

Peer-Reviewed Book Chapters and Encyclopedia Articles

- Russell, A.G., Milford, J.B., "Air Quality Modeling," in *Encyclopedia of Energy Technology and the Environment*, John Wiley and Sons, 1995.
- Russell, A.G., Milford, J.B., "Atmospheric Modeling," *Encyclopedia of Chemical Technology*, 3, John Wiley and Sons, 1992.
- Nriagu, J.O., Pacyna, J.M., Milford, J.B., Davidson, C.I., "Distribution and Characteristic Features of Chromium in the Atmosphere," in Nriagu, J.O., and Nieboer, E., eds., *Chromium in the Natural and Human Environments*, John Wiley and Sons, 1988.

Other Book Chapters

- Milford, J.B., Russell, A.G., "Atmospheric Models: Atmospheric Pollutant Dynamics, Meteorology and Climate," in *Environmental Modeling - Vol. 1: Computer Methods and Software for Simulating Environmental Pollution and its Adverse Effects*, P. Zannetti, ed., Computational Mechanics Publications and Elsevier Applied Science, 1993.

Conference Proceedings and Papers

- Milford, J., Duhl, T., Helmig, D., Ortega, J., Pollmann J., Sakulyanontvittaya, T., Guenther, A., Harley, P., Wiedinmyer, C., Herrick, J., "Secondary Organic Aerosols from Biogenic Hydrocarbon Oxidation," American Association for Aerosol Research Supersites Conference, Atlanta, GA, February 10, 2005.
- Brinkman, G., Dutton, S., Miller, S., Hannigan, M., Milford, J., Vedal, S., "Comparison of Chemical Analysis Scenarios for Source Apportionment of Synthetic PM_{2.5} Using Positive Matrix Factorization," Twenty-third Annual Conference of the American Association for Aerosol Research, Atlanta, GA, October 4-8, 2004.
- Henderson, D., Milford, J., Miller, S. "Prescribed Burns in Colorado: Impacts of Mitigation Measures on Indoor Particulate Matter," Indoor Air 2002, The 9th International Conference on Indoor Air Quality and Climate, Monterey, CA, June 30 - July 5, 2002.
- Coen, J., Mahalingam, S., Milford, J.B., Clark, T.L., Daily, J.W. "Data Reduction of Ground-Based Black and White and IR Imaging from the Frostfire Controlled Burn," FIRE 2000, San Diego, CA, November 29-December 1, 2000.
- Anderson, M.J., Miller, S.L., Milford, J.B. "Source Apportionment of Exposure to Toxic Volatile Organic Compounds in California," 10th Annual Conference of the International Society of Exposure Analysis, Monterey, CA, October 24-27, 2000.
- Anderson, M.J., Miller, S.L., Milford, J.B. "Source Apportionment of Exposure to Toxic Volatile Organic Compounds in California," International Symposium on the Measurement of Toxic and Related Air Pollutants, Sponsored by the Air & Waste Management Assoc. and U.S. Environmental Protection Agency, Durham, NC, September 12-14, 2000.
- Anderson, M.J., Miller, S.L., Milford, J.B. "Source Apportionment of Exposure to Toxic Volatile Organic Compounds," Engineering Solutions to Indoor Air Quality Problems Symposium, Sponsored by the Air & Waste Management Assoc. and U.S. Environmental Protection Agency, Raleigh, NC, July 17-19, 2000.
- Wang, L., Milford, J.B., Carter, W.P.L. "Analysis of Chamber-Derived Incremental Reactivity Estimates for N-Butyl Acetate and 2-Butoxy Ethanol," U.S.-German Environmental Chamber Workshop, Riverside, CA, October 4-6, 1999.

- Noblet, G., Harley, R., Dhieux, J., Milford, J. "Formal Uncertainty Analysis for Wind Fields and a Lagrangian Photochemical Air Quality Model," 91st Annual Meeting of the Air & Waste Manage. Assoc., San Diego, CA, June 1998.
- Moulik, M.D., Milford, J.B. "The Impact of Uncertainties in Reaction Rate Parameters and Initial Concentrations on the Chemistry in Subsonic Aircraft Plumes" invited paper presented at the Fall Meeting of the American Geophysical Union, San Francisco, CA, December 8-12, 1997.
- Das, M., Milford, J.B. "The Effect of Uncertainties in Reaction Rate Parameters, and of Dilution and Mixing on the Chemistry in Subsonic Aircraft Plumes" poster presented at the 1997 Conference on the Atmospheric Effects of Aviation, Virginia Beach, VA, March 10-14, 1997.
- Das, M., Milford, J.B., "Uncertainties Related to the Environmental Impacts of Emissions from Subsonic Aircraft at Cruise Altitudes," 89th Annual Meeting of the Air & Waste Manage. Assoc., Nashville, TN, June 1996.
- Moucheron, M.C., Milford, J.B., "Development and Testing of a Process Model for Secondary Organic Aerosols," 89th Annual Meeting of the Air & Waste Manage. Assoc., Nashville, TN, June 1996.
- Stockwell, W.R., Milford, J.B., "New Mechanisms for Atmospheric Chemistry: Uncertainty and Chemical Kinetic Data," Air Pollution Research Report Series, Research Report 57, Homogeneous and Heterogeneous Chemical Processes in the Troposphere Joint Workshop LACTOZ-HALIPP, September 25-26, Strasbourg, France, Luxembourg: Office for Official Publications of the European Communities, pp. 206-211, 1996.
- Stockwell, W.R., Kirchner, F., Milford, J.B. "Sensitivity and uncertainty in mechanisms for atmospheric chemistry," in Borrell, P.M., Borrell, P., Kelly, K., Cvitas, T., Seiler, W., eds., *Proceedings of the EUROTRAC Symposium '96, Transport and Transformation of Pollutants in the Troposphere., Volume 1: Clouds, Aerosols, Modelling and Photo-oxidants*, Computational Mechanics Publications, Southampton, 1996, pp 711-714.
- Gao, D., Milford, J.B., "Sensitivity and Uncertainty Analysis of Selected Species to Parameters in the RADM2 Mechanism," 87th Annual Meeting of the Air & Waste Manage. Assoc., Cincinnati, OH, June 1994.
- Milford, J.B., Yang, Y-J, Stockwell, W.R., "Uncertainties in Chemical Mechanisms for Urban and Regional Scale Oxidant Modeling," Proceedings of the International Conference on Regional Photochemical Measurement and Modeling Studies, Air & Waste Manage. Assoc., San Diego, CA, November 1993.
- Stockwell, W.R., Milford, J.B., Gao, D., Yang, Y-J., "An Analysis of the Sensitivity of Trace Species Concentrations to Peroxyacetyl Nitrate and Acetyl Peroxy - Peroxy Radical Chemistry," Proceedings of the International Conference on Regional Photochemical Measurement and Modeling Studies, Air & Waste Manage. Assoc., San Diego, CA, November 1993.
- Gao, D., Milford, J.B., "Application of Sensitivity and Uncertainty Analysis to the RADM2 Mechanism," 86th Annual Meeting of the Air & Waste Manage. Assoc., Denver, CO, June 1993.
- Stockwell, W.R., Milford, J.B., Gao, D., Yang, Y-J., "An Analysis of the Uncertainties in Atmospheric Chemical Mechanisms," 86th Annual Meeting of the Air & Waste Manage. Assoc., Denver, CO, June 1993.

- Lin, C., Milford, J.B., "Chemical Mass Balance Receptor Modeling for Volatile Organic Compounds," 86th Annual Meeting of the Air & Waste Manage. Assoc., Denver, CO, June 1993.
- Das, M., Milford, J.B., "Reactivity of Volatile Organic Compound Emissions from Consumer and Commercial Products," International Conference on Tropospheric Ozone: Nonattainment and Design Value Issues, Air & Waste Manage. Assoc., Boston, MA, October 1992.
- Milford, J.B., Gao, D., Odman, M.T., Russell, A.G., Possiel, N.C., Scheffe, R.D., Pierce, T.E., Schere, K.L., "Air Quality Responses to NO_x Reductions: Analysis of ROMNET Results," paper no. 92-89.02, 85th Annual Meeting of the Air & Waste Manage. Assoc., Kansas City, MO, June 1992.
- Milford, J.B., "Sensitivity Analysis of Chemical Mechanisms for Use in Photochemical Models," in *Tropospheric Ozone and the Environment II*, R.L. Berglund, ed., proceedings of the conference held November 4-7, 1991, Air & Waste Manage. Assoc., Pittsburgh, PA, 1992.
- Milford, J.B., "Environmental Trade-offs of Controlling NO_x Emissions, Symposium on The Role and Importance of Nitrogen Oxides Emissions Controls in Ozone Attainment Strategies for North America, Boston, MA, 1990.
- Milford, J.B., commentary on "Impacts on Urban Ozone and Other Air Toxics," in *Methanol as an Alternative Fuel Choice: An Assessment*, W.L. Kohl, ed., proceedings of the conference held December 4-5, 1989, Paul H. Nitze School of Advanced International Studies, Johns Hopkins University, Washington, DC, 1990.
- Harris, J.N., Russell, A.G., Milford, J.B., "Air Quality Implications of Methanol Fuel Utilization," SAE Technical Paper Series no. 881198, SAE, Warrendale, PA, August, 1988.
- Friedman, R.M., Milford, J.B., Rapoport, R.D., Szabo, N.B., "Legislative Responses to Ozone Nonattainment," paper no. 88-67.5, 81st Annual Meeting of the Air Pollution Control Association, Pittsburgh, PA, June 1988.
- Technical Reports*
- Martien, P., Harley, R., Milford, J., Hakami, A., Russell, A., "Development of Reactivity Scales via 3-D Grid Modeling of California Ozone Episodes," final report to the California Air Resources Board under Contract No. 98-309, May 2002.
- Wang, L., Milford, J.B., Carter, W.P.L., "Uncertainty in Reactivity Estimates for N-Butyl Acetate and 2-Butoxy Ethanol," final report to the California Air Resources Board under Contract No. 95-331, December 1999.
- Wang, L., Milford, J.B., Carter, W.P.L., "Reactivity Estimates for Aromatic Compounds," final report to the California Air Resources Board under Contract No. 95-331, December 1999.
- Daily, J.W., Mahalingam, S., Milford, J.B., Khunatorn, Y., Clark, T.L., Coen, J., Radke, L., "Visible and IR Imaging and UV-Visible Spectral Analysis of the Frostfire Controlled Burn Near Fairbanks, Alaska, July 1999," Center for Combustion and Environmental Research Report, University of Colorado at Boulder, August 1999.
- Bergin, M.S., Russell, A.G., Yang, Y-J, Milford, J.B., Kirchner, F., Stockwell, W.R., "Effects of Uncertainty in SAPRC90 Rate Constants and Product Yields on Reactivity Adjustment Factors for Alternative Fuel Vehicle Emissions," final report to the National Renewable Energy Laboratory of the U.S. Department of Energy under Contract No. 13013-1, May 1996.

