the Interior. For the purpose of facilitating enforcement of this chapter and reducing the costs thereof, the Secretary of the Interior, with approval of the Secretary of the Treasury and after notice and opportunity for public hearing, may, by regulation, designate ports and change such designations. The Secretary of the Interior, under such terms and conditions as he may prescribe, may permit the importation or exportation at nondesignated ports in the interest of the health or safety of the fish or wildlife or plants, or for other reasons, if, in his discretion, he deems it appropriate and consistent with the purpose of this subsection.

(2) Any port designated by the Secretary of the Interior under the authority of section 668cc–4(d) [1] of this title, shall, if such designation is in effect on December 27, 1973, be deemed to be a port designated by the Secretary under paragraph (1) of this subsection until such time as the Secretary otherwise provides.

(g) VIOLATIONS

It is unlawful for any person subject to the jurisdiction of the United States to attempt to commit, solicit another to commit, or cause to be committed, any offense defined in this section.

16 U.S.C. § 1539. Exceptions

(a) PERMITS

(1) The Secretary may permit, under such terms and conditions as he shall prescribe—

(A) any act otherwise prohibited by section 1538 of this title for scientific purposes or to enhance the propagation or survival of the affected species, including, but not limited to, acts necessary for the establishment and maintenance of experimental populations pursuant to subsection (j) of this section; or

(B) any taking otherwise prohibited by section 1538(a)(1)(B) of this title if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

(2)(A) No permit may be issued by the Secretary authorizing any taking referred to in paragraph (1)(B) unless the applicant therefor submits to the Secretary a conservation plan that specifies—

(i) the impact which will likely result from such taking;

(ii) what steps the applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps;

(iii) what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized; and

(iv) such other measures that the Secretary may require as being necessary or appropriate for purposes of the plan.

(B) If the Secretary finds, after opportunity for public comment, with respect to a permit application and the related conservation plan that—

(i) the taking will be incidental;

(ii) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;

(iii) the applicant will ensure that adequate funding for the plan will be provided;

(iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and

(v) the measures, if any, required under subparagraph (A)(iv) will be met;

and he has received such other assurances as he may require that the plan will be implemented, the Secretary shall issue the permit. The permit shall contain such terms and conditions as the Secretary deems necessary or appropriate to carry out the purposes of this

paragraph, including, but not limited to, such reporting requirements as the Secretary deems necessary for determining whether such terms and conditions are being complied with.

(C) The Secretary shall revoke a permit issued under this paragraph if he finds that the permittee is not complying with the terms and conditions of the permit.

(b) HARDSHIP EXEMPTIONS

(1) If any person enters into a contract with respect to a species of fish or wildlife or plant before the date of the publication in the Federal Register of notice of consideration of that species as an endangered species and the subsequent listing of that species as an endangered species pursuant to section 1533 of this title will cause undue economic hardship to such person under the contract, the Secretary, in order to minimize such hardship, may exempt such person from the application of section 1538(a) of this title to the extent the Secretary deems appropriate if such person applies to him for such exemption and includes with such application such information as the Secretary may require to prove such hardship; except that (A) no such exemption shall be for a duration of more than one year from the date of publication in the Federal Register of notice of consideration of the species concerned, or shall apply to a quantity of fish or wildlife or plants in excess of that specified by the Secretary; (B) the one-year period for those species of fish or wildlife listed by the Secretary as endangered prior to December 28, 1973, shall expire in accordance with the terms of section 668cc–3 [1] of this title; and (C) no such exemption may be granted for the importation or exportation of a specimen listed in Appendix I of the Convention which is to be used in a commercial activity.

(2) As used in this subsection, the term "undue economic hardship" shall include, but not be limited to:

(A) substantial economic loss resulting from inability caused by this chapter to perform contracts with respect to species of fish and wildlife entered into prior to the date of publication in the Federal Register of a notice of consideration of such species as an endangered species;

(B) substantial economic loss to persons who, for the year prior to the notice of consideration of such species as an endangered species, derived a substantial portion of their income from the lawful taking of any listed species, which taking would be made unlawful under this chapter; or

(C) curtailment of subsistence taking made unlawful under this chapter by persons (i) not reasonably able to secure other sources of subsistence; and (ii) dependent to a substantial extent upon hunting and fishing for subsistence; and (iii) who must engage in such curtailed taking for subsistence purposes.

(3) The Secretary may make further requirements for a showing of undue economic hardship as he deems fit. Exceptions granted under this section may be limited by the Secretary in his discretion as to time, area, or other factor of applicability.

(c) NOTICE AND REVIEW

The Secretary shall publish notice in the Federal Register of each application for an exemption or permit which is made under this section. Each notice shall invite the submission from interested parties, within thirty days after the date of the notice, of written data, views, or arguments with respect to the application; except that such thirty-day period may be waived by the Secretary in an emergency situation where the health or life of an endangered animal is threatened and no reasonable alternative is available to the applicant, but notice of any such waiver shall be published by the Secretary in the Federal Register within ten days following the issuance of the exemption or permit. Information received by the Secretary as a part of any application shall be available to the public as a matter of public record at every stage of the proceeding.

(d) PERMIT AND EXEMPTION POLICY

The Secretary may grant exceptions under subsections (a)(1)(A) and (b) of this section only if he finds and publishes his finding in the Federal Register that (1) such exceptions were applied for in good faith, (2) if granted and exercised will not operate to the disadvantage of such endangered species, and (3) will be consistent with the purposes and policy set forth in section 1531 of this title.

(e) ALASKA NATIVES

(1) Except as provided in paragraph (4) of this subsection the provisions of this chapter shall not apply with respect to the taking of any endangered species or threatened species, or the importation of any such species taken pursuant to this section, by—

(A) any Indian, Aleut, or Eskimo who is an Alaskan Native who resides in Alaska; or

(B) any non-native permanent resident of an Alaskan native village;

if such taking is primarily for subsistence purposes. Non-edible byproducts of species taken pursuant to this section may be sold in interstate commerce when made into authentic native articles of handicrafts and clothing; except that the provisions of this subsection shall not apply to any non-native resident of an Alaskan native village found by the Secretary to be not primarily dependent upon the taking of fish and wildlife for consumption or for the creation and sale of authentic native articles of handicrafts and clothing.

(2) Any taking under this subsection may not be accomplished in a wasteful manner.

(3) As used in this subsection—

(i) The term "subsistence" includes selling any edible portion of fish or wildlife in native villages and towns in Alaska for native consumption within native villages or towns; and

(ii) The term "authentic native articles of handicrafts and clothing" means items composed wholly or in some significant respect of natural materials, and which are produced, decorated, or fashioned in the exercise of traditional native handicrafts without the use of pantographs,

multiple carvers, or other mass copying devices. Traditional native handicrafts include, but are not limited to, weaving, carving, stitching, sewing, lacing, beading, drawing, and painting.

(4) Notwithstanding the provisions of paragraph (1) of this subsection, whenever the Secretary determines that any species of fish or wildlife which is subject to taking under the provisions of this subsection is an endangered species or threatened species, and that such taking materially and negatively affects the threatened or endangered species, he may prescribe regulations upon the taking of such species by any such Indian, Aleut, Eskimo, or non-Native Alaskan resident of an Alaskan native village. Such regulations may be established with reference to species, geographical description of the area included, the season for taking, or any other factors related to the reason for establishing such regulations and consistent with the policy of this chapter. Such regulations shall be prescribed after a notice and hearings in the affected judicial districts of Alaska and as otherwise required by section 1373 of this title, and shall be removed as soon as the Secretary determines that the need for their impositions has disappeared.

(f) PRE-ACT ENDANGERED SPECIES PARTS EXEMPTION; APPLICATION AND CERTIFICATION; REGULATION; VALIDITY OF SALES CONTRACT; SEPARABILITY; RENEWAL OF EXEMPTION; EXPIRATION OF RENEWAL CERTIFICATION

(1) As used in this subsection—

(A) The term "pre-Act endangered species part" means—

(i) any sperm whale oil, including derivatives thereof, which was lawfully held within the United States on December 28, 1973, in the course of a commercial activity; or

(ii) any finished scrimshaw product, if such product or the raw material for such product was lawfully held within the United States on December 28, 1973, in the course of a commercial activity.

(B) The term "scrimshaw product" means any art form which involves the substantial etching or engraving of designs upon, or the substantial carving of figures, patterns, or designs from, any bone or tooth of any marine mammal of the order Cetacea. For purposes of this subsection, polishing or the adding of minor superficial markings does not constitute substantial etching, engraving, or carving.

(2) The Secretary, pursuant to the provisions of this subsection, may exempt, if such exemption is not in violation of the Convention, any pre-Act endangered species part from one or more of the following prohibitions:

(A) The prohibition on exportation from the United States set forth in section 1538(a)(1)(A) of this title.

(B) Any prohibition set forth in section 1538(a)(1)(E) or (F) of this title.

(3) Any person seeking an exemption described in paragraph (2) of this subsection shall make application therefor to the Secretary in such form and manner as he shall prescribe, but no such application may be considered by the Secretary unless the application—

(A) is received by the Secretary before the close of the one-year period beginning on the date on which regulations promulgated by the Secretary to carry out this subsection first take effect;

(B) contains a complete and detailed inventory of all pre-Act endangered species parts for which the applicant seeks exemption;

(C) is accompanied by such documentation as the Secretary may require to prove that any endangered species part or product claimed by the applicant to be a pre-Act endangered species part is in fact such a part; and

(D) contains such other information as the Secretary deems necessary and appropriate to carry out the purposes of this subsection.

(4) If the Secretary approves any application for exemption made under this subsection, he shall issue to the applicant a certificate of exemption which shall specify—

(A) any prohibition in section 1538(a) of this title which is exempted;

(B) the pre-Act endangered species parts to which the exemption applies;

(C) the period of time during which the exemption is in effect, but no exemption made under this subsection shall have force and effect after the close of the three-year period beginning on the date of issuance of the certificate unless such exemption is renewed under paragraph (8); and

(D) any term or condition prescribed pursuant to paragraph (5)(A) or (B), or both, which the Secretary deems necessary or appropriate.

(5) The Secretary shall prescribe such regulations as he deems necessary and appropriate to carry out the purposes of this subsection. Such regulations may set forth—

(A) terms and conditions which may be imposed on applicants for exemptions under this subsection (including, but not limited to, requirements that applicants register inventories, keep complete sales records, permit duly authorized agents of the Secretary to inspect such inventories and records, and periodically file appropriate reports with the Secretary); and

(B) terms and conditions which may be imposed on any subsequent purchaser of any pre-Act endangered species part covered by an exemption granted under this subsection;

to insure that any such part so exempted is adequately accounted for and not disposed of contrary to the provisions of this chapter. No regulation prescribed by the Secretary to carry out the purposes of this subsection shall be subject to section 1533(f)(2)(A)(i) of this title.

(6)(A) Any contract for the sale of pre-Act endangered species parts which is entered into by the Administrator of General Services prior to the effective date of this subsection and pursuant to the notice published in the Federal Register on January 9, 1973, shall not be rendered invalid by virtue of the fact that fulfillment of such contract may be prohibited under section 1538(a)(1)(F) of this title.

(B) In the event that this paragraph is held invalid, the validity of the remainder of this chapter, including the remainder of this subsection, shall not be affected.

(7) Nothing in this subsection shall be construed to—

(A) exonerate any person from any act committed in violation of paragraphs (1)(A), (1)(E), or (1)(F) of section 1538(a) of this title prior to July 12, 1976; or

(B) immunize any person from prosecution for any such act.

(8)(A)(i) [2] Any valid certificate of exemption which was renewed after October 13, 1982, and was in effect on March 31, 1988, shall be deemed to be renewed for a six-month period beginning on October 7, 1988. Any person holding such a certificate may apply to the Secretary for one additional renewal of such certificate for a period not to exceed 5 years beginning on October 7, 1988.

(B) If the Secretary approves any application for renewal of an exemption under this paragraph, he shall issue to the applicant a certificate of renewal of such exemption which shall provide that all terms, conditions, prohibitions, and other regulations made applicable by the previous certificate shall remain in effect during the period of the renewal.

(C) No exemption or renewal of such exemption made under this subsection shall have force and effect after the expiration date of the certificate of renewal of such exemption issued under this paragraph.

(D) No person may, after January 31, 1984, sell or offer for sale in interstate or foreign commerce, any pre-Act finished scrimshaw product unless such person holds a valid certificate of exemption issued by the Secretary under this subsection, and unless such product or the raw material for such product was held by such person on October 13, 1982.

(g) BURDEN OF PROOF

In connection with any action alleging a violation of section 1538 of this title, any person claiming the benefit of any exemption or permit under this chapter shall have the burden of proving that the exemption or permit is applicable, has been granted, and was valid and in force at the time of the alleged violation.

(h) CERTAIN ANTIQUE ARTICLES; IMPORTATION; PORT DESIGNATION; APPLICATION FOR RETURN OF ARTICLES

(1) Sections 1533(d) and 1538(a) and (c) of this title do not apply to any article which—

(A) is not less than 100 years of age;

(B) is composed in whole or in part of any endangered species or threatened species listed under section 1533 of this title;

(C) has not been repaired or modified with any part of any such species on or after December 28, 1973; and

(D) is entered at a port designated under paragraph (3).

(2) Any person who wishes to import an article under the exception provided by this subsection shall submit to the customs officer concerned at the time of entry of the article such documentation as the Secretary of the Treasury, after consultation with the Secretary of the Interior, shall by regulation require as being necessary to establish that the article meets the requirements set forth in paragraph (1)(A), (B), and (C).

(3) The Secretary of the Treasury, after consultation with the Secretary of the Interior, shall designate one port within each customs region at which articles described in paragraph (1)(A), (B), and (C) must be entered into the customs territory of the United States.

(4) Any person who imported, after December 27, 1973, and on or before November 10, 1978, any article described in paragraph (1) which—

(A) was not repaired or modified after the date of importation with any part of any endangered species or threatened species listed under section 1533 of this title;

(B) was forfeited to the United States before November 10, 1978, or is subject to forfeiture to the United States on such date of enactment, pursuant to the assessment of a civil penalty under section 1540 of this title; and

(C) is in the custody of the United States on November 10, 1978;

may, before the close of the one-year period beginning on November 10, 1978, make application to the Secretary for return of the article. Application shall be made in such form and manner, and contain such documentation, as the Secretary prescribes. If on the basis of any such application which is timely filed, the Secretary is satisfied that the requirements of this paragraph are met with respect to the article concerned, the Secretary shall return the article to the applicant and the importation of such article shall, on and after the date of return, be deemed to be a lawful importation under this chapter.

(i) NONCOMMERCIAL TRANSSHIPMENTS

Any importation into the United States of fish or wildlife shall, if—

(1) such fish or wildlife was lawfully taken and exported from the country of origin and country of reexport, if any;

(2) such fish or wildlife is in transit or transshipment through any place subject to the jurisdiction of the United States en route to a country where such fish or wildlife may be lawfully imported and received;

(3) the exporter or owner of such fish or wildlife gave explicit instructions not to ship such fish or wildlife through any place subject to the jurisdiction of the United States, or did all that could have reasonably been done to prevent transshipment, and the circumstances leading to the transshipment were beyond the exporter's or owner's control;

(4) the applicable requirements of the Convention have been satisfied; and

(5) such importation is not made in the course of a commercial activity,

be an importation not in violation of any provision of this chapter or any regulation issued pursuant to this chapter while such fish or wildlife remains in the control of the United States Customs Service.

(j) EXPERIMENTAL POPULATIONS

(1) For purposes of this subsection, the term "experimental population" means any population (including any offspring arising solely therefrom) authorized by the Secretary for release under paragraph (2), but only when, and at such times as, the population is wholly separate geographically from nonexperimental populations of the same species.

(2)(A) The Secretary may authorize the release (and the related transportation) of any population (including eggs, propagules, or individuals) of an endangered species or a threatened species outside the current range of such species if the Secretary determines that such release will further the conservation of such species.

(B) Before authorizing the release of any population under subparagraph (A), the Secretary shall by regulation identify the population and determine, on the basis of the best available information, whether or not such population is essential to the continued existence of an endangered species or a threatened species.

(C) For the purposes of this chapter, each member of an experimental population shall be treated as a threatened species; except that—

(i) solely for purposes of section 1536 of this title (other than subsection (a)(1) thereof), an experimental population determined under subparagraph (B) to be not essential to the continued existence of a species shall be treated, except when it occurs in an area within the

National Wildlife Refuge System or the National Park System, as a species proposed to be listed under section 1533 of this title; and

(ii) critical habitat shall not be designated under this chapter for any experimental population determined under subparagraph (B) to be not essential to the continued existence of a species.

(3) The Secretary, with respect to populations of endangered species or threatened species that the Secretary authorized, before October 13, 1982, for release in geographical areas separate from the other populations of such species, shall determine by regulation which of such populations are an experimental population for the purposes of this subsection and whether or not each is essential to the continued existence of an endangered species or a threatened species.

16 U.S.C. § 1540. Penalties and enforcement

(a) CIVIL PENALTIES

(1) Any person who knowingly violates, and any person engaged in business as an importer or exporter of fish, wildlife, or plants who violates, any provision of this chapter, or any provision of any permit or certificate issued hereunder, or of any regulation issued in order to implement subsection (a)(1)(A), (B), (C), (D), (E), or (F), (a)(2)(A), (B), (C), or (D), (c), (d) (other than regulation relating to recordkeeping or filing of reports), (f) or (g) of section 1538 of this title, may be assessed a civil penalty by the Secretary of not more than $25,000 for each violation. Any person who knowingly violates, and any person engaged in business as an importer or exporter of fish, wildlife, or plants who violates, any provision of any other regulation issued under this chapter may be assessed a civil penalty by the Secretary of not more than $12,000 for each such violation. Any person who otherwise violates any provision of this chapter, or any regulation, permit, or certificate issued hereunder, may be assessed a civil penalty by the Secretary of not more than $500 for each such violation. No penalty may be assessed under this subsection unless such person is given notice and opportunity for a hearing with respect to such violation. Each violation shall be a separate offense. Any such civil penalty may be remitted or mitigated by the Secretary. Upon any failure to pay a penalty assessed under this subsection, the Secretary may request the Attorney General to institute a civil action in a district court of the United States for any district in which such person is found, resides, or transacts business to collect the penalty and such court shall have jurisdiction to hear and decide any such action. The court shall hear such action on the record made before the Secretary and shall sustain his action if it is supported by substantial evidence on the record considered as a whole.

(2) Hearings held during proceedings for the assessment of civil penalties authorized by paragraph (1) of this subsection shall be conducted in accordance with section 554 of title 5. The Secretary may issue subpenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and administer oaths. Witnesses summoned shall be paid the same fees and mileage that are paid to witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpena served upon any person pursuant to this paragraph, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Secretary or to appear and produce documents before the Secretary, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(3) Notwithstanding any other provision of this chapter, no civil penalty shall be imposed if it can be shown by a preponderance of the evidence that the defendant committed an act based on a good faith belief that he was acting to protect himself or herself, a member of his or her family, or any other individual from bodily harm, from any endangered or threatened species.

(b) CRIMINAL VIOLATIONS

(1) Any person who knowingly violates any provision of this chapter, of any permit or certificate issued hereunder, or of any regulation issued in order to implement subsection

(a)(1)(A), (B), (C), (D), (E), or (F), (a)(2)(A), (B), (C), or (D), (c), (d) (other than a regulation relating to recordkeeping, or filing of reports), (f), or (g) of section 1538 of this title shall, upon conviction, be fined not more than $50,000 or imprisoned for not more than one year, or both. Any person who knowingly violates any provision of any other regulation issued under this chapter shall, upon conviction, be fined not more than $25,000 or imprisoned for not more than six months, or both.

(2) The head of any Federal agency which has issued a lease, license, permit, or other agreement authorizing a person to import or export fish, wildlife, or plants, or to operate a quarantine station for imported wildlife, or authorizing the use of Federal lands, including grazing of domestic livestock, to any person who is convicted of a criminal violation of this chapter or any regulation, permit, or certificate issued hereunder may immediately modify, suspend, or revoke each lease, license, permit, or other agreement. The Secretary shall also suspend for a period of up to one year, or cancel, any Federal hunting or fishing permits or stamps issued to any person who is convicted of a criminal violation of any provision of this chapter or any regulation, permit, or certificate issued hereunder. The United States shall not be liable for the payments of any compensation, reimbursement, or damages in connection with the modification, suspension, or revocation of any leases, licenses, permits, stamps, or other agreements pursuant to this section.

(3) Notwithstanding any other provision of this chapter, it shall be a defense to prosecution under this subsection if the defendant committed the offense based on a good faith belief that he was acting to protect himself or herself, a member of his or her family, or any other individual, from bodily harm from any endangered or threatened species.

(c) DISTRICT COURT JURISDICTION

The several district courts of the United States, including the courts enumerated in section 460 of title 28, shall have jurisdiction over any actions arising under this chapter. For the purpose of this chapter, American Samoa shall be included within the judicial district of the District Court of the United States for the District of Hawaii.

(d) REWARDS AND CERTAIN INCIDENTAL EXPENSES

The Secretary or the Secretary of the Treasury shall pay, from sums received as penalties, fines, or forfeitures of property for any violation of this chapter or any regulation issued hereunder (1) a reward to any person who furnishes information which leads to an arrest, a criminal conviction, civil penalty assessment, or forfeiture of property for any violation of this chapter or any regulation issued hereunder, and (2) the reasonable and necessary costs incurred by any person in providing temporary care for any fish, wildlife, or plant pending the disposition of any civil or criminal proceeding alleging a violation of this chapter with respect to that fish, wildlife, or plant. The amount of the reward, if any, is to be designated by the Secretary or the Secretary of the Treasury, as appropriate. Any officer or employee of the United States or any State or local government who furnishes information or renders service in the performance of his official duties is ineligible for payment under this subsection. Whenever the balance of sums received under this section and section 3375(d) of this title, as penalties or fines, or from forfeitures of property, exceed $500,000, the Secretary of the Treasury shall deposit an amount equal to such excess balance in the cooperative endangered species conservation fund established under section 1535(i) of this title.

(e) ENFORCEMENT

(1) The provisions of this chapter and any regulations or permits issued pursuant thereto shall be enforced by the Secretary, the Secretary of the Treasury, or the Secretary of the Department in which the Coast Guard is operating, or all such Secretaries. Each such Secretary may utilize by agreement, with or without reimbursement, the personnel, services, and facilities of any other Federal agency or any State agency for purposes of enforcing this chapter.

(2) The judges of the district courts of the United States and the United States magistrate judges may, within their respective jurisdictions, upon proper oath or affirmation showing probable cause, issue such warrants or other process as may be required for enforcement of this chapter and any regulation issued thereunder.

(3) Any person authorized by the Secretary, the Secretary of the Treasury, or the Secretary of the Department in which the Coast Guard is operating, to enforce this chapter may detain for inspection and inspect any package, crate, or other container, including its contents, and all accompanying documents, upon importation or exportation. Such person may make arrests without a warrant for any violation of this chapter if he has reasonable grounds to believe that the person to be arrested is committing the violation in his presence or view, and may execute and serve any arrest warrant, search warrant, or other warrant or civil or criminal process issued by any officer or court of competent jurisdiction for enforcement of this chapter. Such person so authorized may search and seize, with or without a warrant, as authorized by law. Any fish, wildlife, property, or item so seized shall be held by any person authorized by the Secretary, the Secretary of the Treasury, or the Secretary of the Department in which the Coast Guard is operating pending disposition of civil or criminal proceedings, or the institution of an action in rem for forfeiture of such fish, wildlife, property, or item pursuant to paragraph (4) of this subsection; except that the Secretary may, in lieu of holding such fish, wildlife, property, or item, permit the owner or consignee to post a bond or other surety satisfactory to the Secretary, but upon forfeiture of any such property to the United States, or the abandonment or waiver of any claim to any such property, it shall be disposed of (other than by sale to the general public) by the Secretary in such a manner, consistent with the purposes of this chapter, as the Secretary shall by regulation prescribe.

(4)(A) All fish or wildlife or plants taken, possessed, sold, purchased, offered for sale or purchase, transported, delivered, received, carried, shipped, exported, or imported contrary to the provisions of this chapter, any regulation made pursuant thereto, or any permit or certificate issued hereunder shall be subject to forfeiture to the United States.

(B) All guns, traps, nets, and other equipment, vessels, vehicles, aircraft, and other means of transportation used to aid the taking, possessing, selling, purchasing, offering for sale or purchase, transporting, delivering, receiving, carrying, shipping, exporting, or importing of any fish or wildlife or plants in violation of this chapter, any regulation made pursuant thereto, or any permit or certificate issued thereunder shall be subject to forfeiture to the United States upon conviction of a criminal violation pursuant to subsection (b)(1) of this section.

(5) All provisions of law relating to the seizure, forfeiture, and condemnation of a vessel for violation of the customs laws, the disposition of such vessel or the proceeds from the sale

thereof, and the remission or mitigation of such forfeiture, shall apply to the seizures and forfeitures incurred, or alleged to have been incurred, under the provisions of this chapter, insofar as such provisions of law are applicable and not inconsistent with the provisions of this chapter; except that all powers, rights, and duties conferred or imposed by the customs laws upon any officer or employee of the Treasury Department shall, for the purposes of this chapter, be exercised or performed by the Secretary or by such persons as he may designate.

(6) The Attorney General of the United States may seek to enjoin any person who is alleged to be in violation of any provision of this chapter or regulation issued under authority thereof.

(f) REGULATIONS

The Secretary, the Secretary of the Treasury, and the Secretary of the Department in which the Coast Guard is operating, are authorized to promulgate such regulations as may be appropriate to enforce this chapter, and charge reasonable fees for expenses to the Government connected with permits or certificates authorized by this chapter including processing applications and reasonable inspections, and with the transfer, board, handling, or storage of fish or wildlife or plants and evidentiary items seized and forfeited under this chapter. All such fees collected pursuant to this subsection shall be deposited in the Treasury to the credit of the appropriation which is current and chargeable for the cost of furnishing the services. Appropriated funds may be expended pending reimbursement from parties in interest.

(g) CITIZEN SUITS

(1) Except as provided in paragraph (2) of this subsection any person may commence a civil suit on his own behalf—

(A) to enjoin any person, including the United States and any other governmental instrumentality or agency (to the extent permitted by the eleventh amendment to the Constitution), who is alleged to be in violation of any provision of this chapter or regulation issued under the authority thereof; or

(B) to compel the Secretary to apply, pursuant to section 1535(g)(2)(B)(ii) of this title, the prohibitions set forth in or authorized pursuant to section 1533(d) or 1538(a)(1)(B) of this title with respect to the taking of any resident endangered species or threatened species within any State; or

(C) against the Secretary where there is alleged a failure of the Secretary to perform any act or duty under section 1533 of this title which is not discretionary with the Secretary.

The district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce any such provision or regulation, or to order the Secretary to perform such act or duty, as the case may be. In any civil suit commenced under subparagraph (B) the district court shall compel the Secretary to apply the prohibition sought if the court finds that the allegation that an emergency exists is supported by substantial evidence.

(2)(A) No action may be commenced under subparagraph (1)(A) of this section—

(i) prior to sixty days after written notice of the violation has been given to the Secretary, and to any alleged violator of any such provision or regulation;

(ii) if the Secretary has commenced action to impose a penalty pursuant to subsection (a) of this section; or

(iii) if the United States has commenced and is diligently prosecuting a criminal action in a court of the United States or a State to redress a violation of any such provision or regulation.

(B) No action may be commenced under subparagraph (1)(B) of this section—

(i) prior to sixty days after written notice has been given to the Secretary setting forth the reasons why an emergency is thought to exist with respect to an endangered species or a threatened species in the State concerned; or

(ii) if the Secretary has commenced and is diligently prosecuting action under section 1535(g)(2)(B)(ii) of this title to determine whether any such emergency exists.

(C) No action may be commenced under subparagraph (1)(C) of this section prior to sixty days after written notice has been given to the Secretary; except that such action may be brought immediately after such notification in the case of an action under this section respecting an emergency posing a significant risk to the well-being of any species of fish or wildlife or plants.

(3)(A) Any suit under this subsection may be brought in the judicial district in which the violation occurs.

(B) In any such suit under this subsection in which the United States is not a party, the Attorney General, at the request of the Secretary, may intervene on behalf of the United States as a matter of right.

(4) The court, in issuing any final order in any suit brought pursuant to paragraph (1) of this subsection, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate.

(5) The injunctive relief provided by this subsection shall not restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any standard or limitation or to seek any other relief (including relief against the Secretary or a State agency).

(h) COORDINATION WITH OTHER LAWS

The Secretary of Agriculture and the Secretary shall provide for appropriate coordination of the administration of this chapter with the administration of the animal quarantine laws (as defined in section 136a(f) of title 21) and section 306 [1] of the Tariff Act of 1930 (19 U.S.C. 1306). Nothing in this chapter or any amendment made by this chapter shall be construed as superseding or limiting in any manner the functions of the Secretary of Agriculture under any other law relating to prohibited or restricted importations or possession of animals and other

articles and no proceeding or determination under this chapter shall preclude any proceeding or be considered determinative of any issue of fact or law in any proceeding under any Act administered by the Secretary of Agriculture. Nothing in this chapter shall be construed as superseding or limiting in any manner the functions and responsibilities of the Secretary of the Treasury under the Tariff Act of 1930 [19 U.S.C. 1202 et seq.], including, without limitation, section 527 of that Act (19 U.S.C. 1527), relating to the importation of wildlife taken, killed, possessed, or exported to the United States in violation of the laws or regulations of a foreign country.

