IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

STATE OF CONNECTICUT	)	
	)	
STATE OF NEW YORK	)	
	)	
PEOPLE OF THE STATE OF CALIFORNIA EX REL. ATTORNEY GENERAL BILL LOCKYER	)	
	)	
STATE OF IOWA	)	Civ. Action No:
	)	
STATE OF NEW JERSEY	)	
	)	
STATE OF RHODE ISLAND	)	ECF CASE
	)	
STATE OF VERMONT	)	
	)	
STATE OF WISCONSIN	)	
	)	
CITY OF NEW YORK	)	
	)	
Plaintiffs,	)	
v.	)	**COMPLAINT**
	)	
AMERICAN ELECTRIC POWER COMPANY, INC.	)	
	)	
AMERICAN ELECTRIC POWER SERVICE CORPORATION	)	
	)	
THE SOUTHERN COMPANY	)	
	)	
TENNESSEE VALLEY AUTHORITY	)	
	)	
XCEL ENERGY INC.	)	
	)	
CINERGY CORPORATION	)	
	)	
Defendants.	)	

NATURE OF THE ACTION

1. The States of Connecticut, New York, California, Iowa, New Jersey, Rhode Island, Vermont, Wisconsin and the City of New York bring this action against defendant electric power corporations under federal common law and, in the alternative, state law, to seek abatement of defendants' ongoing contributions to a public nuisance. Defendants' power plants emit large quantities of carbon dioxide and are contributing to an elevated level of carbon dioxide in the atmosphere. Carbon dioxide is the primary "greenhouse gas." Greenhouse gases trap atmospheric heat and thus cause global warming. There is a clear scientific consensus that global warming has begun, is altering the natural world, and that global warming will accelerate over coming decades unless action is taken to reduce emissions of carbon dioxide. This Complaint seeks an order requiring defendants to reduce their emissions of carbon dioxide, thereby abating their contribution to global warming, a public nuisance.

2. Defendants, by their annual emissions of approximately 650 million tons of carbon dioxide, are substantial contributors to elevated levels of carbon dioxide and global warming. Defendants are the five largest emitters of carbon dioxide in the United States and are among the largest in the world. Defendants' emissions constitute approximately one quarter of the U.S. electric power sector's carbon dioxide emissions and approximately ten percent of all carbon dioxide emissions from human activities in the United States.

3. Global warming already has begun to alter the climate of the United States. The threatened injuries to the plaintiffs and their citizens and residents from continued global warming include increased heat deaths due to intensified and prolonged heat waves; increased ground-level smog with concomitant increases in respiratory problems like asthma; beach

erosion, inundation of coastal land, and salinization of water supplies from accelerated sea level rise; reduction of the mountain snow pack in California that provides a critical source of water for the State; lowered Great Lakes water levels, which impairs commercial shipping, recreational harbors and marinas, and hydropower generation; more droughts and floods, resulting in property damage and hazard to human safety; and widespread loss of species and biodiversity, including the disappearance of hardwood forests from the northern United States.

4. The risks of injury to the plaintiffs and their citizens and residents from global warming increase with the speed and magnitude of global warming. The speed and magnitude of global warming is primarily dependent, in turn, upon the level of carbon dioxide emissions. Thus, reducing carbon dioxide emissions reduces the risks of injury to the plaintiffs and their citizens and residents from global warming.

5. Defendants have available to them practical, feasible and economically viable options for reducing carbon dioxide emissions without significantly increasing the cost of electricity to their customers. These options include changing fuels, improving efficiency, increasing generation from zero- or low-carbon energy sources such as wind, solar, and gasified coal with emissions capture, co-firing wood or other biomass in coal plants, employing demand-side management techniques, altering the dispatch order of their plants, and other measures.

6. Plaintiffs seek judicial relief under the federal common law of public nuisance or, in the alternative, under state law of public nuisance. Plaintiffs seek an order (i) holding each of the defendants jointly and severally liable for contributing to an ongoing public nuisance, global warming, and (ii) enjoining each of the defendants to abate its contribution to the nuisance by capping its emissions of carbon dioxide and then reducing those emissions by a specified percentage each year for at least a decade.

PARTIES

Plaintiffs

7. Plaintiff State of Connecticut is a sovereign State of the United States of America. It brings this cause of action on its own behalf to protect state property and as *parens patriae* on behalf of its citizens and residents to protect their health and well-being and to protect natural resources held in trust by the State. The Commissioner of the Department of Environmental Protection for the State of Connecticut, acting pursuant to Conn. Gen. Stat. §22a-5 and consistent with Conn. Gen. Stat. §22a-1, authorizes the Attorney General to bring this action.

8. Plaintiff State of New York is a sovereign State of the United States of America. It brings this cause of action on its own behalf to protect state property and as *parens patriae* on behalf of its citizens and residents to protect their health and well-being and to protect natural resources held in trust by the State. The Attorney General of New York is authorized to prosecute this action pursuant to Article 63 of the New York Executive Law.

9. Plaintiff People of the State of California, by and through Bill Lockyer, Attorney General of the State of California, bring this action to protect state property and as *parens patriae* on behalf of its citizens and residents to protect their health and well-being and to protect natural resources held in trust by the State. The Attorney General of California may maintain an action for equitable relief in the name of the People of the State of California against any person for the protection of the natural resources of the state from pollution, impairment, or destruction. Cal. Gov't Code § 12607.

10. Plaintiff State of Iowa is a sovereign State of the United States of America. It brings this cause of action on its own behalf to protect state property and as *parens patriae* on behalf of its citizens and residents to protect their health and well-being and to protect natural

resources held in trust by the State. The Attorney General of Iowa is authorized by statute to prosecute this action on behalf of the State of Iowa. Iowa Code § 13.2(2).

11. Plaintiff State of New Jersey is a sovereign State of the United States of America. It brings this action on its own behalf to protect state property and as *parens patriae* on behalf of its citizens and residents to protect their health and well-being and to protect natural resources held in trust by the State.

12. Plaintiff State of Rhode Island is a sovereign State of the United States of America. It brings this cause of action on its own behalf to protect state property and as *parens patriae* on behalf of its citizens and residents to protect their health and well-being and to protect natural resources held in trust by the State. The Attorney General may commence and prosecute an action in the name of the State to enjoin a public nuisance pursuant to its constitutional, statutory and common law authority.

13. Plaintiff State of Vermont is a sovereign State of the United States of America. It brings this cause of action on its own behalf to protect state property and as *parens patriae* on behalf of its citizens and residents to protect their health and well-being and to protect natural resources held in trust by the State.

14. Plaintiff State of Wisconsin is a sovereign State of the United States of America. The Attorney General of the State of Wisconsin brings this cause of action on behalf of and in the name of the State of Wisconsin to protect state property and on behalf of its citizens and residents to protect their health and well-being and to protect natural resources held in trust by the State. The Attorney General of Wisconsin may commence and prosecute an action in the name of the State to enjoin a public nuisance and may maintain an action to abate a public nuisance under Wis. Stat. §§ 823.01, 823.02.

15. Plaintiff City of New York is a municipal corporation duly organized and existing under the laws of the State of New York. The City is responsible for protecting the health and well-being of its citizens and residents and protecting the natural resources of the City.

Defendants

16. Defendant American Electric Power Company, Inc. ("AEP") is a New York corporation with its principal place of business located in Columbus, Ohio. AEP is a registered public utility holding company that owns all outstanding common stock of its domestic electric utility subsidiaries, as well as all outstanding common stock of defendant American Electric Power Service Corporation ("AEP Service"). AEP's fossil fuel-fired electric generating facilities are located in Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia and West Virginia.

17. Defendant AEP Service is a New York corporation with its principal place of business in Columbus, Ohio. AEP Service is a wholly-owned subsidiary of AEP that, upon information and belief, provides management and professional services on behalf of AEP to, among others, the electric utility subsidiaries of AEP, including accounting, administrative, information systems, environmental, engineering, financial, legal, maintenance and other services.

18. AEP and AEP Service, through their employees and/or agents, manage, direct, conduct and/or control operations relating to emissions of carbon dioxide from fossil fuel-fired electric generating facilities owned and/or operated by AEP's subsidiaries. Such management, direction, conduct and/or control is exercised through a variety of means, including through implementation by AEP and AEP Service employees and/or agents of policies, procedures, and

programs relating to global warming generally, to carbon dioxide emissions specifically, to dispatch of plants with varying carbon dioxide emissions per unit of energy, and/or to fuels utilized at each plant.

19. Such management, direction, conduct and/or control is evidenced by, for example, AEP's various agreements and pledges to exercise control over the carbon dioxide emissions from facilities owned and/or operated by its subsidiaries, including AEP's participation in the Chicago Climate Exchange; AEP's submission of annual reports to the U.S. Department of Energy (DOE) reporting the amount of carbon dioxide emissions avoided or sequestered from facilities owned and/or operated by its subsidiaries; and AEP's agreement in 2004 to conduct an analysis of its ability to comply with proposed national regulation of carbon dioxide emissions that would require reductions in such emissions from plants owned and/or operated by its subsidiaries.

20. As a result of their management, direction, conduct and/or control of operations relating to emissions of carbon dioxide from facilities owned and/or operated by AEP's subsidiaries, defendants AEP and AEP Service are responsible for the emission of approximately 226 million tons of carbon dioxide annually.

21. Defendant The Southern Company ("Southern") is a Delaware corporation with its principal place of business located in Atlanta, Georgia. Southern is a registered public utility holding company that owns all outstanding common stock of its domestic electric utility subsidiaries, Alabama Power Company, Georgia Power Company, Gulf Power Company, Mississippi Power Company, and Savannah Electric and Power Company, with fossil fuel-fired electric generating facilities located in Alabama, Florida, Georgia, and Mississippi.