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- Milford, J.B., Armando, C., "Receptor Modeling of Non-Methane Organic Compounds from the 1992 Atlanta Intensive of the Southern Oxidants Study," final report to North Carolina State University under Contract No. 91-0074-03, University of Colorado, January 1996.
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- Yang, Y-J, Das, M., Milford, J.B., Bergin, M.S., Russell, A.G., Stockwell, W.R., "Quantification of Organic Compound Reactivities and Effects of Uncertainties in Rate Parameters," Auto/Oil Air Quality Improvement Research Program, August 1994.
- Stockwell, W.R., Yang, Y-J, Milford, J.B., "A Compilation of Estimated Uncertainty Factors for Rate Constants in W.P.L. Carter's Detailed Mechanism," Auto/Oil Air Quality Improvement Research Program, October 1993.
- Lin, C., Milford, J.B., "Chemical Mass Balance Receptor Modeling for Volatile Organic Compounds," final report to the University of Michigan under UCAR Subcontract No. S9135, University of Connecticut, June 1993.
- Milford, J.B., Gao, D., Zafirakou, A., "Relationships between Precursor Levels and Responses to Emissions Reductions in Regional Oxidant Modeling Results," final report for Cooperative Agreement No. CR818572-01-0 with the U.S. Environmental Protection Agency, University of Connecticut, September 1992.
- Gao, D., Milford, J.B., Odman, M.T., Russell, A.G., "NO_x Control and the Corresponding Ozone Reductions: Analysis of the ROMNET Results," report to the Office of Air Quality Planning and Standards of the U.S. Environmental Protection Agency, University of Connecticut and Carnegie Mellon University, September 1991.
- Milford, J.B., Nikolaidis, V.S., Das, M., "After the Wrecking Ball: How Land Disposal and Burning of Demolition Wood Affect the Environment," report to the General Assembly of the State of Connecticut, Environmental Research Institute, University of Connecticut, February 1991.
- Russell, A.G., Harris, J.N., Milford, J.B., St. Pierre, D., "Quantitative Estimate of the Air Quality Impacts of Methanol Fuel Use," report to the California Air Resources Board and the South Coast Air Quality Management District, Carnegie Mellon University, Pittsburgh, PA, March 1989.

Invited Presentations (selected)

- Milford, J.B. "Modeling the Air Quality Impacts of Stationary Sources: Western Air Quality Issues and Modeling Needs," 2006 MIT Laboratory for Energy and the Environment symposium on "Air Emissions from Large Industrial Sources," Denham, MA, August 16, 2006.
- Milford, J.B. "Atmospheric Chemistry and Transport Modeling Challenges from Emerging Policy Concerns," NCAR Atmospheric Chemistry Division Seminar Series, Boulder, CO, August 14, 2006.

- Hannigan, M., Milford, J.B. "Western Air: Progress and Challenges in Protecting Human Health and Scenic Vistas," 2002-2003 CU-Boulder Chancellor's Community Lecture Series on Healing the West: Remedy, Repair, Restoration, Mitigation, November 6, 2002.
- Milford, J.B. and Miller, S.L. "From Source to Exposure: Completing the Chain in Analysis of Air Quality," invited paper presented at the Association of Environmental Engineering and Science Professors Research Frontiers Conference, State College, PA, July 31 - August 3, 1999.
- Milford, J.B. "Uncertainty Analysis for Environmental Models," invited seminar presented to the Department of Civil and Environmental Engineering, University of California at Berkeley, Berkeley, CA, February 5, 1999.
- Milford, J.B. "Use of Models to Estimate the Effect of Emissions Changes on Air Quality," invited presentation, Summer Symposium on Costs and Benefits Estimation in Air Quality Regulations, sponsored by the MIT, CalTech and NJIT Center for Airborne Organics, Dedham, MA, July 9-10, 1998.
- Milford, J.B. "Progress in Modeling the Chemistry and Transport of Secondary Air Pollutants," invited presentation, Taller de Contaminacion Atmosferica Y Matematicas, Centro de Investigacion en Matematicas A.C., Guanajuato, Mexico, November 13-14, 1997.
- Milford, J.B., Yang, Y-J, Gao, D., Stockwell, W.R., "Uncertainty Analysis of Atmospheric Chemical Mechanisms," invited seminar presented at the Fraunhofer-Institut fur Atmospharische Umweltforschung - IFU, Garmisch-Partenkirchen, Germany, January 1996.
- Milford, J.B., Yang, Y-J, Gao, D., "Uncertainty Analysis of Gas-Phase Chemical Mechanisms for Urban and Regional-Scale Air Quality Modeling," invited paper presented at the Workshop on Chemical Mechanisms Describing Oxidation Processes in the Troposphere, Valencia, Spain, April 25-28, 1995.
- Milford, J.B., Yang, Y-J, Gao, D., "Analysis of Uncertainties in Chemical Mechanisms," invited paper presented at the Fourth US/GRG/EU Workshop on The Photochemical Ozone Problem and Its Control, Charleston, SC, June 13-17, 1994.
- Milford, J.B., "Scientific Uncertainty and the Controversy over Control Strategies for Urban Ozone," invited presentation, Massachusetts Institute of Technology, Parsons Laboratory, February 8, 1993.
- Milford, J.B., "Control Strategies for Photochemical Air Pollution," invited seminar presented at Clarkson University, Department of Civil and Environmental Engineering, February 1992.
- Milford, J.B., "Environmental Impacts of the Disposal of Demolition Wood," invited presentation before the Environment Committee of the Connecticut General Assembly, March 1991.
- Milford, J.B., "Estimating Control Requirements in Ozone Non-Attainment Areas," invited presentation at the Yale University/Consulting Environmental Engineers Inc. Conference on the Clean Air Act Amendments, November 1990.

Desert Rock Energy Co., PSD Appeal 08-03
Conservation Petitioners' Exhibits

EXHIBIT 50

Counsel, phone 202-502-8947, e-mail: gordon.wagner@ferc.gov.

Magalie R. Salas,
Secretary.

[FR Doc. 03-22720 Filed 9-5-03; 8:45 am]

BILLING CODE 6717-01-P

ENVIRONMENTAL PROTECTION AGENCY

[FRL-7555-1]

Proposed Consent Decree, Clean Air Act Citizen Suit

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of proposed Consent Decree; request for public comment.

SUMMARY: In accordance with section 113(g) of the Clean Air Act, as amended ("Act"), 42 U.S.C. 7413(g), notice is hereby given of a proposed Consent Decree. On August 15, 2003, Environmental Defense filed a complaint pursuant to section 304(a) of the Act, 42 U.S.C. 7604(a), alleging that the Environmental Protection Agency had failed to meet its mandatory duty to promulgate guidelines and requirements for Best Available Retrofit Technology ("BART") for certain major stationary sources. *Environmental Defense v. Marianne Lamont Horinko*, No. 1:03CV01737 RMU (D.D.C.). On August 19, 2003, the United States Environmental Protection Agency lodged the proposed Consent Decree with the United States District Court for the District of Columbia Circuit. The proposed Consent Decree establishes a time frame for EPA to promulgate the BART regulations and guidelines.

DATES: Written comments on the Proposed Consent Decree must be received by October 8, 2003.

ADDRESSES: Written comments should be sent to M. Lea Anderson, Air and Radiation Law Office (2344A), Office of General Counsel, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Copies of the proposed Consent Decree are available from Phyllis J. Cochran, (202) 564-5566.

SUPPLEMENTARY INFORMATION:

Environmental Defense alleges that EPA failed to promulgate BART regulations and guidelines by the Congressionally-enacted deadline.

Pursuant to sections 169A and 169B of the Clean Air Act, EPA promulgated regulations on July 1, 1999 to protect visibility in Federal Class I areas. 64 FR 35714 ("regional haze rule"). In addition, pursuant to section 169A(b),

EPA proposed to promulgate guidelines for the implementation of the BART requirements of the regional haze rule on July 20, 2001, 66 FR 38108, but has not published final guidelines. The regional haze rule was challenged, and on May 24, 2002, the United States Court of Appeals for the District of Columbia Circuit ("D.C. Circuit") vacated and remanded to EPA the BART provisions of the regional haze rule. *American Corn Growers Assoc. v. EPA*, 291 F.3d 1 (D.C. Cir. 2002).

Section 169B(e) of the CAA provides that EPA must carry out its regulatory responsibilities under section 169A of the Act to promulgate regulations to protect visibility by December 10, 1997.¹ These regulations must require each applicable implementation plan to contain measures to assure reasonable progress toward the national visibility goal, including requirements that certain major stationary sources procure, install, and operate BART. CAA section 169A(b)(2). The CAA also requires EPA to provide guidelines to the States on the implementation of the visibility program, including guidelines for the determination of BART emission limits for fossil-fuel fired generating plants with a total generating capacity in excess of 750 megawatts. CAA section 169A(b).

The Consent Decree provides that EPA will sign a notice of proposed rulemaking setting forth its proposed BART regulations and guidelines no later than April 15, 2004. It further provides that EPA will submit the notice of proposed rulemaking to the Office of Federal Register no later than five days following signature. The Decree also provides that EPA shall sign a final notice of rulemaking setting forth its BART regulations and guidelines no later than April 15, 2005, and that EPA will submit the notice of final rulemaking to the Office of Federal Register no later than five days following signature.