16 U.S.C. § 1541. Endangered plants

The Secretary of the Smithsonian Institution, in conjunction with other affected agencies, is authorized and directed to review (1) species of plants which are now or may become endangered or threatened and (2) methods of adequately conserving such species, and to report to Congress, within one year after December 28, 1973, the results of such review including recommendations for new legislation or the amendment of existing legislation.

16 U.S.C. § 1542. Authorization of appropriations

(a) IN GENERAL

Except as provided in subsections (b), (c), and (d), there are authorized to be appropriated-

(1) not to exceed $35,000,000 for fiscal year 1988, $36,500,000 for fiscal year 1989, $38,000,000 for fiscal year 1990, $39,500,000 for fiscal year 1991, and $41,500,000 for fiscal year 1992 to enable the Department of the Interior to carry out such functions and responsibilities as it may have been given under this chapter;

(2) not to exceed $5,750,000 for fiscal year 1988, $6,250,000 for each of fiscal years 1989 and 1990, and $6,750,000 for each of fiscal years 1991 and 1992 to enable the Department of Commerce to carry out such functions and responsibilities as it may have been given under this chapter; and

(3) not to exceed $2,200,000 for fiscal year 1988, $2,400,000 for each of fiscal years 1989 and 1990, and $2,600,000 for each of fiscal years 1991 and 1992, to enable the Department of Agriculture to carry out its functions and responsibilities with respect to the enforcement of this chapter and the Convention which pertain to the importation or exportation of plants.

(b) EXEMPTIONS

There are authorized to be appropriated to the Secretary to assist him and the Endangered Species Committee in carrying out their functions under sections 1536(e), (g), and (h) of this title not to exceed $600,000 for each of fiscal years 1988, 1989, 1990, 1991, and 1992.

(c) CONVENTION IMPLEMENTATION

There are authorized to be appropriated to the Department of the Interior for purposes of carrying out section 1537a(e) of this title not to exceed $400,000 for each of fiscal years 1988, 1989, and 1990, and $500,000 for each of fiscal years 1991 and 1992, and such sums shall remain available until expended.

16 U.S.C. § 1543. Construction with Marine Mammal Protection Act of 1972

Except as otherwise provided in this chapter, no provision of this chapter shall take precedence over any more restrictive conflicting provision of the Marine Mammal Protection Act of 1972 [16 U.S.C.A. § 1361 et seq.].

16 U.S.C. § 1544. Annual cost analysis by Fish and Wildlife Service

Notwithstanding section 3003 of Public Law 104–66 (31 U.S.C. 1113 note; 109 Stat. 734), on or before January 15, 1990, and each January 15 thereafter, the Secretary of the Interior, acting through the Fish and Wildlife Service, shall submit to the Congress an annual report covering the preceding fiscal year which shall contain-

(1) an accounting on a species by species basis of all reasonably identifiable Federal expenditures made primarily for the conservation of endangered or threatened species pursuant to this chapter; and

(2) an accounting on a species by species basis of all reasonably identifiable expenditures made primarily for the conservation of endangered or threatened species pursuant to this chapter by States receiving grants under section 1535 of this title.

42 U.S.C. § 7401(b). Congressional findings and declaration of purpose

(b) Declaration

The purposes of this subchapter are--

(1) to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;

(2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;

(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and

(4) to encourage and assist the development and operation of regional air pollution prevention and control programs.

42 U.S.C. § 7411(a). Standards of performance for new stationary sources

(a) DEFINITIONS

For purposes of this section:

(1) The term "standard of performance" means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

(2) The term "new source" means any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source.

(3) The term "stationary source" means any building, structure, facility, or installation which emits or may emit any air pollutant. Nothing in subchapter II of this chapter relating to nonroad engines shall be construed to apply to stationary internal combustion engines.

(4) The term "modification" means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted.

(5) The term "owner or operator" means any person who owns, leases, operates, controls, or supervises a stationary source.

(6) The term "existing source" means any stationary source other than a new source.

(7) The term "technological system of continuous emission reduction" means—

(A) a technological process for production or operation by any source which is inherently low-polluting or nonpolluting, or

(B) a technological system for continuous reduction of the pollution generated by a source before such pollution is emitted into the ambient air, including precombustion cleaning or treatment of fuels.

(8) A conversion to coal (A) by reason of an order under section 2(a) of the Energy Supply and Environmental Coordination Act of 1974 [15 U.S.C. 792(a)] or any amendment thereto, or any subsequent enactment which supersedes such Act [15 U.S.C. 791 et seq.], or (B) which qualifies under section 7413(d)(5)(A)(ii) of this title, shall not be deemed to be a modification for purposes of paragraphs (2) and (4) of this subsection.

42 U.S.C. § 7411(a)(6). Standards of performance for new stationary sources

(a) DEFINITIONS

For purposes of this section:

(6) The term "existing source" means any stationary source other than a new source.

42 U.S.C. § 7411(b). Standards of performance for new stationary sources

(b) LIST OF CATEGORIES OF STATIONARY SOURCES; STANDARDS OF PERFORMANCE; INFORMATION ON POLLUTION CONTROL TECHNIQUES; SOURCES OWNED OR OPERATED BY UNITED STATES; PARTICULAR SYSTEMS; REVISED STANDARDS

(1)(A) The Administrator shall, within 90 days after December 31, 1970, publish (and from time to time thereafter shall revise) a list of categories of stationary sources. He shall include a category of sources in such list if in his judgment it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.

(B) Within one year after the inclusion of a category of stationary sources in a list under subparagraph (A), the Administrator shall publish proposed regulations, establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within one year after such publication, such standards with such modifications as he deems appropriate. The Administrator shall, at least every 8 years, review and, if appropriate, revise such standards following the procedure required by this subsection for promulgation of such standards. Notwithstanding the requirements of the previous sentence, the Administrator need not review any such standard if the Administrator determines that such review is not appropriate in light of readily available information on the efficacy of such standard. Standards of performance or revisions thereof shall become effective upon promulgation. When implementation and enforcement of any requirement of this chapter indicate that emission limitations and percent reductions beyond those required by the standards promulgated under this section are achieved in practice, the Administrator shall, when revising standards promulgated under this section, consider the emission limitations and percent reductions achieved in practice.

(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards.

(3) The Administrator shall, from time to time, issue information on pollution control techniques for categories of new sources and air pollutants subject to the provisions of this section.

(4) The provisions of this section shall apply to any new source owned or operated by the United States.

(5) Except as otherwise authorized under subsection (h) of this section, nothing in this section shall be construed to require, or to authorize the Administrator to require, any new or modified source to install and operate any particular technological system of continuous emission reduction to comply with any new source standard of performance.

(6) The revised standards of performance required by enactment of subsection (a)(1)(A)(i) and (ii) of this section shall be promulgated not later than one year after August 7, 1977. Any new or modified fossil fuel fired stationary source which commences construction prior to the date of

publication of the proposed revised standards shall not be required to comply with such revised standards.

42 U.S.C. § 7411(b)(2) Standards of performance for new stationary sources

(b) List of categories of stationary sources; standards of performance; information on pollution control techniques; sources owned or operated by United States; particular systems; revised standards

(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards.

42 U.S.C. § 7415. International air pollution

(a) ENDANGERMENT OF PUBLIC HEALTH OR WELFARE IN FOREIGN COUNTRIES FROM POLLUTION EMITTED IN UNITED STATES

Whenever the Administrator, upon receipt of reports, surveys or studies from any duly constituted international agency has reason to believe that any air pollutant or pollutants emitted in the United States cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare in a foreign country or whenever the Secretary of State requests him to do so with respect to such pollution which the Secretary of State alleges is of such a nature, the Administrator shall give formal notification thereof to the Governor of the State in which such emissions originate.

(b) PREVENTION OR ELIMINATION OF ENDANGERMENT

The notice of the Administrator shall be deemed to be a finding under section 7410(a)(2)(H)(ii) of this title which requires a plan revision with respect to so much of the applicable implementation plan as is inadequate to prevent or eliminate the endangerment referred to in subsection (a) of this section. Any foreign country so affected by such emission of pollutant or pollutants shall be invited to appear at any public hearing associated with any revision of the appropriate portion of the applicable implementation plan.

(c) RECIPROCITY

This section shall apply only to a foreign country which the Administrator determines has given the United States essentially the same rights with respect to the prevention or control of air pollution occurring in that country as is given that country by this section.

(d) RECOMMENDATIONS

Recommendations issued following any abatement conference conducted prior to August 7, 1977, shall remain in effect with respect to any pollutant for which no national ambient air quality standard has been established under section 7409 of this title unless the Administrator, after consultation with all agencies which were party to the conference, rescinds any such recommendation on grounds of obsolescence.

42 U.S.C. § 7607(d)(3). Administrative proceedings and judicial review

(d) RULEMAKING

(3) In the case of any rule to which this subsection applies, notice of proposed rulemaking shall be published in the Federal Register, as provided under section 553(b) of title 5, shall be accompanied by a statement of its basis and purpose and shall specify the period available for public comment (hereinafter referred to as the "comment period"). The notice of proposed rulemaking shall also state the docket number, the location or locations of the docket, and the times it will be open to public inspection. The statement of basis and purpose shall include a summary of—

(A) the factual data on which the proposed rule is based;

(B) the methodology used in obtaining the data and in analyzing the data; and

(C) the major legal interpretations and policy considerations underlying the proposed rule.

The statement shall also set forth or summarize and provide a reference to any pertinent findings, recommendations, and comments by the Scientific Review Committee established under section 7409(d) of this title and the National Academy of Sciences, and, if the proposal differs in any important respect from any of these recommendations, an explanation of the reasons for such differences. All data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule.

42 U.S.C. § 7607(d)(3(A)-(C). Administrative proceedings and judicial review

(d) RULEMAKING

(3) In the case of any rule to which this subsection applies, notice of proposed rulemaking shall be published in the Federal Register, as provided under section 553(b) of title 5, shall be accompanied by a statement of its basis and purpose and shall specify the period available for public comment (hereinafter referred to as the "comment period"). The notice of proposed rulemaking shall also state the docket number, the location or locations of the docket, and the times it will be open to public inspection. The statement of basis and purpose shall include a summary of—

(A) the factual data on which the proposed rule is based;

(B) the methodology used in obtaining the data and in analyzing the data; and

(C) the major legal interpretations and policy considerations underlying the proposed rule.

42 U.S.C. § 7651 Findings and purposes

(a) Findings

The Congress finds that--

(1) the presence of acidic compounds and their precursors in the atmosphere and in deposition from the atmosphere represents a threat to natural resources, ecosystems, materials, visibility, and public health;

(2) the principal sources of the acidic compounds and their precursors in the atmosphere are emissions of sulfur and nitrogen oxides from the combustion of fossil fuels;

(3) the problem of acid deposition is of national and international significance;

(4) strategies and technologies for the control of precursors to acid deposition exist now that are economically feasible, and improved methods are expected to become increasingly available over the next decade;

(5) current and future generations of Americans will be adversely affected by delaying measures to remedy the problem;

(6) reduction of total atmospheric loading of sulfur dioxide and nitrogen oxides will enhance protection of the public health and welfare and the environment; and

(7) control measures to reduce precursor emissions from steam-electric generating units should be initiated without delay.

(b) Purposes

The purpose of this subchapter is to reduce the adverse effects of acid deposition through reductions in annual emissions of sulfur dioxide of ten million tons from 1980 emission levels, and, in combination with other provisions of this chapter, of nitrogen oxides emissions of approximately two million tons from 1980 emission levels, in the forty-eight contiguous States and the District of Columbia. It is the intent of this subchapter to effectuate such reductions by requiring compliance by affected sources with prescribed emission limitations by specified deadlines, which limitations may be met through alternative methods of compliance provided by an emission allocation and transfer system. It is also the purpose of this subchapter to encourage energy conservation, use of renewable and clean alternative technologies, and pollution prevention as a long-range strategy, consistent with the provisions of this subchapter, for reducing air pollution and other adverse impacts of energy production and use.

42 U.S.C. § 7651a Definitions

As used in this subchapter:

(1) The term “affected source” means a source that includes one or more affected units.

(2) The term “affected unit” means a unit that is subject to emission reduction requirements or limitations under this subchapter.

(3) The term “allowance” means an authorization, allocated to an affected unit by the Administrator under this subchapter, to emit, during or after a specified calendar year, one ton of sulfur dioxide.

(4) The term “baseline” means the annual quantity of fossil fuel consumed by an affected unit, measured in millions of British Thermal Units (“mmBtu's”), calculated as follows:

(A) For each utility unit that was in commercial operation prior to January 1, 1985, the baseline shall be the annual average quantity of mmBtu's consumed in fuel during calendar years 1985, 1986, and 1987, as recorded by the Department of Energy pursuant to Form 767. For any utility unit for which such form was not filed, the baseline shall be the level specified for such unit in the 1985 National Acid Precipitation Assessment Program (NAPAP) Emissions Inventory, Version 2, National Utility Reference File (NURF) or in a corrected data base as established by the Administrator pursuant to paragraph (3).1 For nonutility units, the baseline is the NAPAP Emissions Inventory, Version 2. The Administrator, in the Administrator's sole discretion, may exclude periods during which a unit is shutdown for a continuous period of four calendar months or longer, and make appropriate adjustments under this paragraph. Upon petition of the owner or operator of any unit, the Administrator may make appropriate baseline adjustments for accidents that caused prolonged outages.

(B) For any other nonutility unit that is not included in the NAPAP Emissions Inventory, Version 2, or a corrected data base as established by the Administrator pursuant to paragraph (3), the baseline shall be the annual average quantity, in mmBtu consumed in fuel by that unit, as calculated pursuant to a method which the administrator shall prescribe by regulation to be promulgated not later than eighteen months after November 15, 1990.

(C) The Administrator shall, upon application or on his own motion, by December 31, 1991, supplement data needed in support of this subchapter and correct any factual errors in data from which affected Phase II units' baselines or actual 1985 emission rates have been calculated. Corrected data shall be used for purposes of issuing allowances under the2 subchapter. Such corrections shall not be subject to

judicial review, nor shall the failure of the Administrator to correct an alleged factual error in such reports be subject to judicial review.

(5) The term "capacity factor" means the ratio between the actual electric output from a unit and the potential electric output from that unit.

(6) The term "compliance plan" means, for purposes of the requirements of this subchapter, either--

(A) a statement that the source will comply with all applicable requirements under this subchapter, or

(B) where applicable, a schedule and description of the method or methods for compliance and certification by the owner or operator that the source is in compliance with the requirements of this subchapter.

(7) The term "continuous emission monitoring system" (CEMS) means the equipment as required by section 7651k of this title, used to sample, analyze, measure, and provide on a continuous basis a permanent record of emissions and flow (expressed in pounds per million British thermal units (lbs/mmBtu), pounds per hour (lbs/hr) or such other form as the Administrator may prescribe by regulations under section 7651k of this title).

(8) The term "existing unit" means a unit (including units subject to section 7411 of this title) that commenced commercial operation before November 15, 1990. Any unit that commenced commercial operation before November 15, 1990, which is modified, reconstructed, or repowered after November 15, 1990, shall continue to be an existing unit for the purposes of this subchapter. For the purposes of this subchapter, existing units shall not include simple combustion turbines, or units which serve a generator with a nameplate capacity of 25MWe or less.

(9) The term "generator" means a device that produces electricity and which is reported as a generating unit pursuant to Department of Energy Form 860.

(10) The term "new unit" means a unit that commences commercial operation on or after November 15, 1990.

(11) The term "permitting authority" means the Administrator, or the State or local air pollution control agency, with an approved permitting program under part B of title III of the Act.

(12) The term "repowering" means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the

Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Notwithstanding the provisions of section 7651h(a) of this title, for the purpose of this subchapter, the term "repowering" shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

(13) The term "reserve" means any bank of allowances established by the Administrator under this subchapter.

(14) The term "State" means one of the 48 contiguous States and the District of Columbia.

(15) The term "unit" means a fossil fuel-fired combustion device.

(16) The term "actual 1985 emission rate", for electric utility units means the annual sulfur dioxide or nitrogen oxides emission rate in pounds per million Btu as reported in the NAPAP Emissions Inventory, Version 2, National Utility Reference File. For nonutility units, the term "actual 1985 emission rate" means the annual sulfur dioxide or nitrogen oxides emission rate in pounds per million Btu as reported in the NAPAP Emission Inventory, Version 2.

(17)(A) The term "utility unit" means--

(i) a unit that serves a generator in any State that produces electricity for sale, or

(ii) a unit that, during 1985, served a generator in any State that produced electricity for sale.

(B) Notwithstanding subparagraph (A), a unit described in subparagraph (A) that-

(i) was in commercial operation during 1985, but

(ii) did not, during 1985, serve a generator in any State that produced electricity for sale shall not be a utility unit for purposes of this subchapter.

(C) A unit that cogenerates steam and electricity is not a "utility unit" for purposes of this subchapter unless the unit is constructed for the purpose of supplying, or commences construction after November 15, 1990, and supplies, more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale.

(18) The term "allowable 1985 emissions rate" means a federally enforceable emissions limitation for sulfur dioxide or oxides of nitrogen, applicable to the unit in 1985 or the limitation applicable in such other subsequent year as determined by the Administrator if such a limitation for 1985 does not exist. Where the emissions limitation for a unit is not expressed in pounds of emissions per million Btu, or the averaging period of that emissions limitation is not expressed on an annual basis, the Administrator shall calculate the annual equivalent of that emissions limitation in pounds per million Btu to establish the allowable 1985 emissions rate.

(19) The term "qualifying phase I technology" means a technological system of continuous emission reduction which achieves a 90 percent reduction in emissions of sulfur dioxide from the emissions that would have resulted from the use of fuels which were not subject to treatment prior to combustion.

(20) The term "alternative method of compliance" means a method of compliance in accordance with one or more of the following authorities:

(A) a substitution plan submitted and approved in accordance with subsections3 7651c(b) and (c) of this title;

(B) a Phase I extension plan approved by the Administrator under section 7651c(d) of this title, using qualifying phase I technology as determined by the Administrator in accordance with that section; or

(C) repowering with a qualifying clean coal technology under section 7651h of this title.

(21) The term "commenced" as applied to construction of any new electric utility unit means that an owner or operator has undertaken a continuous program of construction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction.

(22) The term "commenced commercial operation" means to have begun to generate electricity for sale.

(23) The term "construction" means fabrication, erection, or installation of an affected unit.

(24) The term "industrial source" means a unit that does not serve a generator that produces electricity, a "nonutility unit" as defined in this section, or a process source as defined in section 7651i(e)4 of this title.

(25) The term "nonutility unit" means a unit other than a utility unit.

(26) The term "designated representative" means a responsible person or official authorized by the owner or operator of a unit to represent the owner or operator in matters pertaining to the holding, transfer, or disposition of allowances allocated to a unit, and the submission of and compliance with permits, permit applications, and compliance plans for the unit.

(27) The term "life-of-the-unit, firm power contractual arrangement" means a unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of capacity and associated energy generated by a specified generating unit (or units) and pays its proportional amount of such unit's total costs, pursuant to a contract either--

(A) for the life of the unit;

(B) for a cumulative term of no less than 30 years, including contracts that permit an election for early termination; or

(C) for a period equal to or greater than 25 years or 70 percent of the economic useful life of the unit determined as of the time the unit was built, with option rights to purchase or re-lease some portion of the capacity and associated energy generated by the unit (or units) at the end of the period.

(28) The term "basic Phase II allowance allocations" means:

(A) For calendar years 2000 through 2009 inclusive, allocations of allowances made by the Administrator pursuant to section 7651b of this title and subsections (b)(1), (3), and (4); (c)(1), (2), (3), and (5); (d)(1), (2), (4), and (5); (e); (f); (g)(1), (2), (3), (4), and (5); (h)(1); (i) and (j) of section 7651d of this title.

(B) For each calendar year beginning in 2010, allocations of allowances made by the Administrator pursuant to section 7651b of this title and subsections (b)(1), (3), and (4); (c)(1), (2), (3), and (5); (d)(1), (2), (4) and (5); (e); (f); (g)(1), (2), (3), (4), and (5); (h)(1) and (3); (i) and (j) of section 7651d of this title.

(29) The term "Phase II bonus allowance allocations" means, for calendar year 2000 through 2009, inclusive, and only for such years, allocations made by the Administrator pursuant to section 7651b of this title, subsections (a)(2), (b)(2), (c)(4), (d)(3) (except as otherwise provided therein), and (h)(2) of section 7651d of this title, and section 7651e of this title.

42 U.S.C. § 7651b Sulfur dioxide allowance program for existing and new units

(a) Allocations of annual allowances for existing and new units

(1) For the emission limitation programs under this subchapter, the Administrator shall allocate annual allowances for the unit, to be held or distributed by the designated representative of the owner or operator of each affected unit at an affected source in accordance with this subchapter, in an amount equal to the annual tonnage emission limitation calculated under section 7651c, 7651d, 7651e, 7651h, or 7651i of this title except as otherwise specifically provided elsewhere in this subchapter. Except as provided in sections 7651d(a)(2), 7651d(a)(3), 7651h and 7651i of this title, beginning January 1, 2000, the Administrator shall not allocate annual allowances to emit sulfur dioxide pursuant to section 7651d of this title in such an amount as would result in total annual emissions of sulfur dioxide from utility units in excess of 8.90 million tons except that the Administrator shall not take into account unused allowances carried forward by owners and operators of affected units or by other persons holding such allowances, following the year for which they were allocated. If necessary to meeting the restrictions imposed in the preceding sentence, the Administrator shall reduce, pro rata, the basic Phase II allowance allocations for each unit subject to the requirements of section 7651d of this title. Subject to the provisions of section 7651o of this title, the Administrator shall allocate allowances for each affected unit at an affected source annually, as provided in paragraphs (2) and (3)1 and section 7651g of this title. Except as provided in sections 7651h and 7651i of this title, the removal of an existing affected unit or source from commercial operation at any time after November 15, 1990 (whether before or after January 1, 1995, or January 1, 2000) shall not terminate or otherwise affect the allocation of allowances pursuant to section 7651c or 7651d of this title to which the unit is entitled. Allowances shall be allocated by the Administrator without cost to the recipient, except for allowances sold by the Administrator pursuant to section 7651o of this title. Not later than December 31, 1991, the Administrator shall publish a proposed list of the basic Phase II allowance allocations, the Phase II bonus allowance allocations and, if applicable, allocations pursuant to section 7651d(a)(3) of this title for each unit subject to the emissions limitation requirements of section 7651d of this title for the year 2000 and the year 2010. After notice and opportunity for public comment, but not later than December 31, 1992, the Administrator shall publish a final list of such allocations, subject to the provisions of section 7651d(a)(2) of this title. Any owner or operator of an existing unit subject to the requirements of section 7651d(b) or (c) of this title who is considering applying for an extension of the emission limitation requirement compliance deadline for that unit from January 1, 2000, until not later than December 31, 2000, pursuant to section

7651h of this title, shall notify the Administrator no later than March 31, 1991. Such notification shall be used as the basis for estimating the basic Phase II allowances under this subsection. Prior to June 1, 1998, the Administrator shall publish a revised final statement of allowance allocations, subject to the provisions of section 7651d(a)(2) of this title and taking into account the effect of any compliance date extensions granted pursuant to section 7651h of this title on such allocations. Any person who may make an election concerning the amount of allowances to be allocated to a unit or units shall make such election and so inform the Administrator not later than March 31, 1991, in the case of an election under section 7651d of this title (or June 30, 1991, in the case of an election under section 7651e of this title). If such person fails to make such election, the Administrator shall set forth for each unit owned or operated by such person, the amount of allowances reflecting the election that would, in the judgment of the Administrator, provide the greatest benefit for the owner or operator of the unit. If such person is a Governor who may make an election under section 7651e of this title and the Governor fails to make an election, the Administrator shall set forth for each unit in the State the amount of allowances reflecting the election that would, in the judgment of the Administrator, provide the greatest benefit for units in the State.

(b) Allowance transfer system

Allowances allocated under this subchapter may be transferred among designated representatives of the owners or operators of affected sources under this subchapter and any other person who holds such allowances, as provided by the allowance system regulations to be promulgated by the Administrator not later than eighteen months after November 15, 1990. Such regulations shall establish the allowance system prescribed under this section, including, but not limited to, requirements for the allocation, transfer, and use of allowances under this subchapter. Such regulations shall prohibit the use of any allowance prior to the calendar year for which the allowance was allocated, and shall provide, consistent with the purposes of this subchapter, for the identification of unused allowances, and for such unused allowances to be carried forward and added to allowances allocated in subsequent years, including allowances allocated to units subject to Phase I requirements (as described in section 7651c of this title) which are applied to emissions limitations requirements in Phase II (as described in section 7651d of this title). Transfers of allowances shall not be effective until written certification of the transfer, signed by a responsible official of each party to the transfer, is received and recorded by the Administrator. Such regulations shall permit the transfer of allowances prior to the issuance of such allowances. Recorded pre-allocation transfers shall be deducted by the Administrator from the number of allowances which would otherwise be allocated to the transferor, and added to those allowances allocated to the transferee. Pre-allocation

transfers shall not affect the prohibition contained in this subsection against the use of allowances prior to the year for which they are allocated.

(c) Interpollutant trading

Not later than January 1, 1994, the Administrator shall furnish to the Congress a study evaluating the environmental and economic consequences of amending this subchapter to permit trading sulfur dioxide allowances for nitrogen oxides allowances.

(d) Allowance tracking system

(1) The Administrator shall promulgate, not later than 18 months after November 15, 1990, a system for issuing, recording, and tracking allowances, which shall specify all necessary procedures and requirements for an orderly and competitive functioning of the allowance system. All allowance allocations and transfers shall, upon recordation by the Administrator, be deemed a part of each unit's permit requirements pursuant to section 7651g of this title, without any further permit review and revision.

(2) In order to insure electric reliability, such regulations shall not prohibit or affect temporary increases and decreases in emissions within utility systems, power pools, or utilities entering into allowance pool agreements, that result from their operations, including emergencies and central dispatch, and such temporary emissions increases and decreases shall not require transfer of allowances among units nor shall it require recordation. The owners or operators of such units shall act through a designated representative. Notwithstanding the preceding sentence, the total tonnage of emissions in any calendar year (calculated at the end thereof) from all units in such a utility system, power pool, or allowance pool agreements shall not exceed the total allowances for such units for the calendar year concerned.

(e) New utility units

After January 1, 2000, it shall be unlawful for a new utility unit to emit an annual tonnage of sulfur dioxide in excess of the number of allowances to emit held for the unit by the unit's owner or operator. Such new utility units shall not be eligible for an allocation of sulfur dioxide allowances under subsection (a)(1) of this section, unless the unit is subject to the provisions of subsection (g)(2) or (3) of section 7651d of this title. New utility units may obtain allowances from any person, in accordance with this subchapter. The owner or operator of any new utility unit in violation of this subsection shall be liable for fulfilling the obligations specified in section 7651j of this title.

(f) Nature of allowances

An allowance allocated under this subchapter is a limited authorization to emit sulfur dioxide in accordance with the provisions of this subchapter. Such allowance does not constitute a property right. Nothing in this subchapter or in any other provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. Nothing in this section relating to allowances shall be construed as affecting the application of, or compliance with, any other provision of this chapter to an affected unit or source, including the provisions related to applicable National Ambient Air Quality Standards and State implementation plans. Nothing in this section shall be construed as requiring a change of any kind in any State law regulating electric utility rates and charges or affecting any State law regarding such State regulation or as limiting State regulation (including any prudency review) under such a State law. Nothing in this section shall be construed as modifying the Federal Power Act [16 U.S.C.A. § 791a et seq.] or as affecting the authority of the Federal Energy Regulatory Commission under that Act. Nothing in this subchapter shall be construed to interfere with or impair any program for competitive bidding for power supply in a State in which such program is established. Allowances, once allocated to a person by the Administrator, may be received, held, and temporarily or permanently transferred in accordance with this subchapter and the regulations of the Administrator without regard to whether or not a permit is in effect under subchapter V of this chapter or section 7651g of this title with respect to the unit for which such allowance was originally allocated and recorded. Each permit under this subchapter and each permit issued under subchapter V of this chapter for any affected unit shall provide that the affected unit may not emit an annual tonnage of sulfur dioxide in excess of the allowances held for that unit.

(g) Prohibition

It shall be unlawful for any person to hold, use, or transfer any allowance allocated under this subchapter, except in accordance with regulations promulgated by the Administrator. It shall be unlawful for any affected unit to emit sulfur dioxide in excess of the number of allowances held for that unit for that year by the owner or operator of the unit. Upon the allocation of allowances under this subchapter, the prohibition contained in the preceding sentence shall supersede any other emission limitation applicable under this subchapter to the units for which such allowances are allocated. Allowances may not be used prior to the calendar year for which they are allocated. Nothing in this section or in the allowance system regulations shall relieve the Administrator of the Administrator's permitting, monitoring and enforcement obligations under this chapter, nor relieve affected sources of their requirements and liabilities under this chapter.

(h) Competitive bidding for power supply

Nothing in this subchapter shall be construed to interfere with or impair any program for competitive bidding for power supply in a State in which such program is established.

(i) Applicability of antitrust laws

(1) Nothing in this section affects--

(A) the applicability of the antitrust laws to the transfer, use, or sale of allowances, or

(B) the authority of the Federal Energy Regulatory Commission under any provision of law respecting unfair methods of competition or anticompetitive acts or practices.

(2) As used in this section, “antitrust laws” means those Acts set forth in section 12 of Title 15.

(j) Public Utility Holding Company Act

The acquisition or disposition of allowances pursuant to this subchapter including the issuance of securities or the undertaking of any other financing transaction in connection with such allowances shall not be subject to the provisions of the Public Utility Holding Company Act of 1935 [15 U.S.C.A. § 79 et seq.].