22. Southern, through its employees and/or agents, manages, directs, conducts and/or controls operations relating to the emissions of carbon dioxide at fossil fuel-fired electric generating facilities owned and/or operated by its subsidiaries. Such management, direction, conduct and/or control is exercised through a variety of means, including through implementation by Southern's employees and/or agents of policies, procedures, and programs relating to global warming generally, to carbon dioxide emissions specifically, to dispatch of plants with varying carbon dioxide emissions per unit of energy, and/or to fuels utilized at each plant.

23. Such management, direction, conduct and/or control is evidenced by, for example, Southern's agreement in April, 2004 to conduct an analysis of the financial impact of proposed emissions reduction scenarios, including how Southern would respond to new regulations aimed at mitigating global warming; Southern's submission of annual reports to DOE reporting the amount of carbon dioxide emissions avoided or sequestered from facilities owned and/or operated by its subsidiaries; Southern's admission in its 2003 Environmental Progress Report that it emits large amounts of carbon dioxide, which it recognized as "a greenhouse gas"; and Southern's admission in the same report that "there are concerns" about its emissions of carbon dioxide because of the impact those emissions may be having on global climate.

24. As a result of its management, direction, conduct and/or control of operations relating to emissions of carbon dioxide from facilities owned and/or operated by its subsidiaries, defendant Southern is responsible for the emission of approximately 171 million tons of carbon dioxide annually.

25. Defendant Tennessee Valley Authority ("TVA") is a federal corporation with its principal place of business located in Knoxville, Tennessee.

26. TVA directly owns and operates fossil fuel-fired electric generating facilities located in Alabama, Kentucky, Mississippi, and Tennessee, which together emit approximately 110 million tons of carbon dioxide annually.

27. Defendant Xcel Energy Inc. ("Xcel") is a Minnesota corporation with its principal place of business located in Minneapolis, Minnesota. Xcel is a registered public utility holding company that owns all outstanding common stock of four major power generation subsidiaries, Northern States Power Company (Wisconsin), Northern States Power Company (Minnesota), Public Service Company of Colorado, and Southwestern Public Service Co., with fossil fuel-fired electric generating facilities located in Colorado, Minnesota, New Mexico, South Dakota, Texas, and Wisconsin.

28. Xcel, through its employees and/or agents, manages, directs, conducts and/or controls operations relating to the emissions of carbon dioxide at fossil fuel-fired electric generating facilities owned and/or operated by its subsidiaries. Such management, direction, conduct and/or control is exercised through a variety of means, including through implementation by Xcel's employees and/or agents of policies, procedures, and programs relating to global warming generally, to carbon dioxide emissions specifically, to dispatch of plants with varying carbon dioxide emissions per unit of energy, and/or to fuels utilized at each plant.

29. Such management, direction, conduct and/or control is evidenced by, for example, Xcel's various pledges to exercise control over the carbon dioxide emissions from facilities owned and/or operated by its subsidiaries; and Xcel's submission of annual reports to DOE

reporting the amount of carbon dioxide emissions avoided or sequestered from facilities owned and/or operated by its subsidiaries.

30. As a result of such management, direction, conduct and/or control of operations relating to emissions of carbon dioxide from facilities owned and/or operated by its subsidiaries, defendant Xcel is responsible for the emission of approximately 75 million tons of carbon dioxide annually.

31. Defendant Cinergy Corporation ("Cinergy") is a Delaware corporation with its principal place of business located in Cincinnati, Ohio. Cinergy is a registered public utility holding company that owns all outstanding common stock of two major power generation subsidiaries, The Cincinnati Gas & Electric Company and PSI Energy, Inc., with fossil fuel-fired electric generating facilities located in Indiana, Kentucky, and Ohio.

32. Cinergy, through its employees and/or agents, manages, directs, conducts and/or controls operations relating to the emissions of carbon dioxide at fossil fuel-fired electric generating facilities owned and/or operated by its subsidiaries. Such management, direction, conduct and/or control is exercised through a variety of means, including through implementation by Cinergy's employees and/or agents of policies, procedures, and programs relating to global warming generally, to carbon dioxide emissions specifically, to dispatch of plants with varying carbon dioxide emissions per unit of energy, and/or to fuels utilized at each plant.

33. Such management, direction, conduct and/or control is evidenced by, for example, various agreements and pledges Cinergy has made to exercise control over the carbon dioxide emissions from facilities owned and/or operated by its subsidiaries; Cinergy's admission of the

need to mitigate some of the risk to Cinergy associated with global warming; Cinergy's submission of annual reports to DOE reporting the amount of carbon dioxide emissions avoided or sequestered from facilities owned and/or operated by its subsidiaries; and Cinergy's agreement in February, 2004 to conduct an analysis of financial impacts to Cinergy from potential future legal limits on its carbon dioxide emissions.

34. As a result of such management, direction, conduct and/or control of operations relating to emissions of carbon dioxide from facilities owned and/or operated by its subsidiaries, defendant Cinergy is responsible for the emission of approximately 70 million tons of carbon dioxide annually.

JURISDICTION AND VENUE

Subject Matter Jurisdiction

35. Subject matter jurisdiction is proper in this Court pursuant to 28 U.S.C. § 1331 in that plaintiffs make claims against all defendants under federal common law. Subject matter jurisdiction is also proper in this Court pursuant to 28 U.S.C. §§ 1331 and 1337 in that plaintiffs make claims against TVA, a corporation created by a federal statute regulating commerce.

36. Subject matter jurisdiction over the state-law claims against all defendants is proper pursuant to 28 U.S.C. § 1367. Subject matter jurisdiction over the state-law claims against TVA is also proper pursuant to 28 U.S.C. §§ 1331 and 1337.

Venue

37. Venue is proper in this court pursuant to 28 U.S.C. § 1391(b)(1) as all defendants "reside" in this judicial district as that term is defined in 28 U.S.C. § 1391(c) and other law. Venue is also proper under 28 U.S.C. § 1391(b)(2) because a substantial part of the events or

omissions giving rise to the claim occurred in this judicial district and/or a substantial part of the property that is the subject of the action is situated in this judicial district. In the alternative, venue is proper pursuant to 28 U.S.C. § 1391(b)(3) because there is no district in which the action may otherwise be brought and at least one defendant may be found in this judicial district.

Personal Jurisdiction

All Defendants

38. By contributing to the public nuisance complained of herein, all defendants have committed tortious acts without the State of New York causing injury to persons or property within the State of New York.

39. All defendants expect or should reasonably expect their acts complained of herein to have consequences in the State of New York. Such consequences include increasing the concentration of carbon dioxide as well as the injuries and threatened injuries from global warming complained of herein.

40. All defendants derive substantial revenue from interstate or international commerce. Defendants' revenues are largely, if not wholly, interstate in nature in that the operations from which their revenues are derived are located in multiple states. In 2003, AEP reported revenues of $14.5 billion, AEP Service reported income of $1.1 billion, Southern reported revenues of $11.28 billion, TVA reported operating revenues of $6.95 billion, Xcel reported total operating revenues of $7.9 billion, and Cinergy reported operating revenues of $4.4 billion.

41. Some or all of each defendant's electric generating facilities that are the subject of this Complaint supply electric power to the Eastern Interconnection, which is one of three major

power grids in the continental United States. The Eastern Interconnection includes New York State. Any electricity entering this grid becomes part of a vast pool of energy that constantly moves in interstate commerce. Energy flowing onto the grid energizes the entire grid, and consumers draw undifferentiated energy from the grid. Any activity on the interstate grid affects the rest of the grid. So, for example, within the Eastern Interconnection, electricity is produced the instant it is used and flows over virtually all transmission lines from generators to loads.

42. The interconnected nature of this interstate system is demonstrated by the blackout of August 14, 2003, which occurred in New York and other regions as a result of events occurring in Ohio and other places within the grid. As stated in the April, 2004 report of the U.S.-Canadian Power System Outage Task Force: "On August 14, the flow of power through the ECAR region as a whole (lower Michigan, Indiana, Ohio, Kentucky, West Virginia, and western Pennsylvania) was heavy as a result of transfers of power from the south (Tennessee, etc.) and west (Wisconsin, Minnesota, Illinois, Missouri, etc.) to the north (Ohio, Michigan, and Ontario) and east (New York, Pennsylvania)."

43. Upon information and belief, through the Eastern Interconnection, defendants buy power from and/or sell power into New York State. For example, AEP Service, as agent for AEP, has contracted to sell power directly or indirectly to New York entities. Southern Company Services, Inc. ("SCS"), a subsidiary of Southern, has contracted, as an agent of Southern, to sell power directly or indirectly to New York entities and/or consumers. Defendant TVA has contracted to buy power from New York entities. Cinergy Services, as agent for Cinergy, has contracted to sell power to New York entities. Defendant Cinergy, through its agents, The Cincinnati Gas & Electric Company and Cinergy Capital & Trading, Inc., has contracted to buy power from New York entities.

44. Defendants AEP, AEP Service, Southern, Xcel and Cinergy are members of the Edison Electric Institute ("EEI"), an electric power industry trade association with offices in Washington, D.C. EEI's U.S. members serve roughly 90 percent of the ultimate customers in the shareholder-owned segment of the industry and nearly 70 percent of all electric utility ultimate customers in the nation, and generate nearly 70 percent of the electricity produced in the United States.

45. AEP, Southern, Xcel and Cinergy play a significant role within EEI. The current chairman of EEI is the Chairman and CEO of Xcel. The first-vice chairman is the president and CEO of AEP and the second vice-chairman is the president and CEO of Cinergy. The immediate past chairman of EEI is the president and CEO of Southern; and the immediate past first vice-chairman is the president and CEO of Xcel.

46. EEI acts as agent for AEP, AEP Service, Southern, Xcel, Cinergy and its other members on issues relating to global warming and, in this capacity, does business in New York State on their behalf. EEI also acts as agent for its members and for TVA in Power Partners, a joint government-industry program relating to global warming and the carbon dioxide emissions from EEI members and TVA. Senior EEI officials annually address meetings of the New York Society of Security Analysts in New York City. For example, in 2003 a senior EEI official addressed this group in New York City on the topic of global warming, the role of EEI's member companies with respect to their emissions of the greenhouse gases that cause global warming, and the members' acknowledged need to move "toward eventually reversing the growth in greenhouse gas emissions." EEI issued a press release from New York in connection with this event. In 1998, the president of EEI made a presentation to the New York Society of Security

Analysts in New York City that addressed the issue of global warming. In 2002, EEI launched a print advertising campaign in the New York Times and other publications to reassure investors regarding the financial strength of its member companies.