For a period of thirty (30) days following the date of publication of this notice, the Agency will receive written comments relating to the proposed Consent Decree from persons who were not named as parties or interveners to the litigation in question. EPA or the Department of Justice may withdraw or withhold consent to the proposed Consent Decree if the comments disclose facts or considerations that indicate that such consent is inappropriate, improper, inadequate, or

¹ Section 169B(e)(1) of the CAA requires EPA to issue regional haze rules within 18 months of the receipt of the final report of the Grand Canyon Visibility Transport Commission. This report was received by EPA on June 10, 1996.

inconsistent with the requirements of the Act. Unless EPA or the Department of Justice determine, following the comment period, that consent is inappropriate, the Consent Decree will be final.

Dated: August 22, 2003.

Lisa K. Friedman,
Associate General Counsel.

[FR Doc. 03-22769 Filed 9-5-03; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[FRL-7554-7]

Control of Emissions From New Highway Vehicles and Engines

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of denial of petition for rulemaking.

SUMMARY: A group of organizations petitioned EPA to regulate emissions of carbon dioxide and other greenhouse gases from motor vehicles under the Clean Air Act. For the reasons set forth in this notice, EPA is denying the petition.

EFFECTIVE DATE: September 8, 2003.

ADDRESSES: Information relevant to this action is contained in Docket No. A-2000-04 at the EPA Docket Center, Public Reading Room, Room B102, EPA West Building, 1301 Constitution Avenue, NW., Washington, DC. Dockets may be inspected at this location from 8:30 a.m. to 4:30 p.m., Monday through Friday, except on Government holidays. You can reach the Air Docket by telephone at (202) 566-1742 and by facsimile at (202) 566-1741. You may be charged a reasonable fee for photocopying docket materials, as provided in 40 CFR part 2.

FOR FURTHER INFORMATION CONTACT: Chitra Kumar, Office of Air and Radiation, (202) 564-1389.

SUPPLEMENTARY INFORMATION:

I. Background

On October 20, 1999, the International Center for Technology Assessment (ICTA) and a number of other organizations¹ petitioned EPA to

¹ Alliance for Sustainable Communities, Applied Power Technologies, Bio Fuels America, California Solar Energy Industries Association, Clements Environmental Corporation, Environmental Advocates, Environmental and Energy Study Institute, Friends of the Earth, Full Circle Energy Project, Green Party of Rhode Island, Greenpeace USA, Network for Environmental and Economic Responsibility of the United Church of Christ, New Jersey Environmental Watch, New Mexico Solar

powered fuel cell vehicles and the hydrogen-supply infrastructure to support them.

Developing new technologies to improve the energy efficiency of transportation in the U.S. will be a key element in achieving future reductions in GHG emissions. The President's 2003 budget seeks more than \$3 billion in tax credits over 11 years for consumers to purchase fuel cell and hybrid vehicles. The Administration's global climate change plan supports increasing automobile fuel economy and encouraging new technologies that reduce our dependence on imported oil, while protecting passenger safety and jobs.

EPA will play an important role in efforts to develop advanced motor vehicle technologies that improve fuel economy and reduce emissions. The Agency's Clean Automotive Technology (CAT) program is working to develop advanced clean and fuel-efficient automotive technology. Under the program, EPA's goal is to develop technology by the end of the decade that will satisfy stringent emissions requirements and achieve up to a doubling of fuel efficiency in personal vehicles such as SUVs, pickups, and urban delivery vehicles—while simultaneously meeting the more demanding size, performance, durability, and power requirements of these vehicles. EPA will also play a leadership role in advancing fuel cell vehicle and hydrogen fuel technologies and influencing the direction of technological and policy progress in support of U.S. environmental, energy, and national security goals.

To address GHG emissions from the electric utility sector, DOE in February of this year announced FutureGen, a \$1 billion government/industry partnership to design, build and operate a nearly emission-free, coal-fired electric and hydrogen production plant. The 275-megawatt prototype plant will serve as a large scale engineering laboratory for testing new clean power, carbon capture, and coal-to-hydrogen technologies. It will be the cleanest fossil fuel-fired power plant in the world. The project is a direct response to the President's Climate Change and Hydrogen Fuels Initiatives.

In all, the President's global climate change policy sets the U.S. on a path to slow the growth of GHG emissions and, as the science justifies, to stop and then reverse that growth. This policy supports vital global climate change research and lays the groundwork for future action by investing in science, technology, and institutions. In addition, the President's policy

emphasizes international cooperation and promotes working with other nations to develop an efficient and coordinated response to global climate change. In taking prudent environmental action at home and abroad, the U.S. is advancing a realistic and effective long-term approach to the global climate change issue.

VII. Conclusion

For the reasons discussed above, and after considering the ICTA petition, public comment, EPA's legal authority, and other relevant information, EPA hereby denies the ICTA petition requesting that EPA regulate certain GHG emissions from new motor vehicles and engines under CAA section 202(a)(1).

Dated: August 28, 2003.

Jeffrey R. Holmstead,
Assistant Administrator for Air and Radiation.

[FR Doc. 03-22764 Filed 9-5-03; 8:45 am]

BILLING CODE 6550-50-P

ENVIRONMENTAL PROTECTION AGENCY

[FRL-7555-2]

State and Tribal 8-Hour Ozone Air Quality Designation Recommendations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of availability.

SUMMARY: Notice is hereby given that the Environmental Protection Agency (EPA) has posted State and Tribal 8-hour Ozone Air Quality Designation Recommendations on the web as they have been received.

ADDRESSES: State and tribal recommendations are available for public inspection at EPA's Web site at: <http://www.epa.gov/oar/oaqps/glo/designations/> and at the Office of Air and Radiation (OAR) Docket Center, Docket Number OAR 2003-0083, respectively.

FOR FURTHER INFORMATION CONTACT: Ms. Sharon Reinders, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Mail Code C539-02, Research Triangle Park, NC 27711, phone number (919) 541-5284 or by e-mail at: reinders.sharon@epa.gov or Ms. Annie Nikbakht, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Mail Code C539-02, Research Triangle Park, NC 27711, phone number (919) 541-5246 or by e-mail at: nikbakht.annie@epa.gov. Mr. Barry Gilbert can be contacted for Air

Quality Technical Issues: Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Mail Code C539-02, Research Triangle Park, NC 27711, phone number (919) 541-5238 or by email at: gilbert.barry@epa.gov.

SUPPLEMENTARY INFORMATION:

A. How Can I Get Copies of This Document?

1. *Docket.* The EPA has established an official docket for this action under Docket ID Number 2003-0083. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the OAR Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Avenue, NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the OAR Docket is (202) 566-1742.

2. *Electronic Access.* You may access this Federal Register document electronically through the EPA Intranet under the **Federal Register** listings at <http://www.epa.gov/fedrgstrl>.

List of Subjects

Air pollution control, Intergovernmental relations, Ozone, Particulate matter, Transportation, Volatile organic compounds.

Authority: 42 U.S.C. 7408, 42 U.S.C. 7410, 42 U.S.C. 7501-7511f; 42 U.S.C. 7601(a)(1).

Dated: August 22, 2003.

Henry C. Thomas,
Acting Director, Office of Air Quality,
Planning and Standards.

[FR Doc. 03-22767 Filed 9-5-03; 8:45 am]

BILLING CODE 6550-50-P

Desert Rock Energy Co., PSD Appeal 08-03
Conservation Petitioners' Exhibits

EXHIBIT 51

NOTICES

ENVIRONMENTAL PROTECTION AGENCY

[FRL-8578-2]

Proposed Consent Decree, Clean Air Act Citizen Suit

Wednesday, June 11, 2008

AGENCY: Environmental Protection Agency (EPA).

*33087 ACTION: Notice of Proposed Consent Decree; Request for Public Comment.

SUMMARY: In accordance with section 113(g) of the Clean Air Act, as amended ("Act"), 42 U.S.C. 7413(g), notice is hereby given of a proposed consent decree, to address a lawsuit filed by Desert Rock Energy Company, LLC and Dine Power Authority (collectively, "Plaintiffs") in the United States District Court for the Southern District of Texas: Desert Rock Energy Company, LLC, et al. v. EPA, No. 08-872 (S.D. TX). On March 21, 2008, Plaintiffs served upon the United States a Complaint alleging that EPA failed to perform a mandatory duty under Clean Air Act section 165(c), 42 U.S.C. 7475(c), to take action on Plaintiffs' application ("Permit Application") for a Prevention of Significant Deterioration permit to construct a coal-fired power plant on land held by the United States government in trust for the benefit of the Navajo Nation. Under the terms of the proposed consent decree, by July 31, 2008, EPA shall issue a final permit decision on the Permit Application, within the meaning of 40 CFR 124.15(a).

*33088 DATES: Written comments on the proposed consent decree must be received by July 11, 2008.

*330 ADDRESSES: Submit your comments, identified by Docket ID number EPA-HQ-OGC-2008-0488, online at <http://www.regulations.gov> (EPA's preferred method); by e-mail to oei.docket@epa.gov; mailed to EPA Docket Center, Environmental Protection Agency, Mailcode: 2822T, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; or by hand delivery or courier to EPA Docket Center, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC, between 8:30 a.m. and 4:30 p.m. Monday through Friday, excluding legal holidays. Comments on a disk or CD-ROM should be formatted in Word or ASCII file, avoiding the use of special characters and any form of encryption, and may be mailed to the mailing address above.

FOR FURTHER INFORMATION CONTACT: Brian Doster, Air and Radiation Law Office (2344A), Office of General Counsel, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone: (202) 564-1932; fax number (202) 564-5603; e-mail address: doster.brian@epa.gov.

SUPPLEMENTARY INFORMATION:

*330
ADD

I. Additional Information About the Proposed Consent Decree

The proposed consent decree would resolve the suit filed by the Plaintiffs alleging that EPA has a mandatory duty under Clean Air Act section 165(c), 42 U.S.C. 7475(c), to take action on Plaintiffs' application ("Permit Application") for a Prevention of Significant Deterioration ("PSD") permit to construct a coal-fired power plant on land held by the United States government in trust for the benefit of the Navajo Nation. No later than July 31, 2008, EPA shall issue a final permit decision on the Permit Application, within the meaning of 40 CFR 124.15(a). EPA Region IX is the reviewing authority for the Permit Application. Background on the Permit Application and Region IX's review may be obtained on the following Web site: [http:// www.epa.gov/region09/air/permit/desertrock/index.html](http://www.epa.gov/region09/air/permit/desertrock/index.html).