42 U.S.C. § 7651c Phase I sulfur dioxide requirements

(a) Emission limitations

(1) After January 1, 1995, each source that includes one or more affected units listed in table A is an affected source under this section. After January 1, 1995, it shall be unlawful for any affected unit (other than an eligible phase I unit under subsection (d)(2) of this section) to emit sulfur dioxide in excess of the tonnage limitation stated as a total number of allowances in table A for phase I, unless (A) the emissions reduction requirements applicable to such unit have been achieved pursuant to subsection (b) or (d) of this section, or (B) the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions, except that, after January 1, 2000, the emissions limitations established in this section shall be superseded by those established in section 7651d of this title. The owner or operator of any unit in violation of this section shall be fully liable for such violation including, but not limited to, liability for fulfilling the obligations specified in section 7651j of this title.

(2) Not later than December 31, 1991, the Administrator shall determine the total tonnage of reductions in the emissions of sulfur dioxide from all utility units in calendar year 1995 that will occur as a result of compliance with the emissions limitation requirements of this section, and shall establish a reserve of allowances equal in amount to the number of tons determined thereby not to exceed a total of 3.50 million tons. In making such a determination, the Administrator shall compute for each unit subject to the emissions limitation requirements of this section the difference between:

(A) the product of its baseline multiplied by the lesser of each unit's allowable 1985 emissions rate and its actual 1985 emissions rate, divided by 2,000, and

(B) the product of each unit's baseline multiplied by 2.50 lbs/mmBtu divided by 2,000, and sum the computations. The Administrator shall adjust the foregoing calculation to reflect projected calendar year 1995 utilization of the units subject to the emissions limitations of this subchapter that the Administrator finds would have occurred in the absence of the imposition of such requirements. Pursuant to subsection (d) of this section, the Administrator shall allocate allowances from the reserve established hereinunder until the earlier of such time as all such allowances in the reserve are allocated or December 31, 1999.

(3) In addition to allowances allocated pursuant to paragraph (1), in each calendar year beginning in 1995 and ending in 1999, inclusive, the Administrator shall

allocate for each unit on Table A that is located in the States of Illinois, Indiana, or Ohio (other than units at Kyger Creek, Clifty Creek and Joppa Steam), allowances in an amount equal to 200,000 multiplied by the unit's pro rata share of the total number of allowances allocated for all units on Table A in the 3 States (other than units at Kyger Creek, Clifty Creek, and Joppa Steam) pursuant to paragraph (1). Such allowances shall be excluded from the calculation of the reserve under paragraph (2).

(b) Substitutions

The owner or operator of an affected unit under subsection (a) of this section may include in its section 7651g of this title permit application and proposed compliance plan a proposal to reassign, in whole or in part, the affected unit's sulfur dioxide reduction requirements to any other unit(s) under the control of such owner or operator. Such proposal shall specify--

(1) the designation of the substitute unit or units to which any part of the reduction obligations of subsection (a) of this section shall be required, in addition to, or in lieu of, any original affected units designated under such subsection;

(2) the original affected unit's baseline, the actual and allowable 1985 emissions rate for sulfur dioxide, and the authorized annual allowance allocation stated in table A;

(3) calculation of the annual average tonnage for calendar years 1985, 1986, and 1987, emitted by the substitute unit or units, based on the baseline for each unit, as defined in section 7651a(d)1 of this title, multiplied by the lesser of the unit's actual or allowable 1985 emissions rate;

(4) the emissions rates and tonnage limitations that would be applicable to the original and substitute affected units under the substitution proposal;

(5) documentation, to the satisfaction of the Administrator, that the reassigned tonnage limits will, in total, achieve the same or greater emissions reduction than would have been achieved by the original affected unit and the substitute unit or units without such substitution; and

(6) such other information as the Administrator may require.

(c) Administrator's action on substitution proposals

(1) The Administrator shall take final action on such substitution proposal in accordance with section 7651g(c) of this title if the substitution proposal fulfills the requirements of this subsection. The Administrator

may approve a substitution proposal in whole or in part and with such modifications or conditions as may be consistent with the orderly functioning of the allowance system and which will ensure the emissions reductions contemplated by this subchapter. If a proposal does not meet the requirements of subsection (b) of this section, the Administrator shall disapprove it. The owner or operator of a unit listed in table A shall not substitute another unit or units without the prior approval of the Administrator.

(2) Upon approval of a substitution proposal, each substitute unit, and each source with such unit, shall be deemed affected under this subchapter, and the Administrator shall issue a permit to the original and substitute affected source and unit in accordance with the approved substitution plan and section 7651g of this title. The Administrator shall allocate allowances for the original and substitute affected units in accordance with the approved substitution proposal pursuant to section 7651b of this title. It shall be unlawful for any source or unit that is allocated allowances pursuant to this section to emit sulfur dioxide in excess of the emissions limitation provided for in the approved substitution permit and plan unless the owner or operator of each unit governed by the permit and approved substitution plan holds allowances to emit not less than the units2 total annual emissions. The owner or operator of any original or substitute affected unit operated in violation of this subsection shall be fully liable for such violation, including liability for fulfilling the obligations specified in section 7651j of this title. If a substitution proposal is disapproved, the Administrator shall allocate allowances to the original affected unit or units in accordance with subsection (a) of this section.

(d) Eligible phase I extension units

(1) The owner or operator of any affected unit subject to an emissions limitation requirement under this section may petition the Administrator in its permit application under section 7651g of this title for an extension of 2 years of the deadline for meeting such requirement, provided that the owner or operator of any such unit holds allowances to emit not less than the unit's total annual emissions for each of the 2 years of the period of extension. To qualify for such an extension, the affected unit must either employ a qualifying phase I technology, or transfer its phase I emissions reduction obligation to a unit employing a qualifying phase I technology. Such transfer shall be accomplished in accordance with a compliance plan, submitted and approved under section 7651g of this title, that

shall govern operations at all units included in the transfer, and that specifies the emissions reduction requirements imposed pursuant to this subchapter.

(2) Such extension proposal shall--

(A) specify the unit or units proposed for designation as an eligible phase I extension unit;

(B) provide a copy of an executed contract, which may be contingent upon the Administrator approving the proposal, for the design engineering, and construction of the qualifying phase I technology for the extension unit, or for the unit or units to which the extension unit's emission reduction obligation is to be transferred;

(C) specify the unit's or units' baseline, actual 1985 emissions rate, allowable 1985 emissions rate, and projected utilization for calendar years 1995 through 1999;

(D) require CEMS on both the eligible phase I extension unit or units and the transfer unit or units beginning no later than January 1, 1995; and

(E) specify the emission limitation and number of allowances expected to be necessary for annual operation after the qualifying phase I technology has been installed.

(3) The Administrator shall review and take final action on each extension proposal in order of receipt, consistent with section 7651g of this title, and for an approved proposal shall designate the unit or units as an eligible phase I extension unit. The Administrator may approve an extension proposal in whole or in part, and with such modifications or conditions as may be necessary, consistent with the orderly functioning of the allowance system, and to ensure the emissions reductions contemplated by the3 subchapter.

(4) In order to determine the number of proposals eligible for allocations from the reserve under subsection (a)(2) of this section and the number of allowances remaining available after each proposal is acted upon, the Administrator shall reduce the total number of allowances remaining available in the reserve by the number of allowances calculated according to subparagraphs (A), (B) and (C) until either no allowances remain available in the reserve for further allocation or all approved proposals have been acted upon. If no allowances remain available in the reserve for further allocation before all proposals have been acted upon by the Administrator, any pending proposals shall be disapproved. The Administrator shall calculate allowances equal to--

(A) the difference between the lesser of the average annual emissions in calendar years 1988 and 1989 or the projected emissions tonnage for calendar year 1995 of each eligible phase I extension unit, as designated under paragraph (3), and the product of the unit's baseline multiplied by an emission rate of 2.50 lbs/mmBtu, divided by 2,000;

(B) the difference between the lesser of the average annual emissions in calendar years 1988 and 1989 or the projected emissions tonnage for calendar year 1996 of each eligible phase I extension unit, as designated under paragraph (3), and the product of the unit's baseline multiplied by an emission rate of 2.50 lbs/mmBtu, divided by 2,000; and

(C) the amount by which (i) the product of each unit's baseline multiplied by an emission rate of 1.20 lbs/mmBtu, divided by 2,000, exceeds (ii) the tonnage level specified under subparagraph (E) of paragraph (2) of this subsection multiplied by a factor of 3.

(5) Each eligible Phase I extension unit shall receive allowances determined under subsection (a)(1) or (c) of this section. In addition, for calendar year 1995, the Administrator shall allocate to each eligible Phase I extension unit, from the allowance reserve created pursuant to subsection (a)(2) of this section, allowances equal to the difference between the lesser of the average annual emissions in calendar years 1988 and 1989 or its projected emissions tonnage for calendar year 1995 and the product of the unit's baseline multiplied by an emission rate of 2.50 lbs/mmBtu, divided by 2,000. In calendar year 1996, the Administrator shall allocate for each eligible unit, from the allowance reserve created pursuant to subsection (a)(2) of this section, allowances equal to the difference between the lesser of the average annual emissions in calendar years 1988 and 1989 or its projected emissions tonnage for calendar year 1996 and the product of the unit's baseline multiplied by an emission rate of 2.50 lbs/mmBtu, divided by 2,000. It shall be unlawful for any source or unit subject to an approved extension plan under this subsection to emit sulfur dioxide in excess of the emissions limitations provided for in the permit and approved extension plan, unless the owner or operator of each unit governed by the permit and approved plan holds allowances to emit not less than the unit's total annual emissions.

(6) In addition to allowances specified in paragraph (5), the Administrator shall allocate for each eligible Phase I extension unit employing qualifying Phase I technology, for calendar years 1997, 1998, and 1999, additional allowances, from any remaining allowances in the reserve created pursuant to subsection (a)(2) of this section, following the reduction in the reserve provided for in paragraph (4), not to exceed the amount by which (A) the product of each eligible unit's baseline

times an emission rate of 1.20 lbs/mmBtu, divided by 2,000, exceeds (B) the tonnage level specified under subparagraph (E) of paragraph (2) of this subsection.

(7) After January 1, 1997, in addition to any liability under this chapter, including under section 7651j of this title, if any eligible phase I extension unit employing qualifying phase I technology or any transfer unit under this subsection emits sulfur dioxide in excess of the annual tonnage limitation specified in the extension plan, as approved in paragraph (3) of this subsection, the Administrator shall, in the calendar year following such excess, deduct allowances equal to the amount of such excess from such unit's annual allowance allocation.

(e) Allocation of allowances

(1) In the case of a unit that receives authorization from the Governor of the State in which such unit is located to make reductions in the emissions of sulfur dioxide prior to calendar year 1995 and that is part of a utility system that meets the following requirements: (A) the total coal-fired generation within the utility system as a percentage of total system generation decreased by more than 20 percent between January 1, 1980, and December 31, 1985; and (B) the weighted capacity factor of all coal-fired units within the utility system averaged over the period from January 1, 1985, through December 31, 1987, was below 50 percent, the Administrator shall allocate allowances under this paragraph for the unit pursuant to this subsection. The Administrator shall allocate allowances for a unit that is an affected unit pursuant to section 7651d of this title (but is not also an affected unit under this section) and part of a utility system that includes 1 or more affected units under section 7651d of this title for reductions in the emissions of sulfur dioxide made during the period 1995-1999 if the unit meets the requirements of this subsection and the requirements of the preceding sentence, except that for the purposes of applying this subsection to any such unit, the prior year concerned as specified below, shall be any year after January 1, 1995 but prior to January 1, 2000.

(2) In the case of an affected unit under this section described in subparagraph (A),4 the allowances allocated under this subsection for early reductions in any prior year may not exceed the amount which (A) the product of the unit's baseline multiplied by the unit's 1985 actual sulfur dioxide emission rate (in lbs. per mmBtu), divided by 2,000, exceeds (B) the allowances specified for such unit in Table A. In the case of an affected unit under section 7651d of this title described in subparagraph (A),4 the allowances awarded under this subsection for early reductions in any prior year may not exceed the amount by which (i) the product of the quantity of fossil fuel consumed by the unit (in mmBtu) in the prior year

multiplied by the lesser of 2.50 or the most stringent emission rate (in lbs. per mmBtu) applicable to the unit under the applicable implementation plan, divided by 2,000, exceeds (ii) the unit's actual tonnage of sulfur dioxide emission for the prior year concerned. Allowances allocated under this subsection for units referred to in subparagraph (A)4 may be allocated only for emission reductions achieved as a result of physical changes or changes in the method of operation made after November 15, 1990, including changes in the type or quality of fossil fuel consumed.

(3) In no event shall the provisions of this paragraph5 be interpreted as an event of force majeur6 or a commercial impractibility7 or in any other way as a basis for excused nonperformance by a utility system under a coal sales contract in effect before November 15, 1990.

Table A. Affected Sources and Units in Phase I and Their Sulfur Dioxide Allowances (tons)

State	Plant Name	Generator	Phase I Allowances
Alabama	Colbert	1	13,570
		2	15,310
		3	15,400
		4	15,410
		5	37,180
	E.C. Gaston	1	18,100
		2	18,540
		3	18,310
		4	19,280
		5	59,840
Florida	Big Bend	1	28,410
		2	27,100
		3	26,740
	Crist	6	19,200
		7	31,680
Georgia	Bowen	1	56,320
		2	54,770
		3	71,750
		4	71,740
	Hammond	1	8,780
		2	9,220
		3	8,910
		4	37,640

	J. McDonough	1	19,910
		2	20,600
	Wansley	1	70,770
		2	65,430
	Yates	1	7,210
		2	7,040
		3	6,950
		4	8,910
		5	9,410
		6	24,760
		7	21,480
Illinois	Baldwin	1	42,010
		2	44,420
		3	42,550
	Coffeen	1	11,790
		2	35,670
	Grand Tower	4	5,910
	Hennepin	2	18,410
	Joppa Steam	1	12,590
		2	10,770
		3	12,270
		4	11,360
		5	11,420
		6	10,620
	Kincaid	1	31,530
		2	33,810
	Meredosia	3	13,890
	Vermilion	2	8,880
Indiana	Bailly	7	11,180
		8	15,630
	Breed	1	18,500
	Cayuga	1	33,370
		2	34,130
	Clifty Creek	1	20,150
		2	19,810
		3	20,410
		4	20,080
		5	19,360

		6	20,380
	E.W. Stout	5	3,880
		6	4,770
		7	23,610
	F.B. Culley	2	4,290
		3	16,970
	F.E. Ratts	1	8,330
		2	8,480
	Gibson	1	40,400
		2	41,010
		3	41,080
		4	40,320
	H.T. Pritchard	6	5,770
	Michigan City	12	23,310
	Petersburg	1	16,430
		2	32,380
	R. Gallagher	1	6,490
		2	7,280
		3	6,530
		4	7,650
	Tanners Creek	4	24,820
	Wabash River	1	4,000
		2	2,860
		3	3,750
		5	3,670
		6	12,280
	Warrick	4	26,980
Iowa	Burlington	1	10,710
	Des Moines	7	2,320
	George Neal	1	1,290
	M.L. Kapp	2	13,800
	Prairie Creek	4	8,180
	Riverside	5	3,990
Kansas	Quindaro	2	4,220
Kentucky	Coleman	1	11,250
		2	12,840
		3	12,340
	Cooper	1	7,450

		2	15,320
	E.W. Brown	1	7,110
		2	10,910
		3	26,100
	Elmer Smith	1	6,520
		2	14,410
	Ghent	1	28,410
	Green River	4	7,820
	H.L. Spurlock	1	22,780
	Henderson II	1	13,340
		2	12,310
	Paradise	3	59,170
	Shawnee	10	10,170
Maryland	Chalk Point	1	21,910
		2	24,330
	C.P. Crane	1	10,330
		2	9,230
	Morgantown	1	35,260
		2	38,480
Michigan	J.H. Campbell	1	19,280
		2	23,060
Minnesota	High Bridge	6	4,270
Mississippi	Jack Watson	4	17,910
		5	36,700
Missouri	Asbury	1	16,190
	James River	5	4,850
	Labadie	1	40,110
		2	37,710
		3	40,310
		4	35,940
	Montrose	1	7,390
		2	8,200
		3	10,090
	New Madrid	1	28,240
		2	32,480
	Sibley	3	15,580
	Sioux	1	22,570
		2	23,690

	Thomas Hill	1	10,250
		2	19,390
New Hampshire	Merrimack	1	10,190
		2	22,000
New Jersey	B.L. England	1	9,060
		2	11,720
New York	Dunkirk	3	12,600
		4	14,060
	Greenidge	4	7,540
	Milliken	1	11,170
		2	12,410
	Northport	1	19,810
		2	24,110
		3	26,480
	Port Jefferson	3	10,470
		4	12,330
Ohio	Ashtabula	5	16,740
	Avon Lake	8	11,650
		9	30,480
	Cardinal	1	34,270
		2	38,320
	Conesville	1	4,210
		2	4,890
		3	5,500
		4	48,770
	Eastlake	1	7,800
		2	8,640
		3	10,020
		4	14,510
		5	34,070
	Edgewater	4	5,050
	Gen. J.M. Gavin	1	79,080
		2	80,560
	Kyger Creek	1	19,280
		2	18,560
		3	17,910
		4	18,710
		5	18,740

	Miami Fort	5	760
		6	11,380
		7	38,510
	Muskingum River	1	14,880
		2	14,170
		3	13,950
		4	11,780
		5	40,470
	Niles	1	6,940
		2	9,100
	Picway	5	4,930
	R.E. Burger	3	6,150
		4	10,780
		5	12,430
	W.H. Sammis	5	24,170
		6	39,930
		7	43,220
	W.C. Beckjord	5	8,950
		6	23,020
Pennsylvania	Armstrong	1	14,410
		2	15,430
	Brunner Island	1	27,760
		2	31,100
		3	53,820
	Cheswick	1	39,170
	Conemaugh	1	59,790
		2	66,450
	Hatfield's Ferry	1	37,830
		2	37,320
		3	40,270
	Martins Creek	1	12,660
		2	12,820
	Portland	1	5,940
		2	10,230
	Shawville	1	10,320
		2	10,320
		3	14,220
		4	14,070

	Sunbury	3	8,760
		4	11,450
Tennessee	Allen	1	15,320
		2	16,770
		3	15,670
	Cumberland	1	86,700
		2	94,840
	Gallatin	1	17,870
		2	17,310
		3	20,020
		4	21,260
	Johnsonville	1	7,790
		2	8,040
		3	8,410
		4	7,990
		5	8,240
		6	7,890
		7	8,980
		8	8,700
		9	7,080
		10	7,550
West Virginia	Albright	3	12,000
	Fort Martin	1	41,590
		2	41,200
	Harrison	1	48,620
		2	46,150
		3	41,500
	Kammer	1	18,740
		2	19,460
		3	17,390
	Mitchell	1	43,980
		2	45,510
	Mount Storm	1	43,720
		2	35,580
		3	42,430
Wisconsin	Edgewater	4	24,750
	La Crosse/Genoa	3	22,700
	Nelson Dewey	1	6,010

	2	6,680
N. Oak Creek	1	5,220
	2	5,140
	3	5,370
	4	6,320
Pulliam	8	7,510
S. Oak Creek	5	9,670
	6	12,040
	7	16,180
	8	15,790

(f) Energy conservation and renewable energy

(1) Definitions

As used in this subsection:

(A) Qualified energy conservation measure

The term "qualified energy conservation measure" means a cost effective measure, as identified by the Administrator in consultation with the Secretary of Energy, that increases the efficiency of the use of electricity provided by an electric utility to its customers.

(B) Qualified renewable energy

The term "qualified renewable energy" means energy derived from biomass, solar, geothermal, or wind as identified by the Administrator in consultation with the Secretary of Energy.

(C) Electric utility

The term "electric utility" means any person, State agency, or Federal agency, which sells electric energy.

(2) Allowances for emissions avoided through energy conservation and renewable energy

(A) In general

The regulations under paragraph (4) of this subsection shall provide that for each ton of sulfur dioxide emissions avoided by an electric utility, during the applicable period, through the use of qualified energy

conservation measures or qualified renewable energy, the Administrator shall allocate a single allowance to such electric utility, on a first-come-first-served basis from the Conservation and Renewable Energy Reserve established under subsection (g) of this section, up to a total of 300,000 allowances for allocation from such Reserve.

(B) Requirements for issuance

The Administrator shall allocate allowances to an electric utility under this subsection only if all of the following requirements are met:

(i) Such electric utility is paying for the qualified energy conservation measures or qualified renewable energy directly or through purchase from another person.

(ii) The emissions of sulfur dioxide avoided through the use of qualified energy conservation measures or qualified renewable energy are quantified in accordance with regulations promulgated by the Administrator under this subsection.

(iii)(I) Such electric utility has adopted and is implementing a least cost energy conservation and electric power plan which evaluates a range of resources, including new power supplies, energy conservation, and renewable energy resources, in order to meet expected future demand at the lowest system cost.

(II) The qualified energy conservation measures or qualified renewable energy, or both, are consistent with that plan.

(III) Electric utilities subject to the jurisdiction of a State regulatory authority must have such plan approved by such authority. For electric utilities not subject to the jurisdiction of a State regulatory authority such plan shall be approved by the entity with rate-making authority for such utility.

(iv) In the case of qualified energy conservation measures undertaken by a State regulated electric utility, the Secretary of Energy certifies that the State regulatory authority with jurisdiction over the electric rates of such electric utility has established rates and charges which ensure that the net income of such electric utility after implementation of specific cost effective energy conservation measures is at least as high as such net income would

have been if the energy conservation measures had not been implemented. Upon the date of any such certification by the Secretary of Energy, all allowances which, but for this paragraph, would have been allocated under subparagraph (A) before such date, shall be allocated to the electric utility. This clause is not a requirement for qualified renewable energy.

(v) Such utility or any subsidiary of the utility's holding company owns or operates at least one affected unit.

(C) Period of applicability

Allowances under this subsection shall be allocated only with respect to kilowatt hours of electric energy saved by qualified energy conservation measures or generated by qualified renewable energy after January 1, 1992 and before the earlier of (i) December 31, 2000, or (ii) the date on which any electric utility steam generating unit owned or operated by the electric utility to which the allowances are allocated becomes subject to this subchapter (including those sources that elect to become affected by this subchapter, pursuant to section 7651i of this title).

(D) Determination of avoided emissions

(i)8 Application

In order to receive allowances under this subsection, an electric utility shall make an application which--

(I) designates the qualified energy conservation measures implemented and the qualified renewable energy sources used for purposes of avoiding emissions,9

(II) calculates, in accordance with subparagraphs (F) and (G), the number of tons of emissions avoided by reason of the implementation of such measures or the use of such renewable energy sources; and

(III) demonstrates that the requirements of subparagraph (B) have been met.

Such application for allowances by a State-regulated electric utility shall require approval by the State regulatory authority with jurisdiction over such electric utility. The authority shall review the application for accuracy and

compliance with this subsection and the rules under this subsection. Electric utilities whose retail rates are not subject to the jurisdiction of a State regulatory authority shall apply directly to the Administrator for such approval.

(E) Avoided emissions from qualified energy conservation measures

For the purposes of this subsection, the emission tonnage deemed avoided by reason of the implementation of qualified energy conservation measures for any calendar year shall be a tonnage equal to the product of multiplying--

(i) the kilowatt hours that would otherwise have been supplied by the utility during such year in the absence of such qualified energy conservation measures, by

(ii) 0.004, and dividing by 2,000.

(F) Avoided emissions from the use of qualified renewable energy

The emissions tonnage deemed avoided by reason of the use of qualified renewable energy by an electric utility for any calendar year shall be a tonnage equal to the product of multiplying--

(i) the actual kilowatt hours generated by, or purchased from, qualified renewable energy, by

(ii) 0.004, and dividing by 2,000.

(G) Prohibitions

(i) No allowances shall be allocated under this subsection for the implementation of programs that are exclusively informational or educational in nature.

(ii) No allowances shall be allocated for energy conservation measures or renewable energy that were operational before January 1, 1992.

(3) Savings provision

Nothing in this subsection precludes a State or State regulatory authority from providing additional incentives to utilities to encourage investment in demand-side resources.

(4) Regulations

Not later than 18 months after November 15, 1990, and in conjunction with the regulations required to be promulgated under subsections (b) and (c) of this section, the Administrator shall, in consultation with the Secretary of Energy, promulgate regulations under this subsection. Such regulations shall list energy conservation measures and renewable energy sources which may be treated as qualified energy conservation measures and qualified renewable energy for purposes of this subsection. Allowances shall only be allocated if all requirements of this subsection and the rules promulgated to implement this subsection are complied with. The Administrator shall review the determinations of each State regulatory authority under this subsection to encourage consistency from electric utility to electric utility and from State to State in accordance with the Administrator's rules. The Administrator shall publish the findings of this review no less than annually.

(g) Conservation and Renewable Energy Reserve

The Administrator shall establish a Conservation and Renewable Energy Reserve under this subsection. Beginning on January 1, 1995, the Administrator may allocate from the Conservation and Renewable Energy Reserve an amount equal to a total of 300,000 allowances for emissions of sulfur dioxide pursuant to section 7651b of this title. In order to provide 300,000 allowances for such reserve, in each year beginning in calendar year 2000 and until calendar year 2009, inclusive, the Administrator shall reduce each unit's basic Phase II allowance allocation on the basis of its pro rata share of 30,000 allowances. If allowances remain in the reserve after January 2, 2010, the Administrator shall allocate such allowances for affected units under section 7651d of this title on a pro rata basis. For purposes of this subsection, for any unit subject to the emissions limitation requirements of section 7651d of this title, the term “pro rata basis” refers to the ratio which the reductions made in such unit's allowances in order to establish the reserve under this subsection bears to the total of such reductions for all such units.

(h) Alternative allowance allocation for units in certain utility systems with optional baseline

(1) Optional baseline for units in certain systems

In the case of a unit subject to the emissions limitation requirements of this section which (as of November 15, 1990)--

(A) has an emission rate below 1.0 lbs/mmBtu,

(B) has decreased its sulfur dioxide emissions rate by 60 percent or greater since 1980, and

(C) is part of a utility system which has a weighted average sulfur dioxide emissions rate for all fossil fueled-fired units below 1.0 lbs/mmBtu,

at the election of the owner or operator of such unit, the unit's baseline may be calculated (i) as provided under section 7651a(d)10 of this title, or (ii) by utilizing the unit's average annual fuel consumption at a 60 percent capacity factor. Such election shall be made no later than March 1, 1991.

(2) Allowance allocation

Whenever a unit referred to in paragraph (1) elects to calculate its baseline as provided in clause (ii) of paragraph (1), the Administrator shall allocate allowances for the unit pursuant to section 7651b(a)(1) of this title, this section, and section 7651d of this title (as basic Phase II allowance allocations) in an amount equal to the baseline selected multiplied by the lower of the average annual emission rate for such unit in 1989, or 1.0 lbs./mmBtu. Such allowance allocation shall be in lieu of any allocation of allowances under this section and section 7651d of this title.

42 U.S.C. § 7651d Phase II sulfur dioxide requirements

(a) Applicability

(1) After January 1, 2000, each existing utility unit as provided below is subject to the limitations or requirements of this section. Each utility unit subject to an annual sulfur dioxide tonnage emission limitation under this section is an affected unit under this subchapter. Each source that includes one or more affected units is an affected source. In the case of an existing unit that was not in operation during calendar year 1985, the emission rate for a calendar year after 1985, as determined by the Administrator, shall be used in lieu of the 1985 rate. The owner or operator of any unit operated in violation of this section shall be fully liable under this chapter for fulfilling the obligations specified in section 7651j of this title.

(2) In addition to basic Phase II allowance allocations, in each year beginning in calendar year 2000 and ending in calendar year 2009, inclusive, the Administrator shall allocate up to 530,000 Phase II bonus allowances pursuant to subsections (b)(2), (c)(4), (d)(3)(A) and (B), and (h)(2) of this section and section 7651e of this title. Not later than June 1, 1998, the Administrator shall calculate, for each unit granted an extension pursuant to section 7651h of this title the difference between (A) the number of allowances allocated for the unit in calendar year 2000, and (B) the product of the unit's baseline multiplied by 1.20 lbs/mmBtu, divided by 2000, and sum the computations. In each year, beginning in calendar year 2000 and ending in calendar year 2009, inclusive, the Administrator shall deduct from each unit's basic Phase II allowance allocation its pro rata share of 10 percent of the sum calculated pursuant to the preceding sentence.

(3) In addition to basic Phase II allowance allocations and Phase II bonus allowance allocations, beginning January 1, 2000, the Administrator shall allocate for each unit listed on Table A in section 7651c of this title (other than units at Kyger Creek, Clifty Creek, and Joppa Steam) and located in the States of Illinois, Indiana, Ohio, Georgia, Alabama, Missouri, Pennsylvania, West Virginia, Kentucky, or Tennessee allowances in an amount equal to 50,000 multiplied by the unit's pro rata share of the total number of basic allowances allocated for all units listed on Table A (other than units at Kyger Creek, Clifty Creek, and Joppa Steam). Allowances allocated pursuant to this paragraph shall not be subject to the 8,900,000 ton limitation in section 7651b(a) of this title.

(b) Units equal to, or above, 75 MWe and 1.20 lbs/mmBtu

(1) Except as otherwise provided in paragraph (3), after January 1, 2000, it shall be unlawful for any existing utility unit that serves a generator with nameplate

capacity equal to, or greater, than 75 MWe and an actual 1985 emission rate equal to or greater than 1.20 lbs/mmBtu to exceed an annual sulfur dioxide tonnage emission limitation equal to the product of the unit's baseline multiplied by an emission rate equal to 1.20 lbs/mmBtu, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) In addition to allowances allocated pursuant to paragraph (1) and section 7651b(a)(1) of this title as basic Phase II allowance allocations, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (1) with an actual 1985 emissions rate greater than 1.20 lbs/mmBtu and less than 2.50 lbs/mmBtu and a baseline capacity factor of less than 60 percent, allowances from the reserve created pursuant to subsection (a)(2) of this section in an amount equal to 1.20 lbs/mmBtu multiplied by 50 percent of the difference, on a Btu basis, between the unit's baseline and the unit's fuel consumption at a 60 percent capacity factor.