47. Upon information and belief, the purpose of the 2003 meeting and the 1998 presentation by EEI's president was to inform investors in New York's capital markets about the financial impact on EEI member companies of potential actions to control carbon dioxide emissions.

Individual Defendants

AEP and AEP Service

48. Defendants AEP and AEP Service are New York corporations and have designated the New York Secretary of State as their agent for service of process.

Southern

49. Southern owns all of the outstanding common stock of SCS. SCS is an Alabama corporation that is registered to do business in the State of New York and has been so registered since 1949. New York is one of only seven states in which SCS is registered to do business.

50. Upon information and belief, SCS routinely acts as an agent for Southern in New York. SCS renders services in New York on behalf of Southern that go beyond mere solicitation and are sufficiently important to Southern that Southern itself would perform equivalent services if no agent were available. SCS does all the business that Southern would do in New York were Southern here by its own officials. SCS is also a mere department of Southern.

51. SCS provides general and design engineering, purchasing, accounting, statistical analysis, financial, tax, information resources, marketing, auditing, insurance, pension

administration, human resources, systems and procedures, and various other services relating to business, operations, and power pool transactions to Southern and, on behalf of Southern, to Southern's operating subsidiaries. SCS also acts as a central dispatcher of power for Southern and, on behalf of Southern, for Southern's operating subsidiaries. SCS coordinates power allocation on behalf of Southern to provide to the operating companies on a continuous basis the power requirements of their respective service areas.

52. As part of the services it provides as an agent or mere department of Southern, SCS represents the interests of Southern and, on behalf of Southern, Southern's operating subsidiaries, before various agencies, boards, commissions and courts. SCS has acted as Southern's agent in proceedings before the Federal Energy Regulatory Commission ("FERC"). SCS also has submitted comments to the North American Energy Standards Board on behalf of Southern. SCS has routinely acted, on behalf of Southern, as the agent for Southern's operating subsidiaries in proceedings before FERC. SCS has also acted, on behalf of Southern, as the agent for Southern's operating subsidiaries in the Enron bankruptcy proceedings in the United States Bankruptcy Court for the Southern District of New York.

53. SCS's role as Southern's agent and mere department is further illustrated by the relationship between the two companies. SCS and Southern share the same business address. Officers of SCS and Southern easily move between the two companies. For example, Southern's former chief executive officer previously served as chief executive officer of SCS, and Southern's current chief financial officer was formerly an SCS officer. SCS is heavily, if not completely, financially dependent upon Southern. Southern has guaranteed unsecured notes on behalf of SCS valued at $40 million; has guaranteed a Washington, D.C. office lease on behalf of

SCS valued at $10 million; and has guaranteed surety bonds on behalf of SCS valued at $1.35 million.

54. From approximately April, 1993 until approximately September, 2000, defendant Southern owned all of the outstanding stock of Mirant Corporation ("Mirant") (formerly Southern Energy, Inc.). From approximately September, 2000 until on or about April, 2001, Southern owned approximately 80 percent of Mirant's stock. From approximately 1999 and continuing to the date of this complaint, Mirant has owned and operated, through Mirant Americas Energy Marketing, L.P. (formerly Southern Company Energy Marketing, L.P.), electric generating facilities located in New York State. Both Mirant Americas Energy Marketing, L.P. and Southern Company Energy Marketing, L.P. are registered to do business in New York.

55. Upon information and belief, during the period from Mirant's purchase of New York electric generating facilities in 1999 until April, 2001, Mirant (and Mirant Americas Energy Marketing, L.P.) owned and/or operated those facilities as an agent or mere department of Southern. During some or all of the aforementioned period, a representative of Southern participated in regular meetings of the System Operations Advisory Committee of the New York Independent System Operator ("NYISO"), which were held in New York. Moreover, as part of Southern's April, 2001 spin-off of its Mirant subsidiary to the holders of Southern's common stock, Southern agreed to continue providing financial, accounting, engineering, and other services to Mirant.

56. Southern is a member of the Clean Air Markets Group ("CAMG"). CAMG acts as an agent in New York State for its members, which consist of electric power corporations. CAMG recently initiated litigation on behalf of its members against New York State officials in

the United States District Court for the Northern District of New York challenging New York's Air Pollution Mitigation Law. The challenged law limited pollution from CAMG member facilities that produce electric power through the combustion of fossil fuels.

57. Upon information and belief, Southern does business in New York through the participation of its officers and employees at industry meetings and seminars held in New York. For example, Southern's President and Chief Executive Officer addressed the Morgan Stanley Dean Witter Global Electricity and Energy Conference in New York City on or about March 14, 2001.

58. Southern has retained a New York advertising agency, and has run television advertisements in New York State to establish its brand-name image.

TVA

59. Defendant TVA announced in May, 2004 that it had entered an agreement with two regional transmission organizations to pursue the development of a multi-regional approach with respect to power transmission, operations and transactions. According to the announcement by TVA and the two transmission organizations, the agreement is intended to provide "broad, seamless, non-discriminatory transmission service and energy markets across a large portion of the Eastern Interconnection."

60. Defendant TVA regularly does business in New York by, among other things, holding its annual financial analyst and investor meetings in New York City and through the participation of its officers and employees at industry meetings and seminars held in New York. TVA regularly retains the services of New York-based investment banks to underwrite bond offerings on the New York Stock Exchange.

Xcel

61. Defendant Xcel formerly owned NRG Energy, Inc. ("NRG"). While a subsidiary of Xcel, NRG, through its operating subsidiaries, owned and operated electric generating facilities in New York State.

62. Upon information and belief, during the period of its ownership by Xcel, NRG (and its operating subsidiaries) owned and/or operated New York electric generating facilities as an agent or mere department of Xcel. NRG rendered services in New York on behalf of Xcel that went beyond mere solicitation and were sufficiently important to Xcel that Xcel itself would perform equivalent services if no agent were available. NRG did all the business that Xcel would do in New York were Xcel here by its own officials. NRG was also a mere department of Xcel.

63. In 2002, NRG began experiencing severe financial difficulties and Xcel provided approximately $500 million to NRG in an effort to stave off NRG's bankruptcy. On or about May 14, 2003, NRG filed a voluntary petition for relief under Chapter 11 of the U.S. Bankruptcy Code. In or about December 2003, NRG emerged from bankruptcy pursuant to a court-approved reorganization plan. Pursuant to the reorganization plan Xcel paid approximately $752 million to NRG's creditors.

64. Xcel buys natural gas on the New York Mercantile Exchange ("NYMEX") in New York City.

65. Upon information and belief, Xcel transacts business in New York through the participation of its officers and employees at industry meetings and seminars held in New York. For example, on June 16, 2004, Xcel's Chairman and Chief Executive Officer and its Vice President and Chief Financial Officer spoke to the investment community at the Deutsche Bank

Electric Power Conference held in New York City. In addition, on or about April 3, 2001, Xcel executives made a presentation to New York financial analysts concerning Xcel's financial position.

66. Xcel's wholly owned subsidiary Northern States Power Company ("Northern States") is listed on the June 3, 2004 list compiled by the NYISO of companies authorized to buy and sell electric power in New York State. Upon information and belief, Northern States acts as Xcel's agent in New York for purposes of buying and/or selling electricity. Upon information and belief, Northern States renders services in New York on behalf of Xcel that go beyond mere solicitation and are sufficiently important to Xcel that Xcel itself would perform equivalent services if no agent were available. Northern States does all the business that Xcel would do in New York were Xcel here by its own officials. Northern States is also a mere department of Xcel.

Cinergy

67. Defendant Cinergy owns Cinergy Services, Inc. ("CSI"), a Delaware corporation. CSI is registered to do business in the State of New York. CSI has been registered to do business in New York since 1998. New York is one of only six states in which CSI is registered to do business.

68. Upon information and belief, CSI renders services in New York on behalf of Cinergy that go beyond mere solicitation and are sufficiently important to Cinergy that Cinergy itself would perform equivalent services if no agent were available. CSI does all the business that Cinergy would do in New York were Cinergy here by its own officials. CSI is also a mere department of Cinergy.

69. CSI provides, on behalf of Cinergy, various services including centralized dispatch of Cinergy's operating subsidiaries, coordination of power purchases and sales, central planning for new generation, coordinated compliance with environmental regulations, and coordinated transmission services and planning.

70. As part of the services it provides as an agent or mere department of Cinergy, CSI represents the interests of Cinergy and, on behalf of Cinergy, Cinergy's operating subsidiaries before various agencies, boards, commissions and courts. CSI has, on behalf of Cinergy, submitted written comments to the Securities and Exchange Commission concerning proposed rulemaking, and has testified before Congress on Cinergy's behalf concerning proposed revisions to the Clean Air Act. CSI has routinely acted, on behalf of Cinergy, as the agent for Cinergy's operating subsidiaries in proceedings before FERC. CSI also has acted, on behalf of Cinergy, as the agent for Cinergy's operating subsidiaries in the Enron bankruptcy proceedings in the United States Bankruptcy Court for the Southern District of New York.

71. CSI is listed on the June 3, 2004 list compiled by the NYISO of companies authorized to buy and sell electric power in New York State, and has participated in the NYISO's Management and Business committees.

72. CSI is a member of the Northeast Power Coordinating Council, which has as its purpose to promote the reliable and efficient operation of the interconnected bulk power systems in Northeastern North America.

73. CSI's role as Cinergy's agent and mere department is further illustrated by the relationship between the two companies. CSI and Cinergy share the same business address. The Chairman and Chief Executive Officer of Cinergy is listed as CSI's Chairman and Chief

Executive Officer with the New York Secretary of State. Upon information and belief, officers and directors of Cinergy and CSI easily move between the two companies. Upon information and belief, CSI is heavily, if not completely, financially dependent upon Cinergy.