The consent decree becomes final and effective after EPA provides notice in the Federal Register and provides an opportunity for public comment pursuant to Clean Air Act section 113(g). For a period of thirty (30) days following the date of publication of this notice, the Agency will receive written comments relating to the proposed consent decree from persons who were not named as parties or intervenors to the litigation in question. EPA or the Department of Justice may withdraw or withhold consent to the proposed consent decree if the comments disclose facts or considerations that indicate that such consent is inappropriate, improper, inadequate, or inconsistent with the requirements of the Act. Unless EPA or the Department of Justice determines, based on any comment which may be submitted, that consent to the consent decree should be withdrawn, the terms of the decree will be affirmed.

II. Additional Information About Commenting on the Proposed Consent Decree

A. How Can I Get a Copy of the Consent Decree?

Direct your comments to the official public docket for this action under Docket ID No. EPA-HQ-OGC-2008-0488 which contains a copy of the consent decree. The official public docket is available for public viewing at the Office of Environmental Information (OEI) Docket in the EPA Docket Center, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the OEI Docket is (202) 566-1752.

An electronic version of the public docket is available through <http://www.regulations.gov>. You may use the <http://www.regulations.gov> Web site to review the consent decree, submit or view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the appropriate docket identification number.

It is important to note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing online at <http://www.regulations.gov> without change, unless the comment contains copyrighted material, CBI, or other information whose disclosure is restricted by

statute. Information claimed as CBI and other information whose disclosure is restricted by statute is not included in the official public docket or in the electronic public docket. EPA's policy is that copyrighted material, including copyrighted material contained in a public comment, will not be placed in EPA's electronic public docket but will be available only in printed, paper form in the official public docket. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the EPA Docket Center.

B. How and To Whom Do I Submit Comments?

You may submit comments as provided in the ADDRESSES section. Please ensure that your comments are submitted within the specified comment period. Comments received after the close of the comment period will be marked "late." EPA is not required to consider these late comments.

If you submit an electronic comment, EPA recommends that you include your name, mailing address, and an e-mail address or other contact information in the body of your comment and with any disk or CD-ROM you submit. This ensures that you can be identified as the submitter of the comment and allows EPA to contact you in case EPA cannot read your comment due to technical difficulties or needs further information on the substance of your comment. Any identifying or contact information provided in the body of a comment will be included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

Use of the <http://www.regulations.gov> Web site to submit comments to EPA electronically is EPA's preferred method for receiving comments. The electronic public docket system is an "anonymous access" system, which means EPA will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment. In contrast to EPA's electronic public docket, EPA's electronic mail (e-mail) system is not an "anonymous access" system. If you send an e-mail comment directly to the Docket without going through <http://www.regulations.gov>, your e-mail address is automatically captured and included as part of the comment that is placed in the official public docket, and made available in EPA's electronic public docket.

Dated: June 5, 2008.

Richard B. Ossias,

Associate General Counsel.

[FR Doc. E8-13064 Filed 6-10-08; 8:45 am]

BIELING CODE 6560-50-P

73 FR 33087-01, 2008 WL 2354452 (F.R.)

END OF DOCUMENT

Desert Rock Energy Co., PSD Appeal 08-03
Conservation Petitioners' Exhibits

9

EXHIBIT 52

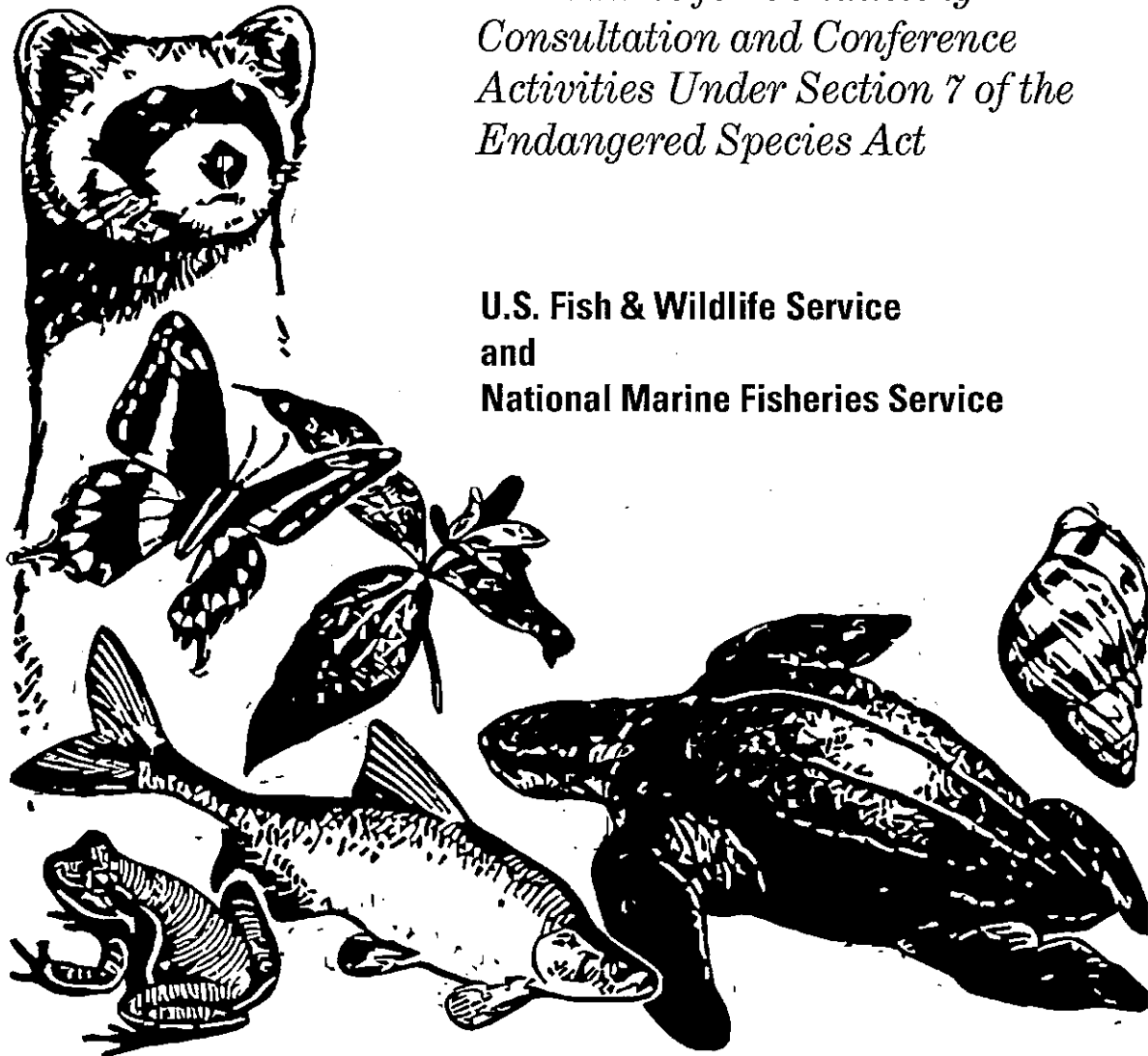
Endangered Species



Consultation Handbook

*Procedures for Conducting
Consultation and Conference
Activities Under Section 7 of the
Endangered Species Act*

**U.S. Fish & Wildlife Service
and
National Marine Fisheries Service**



**March 1998
Final**

are contemporaneous positive effects without any adverse effects to the species.

Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. **Discountable effects** are those extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur. [Clarification of usage]

Jeopardize the continued existence of - to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species. [50 CFR §402.02]

Letter - refers to all written correspondence, such as letters, memoranda, or electronic mail messages, relating to a formal or informal consultation. [Clarification of usage]

Listed species - any species of fish, wildlife or plant which has been determined to be endangered or threatened under section 4 of the Act. [50 CFR §402.02]

Major construction activity - a construction project (or other undertaking having similar physical effects) which is a major Federal action significantly affecting the quality of the human environment as referred to in the National Environmental Policy Act (NEPA, 42 U.S.C. 4332(2)(C)). [50 CFR §402.02]

May affect - the appropriate conclusion when a proposed action may pose **any** effects on listed species or designated critical habitat. When the Federal agency proposing the action determines that a "may affect" situation exists, then they must either initiate formal consultation or seek written concurrence from the Services that the action "is not likely to adversely affect" [see definition above] listed species. [Clarification of usage]

Minor change rule - when preparing incidental take statements, the Services must specify reasonable and prudent measures and their implementing terms and conditions to minimize the impacts of incidental take that do not alter the basic design, location, scope, duration, or timing of the action, and that involve only minor changes. [50 CFR §402.14(i)(2)]

NMFS - the National Marine Fisheries Service.

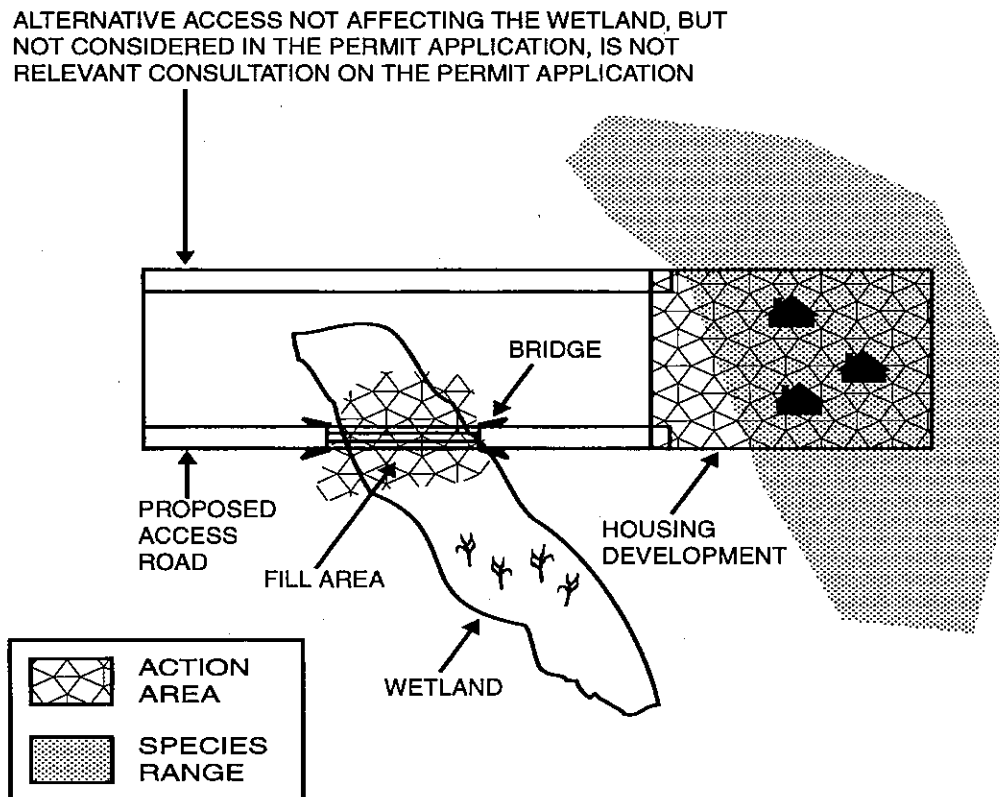
No effect - the appropriate conclusion when the action agency determines its proposed action will not affect a listed species or designated critical habitat. [Clarification of usage]