(3) After January 1, 2000, it shall be unlawful for any existing utility unit with an actual 1985 emissions rate equal to or greater than 1.20 lbs/mmBtu whose annual average fuel consumption during 1985, 1986, and 1987 on a Btu basis exceeded 90 percent in the form of lignite coal which is located in a State in which, as of July 1, 1989, no county or portion of a county was designated nonattainment under section 7407 of this title for any pollutant subject to the requirements of section 7409 of this title to exceed an annual sulfur dioxide tonnage limitation equal to the product of the unit's baseline multiplied by the lesser of the unit's actual 1985 emissions rate or its allowable 1985 emissions rate, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(4) After January 1, 2000, the Administrator shall allocate annually for each unit, subject to the emissions limitation requirements of paragraph (1), which is located in a State with an installed electrical generating capacity of more than 30,000,000 kw in 1988 and for which was issued a prohibition order or a proposed prohibition order (from burning oil), which unit subsequently converted to coal between January 1, 1980 and December 31, 1985, allowances equal to the difference between (A) the product of the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the lesser of its actual or allowable emissions rate during the first full calendar year after conversion, divided by 2,000, and (B) the number of allowances allocated for the unit pursuant to paragraph (1): Provided, That the number of allowances allocated pursuant to this paragraph shall not exceed an annual total of five thousand. If necessary to

meeting the restriction imposed in the preceding sentence the Administrator shall reduce, pro rata, the annual allowances allocated for each unit under this paragraph.

(c) Coal or oil-fired units below 75 MWe and above 1.20 lbs/mmBtu

(1) Except as otherwise provided in paragraph (3), after January 1, 2000, it shall be unlawful for a coal or oil-fired existing utility unit that serves a generator with nameplate capacity of less than 75 MWe and an actual 1985 emission rate equal to, or greater than, 1.20 lbs/mmBtu and which is a unit owned by a utility operating company whose aggregate nameplate fossil fuel steam-electric capacity is, as of December 31, 1989, equal to, or greater than, 250 MWe to exceed an annual sulfur dioxide emissions limitation equal to the product of the unit's baseline multiplied by an emission rate equal to 1.20 lbs/mmBtu, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) After January 1, 2000, it shall be unlawful for a coal or oil-fired existing utility unit that serves a generator with nameplate capacity of less than 75 MWe and an actual 1985 emission rate equal to, or greater than, 1.20 lbs/mmBtu (excluding units subject to section 7411 of this title or to a federally enforceable emissions limitation for sulfur dioxide equivalent to an annual rate of less than 1.20 lbs/mmBtu) and which is a unit owned by a utility operating company whose aggregate nameplate fossil fuel steam-electric capacity is, as of December 31, 1989, less than 250 MWe, to exceed an annual sulfur dioxide tonnage emissions limitation equal to the product of the unit's baseline multiplied by the lesser of its actual 1985 emissions rate or its allowable 1985 emissions rate, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(3) After January 1, 2000, it shall be unlawful for any existing utility unit with a nameplate capacity below 75 MWe and an actual 1985 emissions rate equal to, or greater than, 1.20 lbs/mmBtu which became operational on or before December 31, 1965, which is owned by a utility operating company with, as of December 31, 1989, a total fossil fuel steam-electric generating capacity greater than 250 MWe, and less than 450 MWe which serves fewer than 78,000 electrical customers as of November 15, 1990, to exceed an annual sulfur dioxide emissions tonnage limitation equal to the product of its baseline multiplied by the lesser of its actual or allowable 1985 emission rate, divided by 2,000, unless the owner or operator holds allowances to emit not less than the units1 total annual emissions. After January 1, 2010, it shall be unlawful for each unit subject to the emissions limitation requirements of this paragraph to exceed an annual emissions tonnage

limitation equal to the product of its baseline multiplied by an emissions rate of 1.20 lbs/mmBtu, divided by 2,000, unless the owner or operator holds allowances to emit not less than the unit's total annual emissions.

(4) In addition to allowances allocated pursuant to paragraph (1) and section 7651b(a)(1) of this title as basic Phase II allowance allocations, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, inclusive, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (1) with an actual 1985 emissions rate equal to, or greater than, 1.20 lbs/mmBtu and less than 2.50 lbs/mmBtu and a baseline capacity factor of less than 60 percent, allowances from the reserve created pursuant to subsection (a)(2) of this section in an amount equal to 1.20 lbs/mmBtu multiplied by 50 percent of the difference, on a Btu basis, between the unit's baseline and the unit's fuel consumption at a 60 percent capacity factor.

(5) After January 1, 2000, it shall be unlawful for any existing utility unit with a nameplate capacity below 75 MWe and an actual 1985 emissions rate equal to, or greater than, 1.20 lbs/mmBtu which is part of an electric utility system which, as of November 15, 1990, (A) has at least 20 percent of its fossil-fuel capacity controlled by flue gas desulfurization devices, (B) has more than 10 percent of its fossil-fuel capacity consisting of coal-fired units of less than 75 MWe, and (C) has large units (greater than 400 MWe) all of which have difficult or very difficult FGD Retrofit Cost Factors (according to the Emissions and the FGD Retrofit Feasibility at the 200 Top Emitting Generating Stations, prepared for the United States Environmental Protection Agency on January 10, 1986) to exceed an annual sulfur dioxide emissions tonnage limitation equal to the product of its baseline multiplied by an emissions rate of 2.5 lbs/mmBtu, divided by 2,000, unless the owner or operator holds allowances to emit not less than the unit's total annual emissions. After January 1, 2010, it shall be unlawful for each unit subject to the emissions limitation requirements of this paragraph to exceed an annual emissions tonnage limitation equal to the product of its baseline multiplied by an emissions rate of 1.20 lbs/mmBtu, divided by 2,000, unless the owner or operator holds for use allowances to emit not less than the unit's total annual emissions.

(d) Coal-fired units below 1.20 lbs/mmBtu

(1) After January 1, 2000, it shall be unlawful for any existing coal-fired utility unit the lesser of whose actual or allowable 1985 sulfur dioxide emissions rate is less than 0.60 lbs/mmBtu to exceed an annual sulfur dioxide tonnage emission limitation equal to the product of the unit's baseline multiplied by (A) the lesser of 0.60 lbs/mmBtu or the unit's allowable 1985 emissions rate, and (B) a numerical

factor of 120 percent, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) After January 1, 2000, it shall be unlawful for any existing coal-fired utility unit the lesser of whose actual or allowable 1985 sulfur dioxide emissions rate is equal to, or greater than, 0.60 lbs/mmBtu and less than 1.20 lbs/mmBtu to exceed an annual sulfur dioxide tonnage emissions limitation equal to the product of the unit's baseline multiplied by (A) the lesser of its actual 1985 emissions rate or its allowable 1985 emissions rate, and (B) a numerical factor of 120 percent, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(3)(A) In addition to allowances allocated pursuant to paragraph (1) and section 7651b(a)(1) of this title as basic Phase II allowance allocations, at the election of the designated representative of the operating company, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (1) allowances from the reserve created pursuant to subsection (a)(2) of this section in an amount equal to the amount by which (i) the product of the lesser of 0.60 lbs/mmBtu or the unit's allowable 1985 emissions rate multiplied by the unit's baseline adjusted to reflect operation at a 60 percent capacity factor, divided by 2,000, exceeds (ii) the number of allowances allocated for the unit pursuant to paragraph (1) and section 7651b(a)(1) of this title as basic Phase II allowance allocations.

(B) In addition to allowances allocated pursuant to paragraph (2) and section 7651b(a)(1) of this title as basic Phase II allowance allocations, at the election of the designated representative of the operating company, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (2) allowances from the reserve created pursuant to subsection (a)(2) of this section in an amount equal to the amount by which (i) the product of the lesser of the unit's actual 1985 emissions rate or its allowable 1985 emissions rate multiplied by the unit's baseline adjusted to reflect operation at a 60 percent capacity factor, divided by 2,000, exceeds (ii) the number of allowances allocated for the unit pursuant to paragraph (2) and section 7651b(a)(1) of this title as basic Phase II allowance allocations.

(C) An operating company with units subject to the emissions limitation requirements of this subsection may elect the allocation of allowances as provided under subparagraphs (A) and (B). Such election shall apply to

the annual allowance allocation for each and every unit in the operating company subject to the emissions limitation requirements of this subsection. The Administrator shall allocate allowances pursuant to subparagraphs (A) and (B) only in accordance with this subparagraph.

(4) Notwithstanding any other provision of this section, at the election of the owner or operator, after January 1, 2000, the Administrator shall allocate in lieu of allocation, pursuant to paragraph (1), (2), (3), (5), or (6),2 allowances for a unit subject to the emissions limitation requirements of this subsection which commenced commercial operation on or after January 1, 1981 and before December 31, 1985, which was subject to, and in compliance with, section 7411 of this title in an amount equal to the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the unit's allowable 1985 emissions rate, divided by 2,000.

(5) For the purposes of this section, in the case of an oil- and gas-fired unit which has been awarded a clean coal technology demonstration grant as of January 1, 1991, by the United States Department of Energy, beginning January 1, 2000, the Administrator shall allocate for the unit allowances in an amount equal to the unit's baseline multiplied by 1.20 lbs/mmBtu, divided by 2,000.

(e) Oil and gas-fired units equal to or greater than 0.60 lbs/mmBtu and less than 1.20 lbs/mmBtu

After January 1, 2000, it shall be unlawful for any existing oil and gas-fired utility unit the lesser of whose actual or allowable 1985 sulfur dioxide emission rate is equal to, or greater than, 0.60 lbs/mmBtu, but less than 1.20 lbs/mmBtu to exceed an annual sulfur dioxide tonnage limitation equal to the product of the unit's baseline multiplied by (A) the lesser of the unit's allowable 1985 emissions rate or its actual 1985 emissions rate and (B) a numerical factor of 120 percent divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(f) Oil and gas-fired units less than 0.60 lbs/mmBtu

(1) After January 1, 2000, it shall be unlawful for any oil and gas-fired existing utility unit the lesser of whose actual or allowable 1985 emission rate is less than 0.60 lbs/mmBtu and whose average annual fuel consumption during the period 1980 through 1989 on a Btu basis was 90 percent or less in the form of natural gas to exceed an annual sulfur dioxide tonnage emissions limitation equal to the product of the unit's baseline multiplied by (A) the lesser of 0.60 lbs/mmBtu or the unit's allowable 1985 emissions, and (B) a numerical factor of 120 percent, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) In addition to allowances allocated pursuant to paragraph (1) as basic Phase II allowance allocations and section 7651b(a)(1) of this title, beginning January 1, 2000, the Administrator shall,3 in the case of any unit operated by a utility that furnishes electricity, electric energy, steam, and natural gas within an area consisting of a city and 1 contiguous county, and in the case of any unit owned by a State authority, the output of which unit is furnished within that same area consisting of a city and 1 contiguous county, the Administrator shall allocate for each unit in the utility its pro rata share of 7,000 allowances and for each unit in the State authority its pro rata share of 2,000 allowances.

(g) Units that commence operation between 1986 and December 31, 1995

(1) After January 1, 2000, it shall be unlawful for any utility unit that has commenced commercial operation on or after January 1, 1986, but not later than September 30, 1990 to exceed an annual tonnage emission limitation equal to the product of the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the unit's allowable 1985 sulfur dioxide emission rate (converted, if necessary, to pounds per mmBtu), divided by 2,000 unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) After January 1, 2000, the Administrator shall allocate allowances pursuant to section 7651b of this title to each unit which is listed in table B of this paragraph in an annual amount equal to the amount specified in table B.

TABLE B

Unit	**Allowances**
Brandon Shores	8,907
Miller 4	9,197
TNP One 2	4,000
Zimmer 1	18,458
Spruce 1	7,647
Clover 1	2,796
Clover 2	2,796
Twin Oak 2	1,760
Twin Oak 1	9,158
Cross 1	6,401
Malakoff 1	1,759

Notwithstanding any other paragraph of this subsection, for units subject to this paragraph, the Administrator shall not allocate allowances pursuant to any other paragraph of this subsection, Provided4 that the owner or operator of a unit listed on Table B may elect an allocation of allowances under another paragraph of this subsection in lieu of an allocation under this paragraph.

(3) Beginning January 1, 2000, the Administrator shall allocate to the owner or operator of any utility unit that commences commercial operation, or has commenced commercial operation, on or after October 1, 1990, but not later than December 31, 1992 allowances in an amount equal to the product of the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the lesser of 0.30 lbs/mmBtu or the unit's allowable sulfur dioxide emission rate (converted, if necessary, to pounds per mmBtu), divided by 2,000.

(4) Beginning January 1, 2000, the Administrator shall allocate to the owner or operator of any utility unit that has commenced construction before December 31, 1990 and that commences commercial operation between January 1, 1993 and December 31, 1995, allowances in an amount equal to the product of the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the lesser of 0.30 lbs/mmBtu or the unit's allowable sulfur dioxide emission rate (converted, if necessary, to pounds per mmBtu), divided by 2,000.

(5) After January 1, 2000, it shall be unlawful for any existing utility unit that has completed conversion from predominantly gas fired existing operation to coal fired operation between January 1, 1985 and December 31, 1987, for which there has been allocated a proposed or final prohibition order pursuant to section 301(b) of the Powerplant and Industrial Fuel Use Act of 1978 (42 U.S.C. 8301 et seq,5 repealed 1987) to exceed an annual sulfur dioxide tonnage emissions limitation equal to the product of the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the lesser of 1.20 lbs/mmBtu or the unit's allowable 1987 sulfur dioxide emissions rate, divided by 2,000, unless the owner or operator of such unit has obtained allowances equal to its actual emissions.

(6)(A)6 Unless the Administrator has approved a designation of such facility under section 7651i of this title, the provisions of this subchapter shall not apply to a “qualifying small power production facility” or “qualifying cogeneration facility” (within the meaning of section 796(17)(C) or 796(18)(B) of Title 16) or to a “new independent power production facility” as defined in section 7651o of this title except7 that clause (iii)8 of such definition in section 7651o of this title shall not apply for purposes of this paragraph if, as of November 15, 1990,

(i) an applicable power sales agreement has been executed;

(ii) the facility is the subject of a State regulatory authority order requiring an electric utility to enter into a power sales agreement with, purchase capacity from, or (for purposes of establishing terms and conditions of the electric utility's purchase of power) enter into arbitration concerning, the facility;

(iii) an electric utility has issued a letter of intent or similar instrument committing to purchase power from the facility at a previously offered or lower price and a power sales agreement is executed within a reasonable period of time; or

(iv) the facility has been selected as a winning bidder in a utility competitive bid solicitation.

(h) Oil and gas-fired units less than 10 percent oil consumed

(1) After January 1, 2000, it shall be unlawful for any oil- and gas-fired utility unit whose average annual fuel consumption during the period 1980 through 1989 on a Btu basis exceeded 90 percent in the form of natural gas to exceed an annual sulfur dioxide tonnage limitation equal to the product of the unit's baseline multiplied by the unit's actual 1985 emissions rate divided by 2,000 unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) In addition to allowances allocated pursuant to paragraph (1) and section 7651b(a)(1) of this title as basic Phase II allowance allocations, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (1) allowances from the reserve created pursuant to subsection (a)(2) of this section in an amount equal to the unit's baseline multiplied by 0.050 lbs/mmBtu, divided by 2,000.

(3) In addition to allowances allocated pursuant to paragraph (1) and section 7651b(a)(1) of this title, beginning January 1, 2010, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (1) allowances in an amount equal to the unit's baseline multiplied by 0.050 lbs/mmBtu, divided by 2,000.

(i) Units in high growth States

(1) In addition to allowances allocated pursuant to this section and section 7651b(a)(1) of this title as basic Phase II allowance allocations, beginning January 1, 2000, the Administrator shall allocate annually allowances for each unit,

subject to an emissions limitation requirement under this section, and located in a State that--

(A) has experienced a growth in population in excess of 25 percent between 1980 and 1988 according to State Population and Household Estimates, With Age, Sex, and Components of Change: 1981-1988 allocated by the United States Department of Commerce, and

(B) had an installed electrical generating capacity of more than 30,000,000 kw in 1988, in an amount equal to the difference between (A) the number of allowances that would be allocated for the unit pursuant to the emissions limitation requirements of this section applicable to the unit adjusted to reflect the unit's annual average fuel consumption on a Btu basis of any three consecutive calendar years between 1980 and 1989 (inclusive) as elected by the owner or operator and (B) the number of allowances allocated for the unit pursuant to the emissions limitation requirements of this section: Provided, That the number of allowances allocated pursuant to this subsection shall not exceed an annual total of 40,000. If necessary to meeting the 40,000 allowance restriction imposed under this subsection the Administrator shall reduce, pro rata, the additional annual allowances allocated to each unit under this subsection.

(2) Beginning January 1, 2000, in addition to allowances allocated pursuant to this section and section 7651b(a)(1) of this title as basic Phase II allowance allocations, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of subsection (b)(1) of this section, (A) the lesser of whose actual or allowable 1980 emissions rate has declined by 50 percent or more as of November 15, 1990, (B) whose actual emissions rate is less than 1.2 lbs/mmBtu as of January 1, 2000, (C) which commenced operation after January 1, 1970, (D) which is owned by a utility company whose combined commercial and industrial kilowatt-hour sales have increased by more than 20 percent between calendar year 1980 and November 15, 1990, and (E) whose company-wide fossil-fuel sulfur dioxide emissions rate has declined 40 per centum or more from 1980 to 1988, allowances in an amount equal to the difference between (i) the number of allowances that would be allocated for the unit pursuant to the emissions limitation requirements of subsection (b)(1) of this section adjusted to reflect the unit's annual average fuel consumption on a Btu basis for any three consecutive years between 1980 and 1989 (inclusive) as elected by the owner or operator and (ii) the number of allowances allocated for the unit pursuant to the emissions limitation requirements of subsection (b)(1) of this section: Provided, That the number of allowances allocated pursuant to this paragraph shall not exceed an annual total of 5,000. If necessary to meeting the

5,000-allowance restriction imposed in the last clause of the preceding sentence the Administrator shall reduce, pro rata, the additional allowances allocated to each unit pursuant to this paragraph.

(j) Certain municipally owned power plants

Beginning January 1, 2000, in addition to allowances allocated pursuant to this section and section 7651b(a)(1) of this title as basic Phase II allowance allocations, the Administrator shall allocate annually for each existing municipally owned oil and gas-fired utility unit with nameplate capacity equal to, or less than, 40 MWe, the lesser of whose actual or allowable 1985 sulfur dioxide emission rate is less than 1.20 lbs/mmBtu, allowances in an amount equal to the product of the unit's annual fuel consumption on a Btu basis at a 60 percent capacity factor multiplied by the lesser of its allowable 1985 emission rate or its actual 1985 emission rate, divided by 2,000.

42 U.S.C. § 7651e Allowances for States with emissions rates at or below 0.80 lbs/mmBtu

(a) Election of Governor

In addition to basic Phase II allowance allocations, upon the election of the Governor of any State, with a 1985 state-wide annual sulfur dioxide emissions rate equal to or less than, 0.80 lbs/mmBtu, averaged over all fossil fuel-fired utility steam generating units, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, the Administrator shall allocate, in lieu of other Phase II bonus allowance allocations, allowances from the reserve created pursuant to section 7651d(a)(2) of this title to all such units in the State in an amount equal to 125,000 multiplied by the unit's pro rata share of electricity generated in calendar year 1985 at fossil fuel-fired utility steam units in all States eligible for the election.

(b) Notification of Administrator

Pursuant to section 7651b(a)(1) of this title, each Governor of a State eligible to make an election under paragraph1 (a) shall notify the Administrator of such election. In the event that the Governor of any such State fails to notify the Administrator of the Governor's elections, the Administrator shall allocate allowances pursuant to section 7651d of this title.

(c) Allowances after January 1, 2010

After January 1, 2010, the Administrator shall allocate allowances to units subject to the provisions of this section pursuant to section 7651d of this title.

42 U.S.C. § 7651f Nitrogen oxides emission reduction program

(a) Applicability

On the date that a coal-fired utility unit becomes an affected unit pursuant to sections 7651c, 7651d,1 7651h of this title, or on the date a unit subject to the provisions of section 7651c(d) or 7651h(b) of this title, must meet the SO2 reduction requirements, each such unit shall become an affected unit for purposes of this section and shall be subject to the emission limitations for nitrogen oxides set forth herein.

(b) Emission limitations

(1) Not later than eighteen months after November 15, 1990, the Administrator shall by regulation establish annual allowable emission limitations for nitrogen oxides for the types of utility boilers listed below, which limitations shall not exceed the rates listed below: Provided, That the Administrator may set a rate higher than that listed for any type of utility boiler if the Administrator finds that the maximum listed rate for that boiler type cannot be achieved using low NOx burner technology. The maximum allowable emission rates are as follows:

(A) for tangentially fired boilers, 0.45 lb/mmBtu;

(B) for dry bottom wall-fired boilers (other than units applying cell burner technology), 0.50 lb/mmBtu.

After January 1, 1995, it shall be unlawful for any unit that is an affected unit on that date and is of the type listed in this paragraph to emit nitrogen oxides in excess of the emission rates set by the Administrator pursuant to this paragraph.

(2) Not later than January 1, 1997, the Administrator shall, by regulation, establish allowable emission limitations on a lb/mmBtu, annual average basis, for nitrogen oxides for the following types of utility boilers:

(A) wet bottom wall-fired boilers;

(B) cyclones;

(C) units applying cell burner technology;

(D) all other types of utility boilers.

The Administrator shall base such rates on the degree of reduction achievable through the retrofit application of the best system of continuous emission reduction, taking into account available technology, costs and energy and

environmental impacts; and which is comparable to the costs of nitrogen oxides controls set pursuant to subsection (b)(1) of this section. Not later than January 1, 1997, the Administrator may revise the applicable emission limitations for tangentially fired and dry bottom, wall-fired boilers (other than cell burners) to be more stringent if the Administrator determines that more effective low NOx burner technology is available: Provided, That, no unit that is an affected unit pursuant to section 7651c of this title and that is subject to the requirements of subsection (b)(1) of this section, shall be subject to the revised emission limitations, if any.

(c) Revised performance standards

(1) Not later than January 1, 1993, the Administrator shall propose revised standards of performance to section 7411 of this title for nitrogen oxides emissions from fossil-fuel fired steam generating units, including both electric utility and nonutility units. Not later than January 1, 1994, the Administrator shall promulgate such revised standards of performance. Such revised standards of performance shall reflect improvements in methods for the reduction of emissions of oxides of nitrogen.

(d) Alternative emission limitations

The permitting authority shall, upon request of an owner or operator of a unit subject to this section, authorize an emission limitation less stringent than the applicable limitation established under subsection (b)(1) or (b)(2) of this section upon a determination that--

(1) a unit subject to subsection (b)(1) of this section cannot meet the applicable limitation using low NOx burner technology; or

(2) a unit subject to subsection (b)(2) of this section cannot meet the applicable rate using the technology on which the Administrator based the applicable emission limitation.

The permitting authority shall base such determination upon a showing satisfactory to the permitting authority, in accordance with regulations established by the Administrator not later than eighteen months after November 15, 1990, that the owner or operator--

(1) has properly installed appropriate control equipment designed to meet the applicable emission rate;

(2) has properly operated such equipment for a period of fifteen months (or such other period of time as the Administrator determines through the regulations), and provides operating and monitoring data for such period demonstrating that the unit cannot meet the applicable emission rate; and

(3) has specified an emission rate that such unit can meet on an annual average basis.

The permitting authority shall issue an operating permit for the unit in question, in accordance with section 7651g of this title and part B of title III--

(i) that permits the unit during the demonstration period referred to in subparagraph (2) above, to emit at a rate in excess of the applicable emission rate;

(ii) at the conclusion of the demonstration period to revise the operating permit to reflect the alternative emission rate demonstrated in paragraphs (2) and (3) above.

Units subject to subsection (b)(1) of this section for which an alternative emission limitation is established shall not be required to install any additional control technology beyond low NOx burners. Nothing in this section shall preclude an owner or operator from installing and operating an alternative NOx control technology capable of achieving the applicable emission limitation. If the owner or operator of a unit subject to the emissions limitation requirements of subsection (b)(1) of this section demonstrates to the satisfaction of the Administrator that the technology necessary to meet such requirements is not in adequate supply to enable its installation and operation at the unit, consistent with system reliability, by January 1, 1995, then the Administrator shall extend the deadline for compliance for the unit by a period of 15 months. Any owner or operator may petition the Administrator to make a determination under the previous sentence. The Administrator shall grant or deny such petition within 3 months of submittal.

(e) Emissions averaging

In lieu of complying with the applicable emission limitations under subsection (b)(1), (2), or (d) of this section, the owner or operator of two or more units subject to one or more of the applicable emission limitations set pursuant to these sections,3 may petition the permitting authority for alternative contemporaneous annual emission limitations for such units that ensure that (1) the actual annual emission rate in pounds of nitrogen oxides per million Btu averaged over the units in question is a rate that is less than or equal to (2) the Btu-weighted average annual emission rate for the same units if they had been operated, during the same period of time, in compliance with limitations set in accordance with the applicable emission rates set pursuant to subsections (b)(1) and (2) of this section.

If the permitting authority determines, in accordance with regulations issued by the Administrator not later than eighteen months after November 15, 1990;4 that the conditions in the paragraph above can be met, the permitting authority shall issue

operating permits for such units, in accordance with section 7651g of this title and part B of title III, that allow alternative contemporaneous annual emission limitations. Such emission limitations shall only remain in effect while both units continue operation under the conditions specified in their respective operating permits.

42 U.S.C. § 7651g Permits and compliance plans

(a) Permit program

The provisions of this subchapter shall be implemented, subject to section 7651b of this title, by permits issued to units subject to this subchapter (and enforced) in accordance with the provisions of subchapter V of this chapter, as modified by this subchapter. Any such permit issued by the Administrator, or by a State with an approved permit program, shall prohibit--

(1) annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide the owner or operator, or the designated representative of the owners or operators, of the unit hold for the unit,

(2) exceedances of applicable emissions rates,

(3) the use of any allowance prior to the year for which it was allocated, and

(4) contravention of any other provision of the permit.

Permits issued to implement this subchapter shall be issued for a period of 5 years, notwithstanding subchapter V of this chapter. No permit shall be issued that is inconsistent with the requirements of this subchapter, and subchapter V of this chapter as applicable.

(b) Compliance plan

Each initial permit application shall be accompanied by a compliance plan for the source to comply with its requirements under this subchapter. Where an affected source consists of more than one affected unit, such plan shall cover all such units, and for purposes of section 7661a(c) of this title, such source shall be considered a "facility". Nothing in this section regarding compliance plans or in subchapter V of this chapter shall be construed as affecting allowances. Except as provided under subsection (c)(1)(B) of this section, submission of a statement by the owner or operator, or the designated representative of the owners and operators, of a unit subject to the emissions limitation requirements of sections 7651c, 7651d, and 7651f of this title, that the unit will meet the applicable emissions limitation requirements of such sections in a timely manner or that, in the case of the emissions limitation requirements of sections 7651c and 7651d of this title, the owners and operators will hold allowances to emit not less than the total annual emissions of the unit, shall be deemed to meet the proposed and approved compliance planning requirements of this section and subchapter V of this chapter, except that, for any unit that will meet the requirements of this subchapter by means of an alternative method of compliance authorized under section 7651c(b), (c), (d), or (f) of this title1 section 7651f(d) or (e) of this title, section 7651h of this title and section 7651i of this title, the

proposed and approved compliance plan, permit application and permit shall include, pursuant to regulations promulgated by the Administrator, for each alternative method of compliance a comprehensive description of the schedule and means by which the unit will rely on one or more alternative methods of compliance in the manner and time authorized under this subchapter. Recordation by the Administrator of transfers of allowances shall amend automatically all applicable proposed or approved permit applications, compliance plans and permits. The Administrator may also require--

(1) for a source, a demonstration of attainment of national ambient air quality standards, and

(2) from the owner or operator of two or more affected sources, an integrated compliance plan providing an overall plan for achieving compliance at the affected sources.

(c) First phase permits

The Administrator shall issue permits to affected sources under sections 7651c and 7651f of this title.

(1) Permit application and compliance plan

(A) Not later than 27 months after November 15, 1990, the designated representative of the owners or operators, or the owner and operator, of each affected source under sections 7651c and 7651f of this title shall submit a permit application and compliance plan for that source in accordance with regulations issued by the Administrator under paragraph (3). The permit application and the compliance plan shall be binding on the owner or operator or the designated representative of owners and operators for purposes of this subchapter and section 7651a(a)2 of this title, and shall be enforceable in lieu of a permit until a permit is issued by the Administrator for the source.

(B) In the case of a compliance plan for an affected source under sections 7651c and 7651f of this title for which the owner or operator proposes to meet the requirements of that section by reducing utilization of the unit as compared with its baseline or by shutting down the unit, the owner or operator shall include in the proposed compliance plan a specification of the unit or units that will provide electrical generation to compensate for the reduced output at the affected source, or a demonstration that such reduced utilization will be accomplished through energy conservation or improved unit efficiency. The unit to be used for such compensating generation, which is not otherwise an affected unit under sections 7651c

and 7651f of this title, shall be deemed an affected unit under section 7651c of this title, subject to all of the requirements for such units under this subchapter, except that allowances shall be allocated to such compensating unit in the amount of an annual limitation equal to the product of the unit's baseline multiplied by the lesser of the unit's actual 1985 emissions rate or its allowable 1985 emissions rate, divided by 2,000.