74. Cinergy also owns Cinergy Capital and Trading, Inc. ("CCTI"), an Indiana corporation. CCTI is registered to do business in the State of New York. CCTI has been registered to do business in New York since 1998.

75. CCTI is listed on the June 3, 2004 customer list compiled by the NYISO, and has participated in the NYISO's Management and Business committees.

76. Upon information and belief, CSI and CCTI act as Cinergy's agents in New York for the purpose of buying and/or selling electricity, and for other business transaction purposes.

77. Cinergy trades electricity futures on the NYMEX in New York City through its agent, Cinergy Marketing & Trading, L.P., ("CMT"), a NYMEX member firm. In order to become a member firm, foreign corporations such as CMT, a Delaware limited partnership, must submit documents that demonstrate that it is qualified to do business in New York, has authorized service of process upon the New York Secretary of State, or has designated a New York agent for service of process.

78. Cinergy also participates in NYMEX trading through The Cincinnati Gas & Electric Company, a wholly-owned subsidiary of Cinergy that, upon information and belief, acts as Cinergy's agent in New York.

FACTUAL ALLEGATIONS

Global Warming

79. There is a clear scientific consensus that global warming has begun and that most of the current global warming is caused by emissions of greenhouse gases, primarily carbon dioxide from fossil fuel combustion. This consensus has been expressed in official reports from United States and international scientific bodies.

80. For example, the Intergovernmental Panel on Climate Change ("IPCC") concluded in its most recent assessment report, issued in 2001, that "most of the observed warming over the last 50 years is likely to have been due to the increase in greenhouse gas concentrations." "Likely" is an IPCC term of art meaning that there is a confidence level of 66-90%. The IPCC is a collaborative scientific effort among the nations of the world to assess the scientific and technical information relevant to global warming and provide advice on global warming to all 170 nations, including the United States, that are parties to the United Nations Framework Convention on Climate Change. The IPCC 2001 report is a standard scientific reference on global warming.

81. According to a 2001 report of the U.S. National Academy of Sciences ("NAS"), "IPCC's conclusion that most of the observed warming of the last 50 years is likely to have been due to the increase in greenhouse gas concentrations accurately reflects the current thinking of the scientific community on this issue." According to a 2003 statement issued by the American Geophysical Union, "[s]cientific evidence strongly indicates that natural influences cannot explain the rapid increase in global near-surface temperatures observed during the second half of the 20th century."

82. The Earth's average surface temperature has increased by about one degree Fahrenheit in the last 100 years. Globally, the 1990s was the hottest decade, and 1998 was the hottest year since thermometer records began in 1861. The years 2002 and 2003 were tied for the second warmest years.

83. Signs of global warming already have emerged. Arctic sea ice has shrunk by 386,000 square miles in the summer over the last 20 years and, if emissions are not curtailed, there will be no arctic sea ice at all in summertime later in this century. Other signs include thawing of permafrost, a later freezing and earlier break-up of ice on rivers and lakes, and the retreat of mountain glaciers throughout the world. Glacier National Park already has lost two thirds of the more than 150 glaciers it had in the nineteenth century. Unrestrained global warming is projected to melt all of the remaining glaciers in Glacier National Park in approximately 30 years.

84. Global warming is also resulting in poleward and altitudinal shifts of plant and animal ranges, and the decline of some animal and plant populations in many locations throughout the world. Increased ocean water temperature has caused a dramatic increase in bleaching of coral reefs. The warming of ocean water causes coral reefs to bleach and, ultimately, die. A further increase in global average temperature of two degrees Fahrenheit will lead to severe effects on coral reefs worldwide.

85. Carbon dioxide is by far the most significant greenhouse gas emitted by human activity.

86. Energy from the sun heats the Earth, which re-radiates the energy into the Earth's atmosphere. Carbon dioxide and other greenhouse gases trap heat in the Earth's atmosphere that otherwise would escape into space.

87. Carbon dioxide emissions persist in the atmosphere for several centuries and thus have a lasting effect on climate. The combustion of fossil fuels adds large quantities of carbon (in the form of carbon dioxide) to the atmosphere that otherwise would remain sequestered deep in the Earth. Processes on the land and in the oceans that remove carbon dioxide from the atmosphere are unable to keep pace with these emissions. As a result, the natural carbon cycle is out of balance and carbon dioxide levels in the atmosphere are increasing as each year's emissions are added to those that came before.

88. Carbon dioxide levels in the atmosphere have increased 34 percent since the industrial revolution in the 18th century and more than one third of the increase has occurred since 1980. As stated by IPCC, the current level of carbon dioxide in the atmosphere is higher than at any time in the last 420,000 years and is likely higher than at any time in the last 20 million years.

89. The substantial increase in recent decades in carbon dioxide emissions, the increasing level of atmospheric carbon dioxide and the planet's corresponding increase in average temperature are illustrated in the United States Global Change Research Program ("USGCRP") graphs attached hereto as Exhibit 1.

90. As the planet warms, the oceans become less efficient at removing carbon dioxide from the atmosphere, thus causing even more carbon dioxide to accumulate in the atmosphere. Similarly, when, as a result of global warming, the planet has fewer areas covered with snow, sea ice or glacial ice, the planet reflects less energy from the sun back into space as formerly white snowy or icy areas are transformed into darker areas, which absorb more solar heat. Thus, global warming is expected to accelerate as concentrations of greenhouse gases, and in particular of carbon dioxide, increase.

91. In the absence of reductions of carbon dioxide emissions, global warming will accelerate. Global average surface air temperature is projected to warm 2.5 to 10.4 degrees Fahrenheit from 1990 levels by 2100, depending upon the level of greenhouse gas emissions and the response of the planet to the increasing buildup of greenhouse gases. By comparison, at the depths of the last ice age 20,000 years ago the average global temperature of the Earth was only seven to eleven degrees Fahrenheit cooler than today.

92. The sharp increases in atmospheric carbon dioxide and average global temperature projected for future decades are illustrated in the IPCC graphs attached hereto as Exhibits 2 and 3.

93. As stated by IPCC, the projected rate of global warming for the 21st century "is much larger than the observed changes during the 20th century and is very likely to be without precedent during at least the last 10,000 years . . . ."

94. An increase in the planet's average temperature anywhere in the projected range of 2.5 to 10.4 degrees Fahrenheit will constitute an extraordinary shift in world climate that is unprecedented in thousands of years of human civilization. A temperature increase anywhere in the projected range will have harmful consequences worldwide and for the plaintiffs and their citizens and residents.

95. The consequences of the low-end scientific projection of a 2.5 degree Fahrenheit increase in global average temperature in the next 100 years will include: increased heat deaths; an increase in ground-level smog and hence increased suffering from asthma and other respiratory diseases; disruption of water supplies in the Western United States and other places dependent upon snowpack for water supply; an intensification of the hydrologic cycle meaning

more and greater floods and an increased likelihood of drought; reduction in water levels in the Great Lakes; disruption and permanent damage to forests and ecosystems; and an acceleration of sea level rise that will cause increased beach erosion, inundation of low-lying coastal property, greater damage to property and hazard to human safety from larger coastal storm surges, and inundation of salt marshes and tidal wetlands that are vital breeding grounds for fish and shellfish.

96. The high-end scientific projection of a 10.4 degree Fahrenheit increase in global average temperature in the next 100 years would greatly magnify all of these consequences. The loss of life, harm to health, property damage and environmental harm from such an increase would be exceedingly large and damaging by any measure.

97. The level and rate of global warming over the next several decades and beyond depends upon the level of greenhouse gas emissions and in particular upon the level of carbon dioxide emissions from the combustion of fossil fuels. Thus, the harmful consequences of global warming can be avoided or mitigated by reducing such emissions.

Defendants Are Major Emitters of Carbon Dioxide

98. Defendants are five electric power corporations (and one of their subsidiaries) that together emit approximately 650 million tons of carbon dioxide each year from the combustion of fossil fuels. Defendants are the five largest emitters of carbon dioxide in the United States. Defendants' emissions constitute approximately one quarter of the U.S. electric power sector's carbon dioxide emissions and approximately ten percent of all anthropogenic carbon dioxide emissions in the United States.

99. The emissions of carbon dioxide from the combustion of fossil fuels accounts for over 80 percent of all U.S. greenhouse gas emissions from human activity (measured on the basis of carbon dioxide equivalent to account for the gases' differing heat-trapping abilities).

100. Electric power plants that burn fossil fuels are the largest source of carbon dioxide emissions in the United States. Such plants in the U.S. emit approximately 2.6 billion tons of carbon dioxide each year. These emissions constitute approximately forty percent of all carbon dioxide emitted by human activities in the United States and approximately ten percent of worldwide carbon dioxide emissions from human activities.

101. Carbon dioxide emissions from the U.S. electric power sector increased by more than 24 percent from 1990 to 2001 compared to a 16 percent increase in carbon dioxide emissions for the economy as a whole. Carbon dioxide emissions from the electric power sector are projected by the U.S. Department of Energy to increase by an additional 41 percent by the year 2025 if no action is taken to restrain such emissions. This increase will raise the electric power sector's annual emissions to approximately 3.5 billion tons. This rate of increase is significantly faster than the projected growth rate of emissions from the economy as a whole over the same period.

102. Defendants and their predecessors in interest have emitted large amounts of carbon dioxide from the combustion of fossil fuels for many years. For example, AEP has been in continuous operation since 1906, when it incorporated in New York State under the name American Gas and Electric Company. Southern has been in continuous operation since its incorporation in 1945. Southern acquired its major power-generating subsidiaries in 1949, which have been in continuous operation since the period 1906-1930. TVA incorporated in 1933 and

has been producing electric power through fossil fuel combustion since the 1940s. Xcel has been in continuous operation since its incorporation in 1909. Cinergy, incorporated in 1993, owns all the outstanding common stock of The Cincinnati Gas & Electric Co., which has been in continuous operation since its incorporation in 1837. Because the planet's natural systems take hundreds of years to absorb carbon dioxide, defendants' past and present emissions will remain in the atmosphere for many decades, or even centuries, into the future.