Occupied critical habitat - critical habitat that contains individuals of the species at the time of the project analysis. A species does not have to occupy critical habitat throughout the year for the habitat to be considered occupied (e.g. migratory birds). Subsequent events affecting the species may result in this habitat becoming unoccupied. [Clarification of usage]

Description of the proposed action (cont'd)

Determining the action area relates only to the action proposed by the action agency. Even if the applicant has an alternative not requiring Federal permits or funding, this does not enter into the Services' analyses. Such alternatives can be discussed in the reasonable and prudent alternatives or conservation recommendations if the alternative is within the agency's jurisdiction. The action area should be determined based on consideration of all direct and indirect effects of the proposed agency action [50 CFR 402.02 and 402.14(h)(2)]. For example (Figure 4-6), if the proposed action is a wetland fill (requiring a federal permit) to accommodate access to a proposed development (the actual area of impact to the species), then the development is included in the action area. Whether or not the applicant can build a road that does not impact the wetland, the analysis of effects of the action still encompasses the proposed development. If the applicant is seriously considering the alternative with no Federal nexus, the applicant should be advised of the need for acquiring a section 10(a)(1)(B) permit before proceeding with development for actions that will result in a taking.

Figure 4-6. Determining the action area.



Interrelated and interdependent actions: Effects of the action under consultation are analyzed together with the effects of other activities that are interrelated to, or interdependent with, that action. An interrelated activity is an activity that is part of the proposed action and depends on the proposed action for its justification. An interdependent activity is an activity that has no independent utility apart from the action under consultation. (Note: the regulations refer to the action under consultation as the “larger action” [50 CFR § 402.02]). In fact, the use of the term “larger” has proven to be confusing when applied in the case of a modification to an existing project. Instead of keeping the inquiry on whether other activities are interrelated to or interdependent with the modification, it has unintentionally and inappropriately shifted the focus to an inquiry on whether the modification itself is interrelated to or interdependent with the “larger” action or project. To better understand how the interdependent or interrelated analysis should work, see the detailed examples below.

As a practical matter, the analysis of whether other activities are interrelated to, or interdependent with, the proposed action under consultation should be conducted by applying a “but for” test. The biologist should ask whether another activity in question would occur “but for” the proposed action under consultation. If the answer is “no,” that the activity in question would not occur but for the proposed action, then the activity is interrelated or interdependent and should be analyzed with the effects of the action. If the answer is “yes,” that the activity in question would occur regardless of the proposed action under consultation, then the activity is not interdependent or interrelated and would not be analyzed with the effects of the action under consultation. There will be times when the answer to this question will not be apparent on its face. The biologist should ask follow-up questions to the relevant parties to determine the relationship of the activity to the proposed action under consultation. It is important to remember that interrelated or interdependent activities are measured against the **proposed action**. That is, the relevant inquiry is whether the activity in question should be analyzed with the effects of the action under consultation because it is interrelated to, or interdependent with, the proposed action. Be careful not to reverse the analysis by analyzing the relationship of the proposed action against the other activity. For example, as cited below, if the proposed action is the addition of a second turbine to an existing dam, the question is whether the dam (the other activity) is interrelated to or interdependent with the proposed action (the addition of the turbine), not the reverse.

Example: The Corps of Engineers requests consultation for construction of a dam which requires a section 404 permit. The dam will provide water to private irrigation canals that will come on line once the dam is completed. The private irrigation canals are interrelated to the proposed dam and must be considered in a biological opinion for the larger water development project since they would not be in existence “but for” the presence of the proposed dam under consultation. Similarly, a power turbine to be constructed concurrently with the dam cannot function and has no independent utility “but for” the dam and is, therefore, interrelated with the project. Thus the effects of this turbine on fish passage and water quality are to be considered in the biological opinion on the proposed dam.

Desert Rock Energy Co., PSD Appeal 08-03
Conservation Petitioners' Exhibits

EXHIBIT 53

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

DESERT ROCK ENERGY CO., LLC)
 and DINÉ POWER AUTHORITY,)
)
 Plaintiffs,)
)
 vs.)
)
 UNITED STATES ENVIRONMENTAL)
 PROTECTION AGENCY and STEPHEN)
 L. JOHNSON, Administrator, United States)
 Environmental Protection Agency,)
)
 Defendant.)

No. 4:08-cv-872

EPA'S UNOPPOSED MOTION TO LODGE PROPOSED CONSENT DECREE

Defendants United States Environmental Protection Agency and Stephen L. Johnson, as Administrator of the United States Environmental Protection Agency ("EPA"), hereby move to lodge with the Court a proposed Consent Decree that contains the terms of a proposed settlement between EPA and Plaintiffs Desert Rock Energy Company and Diné Power Authority. *The proposed Consent Decree should not be signed or entered by the Court at this time.* Counsel for Plaintiffs have authorized EPA to represent that this motion is not opposed.

Pursuant to 42 U.S.C. 7413(g) and Paragraph 3 of the proposed Consent Decree, after the proposed Consent Decree is lodged with the Court, EPA will submit a notice of the proposed Consent Decree for publication in the Federal Register, and will then accept public comment on the proposed Consent Decree for 30 days. After the close of the public comment period, EPA will review the comments and will move the Court for entry of the proposed Consent Decree if

that is appropriate in light of the comments received. The United States reserves the right to withhold or withdraw its consent to the entry of the proposed Consent Decree if the comments received disclose facts which indicate that the proposed judgment is inappropriate, improper, or inadequate. At the close of the public comment period, EPA will further advise the Court of the status of its consent to the proposed Consent Decree.

For the foregoing reasons, EPA respectfully requests that the Court lodge the attached proposed Consent Decree, but that the Court not enter the proposed Consent Decree at this time.

Respectfully submitted,

/s/ David Gunter
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Attorney-in-charge for Defendant (motion pending)
Environmental Defense Section
United States Department of Justice
P.O. Box 23986
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Of counsel:

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U.S. Environmental Protection Agency
Office of General Counsel
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Washington, DC 20460
(202) 564-1932

DATED: June 5, 2008

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

DESERT ROCK ENERGY CO., LLC
and DINÉ POWER AUTHORITY,

Plaintiffs,

vs.

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY *and* STEPHEN
L. JOHNSON, Administrator, United States
Environmental Protection Agency,

Defendant.

No. 4:08-cv-872

**ORDER GRANTING DEFENDANT'S UNOPPOSED MOTION
TO LODGE PROPOSED CONSENT DECREE**

Upon consideration of Defendant's Unopposed Motion to Lodge Proposed Consent Decree, and upon the information submitted therewith, and upon Defendant's representation that Plaintiffs do not oppose this Motion, Defendant's Motion is hereby GRANTED, and it is ORDERED that the proposed Consent Decree submitted by EPA shall be lodged with the Court, but that the proposed Consent Decree shall not be entered at this time.

SO ORDERED.

Hon. MELINDA HARMON
United States District Court
Southern District of Texas

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

DESERT ROCK ENERGY CO., LLC
and DINÉ POWER AUTHORITY,

Plaintiffs,

vs.

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY *and* STEPHEN
L. JOHNSON, Administrator, United States
Environmental Protection Agency,

Defendant.

No. 4:08-cv-872

CERTIFICATE OF SERVICE

I hereby certify that on June 5, 2008, I filed the foregoing Unopposed Motion to Lodge Proposed Consent Decree via the Court's Electronic Filing System. The following counsel are the only counsel who have appeared in this litigation, and are registered to receive electronic service of filings made by this method:

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Bracewell & Giuliani
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713-221-1335
713-221-2159 fax (fax)
coy.connelly@bracewellgiuliani.com

Notice of this filing will be provided via e-mail to the following counsel who have not yet appeared in this litigation, but have sought leave to appear *pro hac vice*:

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RICHARD ALONSO
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(202) 828-5852

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222 S.W. Columbia St., Suite 1800

Portland, OR 97201-6618

(503) 226-8672

/s/ David Gunter

DAVID GUNTER

Desert Rock Energy Co., PSD Appeal 08-03
Conservation Petitioners' Exhibits

EXHIBIT 54

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

DESERT ROCK ENERGY CO., LLC)
and DINE POWER AUTHORITY)

Plaintiffs)

v.)

UNITES STATES ENVIRONMENTAL)
PROTECTION AGENCY *and*)
STEPHEN L. JOHNSON, Administrator,)
U.S. Environmental Protection Agency)

Defendants.)

No. 4:08-cv-872

INTERVENOR CONSERVATION DEFENDANTS' MOTION TO DISMISS

Prospective Intervenor-Defendants Diné Care, Environmental Defense Fund, Natural Resources Defense Council, San Juan Citizens Alliance, and Sierra Club (collectively "Conservation Defendants") hereby move the Court to dismiss this action, pursuant to Fed. R. Civ. P. 12(b)(1) and 12(b)(6), because: (1) Plaintiff Desert Rock Energy Corporation, LLC ("DREC") has failed to comply with the Clean Air Act's mandatory 60-day notice requirement, 42 U.S.C. § 7604(b)(2); and (2) neither Plaintiff is the applicant for the PSD permit on which the Complaint seeks to compel final EPA action, and therefore, the Complaint is not being prosecuted by the real party in interest. For the reasons discussed more fully below, the Court should dismiss

the Complaint pursuant to Fed. R. Civ. P. 12(b)(1) or 12(b)(6), and decline to entertain any motion to enter the Consent Decree.