(2) EPA action on compliance plans

The Administrator shall review each proposed compliance plan to determine whether it satisfies the requirements of this subchapter, and shall approve or disapprove such plan within 6 months after receipt of a complete submission. If a plan is disapproved, it may be resubmitted for approval with such changes as the Administrator shall require consistent with the requirements of this subchapter and within such period as the Administrator prescribes as part of such disapproval.

(3) Regulations; issuance of permits

Not later than 18 months after November 15, 1990, the Administrator shall promulgate regulations, in accordance with subchapter V of this chapter, to implement a Federal permit program to issue permits for affected sources under this subchapter. Following promulgation, the Administrator shall issue a permit to implement the requirements of section 7651c of this title and the allowances provided under section 7651b of this title to the owner or operator of each affected source under section 7651c of this title. Such a permit shall supersede any permit application and compliance plan submitted under paragraph (1).

(4) Fees

During the years 1995 through 1999 inclusive, no fee shall be required to be paid under section 7661a(b)(3) of this title or under section 7410(a)(2)(L) of this title with respect to emissions from any unit which is an affected unit under section 7651c of this title.

(d) Second phase permits

(1) To provide for permits for (A) new electric utility steam generating units required under section 7651b(e) of this title to have allowances, (B) affected units or sources under section 7651d of this title, and (C) existing units subject to nitrogen oxide emission reductions under section 7651f of this title, each State in which one or more such units or sources are located shall submit in accordance

with subchapter V of this chapter, a permit program for approval as provided by that subchapter. Upon approval of such program, for the units or sources subject to such approved program the Administrator shall suspend the issuance of permits as provided in subchapter V of this chapter.

(2) The owner or operator or the designated representative of each affected source under section 7651d of this title shall submit a permit application and compliance plan for that source to the permitting authority, not later than January 1, 1996.

(3) Not later than December 31, 1997, each State with an approved permit program shall issue permits to the owner or operator, or the designated representative of the owners and operators, of affected sources under section 7651d of this title that satisfy the requirements of subchapter V of this chapter and this subchapter and that submitted to such State a permit application and compliance plan pursuant to paragraph (2). In the case of a State without an approved permit program by July 1, 1996, the Administrator shall, not later than January 1, 1998, issue a permit to the owner or operator or the designated representative of each such affected source. In the case of affected sources for which applications and plans are timely received under paragraph (2), the permit application and the compliance plan, including amendments thereto, shall be binding on the owner or operator or the designated representative of the owners or operators and shall be enforceable as a permit for purposes of this subchapter and subchapter V of this chapter until a permit is issued by the permitting authority for the affected source. The provisions of section 558(c) of Title 5 (relating to renewals) shall apply to permits issued by a permitting authority under this subchapter and subchapter V of this chapter.

(4) The permit issued in accordance with this subsection for an affected source shall provide that the affected units at the affected source may not emit an annual tonnage of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide the owner or operator or designated representative hold for the unit.

(e) New units

The owner or operator of each source that includes a new electric utility steam generating unit shall submit a permit application and compliance plan to the permitting authority not later than 24 months before the later of (1) January 1, 2000, or (2) the date on which the unit commences operation. The permitting authority shall issue a permit to the owner or operator, or the designated representative thereof, of the unit that satisfies the requirements of subchapter V of this chapter and this subchapter.

(f) Units subject to certain other limits

The owner or operator, or designated representative thereof, of any unit subject to an emission rate requirement under section 7651f of this title shall submit a permit application and compliance plan for such unit to the permitting authority, not later than January 1, 1998. The permitting authority shall issue a permit to the owner or operator that satisfies the requirements of subchapter V of this chapter and this subchapter, including any appropriate monitoring and reporting requirements.

(g) Amendment of application and compliance plan

At any time after the submission of an application and compliance plan under this section, the applicant may submit a revised application and compliance plan, in accordance with the requirements of this section. In considering any permit application and compliance plan under this subchapter, the permitting authority shall ensure coordination with the applicable electric ratemaking authority, in the case of regulated utilities, and with unregulated public utilities.

(h) Prohibition

(1) It shall be unlawful for an owner or operator, or designated representative, required to submit a permit application or compliance plan under this subchapter to fail to submit such application or plan in accordance with the deadlines specified in this section or to otherwise fail to comply with regulations implementing this section.

(2) It shall be unlawful for any person to operate any source subject to this subchapter except in compliance with the terms and requirements of a permit application and compliance plan (including amendments thereto) or permit issued by the Administrator or a State with an approved permit program. For purposes of this subsection, compliance, as provided in section 7661c(f) of this title, with a permit issued under subchapter V of this chapter which complies with this subchapter for sources subject to this subchapter shall be deemed compliance with this subsection as well as section 7661a(a) of this title.

(3) In order to ensure reliability of electric power, nothing in this subchapter or subchapter V of this chapter shall be construed as requiring termination of operations of an electric utility steam generating unit for failure to have an approved permit or compliance plan, except that any such unit may be subject to the applicable enforcement provisions of section 7413 of this title.

(i) Multiple owners

No permit shall be issued under this section to an affected unit until the designated representative of the owners or operators has filed a certificate of representation with

regard to matters under this subchapter, including the holding and distribution of allowances and the proceeds of transactions involving allowances. Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, such a unit, or where a utility or industrial customer purchases power from an affected unit (or units) under life-of-the-unit, firm power contractual arrangements, the certificate shall state (1) that allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement, or (2) if such multiple holders have expressly provided for a different distribution of allowances by contract, that allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in accordance with the contract. A passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based, either directly or indirectly, upon the revenues or income from the affected unit shall not be deemed to be a holder of a legal, equitable, leasehold, or contractual interest for the purpose of holding or distributing allowances as provided in this subsection, during either the term of such leasehold or thereafter, unless expressly provided for in the leasehold agreement. Except as otherwise provided in this subsection, where all legal or equitable title to or interest in an affected unit is held by a single person, the certification shall state that all allowances received by the unit are deemed to be held for that person.

42 U.S.C. § 7651h Repowered sources

(a) Availability

Not later than December 31, 1997, the owner or operator of an existing unit subject to the emissions limitation requirements of section 7651d(b) and (c) of this title may demonstrate to the permitting authority that one or more units will be repowered with a qualifying clean coal technology to comply with the requirements under section 7651d of this title. The owner or operator shall, as part of any such demonstration, provide, not later than January 1, 2000, satisfactory documentation of a preliminary design and engineering effort for such repowering and an executed and binding contract for the majority of the equipment to repower such unit and such other information as the Administrator may require by regulation. The replacement of an existing utility unit with a new utility unit using a repowering technology referred to in section 7651a(2)1 of this title which is located at a different site, shall be treated as repowering of the existing unit for purposes of this subchapter, if--

(1) the replacement unit is designated by the owner or operator to replace such existing unit, and

(2) the existing unit is retired from service on or before the date on which the designated replacement unit enters commercial operation.

(b) Extension

(1) An owner or operator satisfying the requirements of subsection (a) of this section shall be granted an extension of the emission limitation requirement compliance date for that unit from January 1, 2000, to December 31, 2003. The extension shall be specified in the permit issued to the source under section 7651g of this title, together with any compliance schedule and other requirements necessary to meet second phase requirements by the extended date. Any unit that is granted an extension under this section shall not be eligible for a waiver under section 7411(j) of this title, and shall continue to be subject to requirements under this subchapter as if it were a unit subject to section 7651d of this title.

(2) If (A) the owner or operator of an existing unit has been granted an extension under paragraph (1) in order to repower such unit with a clean coal unit, and (B) such owner or operator demonstrates to the satisfaction of the Administrator that the repowering technology to be utilized by such unit has been properly constructed and tested on such unit, but nevertheless has been unable to achieve the emission reduction limitations and is economically or technologically infeasible, such existing unit may be retrofitted or repowered with equipment or

facilities utilizing another clean coal technology or other available control technology.

(c) Allowances

(1) For the period of the extension under this section, the Administrator shall allocate to the owner or operator of the affected unit, annual allowances for sulfur dioxide equal to the affected unit's baseline multiplied by the lesser of the unit's federally approved State Implementation Plan emissions limitation or its actual emission rate for 1995 in lieu of any other allocation. Such allowances may not be transferred or used by any other source to meet emission requirements under this subchapter. The source owner or operator shall notify the Administrator sixty days in advance of the date on which the affected unit for which the extension has been granted is to be removed from operation to install the repowering technology.

(2) Effective on that date, the unit shall be subject to the requirements of section 7651d of this title. Allowances for the year in which the unit is removed from operation to install the repowering technology shall be calculated as the product of the unit's baseline multiplied by 1.20 lbs/mmBtu, divided by 2,000, and prorated accordingly, and are transferable.

(3) Allowances for such existing utility units for calendar years after the year the repowering is complete shall be calculated as the product of the existing unit's baseline multiplied by 1.20 lbs/mmBtu, divided by 2,000.

(4) Notwithstanding the provisions of section 7651b(a) and (e) of this title, allowances shall be allocated under this section for a designated replacement unit which replaces an existing unit (as provided in the last sentence of subsection (a) of this section) in lieu of any further allocations of allowances for the existing unit.

(5) For the purpose of meeting the aggregate emissions limitation requirement set forth in section 7651b(a)(1) of this title, the units with an extension under this subsection shall be treated in each calendar year during the extension period as holding allowances allocated under paragraph (3).

(d) Control requirements

Any unit qualifying for an extension under this section that does not increase actual hourly emissions for any pollutant regulated under the2 chapter shall not be subject to any standard of performance under section 7411 of this title. Notwithstanding the provisions of this subsection, no new unit (1) designated as a replacement for an existing

unit, (2) qualifying for the extension under subsection (b) of this section, and (3) located at a different site than the existing unit shall receive an exemption from the requirements imposed under section 7411 of this title.

(e) Expedited permitting

State permitting authorities and, where applicable, the Administrator, are encouraged to give expedited consideration to permit applications under parts C and D of subchapter I of this chapter for any source qualifying for an extension under this section.

(f) Prohibition

It shall be unlawful for the owner or operator of a repowered source to fail to comply with the requirement of this section, or any regulations of permit requirements to implement this section, including the prohibition against emitting sulfur dioxide in excess of allowances held.

42 U.S.C. § 7651i Election for additional sources

(a) Applicability

The owner or operator of any unit that is not, nor will become, an affected unit under section 7651b(e), 7651c, or 7651d of this title, or that is a process source under subsection (d) of this section, that emits sulfur dioxide, may elect to designate that unit or source to become an affected unit and to receive allowances under this subchapter. An election shall be submitted to the Administrator for approval, along with a permit application and proposed compliance plan in accordance with section 7651g of this title. The Administrator shall approve a designation that meets the requirements of this section, and such designated unit, or source, shall be allocated allowances, and be an affected unit for purposes of this subchapter.

(b) Establishment of baseline

The baseline for a unit designated under this section shall be established by the Administrator by regulation, based on fuel consumption and operating data for the unit for calendar years 1985, 1986, and 1987, or if such data is not available, the Administrator may prescribe a baseline based on alternative representative data.

(c) Emission limitations

Annual emissions limitations for sulfur dioxide shall be equal to the product of the baseline multiplied by the lesser of the unit's 1985 actual or allowable emission rate in lbs/mmBtu, or, if the unit did not operate in 1985, by the lesser of the unit's actual or allowable emission rate for a calendar year after 1985 (as determined by the Administrator), divided by 2,000.

(d) Process sources

Not later than 18 months after November 15, 1990, the Administrator shall establish a program under which the owner or operator of a process source that emits sulfur dioxide may elect to designate that source as an affected unit for the purpose of receiving allowances under this subchapter. The Administrator shall, by regulation, define the sources that may be designated; specify the emissions limitation; specify the operating, emission baseline, and other data requirements; prescribe CEMS or other monitoring requirements; and promulgate permit, reporting, and any other requirements necessary to implement such a program.

(e) Allowances and permits

The Administrator shall issue allowances to an affected unit under this section in an amount equal to the emissions limitation calculated under subsection (c) or (d) of this

section, in accordance with section 7651b of this title. Such allowance may be used in accordance with, and shall be subject to, the provisions of section 7651b of this title. Affected sources under this section shall be subject to the requirements of sections 7651b, 7651g, 7651j, 7651k, 7651l, and 7651m of this title.

(f) Limitation

Any unit designated under this section shall not transfer or bank allowances produced as a result of reduced utilization or shutdown, except that, such allowances may be transferred or carried forward for use in subsequent years to the extent that the reduced utilization or shutdown results from the replacement of thermal energy from the unit designated under this section, with thermal energy generated by any other unit or units subject to the requirements of this subchapter, and the designated unit's allowances are transferred or carried forward for use at such other replacement unit or units. In no case may the Administrator allocate to a source designated under this section allowances in an amount greater than the emissions resulting from operation of the source in full compliance with the requirements of this chapter. No such allowances shall authorize operation of a unit in violation of any other requirements of this chapter.

(g) Implementation

The Administrator shall issue regulations to implement this section not later than eighteen months after November 15, 1990.

(h) Small diesel refineries

The Administrator shall issue allowances to owners or operators of small diesel refineries who produce diesel fuel after October 1, 1993, meeting the requirements of subsection1 7545(i) of this title.

(1) Allowance period

Allowances may be allocated under this subsection only for the period from October 1, 1993, through December 31, 1999.

(2) Allowance determination

The number of allowances allocated pursuant to this paragraph shall equal the annual number of pounds of sulfur dioxide reduction attributable to desulfurization by a small refinery divided by 2,000. For the purposes of this calculation, the concentration of sulfur removed from diesel fuel shall be the difference between 0.274 percent (by weight) and 0.050 percent (by weight).

(3) Refinery eligibility

As used in this subsection, the term "small refinery" shall mean a refinery or portion of a refinery--

(A) which, as of November 15, 1990, has bona fide crude oil throughput of less than 18,250,000 barrels per year, as reported to the Department of Energy, and

(B) which, as of November 15, 1990, is owned or controlled by a refiner with a total combined bona fide crude oil throughput of less than 50,187,500 barrels per year, as reported to the Department of Energy.

(4) Limitation per refinery

The maximum number of allowances that can be annually allocated to a small refinery pursuant to this subsection is one thousand and five hundred.

(5) Limitation on total

In any given year, the total number of allowances allocated pursuant to this subsection shall not exceed thirty-five thousand.

(6) Required certification

The Administrator shall not allocate any allowances pursuant to this subsection unless the owner or operator of a small diesel refinery shall have certified, at a time and in a manner prescribed by the Administrator, that all motor diesel fuel produced by the refinery for which allowances are claimed, including motor diesel fuel for off-highway use, shall have met the requirements of subsection1 7545(i) of this title.

42 U.S.C. § 7651j Excess emissions penalty

(a) Excess emissions penalty

The owner or operator of any unit or process source subject to the requirements of sections1 7651b, 7651c, 7651d, 7651e, 7651f or 7651h of this title, or designated under section 7651i of this title, that emits sulfur dioxide or nitrogen oxides for any calendar year in excess of the unit's emissions limitation requirement or, in the case of sulfur dioxide, of the allowances the owner or operator holds for use for the unit for that calendar year shall be liable for the payment of an excess emissions penalty, except where such emissions were authorized pursuant to section 7410(f) of this title. That penalty shall be calculated on the basis of the number of tons emitted in excess of the unit's emissions limitation requirement or, in the case of sulfur dioxide, of the allowances the operator holds for use for the unit for that year, multiplied by $2,000. Any such penalty shall be due and payable without demand to the Administrator as provided in regulations to be issued by the Administrator by no later than eighteen months after November 15, 1990. Any such payment shall be deposited in the United States Treasury pursuant to the Miscellaneous Receipts Act. Any penalty due and payable under this section shall not diminish the liability of the unit's owner or operator for any fine, penalty or assessment against the unit for the same violation under any other section of this chapter.

(b) Excess emissions offset

The owner or operator of any affected source that emits sulfur dioxide during any calendar year in excess of the unit's emissions limitation requirement or of the allowances held for the unit for the calendar year, shall be liable to offset the excess emissions by an equal tonnage amount in the following calendar year, or such longer period as the Administrator may prescribe. The owner or operator of the source shall, within sixty days after the end of the year in which the excess emissions occured2, submit to the Administrator, and to the State in which the source is located, a proposed plan to achieve the required offsets. Upon approval of the proposed plan by the Administrator, as submitted, modified or conditioned, the plan shall be deemed at3 a condition of the operating permit for the unit without further review or revision of the permit. The Administrator shall also deduct allowances equal to the excess tonnage from those allocated for the source for the calendar year, or succeeding years during which offsets are required, following the year in which the excess emissions occurred.

(c) Penalty adjustment

The Administrator shall, by regulation, adjust the penalty specified in subsection (a) of this section for inflation, based on the Consumer Price Index, on November 15, 1990, and annually thereafter.

(d) Prohibition

It shall be unlawful for the owner or operator of any source liable for a penalty and offset under this section to fail (1) to pay the penalty under subsection (a) of this section, (2) to provide, and thereafter comply with, a compliance plan as required by subsection (b) of this section, or (3) to offset excess emissions as required by subsection (b) of this section.

(e) Savings provision

Nothing in this subchapter shall limit or otherwise affect the application of section 7413, 7414, 7420, or 7604 of this title except as otherwise explicitly provided in this subchapter.

42 U.S.C. § 7651k Monitoring, reporting, and recordkeeping requirements

(a) Applicability

The owner and operator of any source subject to this subchapter shall be required to install and operate CEMS on each affected unit at the source, and to quality assure the data for sulfur dioxide, nitrogen oxides, opacity and volumetric flow at each such unit. The Administrator shall, by regulations issued not later than eighteen months after November 15, 1990, specify the requirements for CEMS, for any alternative monitoring system that is demonstrated as providing information with the same precision, reliability, accessibility, and timeliness as that provided by CEMS, and for recordkeeping and reporting of information from such systems. Such regulations may include limitations or the use of alternative compliance methods by units equipped with an alternative monitoring system as may be necessary to preserve the orderly functioning of the allowance system, and which will ensure the emissions reductions contemplated by this subchapter. Where 2 or more units utilize a single stack, a separate CEMS shall not be required for each unit, and for such units the regulations shall require that the owner or operator collect sufficient information to permit reliable compliance determinations for each such unit.

(b) First phase requirements

Not later than thirty-six months after November 15, 1990, the owner or operator of each affected unit under section 7651c of this title, including, but not limited to, units that become affected units pursuant to subsections (b) and (c) and eligible units under subsection (d), shall install and operate CEMS, quality assure the data, and keep records and reports in accordance with the regulations issued under subsection (a).

(c) Second phase requirements

Not later than January 1, 1995, the owner or operator of each affected unit that has not previously met the requirements of subsections (a) and (b) shall install and operate CEMS, quality assure the data, and keep records and reports in accordance with the regulations issued under subsection (a). Upon commencement of commercial operation of each new utility unit, the unit shall comply with the requirements of subsection (a).

(d) Unavailability of emissions data

If CEMS data or data from an alternative monitoring system approved by the Administrator under subsection (a) is not available for any affected unit during any period of a calendar year in which such data is required under this subchapter, and the owner or operator cannot provide information, satisfactory to the Administrator, on emissions during that period, the Administrator shall deem the unit to be operating in an

uncontrolled manner during the entire period for which the data was not available and shall, by regulation which shall be issued not later than eighteen months after November 15, 1990, prescribe means to calculate emissions for that period. The owner or operator shall be liable for excess emissions fees and offsets under section 7651j of this title in accordance with such regulations. Any fee due and payable under this subsection shall not diminish the liability of the unit's owner or operator for any fine, penalty, fee or assessment against the unit for the same violation under any other section of this chapter.

(e) Prohibition

It shall be unlawful for the owner or operator of any source subject to this subchapter to operate a source without complying with the requirements of this section, and any regulations implementing this section.

42 U.S.C. § 7651l General compliance with other provisions

Except as expressly provided, compliance with the requirements of this subchapter shall not exempt or exclude the owner or operator of any source subject to this subchapter from compliance with any other applicable requirements of this chapter.

42 U.S.C. § 7651m Enforcement

It shall be unlawful for any person subject to this subchapter to violate any prohibition of, requirement of, or regulation promulgated pursuant to this subchapter shall be a violation of this chapter.1 In addition to the other requirements and prohibitions provided for in this subchapter, the operation of any affected unit to emit sulfur dioxide in excess of allowances held for such unit shall be deemed a violation, with each ton emitted in excess of allowances held constituting a separate violation.

42 U.S.C. § 7651n Clean coal technology regulatory incentives

(a) "Clean coal technology" defined

For purposes of this section, "clean coal technology" means any technology, including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, process steam, or industrial products, which is not in widespread use as of November 15, 1990.

(b) Revised regulations for clean coal technology demonstrations

(1) Applicability

This subsection applies to physical or operational changes to existing facilities for the sole purpose of installation, operation, cessation, or removal of a temporary or permanent clean coal technology demonstration project. For the purposes of this section, a clean coal technology demonstration project shall mean a project using funds appropriated under the heading "Department of Energy--Clean Coal Technology", up to a total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency. The Federal contribution for a qualifying project shall be at least 20 percent of the total cost of the demonstration project.

(2) Temporary projects

Installation, operation, cessation, or removal of a temporary clean coal technology demonstration project that is operated for a period of five years or less, and which complies with the State implementation plans for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during and after the project is terminated, shall not subject such facility to the requirements of section 7411 of this title or part C or D of subchapter I of this chapter.

(3) Permanent projects

For permanent clean coal technology demonstration projects that constitute repowering as defined in section 7651a(1)1 of this title, any qualifying project shall not be subject to standards of performance under section 7411 of this title or to the review and permitting requirements of part C for any pollutant the potential emissions of which will not increase as a result of the demonstration project.

(4) EPA regulations

Not later than 12 months after November 15, 1990, the Administrator shall promulgate regulations or interpretive rulings to revise requirements under section 7411 of this title and parts C and D, as appropriate, to facilitate projects consistent in2 this subsection. With respect to parts C and D, such regulations or rulings shall apply to all areas in which EPA is the permitting authority. In those instances in which the State is the permitting authority under part C or D, any State may adopt and submit to the Administrator for approval revisions to its implementation plan to apply the regulations or rulings promulgated under this subsection.

(c) Exemption for reactivation of very clean units

Physical changes or changes in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation shall not subject the unit to the requirements of section 7411 of this title or part C of the Act where the unit (1) has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990 [November 15, 1990], and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment, (2) was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent, (3) is equipped with low-NOx burners prior to the time of commencement, and (4) is otherwise in compliance with the requirements of this chapter.

42 U.S.C. § 7651o Contingency guarantee, auctions, reserve

(a) Definitions

For purposes of this section--

(1) The term “independent power producer” means any person who owns or operates, in whole or in part, one or more new independent power production facilities.

(2) The term “new independent power production facility” means a facility that--

(A) is used for the generation of electric energy, 80 percent or more of which is sold at wholesale;

(B) is nonrecourse project-financed (as such term is defined by the Secretary of Energy within 3 months of November 15, 1990);

(C) does not generate electric energy sold to any affiliate (as defined in section 79b(a)(11) of Title 15) of the facility's owner or operator unless the owner or operator of the facility demonstrates that it cannot obtain allowances from the affiliate; and

(D) is a new unit required to hold allowances under this subchapter.

(3) The term “required allowances” means the allowances required to operate such unit for so much of the unit's useful life as occurs after January 1, 2000.

(b) Special reserve of allowances

Within 36 months after November 15, 1990, the Administrator shall promulgate regulations establishing a Special Allowance Reserve containing allowances to be sold under this section. For purposes of establishing the Special Allowance Reserve, the Administrator shall withhold--

(1) 2.8 percent of the allocation of allowances for each year from 1995 through 1999 inclusive; and

(2) 2.8 percent of the basic Phase II allowance allocation of allowances for each year beginning in the year 2000

which would (but for this subsection) be issued for each affected unit at an affected source. The Administrator shall record such withholding for purposes of transferring the proceeds of the allowance sales under this subsection. The allowances so withheld shall be deposited in the Reserve under this section.

(c) Direct sale at $1,500 per ton

(1) Subaccount for direct sales

In accordance with regulations under this section, the Administrator shall establish a Direct Sale Subaccount in the Special Allowance Reserve established under this section. The Direct Sale Subaccount shall contain allowances in the amount of 50,000 tons per year for each year beginning in the year 2000.

(2) Sales

Allowances in the subaccount shall be offered for direct sale to any person at the times and in the amounts specified in table 1 at a price of $1,500 per allowance, adjusted by the Consumer Price Index in the same manner as provided in paragraph (3). Requests to purchase allowances from the Direct Sale Subaccount established under paragraph (1) shall be approved in the order of receipt until no allowances remain in such subaccount, except that an opportunity to purchase such allowances shall be provided to the independent power producers referred to in this subsection before such allowances are offered to any other person. Each applicant shall be required to pay 50 percent of the total purchase price of the allowances within 6 months after the approval of the request to purchase. The remainder shall be paid on or before the transfer of the allowances.

Table 1--Number of Allowances Available for Sale at $1,500 Per Ton

Year of Sale	Spot Sale (same year)	Advance Sale
1993-1999	.....	25,000
2000 and after	25,000	25,000

Allowances sold in the spot sale in any year are allowances which may only be used in that year (unless banked for use in a later year). Allowances sold in the advance sale in any year are allowances which may only be used in the 7th year after the year in which they are first offered for sale (unless banked for use in a later year).

(3) Entitlement to written guarantee

Any independent power producer that submits an application to the Administrator establishing that such independent power producer--

(A) proposes to construct a new independent power production facility for which allowances are required under this subchapter;

(B) will apply for financing to construct such facility after January 1, 1990, and before the date of the first auction under this section;

(C) has submitted to each owner or operator of an affected unit listed in table A (in section 7651c of this title) a written offer to purchase the required allowances for $750 per ton; and

(D) has not received (within 180 days after submitting offers to purchase under subparagraph (C)) an acceptance of the offer to purchase the required allowances,

shall, within 30 days after submission of such application, be entitled to receive the Administrator's written guarantee (subject to the eligibility requirements set forth in paragraph (4)) that such required allowances will be made available for purchase from the Direct Sale Subaccount established under this subsection and at a guaranteed price. The guaranteed price at which such allowances shall be made available for purchase shall be $1,500 per ton, adjusted by the percentage, if any, by which the Consumer Price Index (as determined under section 7661a(b)(3)(B)(v) of this title) for the year in which the allowance is purchased exceeds the Consumer Price Index for the calendar year 1990.

(4) Eligibility requirements

The guarantee issued by the Administrator under paragraph (3) shall be subject to a demonstration by the independent power producer, satisfactory to the Administrator, that--

(A) the independent power producer has--

(i) made good faith efforts to purchase the required allowances from the owners or operators of affected units to which allowances will be allocated, including efforts to purchase at annual auctions under this section, and from industrial sources that have elected to become affected units pursuant to section 7651i of this title; and

(ii) such bids and efforts were unsuccessful in obtaining the required allowances; and

(B) the independent power producer will continue to make good faith efforts to purchase the required allowances from the owners or operators of affected units and from industrial sources.

(5) Issuance of guaranteed allowances from Direct Sale Subaccount under this section

From the allowances available in the Direct Sale Subaccount established under this subsection, upon payment of the guaranteed price, the Administrator shall issue to any person exercising the right to purchase allowances pursuant to a guarantee under this subsection the allowances covered by such guarantee. Persons to which guarantees under this subsection have been issued shall have the opportunity to purchase allowances pursuant to such guarantee from such subaccount before the allowances in such reserve are offered for sale to any other person.

(6) Proceeds

Notwithstanding section 3302 of Title 31 or any other provision of law, the Administrator shall require that the proceeds of any sale under this subsection be transferred, within 90 days after the sale, without charge, on a pro rata basis to the owners or operators of the affected units from whom the allowances were withheld under subsection (b) of this section and that any unsold allowances be transferred to the Subaccount for Auction Sales established under subsection (d) of this section. No proceeds of any sale under this subsection shall be held by any officer or employee of the United States or treated for any purpose as revenue to the United States or to the Administrator.

(7) Termination of subaccount

If the Administrator determines that, during any period of 2 consecutive calendar years, less than 20 percent of the allowances available in the subaccount for direct sales established under this subsection have been purchased under this paragraph, the Administrator shall terminate the subaccount and transfer such allowances to the Auction Subaccount under subsection (d) of this section.

(d) Auction sales

(1) Subaccount for auctions

The Administrator shall establish an Auction Subaccount in the Special Reserve established under this section. The Auction Subaccount shall contain allowances to be sold at auction under this section in the amount of 150,000 tons per year for each year from 1995 through 1999, inclusive and 250,000 tons per year for each year beginning in the calendar year 2000.

(2) Annual auctions

Commencing in 1993 and in each year thereafter, the Administrator shall conduct auctions at which the allowances referred to in paragraph (1) shall be offered for sale in accordance with regulations promulgated by the Administrator, in

consultation with the Secretary of the Treasury, within 12 months of November 15, 1990. The allowances referred to in paragraph (1) shall be offered for sale at auction in the amounts specified in table 2. The auction shall be open to any person. A person wishing to bid for such allowances shall submit (by a date set by the Administrator) to the Administrator (on a sealed bid schedule provided by the Administrator) offers to purchase specified numbers of allowances at specified prices. Such regulations shall specify that the auctioned allowances shall be allocated and sold on the basis of bid price, starting with the highest-priced bid and continuing until all allowances for sale at such auction have been allocated. The regulations shall not permit that a minimum price be set for the purchase of withheld allowances. Allowances purchased at the auction may be used for any purpose and at any time after the auction, subject to the provisions of this subchapter.