Injuries to the Plaintiffs and Their Citizens and Residents From Global Warming

103. Global warming already has begun to change the climate in the United States.

104. Since 1900, the average temperature in the western United States, including California, has risen 2 to 5 degrees Fahrenheit. In California, winter average temperature in the Sierra Nevada rose by almost 4 degrees Fahrenheit during the second half of the 20th century. In the New York City Metropolitan area, the temperature has warmed nearly 2 degrees Fahrenheit from 1901 to 2001. The average annual temperature of the upstate New York and New England region increased 0.74 degrees Fahrenheit from 1895 to 1999 and the average winter temperature increased by 1.8 degrees. In the last century, the average temperature in New Brunswick, New Jersey, has increased approximately 2 degrees Fahrenheit. Over the 20th century, the northern portion of the Midwest, including the upper Great Lakes, has warmed by almost 4 degrees Fahrenheit.

105. Between 1953 and 1994, annual average snowfall in parts of New England decreased by nearly 15 percent. Between 1953 and 1998, the duration of snow cover on the ground in these states decreased by an average of seven days. Lakes in the Northeast are

experiencing spring thaws four to six days earlier than 100 years ago. The length of the snow season in California decreased by about 16 days from 1951 to 1996. Lakes in the Midwest, including Wisconsin, have experienced later fall freezes and earlier spring thaws over the last 100 years, particularly in recent decades. On Lake Mendota in Wisconsin, the average duration of ice cover has decreased from about four months in the mid-1800s to about three months by the late 1990s; in the winter of 2001-02, ice cover on Lake Mendota lasted only 21 days.

106. Unrestrained emissions of greenhouse gases and in particular of carbon dioxide will cause temperatures in the plaintiffs' jurisdictions to increase significantly over the next 100 years. The U.S. Environmental Protection Agency ("US EPA") projects an increase in temperature in the plaintiffs' jurisdictions of about four to five degrees Fahrenheit by the year 2100. USGCRP projects an increase in average minimum temperature in upstate New York and New England of 5.6 to 9.5 degrees Fahrenheit and an increase in average maximum temperature of 3.6 to 9 degrees Fahrenheit by the year 2100. USGCRP projects New York City average temperature by the 2050s will increase 3.3 to 5.6 degrees Fahrenheit in the winter and 2.7 to 7.6 degrees Fahrenheit in the summer. USGCRP projects an increase in average temperature for California of 2 to 9 degrees Fahrenheit by the year 2100. USGCRP projects an increase in average temperature for the Midwest of 5 to10 degrees Fahrenheit over the next 100 years.

107. An increase of temperature in the next 100 years anywhere in the global range projected by IPCC 2001 or the regional ranges projected by US EPA and USGCRP will have substantial adverse impacts upon people, environment and property in the plaintiffs' jurisdictions and will require the plaintiffs to expend billions of dollars to respond to the impacts.

(i) Injuries to Public Health

108. Global warming will harm public health in the plaintiffs' jurisdictions.

109. Heat is a major public health threat. The loss of human life due to hot spells in summer exceeds that caused by all other weather events in the United States combined, including lightning, rainstorms/floods, hurricanes, and tornadoes.

110. Global warming is expected to cause intensified and prolonged summertime heat waves in the plaintiffs' jurisdictions, resulting in increases in heat deaths, heat illnesses, and heat-related hospitalizations. For example, U.S. EPA reports that a 1 degree Fahrenheit warming could more than double heat-related deaths in New York City, from 300 to 700 per year, that a 3 degree Fahrenheit warming could almost double heat-related deaths in Los Angeles, from about 70 to 125 per year, and that a 2 to 3 degree Fahrenheit warming could quintuple heat deaths in Newark, New Jersey from 25 to 125 per year. The elderly and poor will be at highest risk.

111. The production of summertime smog increases at higher temperatures, meaning that increasing summertime temperatures from global warming will increase smog levels. Increased smog will cause increased incidence of, and susceptibility to, respiratory illnesses including asthma, pneumonia and bronchitis.

(ii) Injuries to Coastal Resources

112. Plaintiffs California, Connecticut, State of New York, New Jersey, Rhode Island and New York City (hereinafter "coastal plaintiffs") have significant coastlines. New York has approximately 2,625 miles of coastline, including barrier islands, coastal wetlands, and complex bays, particularly on Long Island. California has approximately 3,427 miles of coastline. Connecticut has approximately 618 miles of coastline. New Jersey has approximately 1,792

miles of coastline. Rhode Island has approximately 420 miles of coastline. New York City has approximately 578 miles of coastline.

113. Global warming will cause accelerated sea-level rise, primarily via thermal expansion of seawater and the addition of freshwater by melting of glaciers and ice sheets. As a result of global warming, sea levels will increase along the coasts of the coastal plaintiffs in the next 100 years, possibly by three feet or more. Sea-level rise resulting from global warming will continue for at least hundreds of years, even after carbon dioxide levels in the atmosphere are stabilized.

114. Accelerated sea-level rise from global warming will inundate low-lying property, especially during coastal storms, in the coastal plaintiffs' jurisdictions. Storm surges from coastal storms will be superimposed upon a higher sea level due to global warming and thus cause more frequent flooding and flooding of much greater areas. The increased flooding will cause billions of dollars of damage to property, including state-owned, city-owned and other public property as well as residential, commercial and industrial property, and will pose a greater hazard to human safety in each of the coastal plaintiffs' jurisdictions. Accelerated sea level rise from global warming will cause New York City to experience more frequently a storm of such magnitude that its occurrence now can be expected only once every 100 years (a "100-year storm"). The return period of the 100-year storm could be reduced to forty-three years by the 2020s, nineteen years by the 2050s and four years by the 2080s. Coastal infrastructure in New York City, including airports, subway stations, tunnels, tunnel vent shafts, storm sewers, wastewater treatment plants, and bridges are located at low elevations and will experience more frequent and severe flooding from global warming-induced sea level rise, causing hundreds of

billions of dollars in damages and wreaking havoc on the daily life of the City. In the San Francisco Bay, a sea level rise of only 6 inches would change the frequency of the 100-year storm to that of a 10-year storm.

115. In addition to storm-surge flooding, some low-lying property (including state-owned and other public property as well as private property) in each of the coastal plaintiffs' jurisdictions will be permanently inundated by the additional sea level rise caused by unrestrained global warming. Even a two-foot sea level rise would inundate approximately 5,000 square miles of dry land in the continental United States, including land in each of the coastal plaintiffs' jurisdictions, unless protective structures such as dikes and bulkheads are constructed. The costs of erecting such coastal armament will fall heavily upon the coastal plaintiffs.

116. Accelerated sea-level rise from unrestrained global warming also threatens to inundate or salinize marshes and tidelands that are vital breeding grounds for numerous species of fish and shellfish in the coastal plaintiffs' jurisdictions. Approximately 5,000 square miles of wetlands in the United States would be inundated by a two foot sea-level rise, including wetlands in each of the coastal plaintiffs. Inundation or salinization of marshes would destroy habitat for commercial and game species as well as migratory birds and other wildlife. Ecosystems at risk include barrier beach island refuges such as the Jamaica Bay National Wildlife Refuge in New York City, the Great South Bay on Long Island, and the Sedge Islands Wildlife Refuge Management Area in Island Beach State Park in New Jersey. The San Francisco Bay is the largest estuary on the west coast of the United States; its tidal marshes are threatened with inundation due to accelerated sea level rise from global warming.

117. Accelerated sea-level rise due to unrestrained global warming also will greatly accelerate beach erosion along the coasts of the coastal plaintiffs. For open sandy beaches, each foot of sea-level rise causes, on average, 100 to 150 feet of beach loss through erosion. Vulnerable beaches include property owned by the coastal plaintiffs, such as Robert Moses State Park, Jones Beach State Park and Montauk Point State Park on Long Island; Andrew Molera State Park and Asilomar State Beach in California; and Sherwood Island State Park and Silver Sands State Park in Connecticut; Newport, Matunuck and Misquamicut State Beaches in Rhode Island; and Rockaway Beach in New York City. Accelerated beach erosion due to unrestrained global warming also will damage public and private property, including homes and other structures and buildings; property damage could reach into the hundreds of millions of dollars per year in the coastal plaintiff's jurisdictions. Beaches also provide an important source of summer tourism, which benefits the economies of the coastal plaintiffs. The erosion of beaches thus impairs a resource that supports the coastal plaintiff's economies.

(iii) Injuries to Water Supplies

118. Elevated sea-levels due to unrestrained global warming also will cause saltwater intrusion into groundwater aquifers or other water supplies in each of the coastal plaintiffs' jurisdictions. For example, a sea-level rise in the range projected as a result of unrestrained global warming would increase salinity in the San Francisco Bay and the Sacramento-San Joachin Delta and thus contaminate a water source used by 20 million Californians, compromise the ability of the State Water Project to meet its obligations, and impair a water source upon which numerous Delta species depend.

119. In California, the mountain snowpack is the single largest freshwater source, critical to sustaining water to the State's 34 million residents during the half of each year when there is minimal precipitation. Global warming will severely reduce the size of the snowpack because more precipitation will fall as rain instead of snow. Melting of the snowpack will occur earlier and proceed more rapidly. Diminished summer runoff from mountain snow will cause water shortages and disruptions to the interrelated water systems and hydroelectric plants on which the State's residents rely. Flooding will increase in California as a result of the earlier melting. This process of reduced mountain snowpack, earlier melting and associated flooding, and reduced summer streamflows already has begun.