I. THE COMPLAINT SHOULD BE DISMISSED BECAUSE DREC HAS NOT COMPLIED WITH THE CLEAN AIR ACT'S MANDATORY NOTICE REQUIREMENTS.

Section 304(b)(2) of the Clean Air Act, 42 U.S.C. § 7604(b)(2), provides that “no action may be commenced,” against the EPA Administrator, which alleges a failure to perform any act or duty under the Clean Air act that is nondiscretionary “prior to 60 days after the plaintiff has given notice of such action to the Administrator.” Although the Fifth Circuit in interpreting notice requirements under other statutes has not interpreted the requirements as jurisdictional in a strict sense, the court has held that strict compliance with notice requirements is a mandatory precondition to suit and a party’s failure to comply requires dismissal of its case. Sierra Club v. Yeutter, 926 F.2d 429, 437 (5th Cir. 1991); Lockett v. EPA, 319 F.3d 678, 682 (5th Cir. 2003); see also Hallstrom v. Tillamook County, 493 U.S. 20, 30–33 (1989) (dismissing suit for failure to strictly comply with notice requirements of Resource Conservation and Recovery Act even after decision on the merits reached); Greene v. Reilly, 956 F.2d 593 (6th Cir. 1993).

On or about January 17, 2008, a letter was mailed to EPA providing notice of Sithe Global, LLC’s (“Sithe”) intent to sue. See Dkt. # 1 (Complaint), Ex. B. However, the letter does not state that DREC intended to sue EPA. More specifically, the notice letter states, “this letter shall serve as formal notice of Sithe’s intent to file suit against the U.S. Environmental Protection Agency.” Id. The notice letter defines the term “Sithe” as “Sithe Global Power LLC.” Id. Sithe and DREC are separate limited liability companies. Complaint, Dkt. # 1 ¶ 11. The letter gives no indication that DREC would file suit against EPA. DREC has failed to comply with CAA §

304(b)(2) because it failed to provide EPA written notice of its intent to sue at least 60 days prior to filing the Complaint in this case.

The January 17, 2008 notice letter also fails to comply with the requirements of the Clean Air Act regulations found at 40 C.F.R. § 54.3. These regulations provide that the notice letter “shall state the full name and address of the person giving notice.” 40 C.F.R. § 54.3(a). Sithe’s January 17, 2008 letter fails to provide an address for either Sithe or DREC. See Exhibit B to Complaint. Failure to provide an address in a notice letter is a fatal flaw. See id.; Wash. Trout v. McCain Foods, Inc., 45 F.3d 1351, 1354 (9th Cir. 1995) (dismissing suit for lack of subject matter jurisdiction because notice letter failed to include address and phone number of named plaintiff or identity, address, and phone number of potential plaintiffs); Sierra Club v. City of Columbus, 282 F. Supp. 2d 756, 775–76 (S.D. Ohio 2003) (dismissing suit for lack of jurisdiction because notice letter failed to include plaintiff’s telephone number). Because the notice letter fails to comply with mandatory preconditions to suit, the court may not properly enter the consent decree and DREC’s case must be dismissed.

II. THE COMPLAINT SHOULD BE DISMISSED BECAUSE IT IS NOT BEING PROSECUTED BY THE REAL PARTY IN INTEREST.

Under Federal Rule of Civil Procedure 17(a)(1) “[e]very action shall be prosecuted in the name of the real party in interest.” The parties filing the lawsuit bear the burden of proving that they are the real parties in interest. See, e.g., OSRecovery, Inc. v. One Groupe Int’l, Inc., 380 F. Supp. 2d 243, 246 (S.D.N.Y. 2005) (citing 20 CHARLES A. WRIGHT & MARY KAY KANE, FEDERAL PRACTICE & PROCEDURE DESKBOOK § 75 (2002)). Thus, each plaintiff must prove that

they are “the party who, by substantive law, possesses the right sought to be enforced, and not necessarily the person who will ultimately benefit from the recovery.” United States v. 936.71 Acres of Land, 418 F.2d 551, 556 (5th Cir. 1969) (citation omitted); Wieberg v. GT Sw. Inc., 272 F.3d 302, 306 (5th Cir. 2001); see also Lozano v. City of Hazelton, 496 F. Supp. 2d 477, 505 n. 27 (M.D. Pa. 2007) (“The requirement that an action be ‘prosecuted in the name of the real party in interest’ relates to attempts to ensure that those who have an interest in a legal action are actually represented in the case. This rule enshrines the principle that ‘the action must be brought by the person who, according to the governing substantive law, is entitled to enforce the right.’”) (citing 6A CHARLES ALAN WRIGHT, ARTHUR R. MILLER & MARY K. KANE, FEDERAL PRACTICE & PROCEDURE § 1543 (2d. 1990)).

In this case, the real party in interest is not DREC or The Diné Power Authority (“DPA”), but Sithe, the applicant for the PSD permit, action on which the Complaint seeks to compel. DREC and DPA’s Complaint fails to inform the Court of the identity of the permit applicant. From a review of EPA’s May 21, 2004 letter, it is clear that the permit applicant is Sithe (which is a successor in interest to Steag). See Dkt. # 1, Ex. A. A review of the February 2004 permit application, referenced in Paragraph 6 of the Complaint, also reveals that the permit applicant is Sithe (through Steag), and not DREC or DPA. See Cover Page to Steag Permit Applicant attached as Exhibit 1 hereto. Finally, on or about July 19, 2006, EPA Region 9 issued a draft PSD air permit for the proposed Desert Rock plant. EPA’s draft PSD air permit was issued to the applicant of the proposed Desert Rock plant—Sithe Global Power, LLC—not DREC or DPA. See EPA Public Notice of Draft Air Permit attached as Exhibit 2 hereto. Since neither Plaintiff is the real party in interest, the Complaint should be dismissed.

CONCLUSION

For the reasons stated above, this Court should dismiss this case pursuant to Fed. R. Civ. P. 12(b)(1) or 12(b)(6) and decline to entertain any motion to enter the Consent Decree.

Respectfully Submitted,

/s/ John M. Quinlan

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ATTORNEY IN CHARGE FOR
INTERVENORS DINE CARE,
ENVIRONMENTAL DEFENSE FUND,
NATURAL RESOURCES DEFENSE
COUNCIL, SAN JUAN CITIZENS
ALLIANCE, AND SIERRA CLUB

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CERTIFICATE OF SERVICE

I hereby certify that on this 11th day of July 2008, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system which will send notification of such filing to the following e-mail addresses:

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/s/ John M. Quinlan

Desert Rock Energy Co., PSD Appeal 08-03
Conservation Petitioners' Exhibits

EXHIBIT 55

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

DESERT ROCK ENERGY COMPANY, LLC,)
)
and)
)
THE DINE POWER AUTHORITY,)
)
Plaintiffs,)
)
v.)
)
U.S. ENVIRONMENTAL PROTECTION)
AGENCY,)
)
and)
)
STEPHEN L. JOHNSON,)
)
Defendants.)

Civil Action No. 4:08-cv-00872

**MEMORANDUM OF DINE CARE, ENVIRONMENTAL DEFENSE FUND, NATURAL
RESOURCES DEFENSE COUNCIL, SAN JUAN CITIZENS ALLIANCE, AND SIERRA
CLUB IN SUPPORT OF MOTION TO INTERVENE**

In this case, Desert Rock Energy Company, LLC (“Desert Rock”) and Diné Power Authority seek to require the Environmental Protection Agency (“EPA”) to issue a permit required for construction of a large, coal-fired power plant on the Navajo Reservation in New Mexico. However, neither Desert Rock nor Diné Power Authority is the permit applicant. The applicant for the permit—Sithe Global Power, LLC (“Sithe”)—is not before the Court and its subsidiary, Desert Rock, has not complied with the Clean Air Act’s mandatory requirement to provide 60 days’ advance written notice of suit. Further, the permit application and supporting materials submitted by Sithe are woefully incomplete, lacking the information necessary for EPA to make several determinations that are required before the agency can lawfully issue a permit. The foregoing deficiencies provide EPA with defenses to the suit filed by Desert Rock and Diné

Power Authority. Instead of defending itself, however, EPA has lodged with the Court a Consent Decree that would require the agency to take action on the incomplete permit application no later than July 31, 2008.

As explained in the accompanying proposed Motion to Dismiss, prospective intervenors—Diné CARE, Environmental Defense Fund, Natural Resources Defense Council, and Sierra Club (collectively “Conservation Defendants”)—assert this case should be dismissed. To the extent this Court declines to dismiss the case at the outset, it should allow the Conservation Defendants to intervene. If EPA fails to heed the comments of Conservation Defendants, the State of New Mexico and others and moves for entry of the Consent Decree, Conservation Defendants should be permitted to oppose entry. If the Court declines to enter the Decree, Conservation Defendants should be permitted to participate in defense of this case. As discussed below, the Conservation Defendants meet all of the requirements for intervention as of right under Fed. R. Civ. P. 24(a)(2) or permissive intervention under Fed. R. Civ. P. 24(b)(1).

FACTUAL BACKGROUND

I. CONSERVATION DEFENDANTS.

A. Diné Care.

Diné Citizens Against Ruining Our Environment (“Diné CARE”) is an all-Navajo grassroots-based environmental organization within the Navajo reservation that formed in 1991 and is registered as a not-for-profit, 501(c)(3), corporation with the Navajo Nation. The purpose of Diné CARE is to empower Navajo community members to protect the Navajo Indian culture and heritage from the adverse impacts of energy-related development within, on, or near the Navajo Indian Reservation. Since the late 1980s, Diné CARE has assisted community members in standing up for and demanding environmental protection and sustainable development

practices, bringing systemic changes in tribal politics, and making grassroots voices evident in the realm of energy development. Diné CARE promotes alternative uses of natural resources that are consistent with the Diné philosophy of Beauty Way and organizes within the homes of affected Navajo tribal members.