Table 2--Number of Allowances Available for Auction

Year of Sale	Spot Auction (same year)	Advance Auction
1993	50,000*	100,000
1994	50,000*	100,000
1995	50,000*	100,000
1996	150,000	100,000
1997	150,000	100,000
1998	150,000	100,000
1999	150,000	100,000
2000 and after	100,000	100,000

Allowances sold in the spot sale in any year are allowances which may only be used in that year (unless banked for use in a later year), except as otherwise noted. Allowances sold in the advance auction in any year are allowances which may only be used in the 7th year after the year in which they are first offered for sale (unless banked for use in a later year).

(3) Proceeds

(A) Notwithstanding section 3302 of Title 31 or any other provision of law, within 90 days of receipt, the Administrator shall transfer the proceeds from the auction under this section, on a pro rata basis, to the owners or operators of the affected units at an affected source from whom allowances were withheld under subsection (b) of this section. No funds transferred from a purchaser to a seller of allowances under this paragraph

shall be held by any officer or employee of the United States or treated for any purpose as revenue to the United States or the Administrator.

(B) At the end of each year, any allowances offered for sale but not sold at the auction shall be returned without charge, on a pro rata basis, to the owner or operator of the affected units from whose allocation the allowances were withheld.

(4) Additional auction participants

Any person holding allowances or to whom allowances are allocated by the Administrator may submit those allowances to the Administrator to be offered for sale at auction under this subsection. The proceeds of any such sale shall be transferred at the time of sale by the purchaser to the person submitting such allowances for sale. The holder of allowances offered for sale under this paragraph may specify a minimum sale price. Any person may purchase allowances offered for auction under this paragraph. Such allowances shall be allocated and sold to purchasers on the basis of bid price after the auction under paragraph (2) is complete. No funds transferred from a purchaser to a seller of allowances under this paragraph shall be held by any officer or employee of the United States or treated for any purpose as revenue to the United States or the Administrator.

(5) Recording by EPA

The Administrator shall record and publicly report the nature, prices and results of each auction under this subsection, including the prices of successful bids, and shall record the transfers of allowances as a result of each auction in accordance with the requirements of this section. The transfer of allowances at such auction shall be recorded in accordance with the regulations promulgated by the Administrator under this subchapter.

(e) Changes in sales, auctions, and withholding

Pursuant to rulemaking after public notice and comment the Administrator may at any time after the year 1998 (in the case of advance sales or advance auctions) and 2005 (in the case of spot sales or spot auctions) decrease the number of allowances withheld and sold under this section.

(f) Termination of auctions

The Administrator may terminate the withholding of allowances and the auction sales under this section if the Administrator determines that, during any period of 3 consecutive calendar years after 2002, less than 20 percent of the allowances available in

the auction subaccount have been purchased. Pursuant to regulations under this section, the Administrator may by delegation or contract provide for the conduct of sales or auctions under the Administrator's supervision by other departments or agencies of the United States Government or by nongovernmental agencies, groups, or organizations.

N.C. Gen. Stat. § 143-215.107D(b)-(e). Emissions of oxides of nitrogen (NOx) and sulfur dioxide (SO2) from certain coal-fired generating units

(b) An investor-owned public utility that owns or operates coal-fired generating units that collectively emitted more than 75,000 tons of oxides of nitrogen (NOx) in calendar year 2000:
(1) Shall not collectively emit from the coal-fired generating units that it owns or operates more than 35,000 tons of oxides of nitrogen (NOx) in any calendar year beginning 1 January 2007.
(2) Shall not collectively emit from the coal-fired generating units that it owns or operates more than 31,000 tons of oxides of nitrogen (NOx) in any calendar year beginning 1 January 2009.

(c) An investor-owned public utility that owns or operates coal-fired generating units that collectively emitted 75,000 tons or less of oxides of nitrogen (NOx) in calendar year 2000 shall not collectively emit from the coal-fired generating units that it owns or operates more than 25,000 tons of oxides of nitrogen (NOx) in any calendar year beginning 1 January 2007.

(d) An investor-owned public utility that owns or operates coal-fired generating units that collectively emitted more than 225,000 tons of sulfur dioxide (SO2) in calendar year 2000:
(1) Shall not collectively emit from the coal-fired generating units that it owns or operates more than 150,000 tons of sulfur dioxide (SO2) in any calendar year beginning 1 January 2009.
(2) Shall not collectively emit from the coal-fired generating units that it owns or operates more than 80,000 tons of sulfur dioxide (SO2) in any calendar year beginning 1 January 2013.

(e) An investor-owned public utility that owns or operates coal-fired generating units that collectively emitted 225,000 tons or less of sulfur dioxide (SO2) in calendar year 2000:
(1) Shall not collectively emit from the coal-fired generating units that it owns or operates more than 100,000 tons of sulfur dioxide (SO2) in any calendar year beginning 1 January 2009.
(2) Shall not collectively emit from the coal-fired generating units that it owns or operates more than 50,000 tons of sulfur dioxide (SO2) in any calendar year beginning 1 January 2013.

N.C. Gen. Stat. § 143-215.107D(f). Emissions of oxides of nitrogen (NOx) and sulfur dioxide (SO2) from certain coal-fired generating units

(f) Each investor-owned public utility to which this section applies may determine how it will achieve the collective emissions limitations imposed by this section. Compliance with the emissions limitations set out in this section does not alter the obligation of any person to comply with any other federal or State law, regulation, or rule related to air quality or visibility. This subsection shall not be construed to limit the authority of the Commission to impose specific limitations on the emission of oxides of nitrogen (NOx) and sulfur dioxide (SO2) from an individual coal-fired generating unit owned or operated by an investor-owned public utility.

N.J. Admin. Code 14:8–2.1 Purpose and scope

(a) Each supplier/provider, as defined at N.J.A.C. 14:8-1.2, that sells electricity to retail customers in New Jersey, shall include in its electric energy portfolio electricity generated from renewable energy sources. This subchapter is designed to encourage the development of renewable sources of electricity and new, cleaner generation technology; minimize the environmental impact of air pollutant emissions from electric generation; reduce possible transport of emissions and minimize any adverse environmental impact from deregulation of energy generation; and support the reliability of the supply of electricity in New Jersey.

(b) This subchapter governs the retail electricity sales of each supplier/provider, as defined in N.J.A.C. 14:8–1.2. This subchapter does not govern installed capacity obligations, as defined at N.J.A.C. 14:8–2.2.

(c) This subchapter does not apply to a private or government aggregator that contracts for electric generation service or electric related services, either separately or bundled, for its own facilities or on behalf of other business and residential customers in this State. This subchapter does not apply to an energy agent, as defined at N.J.A.C. 14:8–1.2. A supplier/provider that is contractually obligated to sell electricity to an aggregator shall comply with this subchapter by including the amount sold to the aggregator as part of its energy portfolio.

N.J. Admin. Code 14:8–2.3 Amount of renewable energy required

(a) Each supplier/provider, as defined at N.J.A.C 14:8-1.2, that sells electricity to retail customers in New Jersey, shall ensure that the electricity it sells each energy year in New Jersey includes at least the minimum amount of qualified renewable energy, as defined at N.J.A.C. 14:8-2.2, required for that energy year, as specified in this section. Requirements for class I and class II renewable energy are set forth in Table A below:

Table A

What Percentage Of Energy Supplied Must Be Class I Or Class II Renewable Energy?

Energy Year	Class I Renewable Energy	Class II Renewable Energy
June 1, 2004 - May 31, 2005	.74%	2.50%
June 1, 2005 - May 31, 2006	0.983%	2.50%
June 1, 2006 - May 31, 2007	2.037%	2.50%
June 1, 2007 - May 31, 2008	2.924%	2.50%
June 1, 2008 - May 31, 2009	3.84%	2.50%
June 1, 2009 - May 31, 2010	4.685%	2.50%
EY 2011: June 1, 2010 - May 31, 2011	5.492%	2.50%
EY 2011: June 1, 2011 - May 31, 2012	6.320%	2.50%
EY 2011: June 1, 2012 - May 31, 2013	7.143%	2.50%
EY 2011: June 1, 2013 - May 31, 2014	7.977%	2.50%
EY 2011: June 1, 2014 - May 31, 2015	8.807%	2.50%
EY 2011: June 1, 2015 - May 31, 2016	9.649%	2.50%
EY 2011: June 1, 2016 - May 31, 2017	10.485%	2.50%
EY 2011: June 1, 2017 - May 31, 2018	12.325%	2.50%
EY 2011: June 1, 2018 - May 31, 2019	14.175%	2.50%
EY 2011: June 1, 2019 - May 31, 2020	16.029%	2.50%
EY 2011: June 1, 2020 - May 31, 2021	17.880%	2.50%

(b) The Board shall adopt rules setting minimum amounts of solar electric generation, class I renewable energy and class II renewable energy required for EY 2022 and each subsequent energy year. These minimum amounts shall be no lower than those required for EY 2021. The Board, in consultation with the NJDEP, EDCs, Rate Counsel, the solar energy industry and relevant stakeholders, shall periodically consider increasing the renewable energy portfolio

standards beyond the minimum amounts set forth in this chapter, taking into account the cost impacts and public benefits of such increases including, but not limited to:

1. Reductions in air pollution, water pollution, land disturbance and greenhouse gas emissions;

2. Reductions in peak demand for electricity and natural gas and the overall impact on the costs to electricity and natural gas customers;

3. Increases in renewable energy development, manufacturing, investment and job creation opportunities in New Jersey; and

4. Reductions in State and national dependence on fossil fuels.

(c) Each supplier/provider's solar electric generation obligation shall be calculated in accordance with the requirements of P.L. 2012, c. 24. A supplier/provider shall meet the requirements for solar electric generation through:

1. Retirement of SRECs through a renewable energy trading program approved by the Board in consultation with the NJDEP; or

2. Submittal of one or more SACPs.

(d) A supplier/provider may meet the class I and class II renewable energy requirements in Table A above by retiring RECs in accordance with N.J.A.C. 14:8–2.8. Alternatively, a supplier/provider may comply with the class I and class II requirements of this subchapter by submitting the appropriate number of ACPs, in accordance with N.J.A.C. 14:8–2.10.

(e) (Reserved.)

(f) The following shall apply to the type of energy, and type of documentation, used for compliance with each of the requirements in this subchapter:

1. SRECs may be used to meet any requirement for solar electric generation, class I renewable energy, or class II renewable energy;

2. Class I RECs may be used to meet class I renewable energy requirements or class II renewable energy requirements, but shall not be used to meet solar electric generation requirements; and

3. Class II RECs shall be used only to meet class II renewable energy requirements, and shall not be used to meet solar electric generation requirements or class I renewable energy requirements.

(g) A supplier/provider shall not demonstrate compliance with this subchapter using direct supply of any type of renewable energy.

(h) (Reserved)

(i) The same renewable energy shall not be used for more than one of the following:

1. Creation of an SREC under N.J.A.C. 14:8–2.9;

2. Creation of a REC under N.J.A.C. 14:8–2.8 or 2.9; or

3. Creation of a REC, or of any other type of attribute or credit, under authority other than N.J.A.C. 14:8–2.9 such as another state's renewable energy standards or any voluntary clean electricity market or voluntary clean electricity program.

(j) Each megawatt-hour (MWh) of retail electricity supplied in New Jersey by a supplier/provider subject to this subchapter carries with it an accompanying solar obligation. For Energy Year 2013, each supplier/provider shall calculate its solar obligation as set forth in (k) below. Subsection (k) below allocates the Table B Statewide solar obligation among all supplier/providers that are subject to this subchapter. All supplier/provider solar obligations, taken together, must equal the Statewide solar obligation set forth in Table B below for Energy Year 2013.

(k) For electricity supplied during EY 2013, a supplier/provider shall calculate its solar obligation as follows:

1. Determine the supplier/provider's market share of all electricity supplied Statewide during the applicable energy year, as follows:

i. Consult the Board's NJCEP website to determine the number of MWhs of electricity supplied Statewide during the energy year by all supplier/providers subject to this subchapter;

ii. Determine the number of MWhs of electricity the supplier/provider supplied during the energy year; and

iii. Divide (k)1ii above by (k)1i above to obtain a fraction representing the supplier/provider's market share; and

2. Multiply the supplier/provider's market share from (k)1 above by the applicable Statewide solar obligation from Table B below. The result is the supplier/provider's solar obligation for the electricity that it supplied during the energy year.

Table B Total Statewide Solar Obligation Starting June 1, 2010

Energy Year	Statewide Solar Obligation in GWhs
EY 2011: June 1, 2010 - May 31, 2011	306
EY 2012: June 1, 2011 - May 31, 2012	442
EY 2013: June 1, 2012 - May 31, 2013	596

N.J. Admin. Code § 14:8–2.3(a), (k) Amount of renewable energy required

(a) Each supplier/provider, as defined at N.J.A.C 14:8-1.2, that sells electricity to retail customers in New Jersey, shall ensure that the electricity it sells each energy year in New Jersey includes at least the minimum amount of qualified renewable energy, as defined at N.J.A.C. 14:8-2.2, required for that energy year, as specified in this section. Requirements for class I and class II renewable energy are set forth in Table A below:

Table A

What Percentage Of Energy Supplied Must Be Class I Or Class II Renewable Energy?

Energy Year	Class I Renewable Energy	Class II Renewable Energy
June 1, 2004 - May 31, 2005	.74%	2.50%
June 1, 2005 - May 31, 2006	0.983%	2.50%
June 1, 2006 - May 31, 2007	2.037%	2.50%
June 1, 2007 - May 31, 2008	2.924%	2.50%
June 1, 2008 - May 31, 2009	3.84%	2.50%
June 1, 2009 - May 31, 2010	4.685%	2.50%
EY 2011: June 1, 2010 - May 31, 2011	5.492%	2.50%
EY 2011: June 1, 2011 - May 31, 2012	6.320%	2.50%
EY 2011: June 1, 2012 - May 31, 2013	7.143%	2.50%
EY 2011: June 1, 2013 - May 31, 2014	7.977%	2.50%
EY 2011: June 1, 2014 - May 31, 2015	8.807%	2.50%
EY 2011: June 1, 2015 - May 31, 2016	9.649%	2.50%
EY 2011: June 1, 2016 - May 31, 2017	10.485%	2.50%
EY 2011: June 1, 2017 - May 31, 2018	12.325%	2.50%
EY 2011: June 1, 2018 - May 31, 2019	14.175%	2.50%
EY 2011: June 1, 2019 - May 31, 2020	16.029%	2.50%
EY 2011: June 1, 2020 - May 31, 2021	17.880%	2.50%

(k) For electricity supplied during EY 2013, a supplier/provider shall calculate its solar obligation as follows:

1. Determine the supplier/provider's market share of all electricity supplied Statewide during the applicable energy year, as follows:

i. Consult the Board's NJCEP website to determine the number of MWhs of electricity supplied Statewide during the energy year by all supplier/providers subject to this subchapter;

ii. Determine the number of MWhs of electricity the supplier/provider supplied during the energy year; and

iii. Divide (k)1ii above by (k)1i above to obtain a fraction representing the supplier/provider's market share; and

2. Multiply the supplier/provider's market share from (k)1 above by the applicable Statewide solar obligation from Table B below. The result is the supplier/provider's solar obligation for the electricity that it supplied during the energy year.

Table B Total Statewide Solar Obligation Starting June 1, 2010

Energy Year	Statewide Solar Obligation in GWhs
EY 2011: June 1, 2010 - May 31, 2011	306
EY 2012: June 1, 2011 - May 31, 2012	442
EY 2013: June 1, 2012 - May 31, 2013	596

N.J. Stat. Ann. 48:3-49. Short title; Electric Discount and Energy Competition Act

Sections 1 through 46, and sections 51, 57, 59, 60, 63, 65 and 66 of this act shall be known and may be cited as the "Electric Discount and Energy Competition Act."

N.J. Stat. Ann. 48:3-51. Definitions

As used in P.L.1999, c. 23 (C.48:3-49 et al.):

"Assignee" means a person to which an electric public utility or another assignee assigns, sells, or transfers, other than as security, all or a portion of its right to or interest in bondable transition property. Except as specifically provided in P.L.1999, c. 23 (C.48:3-49 et al.), an assignee shall not be subject to the public utility requirements of Title 48 or any rules or regulations adopted pursuant thereto.

"Base load electric power generation facility" means an electric power generation facility intended to be operated at a greater than 50 percent capacity factor including, but not limited to, a combined cycle power facility and a combined heat and power facility.

"Base residual auction" means the auction conducted by PJM, as part of PJM's reliability pricing model, three years prior to the start of the delivery year to secure electrical capacity as necessary to satisfy the capacity requirements for that delivery year.

"Basic gas supply service" means gas supply service that is provided to any customer that has not chosen an alternative gas supplier, whether or not the customer has received offers as to competitive supply options, including, but not limited to, any customer that cannot obtain such service for any reason, including non-payment for services. Basic gas supply service is not a competitive service and shall be fully regulated by the board.

"Basic generation service" or "BGS" means electric generation service that is provided, to any customer that has not chosen an alternative electric power supplier, whether or not the customer has received offers for competitive supply options, including, but not limited to, any customer that cannot obtain such service from an electric power supplier for any reason, including non-payment for services. Basic generation service is not a competitive service and shall be fully regulated by the board.

"Basic generation service provider" or "provider" means a provider of basic generation service.

"Basic generation service transition costs" means the amount by which the payments by an electric public utility for the procurement of power for basic generation service and related ancillary and administrative costs exceeds the net revenues from the basic generation service charge established by the board pursuant to section 9 of P.L.1999, c. 23 (C.48:3-57) during the transition period, together with interest on the balance at the board-approved rate, that is reflected in a deferred balance account approved by the board in an order addressing the electric public utility's unbundled rates, stranded costs, and restructuring filings pursuant to P.L.1999, c. 23 (C.48:3-49 et al.). Basic generation service transition costs shall include, but are not limited to, costs of purchases from the spot market, bilateral contracts, contracts with non-utility generators, parting contracts with the purchaser of the electric public utility's divested generation assets, short-term advance purchases, and financial instruments such as hedging, forward contracts, and options. Basic generation service transition costs shall also include the payments by an electric public utility pursuant to a competitive procurement process for basic generation service supply during the transition period, and costs of any such process used to procure the basic generation service supply.

"Board" means the New Jersey Board of Public Utilities or any successor agency.

"Bondable stranded costs" means any stranded costs or basic generation service transition costs of an electric public utility approved by the board for recovery pursuant to the provisions of P.L.1999, c. 23 (C.48:3-49 et al.), together with, as approved by the board: (1) the cost of retiring existing debt or equity capital of the electric public utility, including accrued interest, premium and other fees, costs, and charges relating thereto, with the proceeds of the financing of bondable transition property; (2) if requested by an electric public utility in its application for a bondable stranded costs rate order, federal, State and local tax liabilities associated with stranded costs recovery or, basic generation service transition cost recovery, or the transfer or financing of such the property, or both, including taxes, whose recovery period is modified by the effect of a stranded costs recovery order, a bondable stranded costs rate order, or both; and (3) the costs incurred to issue, service or refinance transition bonds, including interest, acquisition or redemption premium, and other financing costs, whether paid upon issuance or over the life of the transition bonds, including, but not limited to, credit enhancements, service charges, overcollateralization, interest rate cap, swap or collar, yield maintenance, maturity guarantee or other hedging agreements, equity investments, operating costs, and other related fees, costs, and charges, or to assign, sell, or otherwise transfer bondable transition property.

"Bondable stranded costs rate order" means one or more irrevocable written orders issued by the board pursuant to P.L.1999, c. 23 (C.48:3-49 et al.) which determines the amount of bondable stranded costs and the initial amount of transition bond charges authorized to be imposed to recover such the bondable stranded costs, including the costs to be financed from the proceeds of the transition bonds, as well as on-going costs associated with servicing and credit enhancing the transition bonds, and provides the electric public utility specific authority to issue or cause to be issued, directly or indirectly, transition bonds through a financing entity and related matters as provided in P.L.1999, c. 23 (C.48:3-49 et al.), which order shall become effective immediately upon the written consent of the related electric public utility to such the order as provided in P.L.1999, c. 23 (C.48:3-49 et al.).

"Bondable transition property" means the property consisting of the irrevocable right to charge, collect, and receive, and be paid from collections of, transition bond charges in the amount necessary to provide for the full recovery of bondable stranded costs which are determined to be recoverable in a bondable stranded costs rate order, all rights of the related electric public utility under such the bondable stranded costs rate order including, without limitation, all rights to obtain periodic adjustments of the related transition bond charges pursuant to subsection b. of section 15 of P.L.1999, c. 23 (C.48:3-64), and all revenues, collections, payments, money, and proceeds arising under, or with respect to, all of the foregoing.

"British thermal unit" or "Btu" means the amount of heat required to increase the temperature of one pound of water by one degree Fahrenheit.

"Broker" means a duly licensed electric power supplier that assumes the contractual and legal responsibility for the sale of electric generation service, transmission, or other services to end-use retail customers, but does not take title to any of the power sold, or a duly licensed gas supplier that assumes the contractual and legal obligation to provide gas supply service to end-use retail customers, but does not take title to the gas.

"Brownfield" means any former or current commercial or industrial site that is currently vacant or underutilized and on which there has been, or there is suspected to have been, a discharge of a contaminant.

"Buydown" means an arrangement or arrangements involving the buyer and seller in a given power purchase contract and, in some cases third parties, for consideration to be given by the buyer in order to effectuate a reduction in the pricing, or the restructuring of other terms to reduce the overall cost of the power contract, for the remaining succeeding period of the purchased power arrangement or arrangements.

"Buyout" means an arrangement or arrangements involving the buyer and seller in a given power purchase contract and, in some cases third parties, for consideration to be given by the buyer in order to effectuate a termination of such power purchase contract.

"Class I renewable energy" means electric energy produced from solar technologies, photovoltaic technologies, wind energy, fuel cells, geothermal technologies, wave or tidal action, small scale hydropower facilities with a capacity of three megawatts or less and put into service after the effective date of P.L.2012, c. 24, and methane gas from landfills or a biomass facility, provided that the biomass is cultivated and harvested in a sustainable manner.

"Class II renewable energy" means electric energy produced at a hydropower facility with a capacity of greater than three megawatts, but less than 30 megawatts, or a resource recovery facility, provided that such the facility is located where retail competition is permitted and provided further that the Commissioner of Environmental Protection has determined that such the facility meets the highest environmental standards and minimizes any impacts to the environment and local communities;. Class II renewable energy shall not include electric energy produced at a hydropower facility with a capacity of greater than 30 megawatts on or after the effective date of P.L.2015, c. 51.

"Co-generation" means the sequential production of electricity and steam or other forms of useful energy used for industrial or commercial heating and cooling purposes.

"Combined cycle power facility" means a generation facility that combines two or more thermodynamic cycles, by producing electric power via the combustion of fuel and then routing the resulting waste heat by-product to a conventional boiler or to a heat recovery steam generator for use by a steam turbine to produce electric power, thereby increasing the overall efficiency of the generating facility.

"Combined heat and power facility" or "co-generation facility" means a generation facility which produces electric energy and steam or other forms of useful energy such as heat, which are used for industrial or commercial heating or cooling purposes. A combined heat and power facility or co-generation facility shall not be considered a public utility.

"Competitive service" means any service offered by an electric public utility or a gas public utility that the board determines to be competitive pursuant to section 8 or section 10 of P.L.1999, c. 23 (C.48:3-56 or C.48:3-58) or that is not regulated by the board.

“Commercial and industrial energy pricing class customer” or “CIEP class customer” means that group of non-residential customers with high peak demand, as determined by periodic board order, which either is eligible or which would be eligible, as determined by periodic board order, to receive funds from the Retail Margin Fund established pursuant to section 9 of P.L.1999, c. 23 (C.48:3-57) and for which basic generation service is hourly-priced.

“Comprehensive resource analysis” means an analysis including, but not limited to, an assessment of existing market barriers to the implementation of energy efficiency and renewable technologies that are not or cannot be delivered to customers through a competitive marketplace.

“Connected to the distribution system” means, for a solar electric power generation facility, that the facility is: (1) connected to a net metering customer's side of a meter, regardless of the voltage at which that customer connects to the electric grid; (2) an on-site generation facility; (3) qualified for net metering aggregation as provided pursuant to paragraph (4) of subsection e. of section 38 of P.L.1999, c. 23 (C.48:3-87); (4) owned or operated by an electric public utility and approved by the board pursuant to section 13 of P.L.2007, c. 340 (C.48:3-98.1); (5) directly connected to the electric grid at 69kilovolts 69 kilovolts or less, regardless of how an electric public utility classifies that portion of its electric grid, and is designated as “connected to the distribution system” by the board pursuant to subsections q. through s. of section 38 of P.L.1999, c. 23 (C.48:3-87); or (6) is certified by the board, in consultation with the Department of Environmental Protection, as being located on a brownfield, on an area of historic fill, or on a properly closed sanitary landfill facility. Any solar electric power generation facility, other than that of a net metering customer on the customer's side of the meter, connected above 69 kilovolts shall not be considered connected to the distribution system.

“Customer” means any person that is an end user and is connected to any part of the transmission and distribution system within an electric public utility's service territory or a gas public utility's service territory within this State.

“Customer account service” means metering, billing, or such other administrative activity associated with maintaining a customer account.

“Delivery year” or “DY” means the 12-month period from June 1st through May 31st, numbered according to the calendar year in which it ends.

“Demand side management” means the management of customer demand for energy service through the implementation of cost-effective energy efficiency technologies, including, but not limited to, installed conservation, load management, and energy efficiency measures on and in the residential, commercial, industrial, institutional, and governmental premises and facilities in this State.

“Electric generation service” means the provision of retail electric energy and capacity which is generated off-site from the location at which the consumption of such electric energy and capacity is metered for retail billing purposes, including agreements and arrangements related thereto.

“Electric power generator” means an entity that proposes to construct, own, lease, or operate, or currently owns, leases, or operates, an electric power production facility that will sell or does sell

at least 90 percent of its output, either directly or through a marketer, to a customer or customers located at sites that are not on or contiguous to the site on which the facility will be located or is located. The designation of an entity as an electric power generator for the purposes of P.L.1999, c. 23 (C.48:3-49 et al.) shall not, in and of itself, affect the entity's status as an exempt wholesale generator under the Public Utility Holding Company Act of 1935, 15 U.S.C. s.79 et seq., or its successor; act.

“Electric power supplier” means a person or entity that is duly licensed pursuant to the provisions of P.L.1999, c. 23 (C.48:3-49 et al.) to offer and to assume the contractual and legal responsibility to provide electric generation service to retail customers, and includes load serving entities, marketers, and brokers that offer or provide electric generation service to retail customers. The term excludes an electric public utility that provides electric generation service only as a basic generation service pursuant to section 9 of P.L.1999, c. 23 (C.48:3-57).

“Electric public utility” means a public utility, as that term is defined in R.S.48:2-13, that transmits and distributes electricity to end users within this State.

“Electric related service” means a service that is directly related to the consumption of electricity by an end user, including, but not limited to, the installation of demand side management measures at the end user's premises, the maintenance, repair, or replacement of appliances, lighting, motors, or other energy-consuming devices at the end user's premises, and the provision of energy consumption measurement and billing services.

“Electronic signature” means an electronic sound, symbol, or process, attached to, or logically associated with, a contract or other record, and executed or adopted by a person with the intent to sign the record.

“Eligible generator” means a developer of a base load or mid-merit electric power generation facility including, but not limited to, an on-site generation facility that qualifies as a capacity resource under PJM criteria and that commences construction after the effective date of P.L.2011, c. 9 (C.48:3-98.2 et al.).

“Energy agent” means a person that is duly registered pursuant to the provisions of P.L.1999, c. 23 (C.48:3-49 et al.), that arranges the sale of retail electricity or electric related services, or retail gas supply or gas related services, between government aggregators or private aggregators and electric power suppliers or gas suppliers, but does not take title to the electric or gas sold.

“Energy consumer” means a business or residential consumer of electric generation service or gas supply service located within the territorial jurisdiction of a government aggregator.

“Energy efficiency portfolio standard” means a requirement to procure a specified amount of energy efficiency or demand side management resources as a means of managing and reducing energy usage and demand by customers.

“Energy year” or “EY” means the 12-month period from June 1st through May 31st, numbered according to the calendar year in which it ends.

"Existing business relationship" means a relationship formed by a voluntary two-way communication between an electric power supplier, gas supplier, broker, energy agent, marketer, private aggregator, sales representative, or telemarketer and a customer, regardless of an exchange of consideration, on the basis of an inquiry, application, purchase, or transaction initiated by the customer regarding products or services offered by the electric power supplier, gas supplier, broker, energy agent, marketer, private aggregator, sales representative, or telemarketer; however, a consumer's use of electric generation service or gas supply service through the consumer's electric public utility or gas public utility shall not constitute or establish an existing business relationship for the purpose of P.L.2013, c. 263.

"Farmland" means land actively devoted to agricultural or horticultural use that is valued, assessed, and taxed pursuant to the "Farmland Assessment Act of 1964," P.L.1964, c. 48 (C.54:4-23.1 et seq.).

"Federal Energy Regulatory Commission" or "FERC" means the federal agency established pursuant to 42 U.S.C. s.7171 et seq. to regulate the interstate transmission of electricity, natural gas, and oil.

"Final remediation document" shall have the same meaning as provided in section 3 of P.L.1976, c. 141 (C.58:10-23.11b).

"Financing entity" means an electric public utility, a special purpose entity, or any other assignee of bondable transition property, which issues transition bonds. Except as specifically provided in P.L.1999, c. 23 (C.48:3-49 et al.), a financing entity which is not itself an electric public utility shall not be subject to the public utility requirements of Title 48 of the Revised Statutes or any rules or regulations adopted pursuant thereto.