120. Global warming will result in more intense precipitation events. A warmer atmosphere heats the oceans (leading to greater evaporation), and holds more moisture than a cool one. When the extra water condenses, it more frequently falls to Earth as larger downpours. Global warming thus will cause increased flooding and runoff in the plaintiffs' jurisdictions. The increased flooding and runoff will increase the risk of contamination of water supplies with fertilizer, sewage, waterborne pathogens that cause diseases such as cryptosporidiosis and giardiasis, and with other pollutants collected by the runoff and flood waters as they flow into reservoirs. Floods also cause damage to public and private property, increase soil erosion, and are a hazard to human safety and cause a loss of life.

(iv) Injuries to the Great Lakes

121. Global warming threatens plaintiffs New York State and Wisconsin with substantial injuries by lowering the levels of the Great Lakes and disrupting their ecology with warmer temperatures. The Great Lakes and the interlake water flows are a critical source of

drinking water, a major source of hydroelectric power, an important commercial shipping channel, an important recreational resource and home to a diversity of fish, plants and animals. Wisconsin has approximately 495 miles of shoreline along Lake Michigan and approximately 325 miles of shoreline along Lake Superior. New York State has approximately 331 miles of shoreline along Lake Ontario and approximately 77 miles of shoreline along Lake Erie.

122. Global warming is very likely to lower the water levels of the Great Lakes and reduce interlake flow, since increasing temperatures will cause water losses by evaporation that are likely to exceed any increase in supply from additional precipitation due to global warming. A recent analysis of several global warming scenarios by the International Joint Commission, an independent U.S.-Canadian organization established by the Boundary Waters Treaty of 1909, projects reductions in average lake levels over the years 2040 to 2069 of 10 to 44 inches for Lake Michigan, 4 to 14 inches for Lake Superior, and 6 to 32 inches for Lake Erie, compared to the 1961-1990 average; for Lake Ontario the analysis focuses on net total water supply and average outflow, both of which it finds will decrease by up to 25 percent.

123. Reduction in Great Lakes water levels is severely damaging to commercial shipping, which is an important component of the New York State and Wisconsin economies. Each loss of one inch in draft in the Great Lakes shipping channels causes the 1,000 foot-long vessels used for interlake transportation to lose 270 tons of cargo capacity and causes the 740 foot-long ocean-going vessels that are sized for the St. Lawrence Seaway to lose 100 tons of cargo capacity. Wisconsin has major ports along Lakes Michigan and Superior, including the Port of Milwaukee, Port Washington, the Port of Green Bay, and the Port of Ashland. New York State has major ports along Lakes Ontario and Erie, including the Port of Oswego, the Port of

Rochester, and the Port of Buffalo. Reduced commercial shipping would cause harm to the Wisconsin and New York State economies.

124. Reduced lake levels due to global warming will necessitate costly dredging of harbors and channels in order to mitigate commercial shipping losses. Moreover, toxic dredge material must be disposed of in one of the special landfills constructed for Great Lakes dredge sediment, yet these landfills already are nearing capacity. The increased costs of dredging would be only partially mitigated by any increase in shipping made possible by the longer ice-free season that global warming will entail.

125. A drop in Great Lakes levels and river flows necessitates reducing hydropower production at facilities dependent upon the flow of water through the Great Lakes system. Affected hydropower plants include the Robert Moses Niagara Power Plant and the Lewiston Pump-Generating Plant, both owned by New York State and dependent upon flow through the Niagara River between Lakes Erie and Ontario.

126. A drop in Great Lakes levels from global warming will reduce access to marinas and docks for recreational boaters, require thousands of municipal water intakes and wells to be moved or extended, and damage wetlands that are important for fish and other wildlife.

127. Global warming will also increase the duration of summer stratification–the period of time when the warm upper layer of lake water is separated from the lower, cool layer. During stratification, the lower layer of water is deprived of oxygen from the surface. Stratification occurs as the surface water warms through summer and ends when the surface water cools in the fall and sinks down into the lower layer, thus mixing oxygen-rich water into the lower lake. An increase in the duration of summer stratification will greatly increase the risk

of the lower water layer in the Great Lakes completely using up the available oxygen and becoming a dead zone. Persistent dead zones cause massive fish kills, damage fisheries, cause toxic algal blooms and foul drinking water supplies.

(v) Injuries to Agriculture in Iowa and Wisconsin

128. The economies of Iowa and Wisconsin and the livelihood of their citizens and residents are highly dependent on agriculture. There are over 90,000 farms in Iowa, and over 70,000 in Wisconsin. Nearly every city and town in Iowa and Wisconsin has businesses dependent upon agriculture and has citizens and residents engaged in agriculture. Iowa and Wisconsin are leaders in corn, soybean and livestock production.

129. Global warming presents a significant threat to agriculture in Iowa and Wisconsin by increasing temperatures and altering precipitation in the growing season.

130. Global warming will increase the frequency and duration of summertime heat waves in Iowa and Wisconsin. In addition to the increased threat to the health of their citizens and residents from heat waves, an increase in the occurrence of days with temperature greater than approximately 93 degrees Fahrenheit in Iowa and Wisconsin will increase stress to crops, thereby reducing crop yields. Warmer summer temperatures will also cause appetite suppression in livestock, thereby reducing weight gain, milk production, and economic benefit to farmers. Warmer summer temperatures will also increase production costs for confinement animal feeding operations due to the increased need for air conditioning.

131. Global warming will increase the frequency of intense summertime rainfall events. Increased frequency of intense summertime precipitation will result in increased risks of flooding of farm fields, streams, and rivers in Iowa and Wisconsin. Increased flooding will cause crop loss, soil loss, property damage, and increased insurance claims.

(vi) Injuries to Ecosystems, Forests, Fisheries and Wildlife

132. Global warming will disrupt ecosystems in the plaintiffs' jurisdictions. Different species with varying levels of temperature tolerance and varying abilities to change their range will migrate with the changing temperature at different paces. The result will be a substantial disruption of ecosystems, because species in an ecosystem are interdependent. Some species will become extinct as a result of global warming. One recent study projects that 15-37 percent of species in studied areas will be committed to extinction by 2050 in a mid-range global warming scenario, with the level of extinctions dependent upon the level of warming.

133. The hardwood forests that give Vermont, Connecticut, New York, New Jersey, Rhode Island and Wisconsin their fall colors and that give Vermont and several other plaintiff States their maple sugar industry are threatened by global warming. Several species of hardwood trees that typify forests in the northeast and in Wisconsin, including maples, birches and beeches, are at the southern extent of their range in these regions and will be unable to survive the temperature increases projected to occur as a consequence of a large warming that could occur in this century.

134. The Adirondack Park in New York is the largest forested area east of the Mississippi, consisting of 6 million acres, of which 2.6 million acres are state-owned forest preserve. This State Park represents one of the most significant hardwood ecosystems in the world, but its hardwood forests are threatened by global warming.

135. If global warming occurs too rapidly, the transition from a hardwood forest to another type of forest will not be a smooth transition but rather will be characterized by a rapid decline in the current forest before another type of forest is able to become established.

136. Due to the interconnected nature of ecosystems, the loss or decline of tree species will cause the loss or decline of other species, including birds, mammals and insects that are interdependent with the tree species and with each other and thus cause an overall decline of hardwood forest ecosystems across the northern United States.

137. Global warming also threatens the health of trees and forests in the plaintiffs' jurisdictions through smog formation. Ground-level smog, which, as noted above is correlated with temperature, interferes with the ability of plants to produce and store food, making them more susceptible to disease, insects, other pollutants, and harsh weather.

138. Global warming will cause Connecticut, New Jersey, New York, Rhode Island, Vermont and Wisconsin to suffer a significant loss of suitable habitat for trout species such as brown, brook, and rainbow. Populations of these cold-water species will decline as a result of warmer water temperatures.

139. California supports the southernmost populations of some chinook salmon, coho salmon and steelhead trout species, which require cold water. The warmer stream temperatures from global warming pose a risk to their continued survival. In addition, the reduced late-season snowmelt in California will reduce flow in numerous streams and rivers during spawning season for California salmon, including several endangered or threatened runs of salmon. Increased flooding early in the season from premature snowmelt will scour streambeds of salmon eggs. Salmon are the source of more than $17 billion in revenue in California.

140. Wisconsin has more than 15,000 inland lakes. As with the Great Lakes, the period of summer stratification for inland lakes will increase due to global warming, thereby reducing oxygen in the lower lake levels and posing a threat to lake health and fisheries

(vii) Wildfires in California

141. California is susceptible to wildfire. More than half of the most damaging fires in the U.S. over the past 170 years have occurred in California, and the state leads the nation in wildfire-related economic losses. Wildfires cause property damage to public and private property in the state, are a hazard to human safety, and contribute to landslides, flooding, erosion and water quality impairment. Global warming will substantially increase the damage in California from wildfires by, *inter alia*, increasing the number of escaped wildfires, increasing the area burned by wildfires and shortening the return period of wildfires. The increase in wildfires will increase property damage to both public (including state-owned) and private property, increase the costs of fighting fires, increase the risk of injuries and loss of life, and increase the damage from landslides, flooding, erosion and sedimentation of streams that accompany wildfires.

(viii) Economic Interests

142. The impacts of global warming on property, ecology and public health in the plaintiffs' jurisdictions will all result in economic harm to the plaintiffs. Injury to property, such as erosion of beaches located on state-owned property, will carry direct economic costs, such as the costs of sand replenishment and diminished value. Damage from flooding in major metropolitan areas from increased storm surges could reach into the billions of dollars. Protection of public and private property, such as construction of sea walls, also will carry direct economic costs. Harms to public health will impair productivity and thus harm the plaintiffs' economies. Ecological harms, such as the loss of the northeastern hardwood forests or fisheries, will harm the logging, maple sugaring and tourism industries in the plaintiff States and cause an associated loss of tax revenue to the States.