B. Environmental Defense Fund.

Environmental Defense Fund (“EDF”) is a national nonprofit organization representing more than 500,000 members. It has 12,800 members in New Mexico and Colorado, the two states that will be most affected by air pollution from the proposed Desert Rock Energy Facility. Since 1967, EDF has linked science, economics, and law to create innovative, equitable, and cost-effective solutions to society’s most urgent environmental problems. EDF is dedicated to protecting the environmental rights of all people, including future generations. A core mission of EDF is to protect the public health and environment from air pollution.

C. Natural Resources Defense Council.

The Natural Resources Defense Council (“NRDC”) is a nonprofit environmental organization with over 420,000 members nationwide, including more than 4,600 in New Mexico and more than 11,000 in Colorado. NRDC is headquartered in New York, has additional offices in San Francisco, Chicago, and Washington D.C., and has a permanent presence in other states including New Mexico and Colorado. NRDC uses law, science, and the support of its members and activists to protect the planet’s wildlife and wild places and to ensure a safe and healthy environment for all living things. Among NRDC’s top priorities are the reduction of air pollution that endangers public health and welfare—including the air pollution that causes global warming—and the protection of threatened and endangered species.

D. San Juan Citizens Alliance.

San Juan Citizens Alliance (“SJCA”) is a nonprofit organization with over 500 members in the Four Corners region. It is actively involved in energy development oversight; advocating for cleaner air quality and better stewardship of our natural systems; promoting reduced energy consumption, energy efficiency and renewable energy; and working for improvements to community health. SJCA members in the Four Corners region live in areas of existing high-density energy development and infrastructure.

E. Sierra Club.

Sierra Club is a national nonprofit conservation organization formed in 1892. Sierra Club’s mission includes promoting the responsible use of the earth’s ecosystems and resources and educating and enlisting humanity to protect and restore the quality of the natural and human environment. Sierra Club has approximately 715,000 members, including over 28,000 members in Colorado and New Mexico. Sierra Club’s members and staff have a long-standing interest in air quality and global warming issues, and the organization has a particular interest in these issues as they relate to emissions from coal-fired electric generating facilities. Sierra Club also has expert knowledge regarding the health and environmental effects of coal-fired power plants, including effects stemming from the emission of greenhouse gases.

II. CONSERVATION DEFENDANTS’ INVOLVEMENT IN PERMIT PROCEEDINGS.

EPA has proposed to issue a construction permit to Sithe Global Power, LLC, for a 1500 megawatt (“MW”) coal-fired power plant known as the Desert Rock Energy Facility (“DREF”) under the Prevention of Significant Deterioration (“PSD”) provisions of the Clean Air Act, 42 U.S.C. § 7470–7492. See <http://www.epa.gov/region09/air/permit/desertrock/#permit>. The DREF would be located on the Navajo Reservation, approximately 25 miles southwest of

Farmington, New Mexico. Id. Its coal-fired boilers would emit massive amounts of a number of air pollutants, including 3,315 tons of nitrogen oxides, 3,315 tons of sulfur dioxide and 1,105 tons of particulate matter per year, and an estimated 13.7 million tons per year of carbon dioxide, the primary greenhouse gas contributing to global warming. See <http://www.epa.gov/region09/air/permit/desertrock/AAQIR.pdf>, at 5. The facility would also emit significant amounts of a number of hazardous air pollutants that are especially harmful to human health, fish and wildlife, including mercury—a potent neurotoxin. Id. Conservation Defendants’ members, including members of Diné Care who reside within 5 miles of the proposed plant, are among those who will be most affected by the plant’s emissions. See Affidavit of Dailan J. Long ¶¶ 4, 9.

Conservation Defendants submitted extensive written comments and participated in public hearings on the proposed permit. The Conservation Defendants’ written comments include a 99-page, single-spaced letter dated November 13, 2006, submitted jointly by the five Conservation Defendants and other organizations, with five accompanying expert affidavits or reports and numerous exhibits. Comment letter available at <http://www.epa.gov/region09/air/permit/desertrock/#pub-comments>, Comment No. 23. In this letter and subsequent comment letters dated October 4, 2007; March 4, 2008; April 18, 2008; and June 17, 2008 (attached as Exs. 1, 2, 3, and 4, respectively), the Conservation Defendants notified EPA of numerous deficiencies in the permit application and proposed permit. See also <http://www.epa.gov/region09/air/permit/desertrock/#pub-comments>, Comment No. 3 (October 26, 2006, Diné Care), No. 15 (November 10, 2006, Sierra Club), Nos. 16–17 (November 10, 2006, San Juan Citizens Alliance); Ex. 5 (October 9, 2007, Environmental Defense).

On or about March 18, 2008, Desert Rock and The Diné Power Authority filed their Complaint in this case. Dkt. # 1. The Complaint alleges that EPA was required to take final

action on Sithe's proposed permit within one year of May 21, 2004, the date EPA allegedly notified "the permit applicant" that the permit application was complete. Id. ¶¶ 5-6. However, EPA's May 21, 2004 letter, issued just two months after EPA received the initial application and before EPA received comments from other government agencies and the public, plainly states that EPA may need to request clarifying information on one or more parts of the application. Dkt. # 1, Ex. A. On April 25, 2008, Conservation Defendants requested EPA to withdraw its qualified determination that the permit application was "administratively complete." Ex. 6. In support of this request, Conservation Defendants enumerated numerous deficiencies in the completeness and accuracy of the permit application and draft permit. Id. A number of these deficiencies had previously been identified not only in Conservation Defendants' comments, but also in comments on the proposed permit submitted by the National Park Service, and in comments submitted to the Bureau of Indian Affairs by the New Mexico Environment Department and by EPA Region 9 itself. See Ex. 6.¹

On June 9, 2008, the EPA lodged the proposed Consent Decree with this Court. Dkt. # 14. The agency subsequently published notice in the Federal Register that it would accept comments on the Consent Decree through July 11, 2008. On July 11, 2008, Conservation Defendants submitted comments on the proposed Consent Decree. Ex. 7. The comments request that the United States withdraw or withhold consent to the proposed Consent Decree for the following reasons:

- Desert Rock and Diné Power Authority are not the real parties in interest and do not have standing (Ex. 7, at 2-3);

¹ The BIA must approve a lease for DREF and is currently preparing an environmental impact statement for the project. EPA is required to coordinate its proceedings on the proposed PSD permit with development of the EIS, and with EPA's own review of and comments on BIA's DEIS to "the maximum extent feasible and reasonable." See 40 C.F.R. § 52.21(s); Ex. 1, at 23.

- Sithe’s notice letter fails to comply with mandatory preconditions to suit (Id. at 3);
- Action on the permit should await EPA’s Environmental Appeals Board’s expected determination in another case on whether emission limitations are required for carbon dioxide emissions (Id. at 4–5);
- There has been no required analysis of whether emissions from DREF will cause or contribute to violations of the recently revised National Ambient Air Quality Standard for ozone (Id. at 5-6).
- There has been no required case-by-case analysis of maximum achievable control technology that must be used to establish emission limitations for mercury and other hazardous air pollutants (Id. at 6–7); and
- EPA has not completed consultation under Section 7 of the Endangered Species Act (Id. at 9–13).

ARGUMENT

I. CONSERVATION DEFENDANTS ARE ENTITLED TO INTERVENE AS OF RIGHT.

The Federal Rules of Civil Procedure provide that “upon timely application anyone shall be permitted to intervene in an action” when:

the applicant claims an interest relating to the property or transaction which is the subject of the action and the applicant is so situated that the disposition of the action may as a practical matter impair or impede the applicant’s ability to protect that interest, unless the applicant’s interest is adequately represented by existing parties.

Fed. R. Civ. P. 24(a). Applications for intervention of right are afforded “liberal treatment.” Sierra Club v. Fed. Emergency Mgmt. Agency, No. 07-0608, 2008 WL 2414333, slip op. at *5 (S.D. Tex. June 11, 2008) (citing Diaz v. S. Drilling Corp., 427 F.2d 1118, 1126 (5th Cir.1970), cert. denied sub nom., Trefina v. United States, 400 U.S. 878 (1970)); see also McDonald v. E.J.

Lavino Co., 430 F.2d 1065, 1074 (5th Cir. 1970) (noting courts must consider “the liberal atmosphere of the Rules of Civil Procedure” in evaluating timeliness of motion). The Conservation Defendants meet the requirements for intervention as of right under Fed. R. Civ. P. 24(a).

A. Conservation Defendants’ Application to Intervene is Timely.

The timeliness of an application to intervene is based on the all of the circumstances. NAACP v. New York, 413 U.S. 345, 366 (1973); United States v. Covington County Sch. Dist., 499 F.3d 464, 465–66 (5th Cir. 2007). Relevant considerations include: (1) the length of time the applicants knew or should have known of their interest in the case; (2) prejudice to existing parties caused by the applicants’ delay; (3) prejudice to the applicants if their motion is denied; and (4) any unusual circumstances.” Covington County Sch. Dist., 499 F.3d at 466 (citing Stallworth v. Monsanto Co., 558 F.2d 257, 264–66 (5th Cir.1977)). Timeliness should be evaluated based on the speed with which a prospective intervenor acts to protect its interests after learning that its interests will not be protected by the original parties rather than the date it initially learns of the action. Sierra Club v. Fed. Emergency Mgmt. Agency, slip op. at * 5 (citing Sierra Club v. Espy, 18 F.3d 1202, 1206 (5th Cir. 1994)). The most important consideration is whether the failure to move to intervene sooner has prejudiced the existing parties. See 7C Wright, Miller & Kane, Fed. Practice & Procedure: Civil 2d § 1916 & n.13 (1986); Sierra Club v. Espy, 18 F.3d at 1205 (“The requirement of timeliness is not a tool of retribution to punish the tardy would-be intervenor, but rather a guard against prejudicing the original parties by the failure to apply sooner”) (citing McDonald v. E.J. Lavino Co., 430 F.2d 1065, 1074 (5th Cir.1970)).

As is described above, Conservation Defendants have diligently sought to protect their interests throughout the course of proceedings on the proposed air permit by submitting numerous, detailed written comments. Within five weeks after Desert Rock and Diné Power Authority sued to compel EPA to take action on the proposed permit, Conservation Defendants requested that EPA revoke its qualified completeness determination. Ex. 6. When Conservation Defendants learned that EPA would not assert the formidable defenses that it has to the Complaint, but rather had proposed a consent decree that would bind itself to take action before the proposed permit's deficiencies are remedied, Conservation Defendants timely submitted comments on the proposed consent decree (Ex. 7) and filed this motion to intervene.