"Gas public utility" means a public utility, as that term is defined in R.S.48:2-13, that distributes gas to end users within this State.

"Gas related service" means a service that is directly related to the consumption of gas by an end user, including, but not limited to, the installation of demand side management measures at the end user's premises, the maintenance, repair or replacement of appliances or other energy-consuming devices at the end user's premises, and the provision of energy consumption measurement and billing services.

"Gas supplier" means a person that is duly licensed pursuant to the provisions of P.L.1999, c. 23 (C.48:3-49 et al.) to offer and assume the contractual and legal obligation to provide gas supply service to retail customers, and includes, but is not limited to, marketers and brokers. A non-public utility affiliate of a public utility holding company may be a gas supplier, but a gas public utility or any subsidiary of a gas utility is not a gas supplier. In the event that a gas public utility is not part of a holding company legal structure, a related competitive business segment of that gas public utility may be a gas supplier, provided that related competitive business segment is structurally separated from the gas public utility, and provided that the interactions between the gas public utility and the related competitive business segment are subject to the affiliate relations standards adopted by the board pursuant to subsection k. of section 10 of P.L.1999, c. 23 (C.48:3-58).

"Gas supply service" means the provision to customers of the retail commodity of gas, but does not include any regulated distribution service.

"Government aggregator" means any government entity subject to the requirements of the "Local Public Contracts Law," P.L.1971, c. 198 (C.40A:11-1 et seq.), the "Public School Contracts Law," N.J.S.18A:18A-1 et seq., or the "County College Contracts Law," P.L.1982, c. 189 (C.18A:64A-25.1 et seq.), that enters into a written contract with a licensed electric power supplier or a licensed gas supplier for: (1) the provision of electric generation service, electric related service, gas supply service, or gas related service for its own use or the use of other government aggregators; or (2) if a municipal or county government, the provision of electric generation service or gas supply service on behalf of business or residential customers within its territorial jurisdiction.

"Government energy aggregation program" means a program and procedure pursuant to which a government aggregator enters into a written contract for the provision of electric generation service or gas supply service on behalf of business or residential customers within its territorial jurisdiction.

"Governmental entity" means any federal, state, municipal, local, or other governmental department, commission, board, agency, court, authority, or instrumentality having competent jurisdiction.

"Greenhouse gas emissions portfolio standard" means a requirement that addresses or limits the amount of carbon dioxide emissions indirectly resulting from the use of electricity as applied to any electric power suppliers and basic generation service providers of electricity.

"Historic fill" means generally large volumes of non-indigenous material, no matter what date they were emplaced on the site, used to raise the topographic elevation of a site, which were contaminated prior to emplacement and are in no way connected with the operations at the location of emplacement and which include, but are not limited to, construction debris, dredge spoils, incinerator residue, demolition debris, fly ash, and non-hazardous solid waste. "Historic fill" shall not include any material which is substantially chromate chemical production waste or any other chemical production waste or waste from processing of metal or mineral ores, residues, slags, or tailings.

"Incremental auction" means an auction conducted by PJM, as part of PJM's reliability pricing model, prior to the start of the delivery year to secure electric capacity as necessary to satisfy the capacity requirements for that delivery year, that is not otherwise provided for in the base residual auction.

"Leakage" means an increase in greenhouse gas emissions related to generation sources located outside of the State that are not subject to a state, interstate, or regional greenhouse gas emissions cap or standard that applies to generation sources located within the State.

"Locational deliverability area" or "LDA" means one or more of the zones within the PJM region which are used to evaluate area transmission constraints and reliability issues including electric public utility company zones, sub-zones, and combinations of zones.

"Long-term capacity agreement pilot program" or "LCAPP" means a pilot program established by the board that includes participation by eligible generators, to seek offers for financially-settled standard offer capacity agreements with eligible generators pursuant to the provisions of P.L.2011, c. 9 (C.48:3-98.2 et al.).

"Market transition charge" means a charge imposed pursuant to section 13 of P.L.1999, c. 23 (C.48:3-61) by an electric public utility, at a level determined by the board, on the electric public utility customers for a limited duration transition period to recover stranded costs created as a result of the introduction of electric power supply competition pursuant to the provisions of P.L.1999, c. 23 (C.48:3-49 et al.).

"Marketer" means a duly licensed electric power supplier that takes title to electric energy and capacity, transmission and other services from electric power generators and other wholesale suppliers and then assumes the contractual and legal obligation to provide electric generation service, and may include transmission and other services, to an end-use retail customer or customers, or a duly licensed gas supplier that takes title to gas and then assumes the contractual and legal obligation to provide gas supply service to an end-use customer or customers.

"Mid-merit electric power generation facility" means a generation facility that operates at a capacity factor between baseload generation facilities and peaker generation facilities.

"Net metering aggregation" means a procedure for calculating the combination of the annual energy usage for all facilities owned by a single customer where such customer is a State entity, school district, county, county agency, county authority, municipality, municipal agency, or municipal authority, and which are served by a solar electric power generating facility as provided pursuant to paragraph (4) of subsection e. of section 38 of P.L.1999, c. 23 (C.48:3-87).

"Net proceeds" means proceeds less transaction and other related costs as determined by the board.

"Net revenues" means revenues less related expenses, including applicable taxes, as determined by the board.

"Offshore wind energy" means electric energy produced by a qualified offshore wind project.

"Offshore wind renewable energy certificate" or "OREC" means a certificate, issued by the board or its designee, representing the environmental attributes of one megawatt hour of electric generation from a qualified offshore wind project.

"Off-site end use thermal energy services customer" means an end use customer that purchases thermal energy services from an on-site generation facility, combined heat and power facility, or co-generation facility, and that is located on property that is separated from the property on which the on-site generation facility, combined heat and power facility, or co-generation facility is located by more than one easement, public thoroughfare, or transportation or utility-owned right-of-way.

"On-site generation facility" means a generation facility, including, but not limited to, a generation facility that produces Class I or Class II renewable energy, and equipment and

services appurtenant to electric sales by such facility to the end use customer located on the property or on property contiguous to the property on which the end user is located. An on-site generation facility shall not be considered a public utility. The property of the end use customer and the property on which the on-site generation facility is located shall be considered contiguous if they are geographically located next to each other, but may be otherwise separated by an easement, public thoroughfare, transportation or utility-owned right-of-way, or if the end use customer is purchasing thermal energy services produced by the on-site generation facility, for use for heating or cooling, or both, regardless of whether the customer is located on property that is separated from the property on which the on-site generation facility is located by more than one easement, public thoroughfare, or transportation or utility-owned right-of-way.

"Person" means an individual, partnership, corporation, association, trust, limited liability company, governmental entity, or other legal entity.

"PJM Interconnection, L.L.C." or "PJM" means the privately-held, limited liability corporation that is a FERC-approved Regional Transmission Organization, or its successor, that manages the regional, high-voltage electricity grid serving all or parts of 13 states including New Jersey and the District of Columbia, operates the regional competitive wholesale electric market, manages the regional transmission planning process, and establishes systems and rules to ensure that the regional and in-State energy markets operate fairly and efficiently.

"Preliminary assessment" shall have the same meaning as provided in section 3 of P.L.1976, c. 141 (C.58:10-23.11b).

"Private aggregator" means a non-government aggregator that is a duly-organized business or non-profit organization authorized to do business in this State that enters into a contract with a duly licensed electric power supplier for the purchase of electric energy and capacity, or with a duly licensed gas supplier for the purchase of gas supply service, on behalf of multiple end-use customers by combining the loads of those customers.

"Properly closed sanitary landfill facility" means a sanitary landfill facility, or a portion of a sanitary landfill facility, for which performance is complete with respect to all activities associated with the design, installation, purchase, or construction of all measures, structures, or equipment required by the Department of Environmental Protection, pursuant to law, in order to prevent, minimize, or monitor pollution or health hazards resulting from a sanitary landfill facility subsequent to the termination of operations at any portion thereof, including, but not necessarily limited to, the placement of earthen or vegetative cover, and the installation of methane gas vents or monitors and leachate monitoring wells or collection systems at the site of any sanitary landfill facility.

"Public utility holding company" means: (1) any company that, directly or indirectly, owns, controls, or holds with power to vote, ten 10 percent or more of the outstanding voting securities of an electric public utility or a gas public utility or of a company which is a public utility holding company by virtue of this definition, unless the Securities and Exchange Commission, or its successor, by order declares such company not to be a public utility holding company under the Public Utility Holding Company Act of 1935, 15 U.S.C. s.79 et seq., or its successor; or (2) any person that the Securities and Exchange Commission, or its successor, determines, after

notice and opportunity for hearing, directly or indirectly, to exercise, either alone or pursuant to an arrangement or understanding with one or more other persons, such a controlling influence over the management or policies of an electric public utility or a gas public utility or public utility holding company as to make it necessary or appropriate in the public interest or for the protection of investors or consumers that such person be subject to the obligations, duties, and liabilities imposed in the Public Utility Holding Company Act of 1935, 15 U.S.C. s.79 et seq., or its successor; act.

"Qualified offshore wind project" means a wind turbine electricity generation facility in the Atlantic Ocean and connected to the electric transmission system in this State, and includes the associated transmission-related interconnection facilities and equipment, and approved by the board pursuant to section 3 of P.L.2010, c. 57 (C.48:3-87.1).

"Registration program" means an administrative process developed by the board pursuant to subsection u. of section 38 of P.L.1999, c. 23 (C.48:3-87) that requires all owners of solar electric power generation facilities connected to the distribution system that intend to generate SRECs, to file with the board documents detailing the size, location, interconnection plan, land use, and other project information as required by the board.

"Regulatory asset" means an asset recorded on the books of an electric public utility or gas public utility pursuant to the Statement of Financial Accounting Standards, No. 71, entitled "Accounting for the Effects of Certain Types of Regulation," or any successor standard and as deemed recoverable by the board.

"Related competitive business segment of an electric public utility or gas public utility" means any business venture of an electric public utility or gas public utility including, but not limited to, functionally separate business units, joint ventures, and partnerships, that offers to provide or provides competitive services.

"Related competitive business segment of a public utility holding company" means any business venture of a public utility holding company, including, but not limited to, functionally separate business units, joint ventures, and partnerships and subsidiaries, that offers to provide or provides competitive services, but does not include any related competitive business segments of an electric public utility or gas public utility.

"Reliability pricing model" or "RPM" means PJM's capacity-market model, and its successors, that secures capacity on behalf of electric load serving entities to satisfy load obligations not satisfied through the output of electric generation facilities owned by those entities, or otherwise secured by those entities through bilateral contracts.

"Renewable energy certificate" or "REC" means a certificate representing the environmental benefits or attributes of one megawatt-hour of generation from a generating facility that produces Class I or Class II renewable energy, but shall not include a solar renewable energy certificate or an offshore wind renewable energy certificate.

"Resource clearing price" or "RCP" means the clearing price established for the applicable locational deliverability area by the base residual auction or incremental auction, as determined

by the optimization algorithm for each auction, conducted by PJM as part of PJM's reliability pricing model.

“Resource recovery facility” means a solid waste facility constructed and operated for the incineration of solid waste for energy production and the recovery of metals and other materials for reuse, which the Department of Environmental Protection has determined to be in compliance with current environmental standards, including, but not limited to, all applicable requirements of the federal “Clean Air Act” (42 U.S.C. s.7401 et seq.).

“Restructuring related costs” means reasonably incurred costs directly related to the restructuring of the electric power industry, including the closure, sale, functional separation, and divestiture of generation and other competitive utility assets by a public utility, or the provision of competitive services as such those costs are determined by the board, and which are not stranded costs as defined in P.L.1999, c. 23 (C.48:3-49 et al.) but may include, but not be limited to, investments in management information systems, and which shall include expenses related to employees affected by restructuring which result in efficiencies and which result in benefits to ratepayers, such as training or retraining at the level equivalent to one year's training at a vocational or technical school or county community college, the provision of severance pay of two weeks of base pay for each year of full-time employment, and a maximum of 24 months' continued health care coverage. Except as to expenses related to employees affected by restructuring, “restructuring related costs” shall not include going forward costs.

“Retail choice” means the ability of retail customers to shop for electric generation or gas supply service from electric power or gas suppliers, or opt to receive basic generation service or basic gas service, and the ability of an electric power or gas supplier to offer electric generation service or gas supply service to retail customers, consistent with the provisions of P.L.1999, c. 23 (C.48:3-49 et al.).

“Retail margin” means an amount, reflecting differences in prices that electric power suppliers and electric public utilities may charge in providing electric generation service and basic generation service, respectively, to retail customers, excluding residential customers, which the board may authorize to be charged to categories of basic generation service customers of electric public utilities in this State, other than residential customers, under the board's continuing regulation of basic generation service pursuant to sections 3 and 9 of P.L.1999, c. 23 (C.48:3-51 and 48:3-57), for the purpose of promoting a competitive retail market for the supply of electricity.

“Sales representative” means a person employed by, acting on behalf of, or as an independent contractor for, an electric power supplier, gas supplier, broker, energy agent, marketer, or private aggregator who, by any means, solicits a potential residential customer for the provision of electric generation service or gas supply service.

“Sanitary landfill facility” shall have the same meaning as provided in section 3 of P.L.1970, c. 39 (C.13:1E-3).

“School district” means a local or regional school district established pursuant to chapter 8 or chapter 13 of Title 18A of the New Jersey Statutes, a county special services school district

established pursuant to article 8 of chapter 46 of Title 18A of the New Jersey Statutes, a county vocational school district established pursuant to article 3 of chapter 54 of Title 18A of the New Jersey Statutes, and a district under full State intervention pursuant to P.L.1987, c. 399 (C.18A:7A-34 et al.).

"Shopping credit" means an amount deducted from the bill of an electric public utility customer to reflect the fact that such the customer has switched to an electric power supplier and no longer takes basic generation service from the electric public utility.

"Site investigation" shall have the same meaning as provided in section 3 of P.L.1976, c. 141 (C.58:10-23.11b).

"Small scale hydropower facility" means a facility located within this State that is connected to the distribution system, and that meets the requirements of, and has been certified by, a nationally recognized low-impact hydropower organization that has established low-impact hydropower certification criteria applicable to: (1) river flows; (2) water quality; (3) fish passage and protection; (4) watershed protection; (5) threatened and endangered species protection; (6) cultural resource protection; (7) recreation; and (8) facilities recommended for removal.

"Social program" means a program implemented with board approval to provide assistance to a group of disadvantaged customers, to provide protection to consumers, or to accomplish a particular societal goal, and includes, but is not limited to, the winter moratorium program, utility practices concerning "bad debt" customers, low income assistance, deferred payment plans, weatherization programs, and late payment and deposit policies, but does not include any demand side management program or any environmental requirements or controls.

"Societal benefits charge" means a charge imposed by an electric public utility, at a level determined by the board, pursuant to, and in accordance with, section 12 of P.L.1999, c. 23 (C.48:3-60).

"Solar alternative compliance payment" or "SACP" means a payment of a certain dollar amount per megawatt hour (MWh) which an electric power supplier or provider may submit to the board in order to comply with the solar electric generation requirements under section 38 of P.L.1999, c. 23 (C.48:3-87).

"Solar renewable energy certificate" or "SREC" means a certificate issued by the board or its designee, representing one megawatt hour (MWh) of solar energy that is generated by a facility connected to the distribution system in this State and has value based upon, and driven by, the energy market.

"Standard offer capacity agreement" or "SOCA" means a financially-settled transaction agreement, approved by board order, that provides for eligible generators to receive payments from the electric public utilities for a defined amount of electric capacity for a term to be determined by the board but not to exceed 15 years, and for such payments to be a fully non-bypassable charge, with such an order, once issued, being irrevocable.

"Standard offer capacity price" or "SOCP" means the capacity price that is fixed for the term of the SOCA and which is the price to be received by eligible generators under a board-approved SOCA.

"State entity" means a department, agency, or office of State government, a State university or college, or an authority created by the State.

"Stranded cost" means the amount by which the net cost of an electric public utility's electric generating assets or electric power purchase commitments, as determined by the board consistent with the provisions of P.L.1999, c. 23 (C.48:3-49 et al.), exceeds the market value of those assets or contractual commitments in a competitive supply marketplace and the costs of buydowns or buyouts of power purchase contracts.

"Stranded costs recovery order" means each order issued by the board in accordance with subsection c. of section 13 of P.L.1999, c. 23 (C.48:3-61) which sets forth the amount of stranded costs, if any, the board has determined an electric public utility is eligible to recover and collect in accordance with the standards set forth in section 13 of P.L.1999, c. 23 (C.48:3-61) and the recovery mechanisms therefor.

"Telemarketer" shall have the same meaning as set forth in section 2 of P.L.2003, c. 76 (C.56:8-120).

"Telemarketing sales call" means a telephone call made by a telemarketer to a potential residential customer as part of a plan, program, or campaign to encourage the customer to change the customer's electric power supplier or gas supplier. A telephone call made to an existing customer of an electric power supplier, gas supplier, broker, energy agent, marketer, private aggregator, or sales representative, for the sole purpose of collecting on accounts or following up on contractual obligations, shall not be deemed a telemarketing sales call. A telephone call made in response to an express written request of a customer shall not be deemed a telemarketing sales call.

"Thermal efficiency" means the useful electric energy output of a facility, plus the useful thermal energy output of the facility, expressed as a percentage of the total energy input to the facility.

"Transition bond charge" means a charge, expressed as an amount per kilowatt hour, that is authorized by and imposed on electric public utility ratepayers pursuant to a bondable stranded costs rate order, as modified at any time pursuant to the provisions of P.L.1999, c. 23 (C.48:3-49 et al.).

"Transition bonds" means bonds, notes, certificates of participation or, beneficial interest, or other evidences of indebtedness or ownership issued pursuant to an indenture, contract, or other agreement of an electric public utility or a financing entity, the proceeds of which are used, directly or indirectly, to recover, finance or refinance bondable stranded costs and which are, directly or indirectly, secured by or payable from bondable transition property. References in P.L.1999, c. 23 (C.48:3-49 et al.) to principal, interest, and acquisition or redemption premium with respect to transition bonds which are issued in the form of certificates of participation or beneficial interest or other evidences of ownership shall refer to the comparable payments on such securities.

“Transition period” means the period from August 1, 1999 through July 31, 2003.

“Transmission and distribution system” means, with respect to an electric public utility, any facility or equipment that is used for the transmission, distribution, or delivery of electricity to the customers of the electric public utility including, but not limited to, the land, structures, meters, lines, switches, and all other appurtenances thereof and thereto, owned or controlled by the electric public utility within this State.

“Universal service” means any service approved by the board with the purpose of assisting low-income residential customers in obtaining or retaining electric generation or delivery service.

“Unsolicited advertisement” means any advertising claims of the commercial availability or quality of services provided by an electric power supplier, gas supplier, broker, energy agent, marketer, private aggregator, sales representative, or telemarketer which is transmitted to a potential customer without that customer's prior express invitation or permission.

N.J. Stat. Ann. 48:3-87(d) Emissions disclosure requirements; emissions portfolio standards; renewable energy portfolio standards; renewable energy trading program; net metering standards; electric and gas energy efficiency portfolio standards; fees; solar alternative compliance payments

d. Notwithstanding any provisions of the "Administrative Procedure Act," P.L.1968, c. 410 (C.52:14B-1 et seq.) to the contrary, the board shall initiate a proceeding and shall adopt, after notice, provision of the opportunity for comment, and public hearing, renewable energy portfolio standards that shall require:

(1) that two and one-half percent of the kilowatt hours sold in this State by each electric power supplier and each basic generation service provider be from Class I or Class II renewable energy sources;

(2) beginning on January 1, 2001, that one-half of one percent of the kilowatt hours sold in this State by each electric power supplier and each basic generation service provider be from Class I renewable energy sources. The board shall increase the required percentage for Class I renewable energy sources so that by January 1, 2006, one percent of the kilowatt hours sold in this State by each electric power supplier and each basic generation service provider shall be from Class I renewable energy sources and shall additionally increase the required percentage for Class I renewable energy sources by one-half of one percent each year until January 1, 2012, when four percent of the kilowatt hours sold in this State by each electric power supplier and each basic generation service provider shall be from Class I renewable energy sources.

An electric power supplier or basic generation service provider may satisfy the requirements of this subsection by participating in a renewable energy trading program approved by the board in consultation with the Department of Environmental Protection;

(3) that the board establish a multi-year schedule, applicable to each electric power supplier or basic generation service provider in this State, beginning with the one-year period commencing on June 1, 2010, and continuing for each subsequent one-year period up to and including, the one-year period commencing on June 1, 2028, that requires the following number or percentage, as the case may be, of kilowatt-hours sold in this State by each electric power supplier and each basic generation service provider to be from solar electric power generators connected to the distribution system in this State:

EY 2011	306 Gigawatthours (Gwhrs)
EY 2012	442 Gwhrs
EY 2013	596 Gwhrs
EY 2014	2.050%
EY 2015	2.450%
EY 2016	2.750%

EY 2017	3.000%
EY 2018	3.200%
EY 2019	3.290%
EY 2020	3.380%
EY 2021	3.470%
EY 2022	3.560%
EY 2023	3.650%
EY 2024	3.740%
EY 2025	3.830%
EY 2026	3.920%
EY 2027	4.010%

EY 2028 4.100%, and for every energy year thereafter, at least 4.100% per energy year to reflect an increasing number of kilowatt-hours to be purchased by suppliers or providers from solar electric power generators connected to the distribution system in this State, and to establish a framework within which, of the electricity that the generators sell in this State, suppliers and providers shall each obtain at least 3.470% in the energy year 2021 and 4.100% in the energy year 2028 from solar electric power generators connected to the distribution system in this State, provided, however, that:

(a) The board shall determine an appropriate period of no less than 120 days following the end of an energy year prior to which a provider or supplier must demonstrate compliance for that energy year with the annual renewable portfolio standard;

(b) No more than 24 months following the date of enactment of P.L.2012, c. 24, the board shall complete a proceeding to investigate approaches to mitigate solar development volatility and prepare and submit, pursuant to section 2 of P.L.1991, c. 164 (C.52:14-19.1), a report to the Legislature, detailing its findings and recommendations. As part of the proceeding, the board shall evaluate other techniques used nationally and internationally;

(c) The solar renewable portfolio standards requirements in this paragraph shall exempt those existing supply contracts which are effective prior to the date of enactment of P.L.2012, c. 24 from any increase beyond the number of SRECs mandated by the solar renewable portfolio standards requirements that were in effect on the date that the providers executed their existing supply contracts. This limited exemption for providers' existing supply contracts shall not be construed to lower the Statewide solar sourcing requirements set forth in this paragraph. Such incremental requirements that would have otherwise been imposed on exempt providers shall be distributed over the providers not subject to the existing supply contract exemption until such time as existing supply contracts

expire and all providers are subject to the new requirement in a manner that is competitively neutral among all providers and suppliers. The board shall implement the provisions of this subsection in a manner so as to prevent any subsidies between suppliers and providers and to promote competition in the electricity supply industry.

An electric power supplier or basic generation service provider may satisfy the requirements of this subsection by participating in a renewable energy trading program approved by the board in consultation with the Department of Environmental Protection, or compliance with the requirements of this subsection may be demonstrated to the board by suppliers or providers through the purchase of SRECs.

The renewable energy portfolio standards adopted by the board pursuant to paragraphs (1) and (2) of this subsection shall be effective as regulations immediately upon filing with the Office of Administrative Law and shall be effective for a period not to exceed 18 months, and may, thereafter, be amended, adopted or readopted by the board in accordance with the provisions of the "Administrative Procedure Act."

The renewable energy portfolio standards adopted by the board pursuant to this paragraph shall be effective as regulations immediately upon filing with the Office of Administrative Law and shall be effective for a period not to exceed 30 months after such filing, and shall, thereafter, be amended, adopted or readopted by the board in accordance with the "Administrative Procedure Act"; and

(4) within 180 days after the date of enactment of P.L.2010, c. 57 (C.48:3-87.1 et al.), that the board establish an offshore wind renewable energy certificate program to require that a percentage of the kilowatt hours sold in this State by each electric power supplier and each basic generation service provider be from offshore wind energy in order to support at least 1,100 megawatts of generation from qualified offshore wind projects.

The percentage established by the board pursuant to this paragraph shall serve as an offset to the renewable energy portfolio standard established pursuant to paragraphs (1) and (2) of this subsection and shall reduce the corresponding Class I renewable energy requirement.

The percentage established by the board pursuant to this paragraph shall reflect the projected OREC production of each qualified offshore wind project, approved by the board pursuant to section 3 of P.L.2010, c. 57 (C.48:3-87.1), for twenty years from the commercial operation start date of the qualified offshore wind project which production projection and OREC purchase requirement, once approved by the board, shall not be subject to reduction.

An electric power supplier or basic generation service provider shall comply with the OREC program established pursuant to this paragraph through the purchase of offshore wind renewable energy certificates at a price and for the time period required by the board. In the event there are insufficient offshore wind renewable energy certificates available, the electric power supplier or basic generation service provider shall pay an offshore wind alternative compliance payment established by the board. Any offshore wind alternative compliance payments collected shall be refunded directly to the ratepayers by the electric public utilities.

The rules established by the board pursuant to this paragraph shall be effective as regulations immediately upon filing with the Office of Administrative Law and shall be effective for a period not to exceed 18 months, and may, thereafter, be amended, adopted or readopted by the board in accordance with the provisions of the "Administrative Procedure Act," P.L.1968, c. 410 (C.52:14B-1 et seq.).

Tex. Util. Code Ann. § 39.001. Legislative Policy and Purpose

(a) The legislature finds that the production and sale of electricity is not a monopoly warranting regulation of rates, operations, and services and that the public interest in competitive electric markets requires that, except for transmission and distribution services and for the recovery of stranded costs, electric services and their prices should be determined by customer choices and the normal forces of competition. As a result, this chapter is enacted to protect the public interest during the transition to and in the establishment of a fully competitive electric power industry.

(b) The legislature finds that it is in the public interest to:

(1) implement on January 1, 2002, a competitive retail electric market that allows each retail customer to choose the customer's provider of electricity and that encourages full and fair competition among all providers of electricity;

(2) allow utilities with uneconomic generation-related assets and purchased power contracts to recover the reasonable excess costs over market of those assets and purchased power contracts;

(3) educate utility customers about anticipated changes in the provision of retail electric service to ensure that the benefits of the competitive market reach all customers; and

(4) protect the competitive process in a manner that ensures the confidentiality of competitively sensitive information during the transition to a competitive market and after the commencement of customer choice.

(c) Regulatory authorities, excluding the governing body of a municipally owned electric utility that has not opted for customer choice or the body vested with power to manage and operate a municipally owned electric utility that has not opted for customer choice, may not make rules or issue orders regulating competitive electric services, prices, or competitors or restricting or conditioning competition except as authorized in this title and may not discriminate against any participant or type of participant during the transition to a competitive market and in the competitive market.

(d) Regulatory authorities, excluding the governing body of a municipally owned electric utility that has not opted for customer choice or the body vested with power to manage and operate a

municipally owned electric utility that has not opted for customer choice, shall authorize or order competitive rather than regulatory methods to achieve the goals of this chapter to the greatest extent feasible and shall adopt rules and issue orders that are both practical and limited so as to impose the least impact on competition.

(e) Judicial review of competition rules adopted by the commission shall be conducted under Chapter 2001, Government Code, except as otherwise provided by this chapter. Judicial review of the validity of competition rules shall be commenced in the Court of Appeals for the Third Court of Appeals District and shall be limited to the commission's rulemaking record. The rulemaking record consists of:

(1) the notice of the proposed rule;

(2) the comments of all interested persons;

(3) all studies, reports, memoranda, or other materials on which the commission relied in adopting the rule; and

(4) the order adopting the rule.

(f) A person who challenges the validity of a competition rule must file a notice of appeal with the court of appeals and serve the notice on the commission not later than the 15th day after the date on which the rule as adopted is published in the Texas Register. The notice of appeal shall designate the person challenging the rule as the appellant and the commission as the appellee. The commission shall prepare the rulemaking record and file it with the court of appeals not later than the 30th day after the date the notice of appeal is served on the commission. The court of appeals shall hear and determine each appeal as expeditiously as possible with lawful precedence over other matters. The appellant, and any person who is permitted by the court to intervene in support of the appellant's claims, shall file and serve briefs not later than the 30th day after the date the commission files the rulemaking record. The commission, and any person who is permitted by the court to intervene in support of the rule, shall file and serve briefs not later than the 60th day after the date the appellant files the appellant's brief. The court of appeals may, on its own motion or on motion of any person for good cause, modify the filing deadlines prescribed by this subsection. The court of appeals shall render judgment affirming the rule or reversing and, if appropriate on reversal, remanding the rule to the commission for further proceedings,

consistent with the court's opinion and judgment. The Texas Rules of Appellate Procedure apply to an appeal brought under this section to the extent not inconsistent with this section.

40 C.F.R. 60.22(b)(5) Publication of guideline documents, emission guidelines, and final compliance times.

(b) Guideline documents published under this section will provide information for the development of State plans, such as:

(5) An emission guideline that reflects the application of the best system of emission reduction (considering the cost of such reduction) that has been adequately demonstrated for designated facilities, and the time within which compliance with emission standards of equivalent stringency can be achieved. The Administrator will specify different emission guidelines or compliance times or both for different sizes, types, and classes of designated facilities when costs of control, physical limitations, geographical location, or similar factors make subcategorization appropriate.

40 C.F.R. 60.40Da(a)(1) Applicability and designation of affected facility.

(a) Except as specified in paragraph (e) of this section, the affected facility to which this subpart applies is each electric utility steam generating unit:

(1) That is capable of combusting more than 73 megawatts (MW) (250 million British thermal units per hour (MMBtu/hr)) heat input of fossil fuel (either alone or in combination with any other fuel)

40 C.F.R. 60.41Da Definitions

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Anthracite means coal that is classified as anthracite according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see § 60.17).