(ix) Increased Risks of Abrupt and Catastrophic Change in Climate Due to Global Warming

143. Global warming poses risks of sudden and catastrophic injuries to the plaintiffs and their citizens and residents.

144. The Earth's climate can undergo an abrupt and dramatic change when a "radiative forcing agent" causes the Earth's climate to reach a tipping point. Emissions of carbon dioxide from fossil fuel combustion constitute such a radiative forcing agent because of the heat-trapping effect of carbon dioxide. Therefore, as stated by the National Academy of Sciences, the unrestrained and ever-increasing emissions of greenhouse gases from fossil fuel combustion increases the risk of an abrupt and catastrophic change in the Earth's climate when a certain, unknown, tipping point of radiative forcing is reached. An abrupt change in the Earth's climate can transpire in a period as short as ten years. Defendants' emission of millions of tons of carbon dioxide each year contribute to this risk of an abrupt change in climate due to global warming.

145. The rapidity of an abrupt climate shift would greatly magnify all of the injuries to the plaintiffs, their citizens and residents, and their environment by greatly shortening the time period for humans and ecosystems to adapt and respond to the changing climate.

(x) Injury to States' Interests in Ecological Integrity

146. The foregoing threatened injuries to the plaintiff States are more than a collection of disparate harms. Together they constitute a threat of a fundamental transformation. The risk of wholesale change in climate and complete ecological disruption in the plaintiffs' jurisdictions constitutes an assault on their sovereign and quasi-sovereign interests. The states have an interest independent of and behind the titles of their citizens and in all the earth and air within their domains. By altering the plaintiff states' natural climate, global warming injures interests that

are fundamental to the rights of these sovereigns, namely, their interest in the integrity of an ecological system that supports their natural heritage and upon which all of their natural resources and much of their economies depend.

Reducing Defendants' Carbon Dioxide Emissions Reduces Risks of Injury

147. Reducing carbon dioxide emissions is necessary to avert or reduce the risk of the injuries described above. The primary factor in determining the rate and magnitude of future warming is the level of greenhouse gas concentrations in the atmosphere, which in turn is driven by the rate of emissions of greenhouse gases and, in particular, of carbon dioxide. The greater the emissions, the greater and faster the temperature change will be, with greater resulting injuries. The lower the level of emissions, the smaller and slower the total temperature change will be, with lesser injuries.

148. Reductions in the carbon dioxide emissions of the defendants will contribute to a reduction in the risk and threat of injury to the plaintiffs and their citizens and residents from global warming. For example, by reducing emissions by approximately three percent annually over the next decade, the defendants would achieve their share of the carbon dioxide emission reductions necessary to significantly slow the rate and magnitude of warming.

149. Reductions in carbon dioxide emissions from the electric power sector are among the most cost-effective reductions that can be made within the United States economy. Reductions from these defendants – the largest carbon dioxide emitters in the United States and among the largest in the world – will contribute to a larger reduction in risk than reductions of the same proportion by other emitters.

150. There are significant costs of delaying action to reduce carbon dioxide emissions. The longer the delay until significant reductions are made, the larger, steeper and more expensive the later cuts in emissions will need to be in order to maintain any particular level of carbon dioxide in the atmosphere. Delay also commits future generations to higher levels of carbon dioxide in the atmosphere and hence greater global warming and increased associated impacts.

151. Moreover, delay may lead to defendants' building or refurbishing generating facilities without inclusion or consideration of carbon dioxide reduction technologies, thereby making it more difficult to reduce carbon dioxide emissions in the future.

CLAIMS FOR RELIEF

First Claim for Relief - Federal Common Law of Public Nuisance

152. Paragraphs 1 through 151 are incorporated herein by reference.

153. Defendants are carrying on activities that are causing injury and a significant threat of injury to the plaintiffs. Defendants, by their emissions of carbon dioxide from the combustion of fossil fuels at electric generating facilities, are knowingly, intentionally or negligently creating, maintaining or contributing to a public nuisance – global warming – injurious to the plaintiffs and their citizens and residents.

154. Defendants' emissions of carbon dioxide, by contributing to global warming, constitute a substantial and unreasonable interference with public rights in the plaintiffs' jurisdictions, including, *inter alia*, the right to public comfort and safety, the right to protection of vital natural resources and public property, and the right to use, enjoy, and preserve the aesthetic and ecological values of the natural world.

155. Carbon dioxide emissions and global warming are inherently interstate in nature. Defendants' emissions of carbon dioxide, from any state where their electric generation operations may be located, rapidly mix in the atmosphere and cause an increase in the atmospheric concentration of carbon dioxide worldwide. The warming that results from the increased carbon dioxide concentration to which defendants contribute is a global process and causes impacts in each of the plaintiffs' jurisdictions.

156. Defendants could generate the same amount of electricity while emitting significantly less carbon dioxide by employing readily available processes and technologies.

157. Defendants know or should know that their emissions of carbon dioxide contribute to global warming and to the resulting injuries and threatened injuries to the plaintiffs, their citizens and residents, and their environment.

158. Defendants' carbon dioxide emissions are a direct and proximate contributing cause of global warming and of the injuries and threatened injuries to the plaintiffs, their citizens and residents, and their environment, from global warming.

159. Defendants, individually and collectively, are substantial contributors to global warming and to the injuries and threatened injuries claimed herein.

160. The injuries and threatened injuries from global warming are indivisible injuries.

161. The injuries from global warming claimed herein are imminent.

162. The injuries from global warming claimed herein are irreparable and monetary damages are inadequate to remedy the injuries.

163. Defendants' emissions of carbon dioxide, if unabated, will continue to contribute to global warming to the detriment of the plaintiffs, their environment, and the health, safety and welfare of their citizens and residents.

164. Defendants are jointly and severally liable under the federal common law of public nuisance.

Second Claim for Relief - State-Law Public Nuisance

165. Paragraphs 1 through 164 are incorporated herein by reference.

166. In the alternative, defendants are liable under the statutory and/or common law of public nuisance of each of the States where their fossil-fuel fired electric generating facilities are located.

167. Plants located in Alabama. Defendants Southern and TVA have engaged and continue to engage in intentional and/or negligent conduct that unreasonably operates to hurt or inconvenience an indefinite number of persons, or that unreasonably interferes with the public's right to physical comfort and enjoyment of property, and that causes hurt, inconvenience or damage to others, and are therefore liable under the statutory and common law of public nuisance of the State of Alabama.

168. Plants located in Arkansas. Defendants AEP and AEP Service have engaged and continue to engage in intentional and/or negligent conduct that unreasonably interferes with the use and enjoyment of the lands of others and/or violates public rights held in common by the community as a whole, and are therefore liable under the common law of public nuisance of the State of Arkansas.

169. Plants located in Colorado. Defendant Xcel has engaged and continues to engage in intentional and/or negligent acts or omissions that injuriously affect the safety or health of the public or work a substantial annoyance, inconvenience, or injury to the public, and is therefore liable under the common law of public nuisance of the State of Colorado.

170. Plants located in Florida. Defendant Southern has engaged and continues to engage in intentional and/or negligent acts or omissions that annoy, injure, or endanger the comfort, health, repose or safety of an entire community or a considerable number of persons, and is therefore liable under the common law of public nuisance of the State of Florida.

171. Plants located in Georgia. Defendant Southern has engaged and continues to engage in intentional and/or negligent conduct that causes hurt, inconvenience or damage to all persons who come within the sphere of its operations, and is therefore liable under the statutory and common law of public nuisance of the State of Georgia.

172. Plants located in Indiana. Defendants AEP, AEP Service and Cinergy have engaged and continue to engage in intentional and/or negligent conduct that unreasonably interferes with the public's comfortable enjoyment of life or property, is injurious to health and/or obstructs the free use of property so as to interfere with the comfortable enjoyment of life or property, and are therefore liable under the statutory and common law of public nuisance of the State of Indiana.

173. Plants located in Kentucky. Defendants AEP, AEP Service, TVA and Cinergy have engaged and continue to engage in intentional and/or negligent conduct that unreasonably creates a condition that is prejudicial to the health, comfort, safety, or property of the citizens at large, and are therefore liable under the common law of public nuisance of the Commonwealth of Kentucky.

174. Plants located in Louisiana. Defendants AEP and AEP Service have engaged and continue to engage in intentional and/or negligent conduct that unreasonably causes damage to or substantially interferes with the enjoyment of another's property, and are therefore liable under the civil law of public nuisance of the State of Louisiana.

175. Plants located in Michigan. Defendants AEP and AEP Service have engaged and continue to engage in intentional and/or negligent conduct that unreasonably interferes with rights common to the general public, and are therefore liable under the common law of public nuisance of the State of Michigan.

176. Plants located in Minnesota. Defendant Xcel has engaged and continues to engage in intentional and/or negligent conduct that is unreasonable and is injurious to health, or indecent or offensive to the senses, or obstructs the free use of property, and that generally affects the public, and is therefore liable under the statutory and common law of public nuisance of the State of Minnesota.

177. Plants located in Mississippi. Defendants Southern and TVA have engaged and continue to engage in intentional and/or negligent conduct that unreasonably interferes with rights common to the general public, and are therefore liable under the common law of public nuisance of the State of Mississippi.

178. Plants located in New Mexico. Defendant Xcel has engaged and continues to engage in intentional and/or negligent conduct that unreasonably interferes with rights common to the general public, and is therefore liable under the common law of public nuisance of the State of New Mexico.

179. Plants located in Ohio. Defendants AEP, AEP Service and Cinergy have engaged and continue to engage in intentional and/or negligent conduct that unreasonably interferes with rights common to the general public, and are therefore liable under the common law of public nuisance of the State of Ohio.

180. Plants located in Oklahoma. Defendants AEP and AEP Service have engaged and continue to engage in intentional and/or negligent conduct that unreasonably annoys, injures, or

endangers the comfort, repose, health or safety of an entire community or a considerable number of persons, and have failed to perform a duty thereby causing a condition that annoys, injures, or endangers the comfort, repose, health or safety of others, and are therefore liable under the statutory and common law of public nuisance of the State of Oklahoma.

181. Plants located in South Dakota. Defendant Xcel has engaged and continues to engage in intentional and/or negligent acts or omissions that annoy, injure, or endanger the comfort, repose, health, or safety of an entire community or a considerable number of persons, and is therefore liable under the statutory and common law of public nuisance of the State of South Dakota.

182. Plants located in Tennessee. Defendants AEP, AEP Service, and TVA have engaged and continue to engage in intentional and/or negligent conduct that unreasonably interferes with the public's use and enjoyment of public places or with other common public rights, and are therefore liable under the common law of public nuisance of the State of Tennessee.

183. Plants located in Texas. Defendants AEP, AEP Service, and Xcel have engaged and continue to engage in intentional and/or negligent conduct that unreasonably interferes with rights common to the general public and are therefore liable under the common law of public nuisance of the State of Texas.

184. Plants located in Virginia. Defendants AEP and AEP Service have engaged and continue to engage in intentional and/or negligent conduct that injures an indefinite number of people by creating a condition that is dangerous to the public or that interferes with a public right, and are therefore liable under the common law of public nuisance of the Commonwealth of Virginia.

185. Plants located in West Virginia. Defendants AEP and AEP Service have engaged and continue to engage in intentional and/or negligent conduct that hurts or inconveniences an indefinite number of persons, and are therefore liable under the common law of public nuisance of the State of West Virginia.

186. Plants located in Wisconsin. Defendant Xcel has engaged and continues to engage in intentional and/or negligent conduct that does and will continue to substantially or unduly interfere with the use of public places and private property, with the activities of an entire community, and with the exercise of public rights enjoyed by the citizens of Wisconsin, and is therefore liable under the common law of public nuisance of the State of Wisconsin.

PRAYER FOR RELIEF

WHEREFORE, plaintiffs pray that judgment be entered against defendants as follows:

a. Holding each defendant jointly and severally liable for creating, contributing to, and/or maintaining a public nuisance;

b. Permanently enjoining each defendant to abate its contribution to the nuisance by requiring it to cap its carbon dioxide emissions and then reduce them by a specified percentage each year for at least a decade; and

c. Granting such other relief as this Court deems just and proper.

Dated: July 21, 2004

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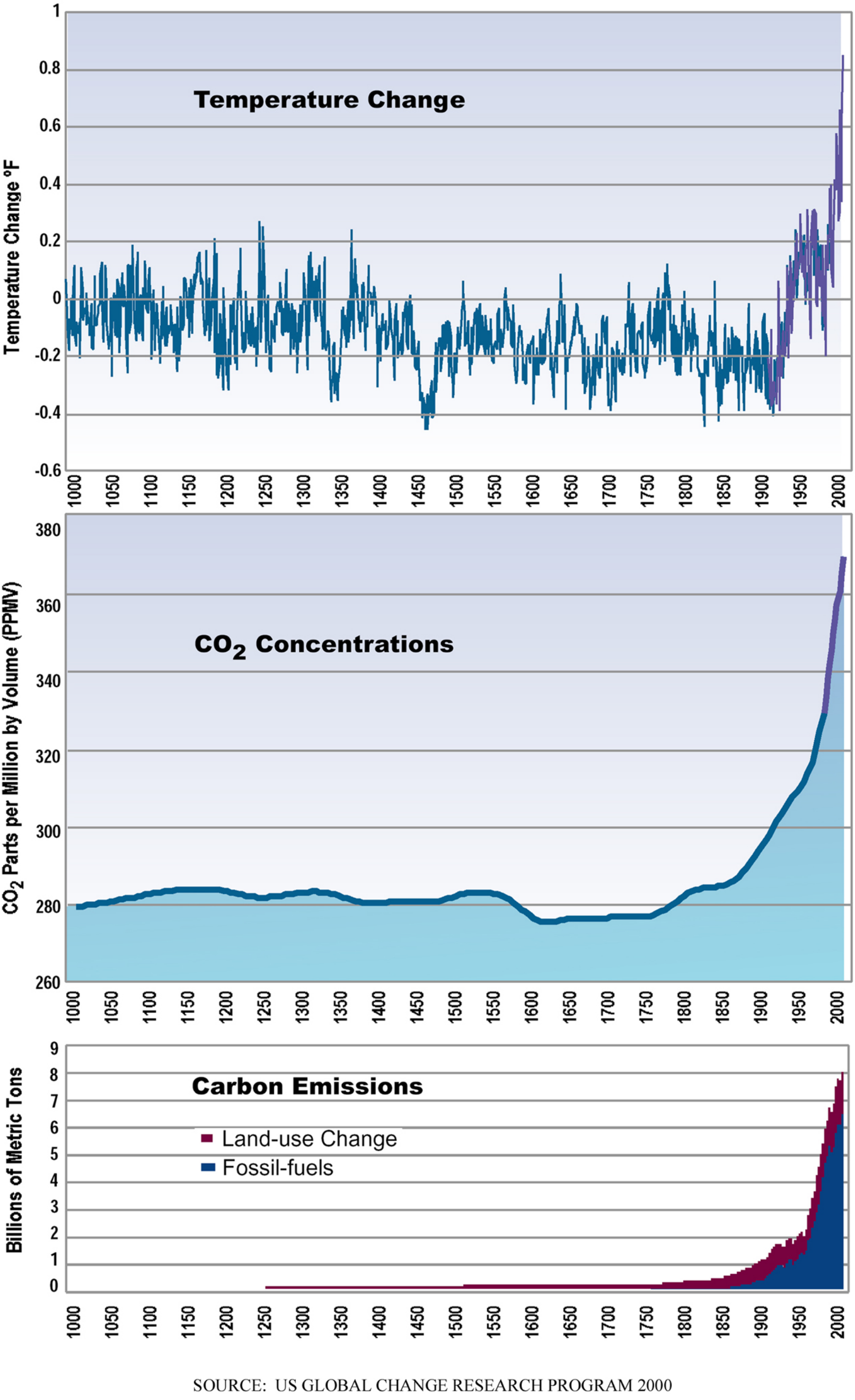
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EXHIBIT 1

1000 Years of Global CO_2 and Temperature Change



SOURCE: US GLOBAL CHANGE RESEARCH PROGRAM 2000

EXHIBIT 2

Past and future CO_2 atmospheric concentrations

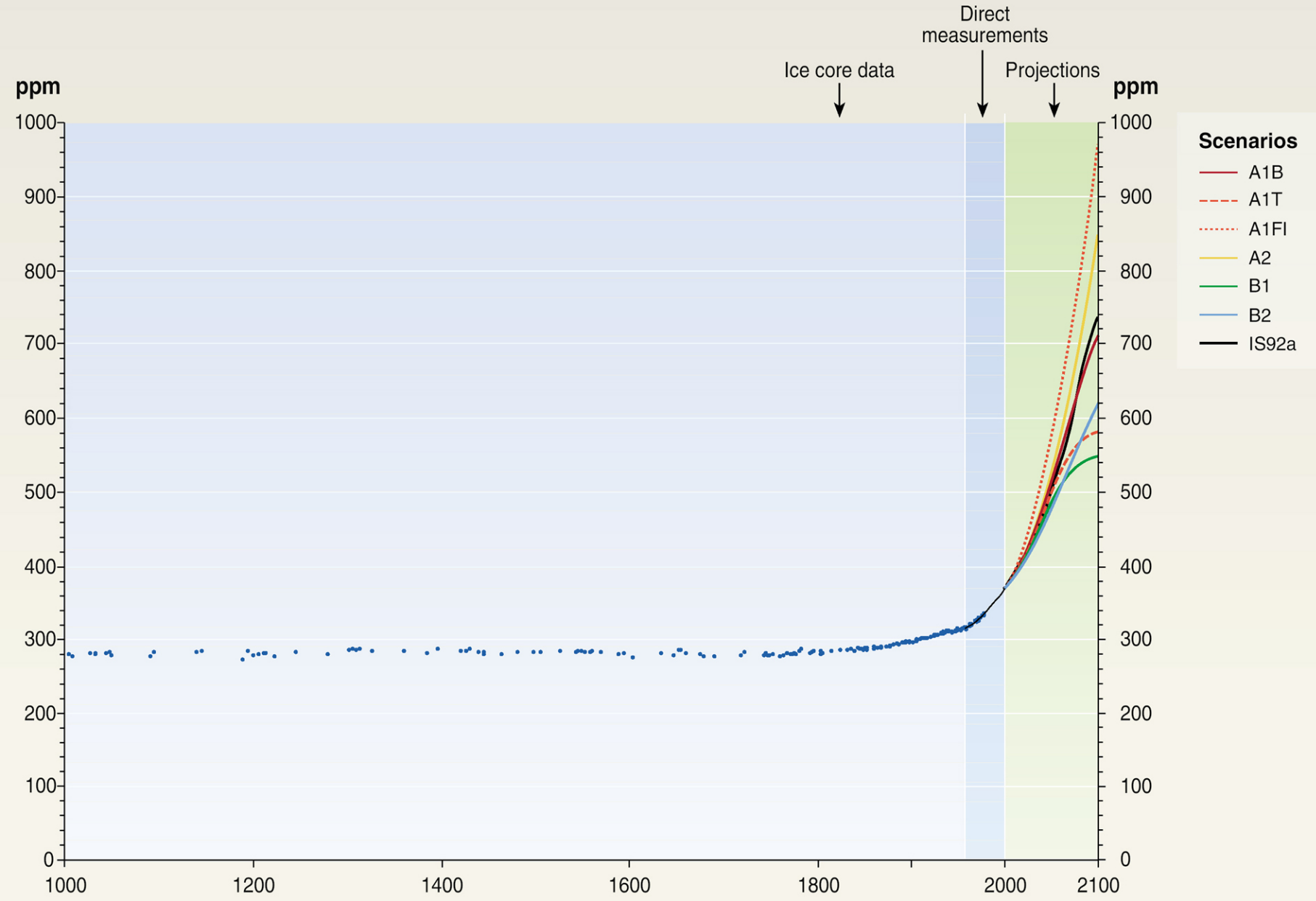


EXHIBIT 3

Variations of the Earth's surface temperature: years 1000 to 2100