Available system capacity means the capacity determined by subtracting the system load and the system emergency reserves from the net system capacity.

Biomass means plant materials and animal waste.

Bituminous coal means coal that is classified as bituminous according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see § 60.17).

Boiler operating day for units constructed, reconstructed, or modified before March 1, 2005, means a 24–hour period during which fossil fuel is combusted in a steam-generating unit for the entire 24 hours. For units constructed, reconstructed, or modified after February 28, 2005, boiler operating day means a 24–hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the steam-generating unit. It is not necessary for fuel to be combusted the entire 24–hour period.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see § 60.17) and coal refuse. Synthetic fuels derived from coal for the purpose of creating useful heat, including but not limited to solvent-refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures are included in this definition for the purposes of this subpart.

Coal-fired electric utility steam generating unit means an electric utility steam generating unit that burns coal, coal refuse, or a synthetic gas derived from coal either exclusively, in any combination together, or in any combination with other fuels in any amount.

Coal refuse means waste products of coal mining, physical coal cleaning, and coal preparation operations (e.g. culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material.

Combined cycle gas turbine means a stationary turbine combustion system where heat from the turbine exhaust gases is recovered by a steam generating unit.

Combined heat and power, also known as "cogeneration," means a steam-generating unit that simultaneously produces both electric (and mechanical) and useful thermal energy from the same primary energy source.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary gas turbine, internal combustion engine, kiln, etc., to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a heat recovery steam generating unit.

Electric utility combined cycle gas turbine means any combined cycle gas turbine used for electric generation that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW net-electrical output to any utility power distribution system for sale. Any steam distribution system that is constructed for the purpose of providing steam to a steam electric generator that would produce electrical power for sale is also considered in determining the electrical energy output capacity of the affected facility.

Electric utility steam-generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW net-electrical output to any utility power distribution system for sale. Also, any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is considered in determining the electrical energy output capacity of the affected facility.

Electrostatic precipitator or ESP means an add-on air pollution control device used to capture particulate matter (PM) by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper.

Emission limitation means any emissions limit or operating limit.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fossil fuel means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such material for the purpose of creating useful heat.

Gaseous fuel means any fuel that is present as a gas at standard conditions and includes, but is not limited to, natural gas, refinery fuel gas, process gas, coke-oven gas, synthetic gas, and gasified coal.

Gross energy output means:

(1) For facilities constructed, reconstructed, or modified before May 4, 2011, the gross electrical or mechanical output from the affected facility plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output or to enhance the performance of the unit (i.e., steam delivered to an industrial process);

(2) For facilities constructed, reconstructed, or modified after May 3, 2011, the gross electrical or mechanical output from the affected facility minus any electricity used to power the feedwater pumps and any associated gas compressors (air separation unit main compressor, oxygen compressor, and nitrogen compressor) plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output or to enhance the performance of the unit (i.e., steam delivered to an industrial process);

(3) For combined heat and power facilities constructed, reconstructed, or modified after May 3, 2011, the gross electrical or mechanical output from the affected facility divided by 0.95 minus any electricity used to power the feedwater pumps and any associated gas compressors (air separation unit main compressor, oxygen compressor, and nitrogen compressor) plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output or to enhance the performance of the unit (i.e., steam delivered to an industrial process);

(4) For a IGCC electric utility generating unit that coproduces chemicals constructed, reconstructed, or modified after May 3, 2011, the gross useful work performed is the gross electrical or mechanical output from the unit minus electricity used to power the feedwater pumps and any associated gas compressors (air separation unit main compressor, oxygen compressor, and nitrogen compressor) that are associated with power production plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output or to enhance the performance of the unit (i.e., steam delivered to an industrial process). Auxiliary loads that are associated with power production are determined based on the energy in the coproduced chemicals compared to the energy of the syngas combusted in combustion turbine engine and associated duct burners.

24–hour period means the period of time between 12:01 a.m. and 12:00 midnight.

Integrated gasification combined cycle electric utility steam generating unit or IGCC electric utility steam generating unit means an electric utility combined cycle gas turbine that is designed to burn fuels containing 50 percent (by heat input) or more solid-derived fuel not meeting the definition of natural gas. The Administrator may waive the 50 percent solid-derived fuel requirement during periods of the gasification system construction, startup and commissioning, shutdown, or repair. No solid fuel is directly burned in the unit during operation.

ISO conditions means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals.

Lignite means coal that is classified as lignite A or B according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see § 60.17).

Natural gas means a fluid mixture of hydrocarbons (e.g., methane, ethane, or propane), composed of at least 70 percent methane by volume or that has a gross calorific value between 35 and 41 megajoules (MJ) per dry standard cubic meter (950 and 1,100 Btu per dry standard cubic foot), that maintains a gaseous state under ISO conditions. In addition, natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Finally, natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.

Neighboring company means any one of those electric utility companies with one or more electric power interconnections to the principal company and which have geographically adjoining service areas.

Net-electric output means the gross electric sales to the utility power distribution system minus purchased power on a calendar year basis.

Net energy output means the gross energy output minus the parasitic load associated with power production. Parasitic load includes, but is not limited to, the power required to operate the equipment used for fuel delivery systems, air pollution control systems, wastewater treatment systems, ash handling and disposal systems, and other controls (i.e., pumps, fans, compressors, motors, instrumentation, and other ancillary equipment required to operate the affected facility).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Out-of-control period means any period beginning with the quadrant corresponding to the completion of a daily calibration error, linearity check, or quality assurance audit that indicates that the instrument is not measuring and recording within the applicable performance specifications and ending with the quadrant corresponding to the completion of an additional calibration error, linearity check, or quality assurance audit following corrective action that demonstrates that the instrument is measuring and recording within the applicable performance specifications.

Petroleum for facilities constructed, reconstructed, or modified before May 4, 2011, means crude oil or a fuel derived from crude oil, including, but not limited to, distillate oil, and residual oil. For units constructed, reconstructed, or modified after May 3, 2011, petroleum means crude oil

or a fuel derived from crude oil, including, but not limited to, distillate oil, residual oil, and petroleum coke.

Petroleum coke, also known as "petcoke," means a carbonization product of high-boiling hydrocarbon fractions obtained in petroleum processing (heavy residues). Petroleum coke is typically derived from oil refinery coker units or other cracking processes.

Potential combustion concentration means the theoretical emissions (nanograms per joule (ng/J), lb/MMBtu heat input) that would result from combustion of a fuel in an uncleaned state without emission control systems. For sulfur dioxide (SO2) the potential combustion concentration is determined under § 60.50Da(c).

Potential electrical output capacity means 33 percent of the maximum design heat input capacity of the steam generating unit, divided by 3,413 Btu/KWh, divided by 1,000 kWh/MWh, and multiplied by 8,760 hr/yr (e.g., a steam generating unit with a 100 MW (340 MMBtu/hr) fossil-fuel heat input capacity would have a 289,080 MWh 12 month potential electrical output capacity). For electric utility combined cycle gas turbines the potential electrical output capacity is determined on the basis of the fossil-fuel firing capacity of the steam generator exclusive of the heat input and electrical power contribution by the gas turbine.

Resource recovery unit means a facility that combusts more than 75 percent non-fossil fuel on a quarterly (calendar) heat input basis.

Solid-derived fuel means any solid, liquid, or gaseous fuel derived from solid fuel for the purpose of creating useful heat and includes, but is not limited to, solvent refined coal, liquified coal, synthetic gas, gasified coal, gasified petroleum coke, gasified biomass, and gasified tire derived fuel.

Steam generating unit for facilities constructed, reconstructed, or modified before May 4, 2011, means any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam (including fossil-fuel-fired steam generators associated with combined cycle gas turbines; nuclear steam generators are not included). For units constructed, reconstructed, or modified after May 3, 2011, steam generating unit means any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam (including fossil-fuel-fired steam generators associated with combined cycle gas turbines; nuclear steam generators are not included) plus any integrated combustion turbines and fuel cells.

Subbituminous coal means coal that is classified as subbituminous A, B, or C according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see § 60.17).

Wet flue gas desulfurization technology or wet FGD means a SO2 control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases

of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition applies to devices where the aqueous liquid material product of this contact is subsequently converted to other forms. Alkaline reagents used in wet FGD technology include, but are not limited to, lime, limestone, and sodium.

40 C.F.R. Part 98, Subpart UU Injection of Carbon Dioxide

§ 98.470 Definition of the source category.

(a) The injection of carbon dioxide (CO_2) source category comprises any well or group of wells that inject a CO_2 stream into the subsurface.

(b) If you report under subpart RR of this part for a well or group of wells, you are not required to report under this subpart for that well or group of wells.

(c) A facility that is subject to this part only because it is subject to subpart UU of this part is not required to report emissions under subpart C of this part or any other subpart listed in § 98.2(a)(1) or (a)(2).

§ 98.471 Reporting threshold.

(a) You must report under this subpart if your facility injects any amount of CO_2 into the subsurface.

(b) For purposes of this subpart, any reference to CO_2 emissions in § 98.2(i) shall mean CO_2 received.

§ 98.472 GHGs to report.

You must report the mass of CO_2 received

§ 98.473 Calculating CO_2 received.

(a) You must calculate and report the annual mass of CO_2 received by pipeline using the procedures in paragraphs (a)(1) or (a)(2) of this section and the procedures in paragraph (a)(3) of this section, if applicable.

(1) For a mass flow meter, you must calculate the total annual mass of CO_2 in a CO_2 stream received in metric tons by multiplying the mass flow by the CO_2 concentration in the flow, according to Equation UU–1 of this section. You must collect these data quarterly. Mass flow and concentration data measurements must be made in accordance with § 98.474.

$$CO_{2T,r} = \sum_{p=1}^{4} (Q_{r,p} - S_{r,p}) * C_{CO_{2,p,r}} \qquad \text{(Eq. UU-1)}$$

where:

$CO_{2T,r}$ = Net annual mass of CO_2 received through flow meter r (metric tons).

$Q_{r,p}$ = Quarterly mass flow through a receiving flow meter r in quarter p (metric tons).

$S_{r,p}$ = Quarterly mass flow through a receiving flow meter r that is redelivered to another facility without being injected into your well in quarter p (metric tons).

$C_{CO2,p,r}$ = Quarterly CO_2 concentration measurement in flow for flow meter r in quarter p (wt. percent CO_2, expressed as a decimal fraction).

p = Quarter of the year.

r = Receiving flow meter.

(2) For a volumetric flow meter, you must calculate the total annual mass of CO_2 in a CO_2 stream received in metric tons by multiplying the volumetric flow at standard conditions by the CO_2 concentration in the flow and the density of CO_2 at standard conditions, according to Equation UU–2 of this section. You must collect these data quarterly. Volumetric flow and concentration data measurements must be made in accordance with § 98.474.

$$CO_{2T,r} = \sum_{p=1}^{4} (Q_{r,p} - S_{r,p}) * D * C_{CO_{2,p,r}} \qquad \text{(Eq. UU-2)}$$

where:

$CO_{2T,r}$ = Net annual mass of CO_2 received through flow meter r (metric tons).

$Q_{r,p}$ = Quarterly volumetric flow through a receiving flow meter r in quarter p at standard conditions (standard cubic meters).

$S_{r,p}$ = Quarterly volumetric flow through a receiving flow meter r that is redelivered to another facility without being injected into your well in quarter p (standard cubic meters).

D = Density of CO_2 at standard conditions (metric tons per standard cubic meter): 0.0018682.

$C_{CO2,p,r}$ = Quarterly CO_2 concentration measurement in flow for flow meter r in quarter p (vol. percent CO_2, expressed as a decimal fraction).

p = Quarter of the year.

r = Receiving flow meter.

(3) If you receive CO_2 through more than one flow meter, you must sum the mass of all CO_2 received in accordance with the procedure specified in Equation UU–3 of this section.

$$CO_2 = \sum_{r=1}^{R} CO_{2T,r} \quad \text{(Eq. UU-3)}$$

where:

CO_2 = Total net annual mass of CO_2 received (metric tons).

$CO_{2T,r}$ = Net annual mass of CO_2 received (metric tons) as calculated in Equation UU–1 or UU–2 for flow meter r.

r = Receiving flow meter.

(b) You must calculate and report the annual mass of CO_2 received in containers using the procedures specified in either paragraph (b)(1) or (b)(2) of this section.

(1) If you are measuring the mass of contents in a container under the provisions of § 98.474(a)(2)(i), you must calculate the CO_2 received in containers using Equation UU–1 of this section.

where:

$CO_{2T,r}$ = Annual mass of CO_2 received in containers r (metric tons).

$C_{CO2,p,r}$ = Quarterly CO_2 concentration measurement of contents in containers r in quarter p (wt. percent CO_2, expressed as a decimal fraction).

$Q_{r,p}$ = Quarterly mass of contents in containers r in quarter p (metric tons).

$S_{r,p}$ = Quarterly mass of contents in containers r that is redelivered to another facility without being injected into your well in quarter p (standard cubic meters).

p = Quarter of the year.

r = Containers.

(2) If you are measuring the volume of contents in a container under the provisions of § 98.474(a)(2)(ii), you must calculate the CO_2 received in containers using Equation UU–2 of this section.

where:

$CO_{2T,r}$ = Annual mass of CO_2 received in containers r (metric tons).

$C_{CO2,p,r}$ = Quarterly CO_2 concentration measurement of contents in containers r in quarter p (vol. percent CO_2, expressed as a decimal fraction).

$S_{r,p}$ = Quarterly volume of contents in containers r that is redelivered to another facility without being injected into your well in quarter p (standard cubic meters).

$Q_{r,p}$ = Quarterly volume of contents in containers r in quarter p (standard cubic meters).

D = Density of the CO_2 received in containers at standard conditions (metric tons per standard cubic meter): 0.0018682.

p = Quarter of the year.

r = Containers.

§ 98.474 Monitoring and QA/QC requirements.

(a) CO_2 received.

(1) You must determine the quarterly flow rate of CO_2 received by pipeline by following the most appropriate of the following procedures:

(i) You may measure flow rate at the receiving custody transfer meter prior to any subsequent processing operations at the facility and collect the flow rate quarterly.

(ii) If you took ownership of the CO_2 in a commercial transaction, you may use the quarterly flow rate data from the sales contract if it is a one-time transaction or from invoices or manifests if it is an ongoing commercial transaction with discrete shipments.

(iii) If you inject CO_2 from a production process unit that is part of your facility, you may use the quarterly CO_2 flow rate that was measured at the equivalent of a custody transfer meter following procedures provided in subpart PP of this part. To be the equivalent of a custody transfer meter, a meter must measure the flow of CO_2 being transported to an injection well to the same degree of accuracy as a meter used for commercial transactions.

(2) You must determine the quarterly mass or volume of contents in all containers if you receive CO_2 in containers by the most appropriate of the following procedures:

(i) You may measure the mass of contents of containers summed quarterly using weigh bills, scales, or load cells.

(ii) You may determine the volume of the contents of containers summed quarterly.

(iii) If you took ownership of the CO_2 in a commercial transaction, you may use the quarterly mass or volume of contents from the sales contract if it is a one-time transaction or from invoices or manifests if it is an ongoing commercial transaction with discrete shipments.

(3) You must determine a quarterly concentration of the CO_2 received that is representative of all CO_2 received in that quarter by following the most appropriate of the following procedures:

(i) You may sample the CO_2 stream at least once per quarter at the point of receipt and measure its CO_2 concentration.

(ii) If you took ownership of the CO_2 in a commercial transaction for which the sales contract was contingent on CO_2 concentration, and if the supplier of the CO_2 sampled the CO_2 stream in a quarter and measured its concentration per the sales contract terms, you may use the CO_2 concentration data from the sales contract for that quarter.

(iii) If you inject CO_2 from a production process unit that is part of your facility, you may report the quarterly CO_2 concentration of the CO_2 stream supplied that was measured following procedures provided in subpart PP of this part as the quarterly CO_2 concentration of the CO_2 stream received.

(4) You must assume that the CO_2 you receive meets the definition of a CO_2 stream unless you can trace it through written records to a source other than a CO_2 stream.

(b) Measurement devices.

(1) All flow meters must be operated continuously except as necessary for maintenance and calibration.

(2) You must calibrate all flow meters used to measure quantities reported in § 98.476 according to the calibration and accuracy requirements in § 98.3(i).

(3) You must operate all measurement devices according to one of the following. You may use an appropriate standard method published by a consensus-based standards organization if such a method exists or an industry standard practice. Consensus-based standards organizations include, but are not limited to, the following: ASTM International, the American National Standards Institute (ANSI), the American Gas Association (AGA), the American Society of Mechanical Engineers (ASME), the American Petroleum Institute (API), and the North American Energy Standards Board (NAESB).

(4) You must ensure that any flow meter calibrations performed are National Institute of Standards and Technology (NIST) traceable.

(c) General.

(1) If you measure the concentration of any CO_2 quantity for reporting, you must measure according to one of the following. You may use an appropriate standard method published by a consensus-based standards organization if such a method exists or an industry standard practice.

(2) You must convert all measured volumes of CO_2 to the following standard industry temperature and pressure conditions for use in Equations UU–2 of this subpart: standard cubic meters at a temperature of 60 degrees Fahrenheit and at an absolute pressure of 1 atmosphere.

(3) For 2011, you may follow the provisions of § 98.3(d)(1) through (2) for best available monitoring methods rather than follow the monitoring requirements of this section. For purposes of this subpart, any reference to the year 2010 in § 98.3(d)(1) through (2) shall mean 2011.

§ 98.475 Procedures for estimating missing data.

A complete record of all measured parameters used in the GHG quantities calculations is required.

(a) Whenever the monitoring procedures for all facilities that used flow meters covered under this subpart cannot be followed to measure flow, the following missing data procedures must be followed:

(1) Another calculation methodology listed in § 98.474(a)(1) must be used if possible.

(2) If another method listed in § 98.474(a)(1) cannot be used, a quarterly flow rate value that is missing must be estimated using a representative flow rate value from the nearest previous time period.

(b) Whenever the monitoring procedures of this subpart cannot be followed to measure quarterly quantity of CO_2 received in containers, the most appropriate of the following missing data procedures must be followed:

(1) Another calculation methodology listed in § 98.474(a)(2) must be used if possible.

(2) If another method listed in § 98.474(a)(2) cannot be used, a quarterly mass or volume that is missing must be estimated using a representative mass or volume from the nearest previous time period.

(c) Whenever the monitoring procedures cannot be followed to measure CO_2 concentration, the following missing data procedures must be followed:

(1) Another calculation methodology listed in § 98.474(a)(3) must be used if possible.

(2) If another method listed in § 98.474(a)(3) cannot be used, a quarterly concentration value that is missing must be estimated using a representative concentration value from the nearest previous time period.

§ 98.476 Data reporting requirements.

If you are subject to this part and report under this subpart, you are not required to report the information in § 98.3(c)(4) for this subpart. In addition to the information required by § 98.3(c)(1) through § 98.3(c)(3) and by § 98.3(c)(5) through § 98.3(c)(9), you must report the information listed in this section.

(a) If you receive CO_2 by pipeline, report the following for each receiving flow meter:

(1) The total net mass of CO_2 received (metric tons) annually.

(2) If a volumetric flow meter is used to receive CO_2:

(i) The volumetric flow through a receiving flow meter at standard conditions (in standard cubic meters) in each quarter.

(ii) The volumetric flow through a receiving flow meter that is redelivered to another facility without being injected into your well (in standard cubic meters) in each quarter.

(iii) The CO_2 concentration in the flow (volume percent CO_2 expressed as a decimal fraction) in each quarter.

(3) If a mass flow meter is used to receive CO_2:

(i) The mass flow through a receiving flow meter (in metric tons) in each quarter.

(ii) The mass flow through a receiving flow meter that is redelivered to another facility without being injected into your well (in metric tons) in each quarter.

(iii) The CO_2 concentration in the flow (weight percent CO_2 expressed as a decimal fraction) in each quarter.

(4) The standard or method used to calculate each value in paragraphs (a)(2) through (a)(3) of this section.

(5) The number of times in the reporting year for which substitute data procedures were used to calculate values reported in paragraphs (a)(2) through (a)(3) of this section.

(6) Whether the flow meter is mass or volumetric.

(b) If you receive CO_2 in containers, report:

(1) The mass (in metric tons) or volume at standard conditions (in standard cubic meters) of contents in containers in each quarter.

(2) The concentration of CO_2 of contents in containers (volume or weight percent CO_2 expressed as a decimal fraction) in each quarter.

(3) The mass (in metric tons) or volume (in standard cubic meters) of contents in containers that is redelivered to another facility without being injected into your well in each quarter.

(4) The net total mass of CO_2 received (in metric tons) annually.

(5) The standard or method used to calculate each value in paragraphs (b)(1), (b)(2), and (b)(3) of this section.

(6) The number of times in the reporting year for which substitute data procedures were used to calculate values reported in paragraphs (b)(1) and (b)(2) of this section.

(c) If you use more than one receiving flow meter, report the net total mass of CO_2 received (metric tons) through all flow meters annually.

(d) The source of the CO_2 received according to the following categories:

(1) CO_2 production wells.

(2) Electric generating unit.

(3) Ethanol plant.

(4) Pulp and paper mill.

(5) Natural gas processing.

(6) Gasification operations.

(7) Other anthropogenic source.

(8) Discontinued enhanced oil and gas recovery project.

(9) Unknown.

(e) Report the following:

(1) Whether the facility received a Research and Development project exemption from reporting under 40 CFR part 98, subpart RR, for this reporting year. If you received an exemption, report the start and end dates of the exemption approved by EPA.

(2) Whether the facility includes a well or group of wells where a CO_2 stream was injected into subsurface geologic formations to enhance the recovery of oil during this reporting year.

(3) Whether the facility includes a well or group of wells where a CO_2 stream was injected into subsurface geologic formations to enhance the recovery of natural gas during this reporting year.

(4) Whether the facility includes a well or group of wells where a CO_2 stream was injected into subsurface geologic formations for acid gas disposal during this reporting year.

(5) Whether the facility includes a well or group of wells where a CO_2 stream was injected for a purpose other than those listed in paragraphs (e)(1) through (4) of this section. If you injected CO_2 for another purpose, report the purpose of the injection.

§ 98.477 Records that must be retained.

(a) You must follow the record retention requirements specified by § 98.3(g). In addition to the records required by § 98.3(g), you must retain quarterly records of CO_2 received, including mass flow rate or contents of containers (mass or volumetric) at standard conditions and operating conditions, operating temperature and pressure, and concentration of these streams. You must retain all required records for at least 3 years.

(b) You must complete your monitoring plans, as described in § 98.3(g)(5), by April 1 of the year you begin collecting data.

§ 98.478 Definitions.

Except as provided below, all terms used in this subpart have the same meaning given in the Clean Air Act and subpart A of this part.

CO_2 received means the CO_2 stream that you receive to be injected for the first time into a well on your facility that is covered by this subpart. CO_2 received includes, but is not limited to, a CO_2 stream from a production process unit inside your facility and a CO_2 stream that was injected into a well on another facility, removed from a discontinued enhanced oil or natural gas or other production well, and transferred to your facility.

40 C.F.R. § 60.5750(d) Can I work with other States to develop a multi–State plan?

(d) A State may elect to allow its affected EGUs to interact with affected EGUs in other States through mass-based trading programs or a rate-based trading program without entering into a formal multi–State plan allowed for under this section, so long as such programs are part of an EPA–approved state plan and meet the requirements of paragraphs (d)(1) and (2) of this section, as applicable.

(1) For States that elect to do mass-based trading under this option the State must indicate in its plan that its emission budget trading program will be administered using an EPA–approved (or EPA–administered) emission and allowance tracking system.

(2) For States that elect to use a rate-based trading program which allows the affected EGUs to use ERCs from other State rate-based trading programs, the plan must require affected EGUs within their State to comply with emission standards equal to the sub-category CO_2 emission performance rates in Table 1 of this subpart.

40 C.F.R. 60.5795(b) What affected EGUs qualify for generation of ERCs?

(b) Any ERCs generated through the method described as required by paragraph (a)(2) of this section must not be used by any affected EGUs other than steam generating units or IGCCs to demonstrate compliance as prescribed under § 60.5790(c)(1).

40 C.F.R. § 60.5800(a)(1) What other resources qualify for issuance of ERCs?

(a) ERCs may only be issued for generation or savings produced on or after January 1, 2022, to a resource that qualifies as an eligible resource because it meets each of the requirements in paragraphs (a)(1) through (4) of this section.

(1) Resources qualifying for eligibility only include resources that increased installed electrical generation nameplate capacity, or implemented new electrical savings measures, on or after January 1, 2013. If a resource had a nameplate capacity uprate, ERCs may be issued only for the difference in generation between its uprated nameplate capacity and its nameplate capacity prior to the uprate. ERCs must not be issued for generation for an uprate that followed a derate that occurred on or after January 1, 2013. A resource that is relicensed or receives a license extension is considered existing capacity and is not an eligible resource, unless it receives a capacity uprate as a result of the relicensing process that is reflected in its relicensed permit. In such a case, only the difference in nameplate capacity between its relicensed permit and its prior permit is eligible to be issued ERCs.

40 C.F.R. § 60.5800(a)(3) What other resources qualify for issuance of ERCs?

(a) ERCs may only be issued for generation or savings produced on or after January 1, 2022, to a resource that qualifies as an eligible resource because it meets each of the requirements in paragraphs (a)(1) through (4) of this section.

(3) The resource must be located in either:

(i) A State whose affected EGUs are subject to rate-based emission standards pursuant to this regulation; or

(ii) A State with a mass-based CO_2 emission goal, and the resource can demonstrate (e.g., through a power purchase agreement or contract for delivery) that the electricity generated is delivered with the intention to meet load in a State with affected EGUs which are subject to rate-based emission standards pursuant to this regulation, and was treated as a generation resource used to serve regional load that included the State whose affected EGUs are subject to rate-based emission standards. Notwithstanding any other provision of paragraph (a)(4) of this section, the only type of eligible resource in the State with mass-based emission standards is renewable generating technologies listed in (a)(4)(i) of this section.

40 C.F.R. § 60.5800(a)(4)(iii) What other resources qualify for issuance of ERCs?

(a) ERCs may only be issued for generation or savings produced on or after January 1, 2022, to a resource that qualifies as an eligible resource because it meets each of the requirements in paragraphs (a)(1) through (4) of this section.

(4) The resource falls into one of the following categories of resources:

(iii) Waste-to-energy (biogenic portion only)

40 C.F.R. § 60.5800(c)(3) What other resources qualify for issuance of ERCs?

(c) ERCs may not be issued to or for any of the following:

(3) Measures that reduce CO_2 emissions outside the electric power sector, including, for example, GHG offset projects representing emission reductions that occur in the forestry and agriculture sectors, direct air capture, and crediting of CO_2 emission reductions that occur in the transportation sector as a result of vehicle electrification

40 C.F.R. § 60.5845 What affected EGUs must I address in my State plan?

(a) The EGUs that must be addressed by your plan are any affected steam generating unit, IGCC, or stationary combustion turbine that commenced construction on or before January 8, 2014.

(b) An affected EGU is a steam generating unit, IGCC, or stationary combustion turbine that meets the relevant applicability conditions specified in paragraph (b)(1) through (3) of this section, as applicable, except as provided in § 60.5850.

(1) Serves a generator or generators connected to a utility power distribution system with a nameplate capacity greater than 25 MW–net (i.e., capable of selling greater than 25 MW of electricity);

(2) Has a base load rating (i.e., design heat input capacity) greater than 260 GJ/hr (250 MMBtu/hr) heat input of fossil fuel (either alone or in combination with any other fuel); and

(3) Stationary combustion turbines that meet the definition of either a combined cycle or combined heat and power combustion turbine.

40 C.F.R. § 60.5850(b) What EGUs are excluded from being affected EGUs?

(b) Steam generating units and IGCCs that are, and always have been, subject to a federally enforceable permit limiting annual net-electric sales to one-third or less of its potential electric output, or 219,000 MWh or less

40 C.F.R. § 60.5860(f)(2) What applicable monitoring, recordkeeping, and reporting requirements do I need to include in my plan for affected EGUs?

(f) If an affected EGU captures CO_2 to meet the applicable emission limit, the owner or operator must report in accordance with the requirements of 40 CFR part 98 subpart PP and either:

(2) Transfer the captured CO_2 to an EGU or facility that reports in accordance with the requirements of 40 CFR part 98 subpart RR, if injection occurs off-site

50 C.F.R. § 402.14(k) Formal consultation.

(k) Incremental steps. When the action is authorized by a statute that allows the agency to take incremental steps toward the completion of the action, the Service shall, if requested by the Federal agency, issue a biological opinion on the incremental step being considered, including its views on the entire action. Upon the issuance of such a biological opinion, the Federal agency may proceed with or authorize the incremental steps of the action if:

(1) The biological opinion does not conclude that the incremental step would violate section 7(a)(2);

(2) The Federal agency continues consultation with respect to the entire action and obtains biological opinions, as required, for each incremental step;

(3) The Federal agency fulfills its continuing obligation to obtain sufficient data upon which to base the final biological opinion on the entire action;

(4) The incremental step does not violate section 7(d) of the Act concerning irreversible or irretrievable commitment of resources; and

(5) There is a reasonable likelihood that the entire action will not violate section 7(a)(2) of the Act.

CERTIFICATE OF SERVICE

I hereby certify that, on this 19th day of February 2016, a copy of the foregoing Addendum to Opening Brief of Petitioners on Procedural and Record-Based Issues was served electronically through the Court's CM/ECF system on all ECF-registered counsel.

/s/ Thomas A. Lorenzen
Thomas A. Lorenzen