The existing parties to this recently filed case would not be prejudiced by the timing of the Conservation Defendants' request to intervene. EPA has not yet moved for entry of the proposed Consent Decree. If EPA moves for entry of the Consent Decree, Conservation Defendants' objections to entry can be resolved through proceedings on the motion to enter without significant delay. If EPA declines to move for entry based on comments on the Decree or if the Court declines to enter the Decree, Conservation Defendants' participation in the defense of the claim would not result in delay. EPA has not answered or otherwise responded to the Complaint. Neither an initial pre-trial conference nor discovery have been conducted. As a result, Conservation Defendants' application to intervene is timely.

B. Conservation Defendants Have an Interest in the Subject Matter of this Action.

A prospective intervenor's interest in the litigation must be "direct, substantial, [and] legally protectable." Ross v. Marshall, 426 F.3d 745, 757 (5th Cir. 2005). The Fifth Circuit takes a flexible approach to determining whether a potential intervenor's interest is sufficient based on the particular facts and circumstances, applying "a practical rather than technical yardstick."

United States v. Perry County Bd. of Educ., 567 F.2d 277, 279 (5th Cir. 1978) (citing United States v. Allegheny-Ludlum Indus., Inc., 517 F.2d 826, 841 (5 Cir. 1975), cert. denied, 425 U.S. 944 (1976)). The “interest test is primarily a practical guide to disposing of lawsuits by involving as many apparently concerned persons as is compatible with efficiency and due process.” Id. (citing Espy, 18 F.3d at 1207).

Conservation Defendants have interests in avoiding the serious health consequences of breathing dirty air from the proposed plant (Long Affidavit ¶¶ 4, 9; Affidavit of Edward Mosimann ¶¶ 3–14), the impacts of the proposed plant’s global warming emissions (Long Affidavit ¶ 11; Mosimann Affidavit ¶ 15; Affidavit of Denise Fort ¶¶ 5–6), and consumption of fish containing toxic mercury emitted by the proposed plant (Long Affidavit ¶¶ 6, 12; Mosimann Affidavit ¶¶ 4, 16). Conservation Defendants also have interests in enjoying the region’s magnificent vistas and wildlife (Mosimann Affidavit ¶¶ 10, 11; Fort Affidavit ¶ 6), in using the area’s forests and streams for recreational purposes (Fort Affidavit ¶ 6), and in development of the region’s abundant renewable energy resources, including wind and solar power as a clean alternative to coal-fired electricity generation (Mosimann Affidavit ¶ 20; Long Affidavit ¶ 14).

Conservation Defendants’ interests are not only direct and substantial, but legally protectable. Indeed, Conservation Defendants’ interests are among the interests that the Clean Air Act’s PSD requirements are expressly designed to protect. The purposes of the PSD requirements include:

- protecting the public health and welfare from adverse impacts from air pollution or exposure to pollutants in other media that originate in emissions of air pollutants; and

- preserving, protecting and enhancing air quality in national parks, national wilderness areas and national monuments . . . and other areas of special natural or regional natural, recreational, scenic, or historic value.

42 U.S.C. § 7470(1) & (2). Courts have held repeatedly that “environmental organizations and other special interest groups . . . have a sufficient interest for purposes of intervention as of right in cases in which their particular interests were threatened.” Utah Ass’n of Counties v. Clinton, 255 F.3d at 1252 (citing Coal. of Ariz./N.M. Counties v. Dep’t of the Interior, 100 F.3d 837, 842–43 (10th Cir. 1996)); San Juan County v. United States, 503 F.3d 1163, 1199 (10th Cir. 2007) (“We think it indisputable that [the conservation organization’s] environmental concern is a legally protectable interest.”); see also Utah Ass’n of Counties, 255 F.3d at 1252 (finding “persuasive those opinions holding that organizations whose purpose is the protection and conservation of wildlife and its habitat have a protectable interest in litigation that threatens those goals”) (citing Mausolf v. Babbitt, 85 F.3d 1295, 1302 (8th Cir. 1996) and Sagebrush Rebellion, Inc. v. Watt, 713 F.2d 525, 527–28 (9th Cir. 1983)).

Further, federal courts have concluded that when public interest organizations—such as Conservation Defendants—have worked consistently to protect their interests or have been active in supporting or opposing a certain measure, those groups satisfy the interest requirement of Fed. R. Civ. P. 24(a)(2). For example, the Ninth Circuit has held that a “public interest group is entitled as a matter of right to intervene in an action challenging the legality of a measure it has supported.” Idaho Farm Bureau Fed’n v. Babbitt, 58 F.3d 1392, 1397 (9th Cir. 1995); see also Nw. Forest Res. Council v. Glickman, 82 F.3d 825, 837–38 (9th Cir. 1996) (noting the Ninth Circuit has allowed public interest groups to intervene as of right when the groups “were directly involved” in the law that is being challenged). Similarly, the Eighth Circuit held that a

conservation group's interest in a particular park satisfied the interest requirement because the group had "consistently demonstrated its interest in the Park's well-being . . . and ha[d] worked hard . . . to protect that interest." Mausolf v. Babbitt, 85 F.3d 1295, 1302-03 (8th Cir. 1995); see also In re Sierra Club, 945 F.2d 776, 779 (4th Cir. 1991) (Sierra Club had interest in proceedings because it was party to administrative permitting proceedings regarding challenged regulation). As is described above, Conservation Defendants have vigorously endeavored to protect their interests threatened in this case by submitting detailed comments on the proposed permit.

Conservation Defendants also have a protectable interest in the ability to meaningfully participate in EPA's decision on Site's permit application. Another express purpose of the Clean Air Act's PSD provisions is:

to assure that any decision to permit increased air pollution in any area [subject to the Clean Air Act's PSD requirements] is made only after careful evaluation of all of the consequences of such decision and after adequate procedural opportunities for informed public participation in the decisionmaking process.

42 U.S.C. § 7470(5). Conservation Defendants' interests in the subject matter of this action are more than sufficient to support intervention of right.

C. Disposition of this Action May Substantially Impair or Impede Conservation Defendants' Ability to Protect Their Interests.

Rule 24(a)'s "impairment" requirement concerns whether, as a practical matter, the denial of intervention may impair or impede the prospective intervenor's ability to protect its interests in the subject of the action. As the Advisory Committee Notes for the 1966 amendments to Rule 24(a) explain, "[i]f an absentee would be substantially affected in a practical sense by the determination made in an action, he should, as a general rule, be entitled to intervene." In keeping with this direction, courts have observed that the rule's emphasis on "practical disadvantage" was "designed to liberalize the right to intervene in federal actions."

Nuesse v. Camp, 385 F.2d 694, 701–02 (D.C. Cir. 1967); Bennett v. Madison County Bd. of Educ., 437 F.2d 554, 555 (5th Cir. 1970) (“The 1966 amendments overcame . . . narrow judicial interpretations by allowing interventions that will avoid ‘repeated lawsuits on the same essential matter.’”). The impairment or impediment need not be “of a strictly legal nature.” Utah Ass’n. of Counties, 255 F.3d at 1253 (quoting Natural Res. Def. Council v. Nuclear Regulatory Comm’n, 578 F.2d 1341, 1345 (10th Cir. 1978) (a court “may consider any significant legal effect on the applicant’s interest” and “is not restricted to a rigid res judicata test”). A prospective intervenor need only show that impairment of its interest is possible if intervention is denied. Id. (quoting Grutter v. Bollinger, 188 F.3d 394, 399 (6th Cir. 1999) (additional citation omitted). This burden is minimal. Id.

If Conservation Defendants are not permitted to intervene in this case, it is not merely possible that their interests will be impaired, it is virtually certain. Issuance of the air permit would move construction and operation of Desert Rock, and the serious public health and environmental impacts it will have on Conservation Defendants, a step closer to realization. More immediately, Conservation Defendants will be deprived of opportunities to meaningfully participate in the development of the permit that the Clean Air Act’s PSD requirements are specifically designed to provide. 42 U.S.C. § 4270. Conservation Defendants will be deprived of the ability, through continuing active participation in the permit process, to shape the terms of the permit—to insure that any permit issued contains required measures that protect their interests. Action on the permit by July 31, 2008 would make it impossible for the permit applicant and EPA to conduct a number of analyses that the permit applicant and EPA are

required to complete² before EPA takes final action on the permit, including analyses of measures for control of carbon dioxide, mercury, and fine particulate matter, analyses of impacts on the area's already high ozone levels, and consultation on impacts to endangered species.³ As these analyses will not have been conducted by the deadline proposed in the draft settlement, Conservation Defendants will be deprived of all opportunity to review and comment on the required analyses before final action on the permit, and all opportunity to build an administrative record for appeal concerning any deficiencies in the analyses conducted.⁴ Conservation Defendants only recourse will then be an appeal to EPA's Environmental Appeals Board, and, if necessary, a subsequent appeal to a United States Court of Appeals under a standard of review that is highly deferential to the permitting agency, and with limited ability to supplement the record on appeal. Such impairment of Conservation Defendants' interests is adequate to support intervention. See Conservation Law Found. v. Mosbacher, 966 F.2d 39 (1st Cir. 1992) (permitting commercial fishing groups to intervene in action by public interest organizations to

² While the Complaint's allegations that EPA has failed to take action on an application submitted in 2004 has superficial appeal, the permit applicant is, in part responsible for the absence of the required analyses. EPA typically conducts required analysis and sets required emission limitations in PSD permits based on analysis conducted by the applicant. See 40 C.F.R. § 52.21(b)(12), (n) (best available control technology ("BACT") analysis is informed by detailed information submitted by applicant). It appears that the permit applicant, Sithe, has failed to provide EPA any meaningful analysis of measures that may used to control the plant's emissions of carbon dioxide and fine particulates, has not provided any meaningful analysis of whether the plant will cause or contribute to violations of the National Ambient Air Quality Standards ("NAAQS") for ozone, under even the older NAAQS that was recently strengthened, and has not provided the information required for an assessment of the maximum available control technology that must be used to establish emission limitations for mercury and other hazardous air pollutants.

³ Conservation Defendants address these issues in their comments, and the State of New Mexico addresses them at length in its Memorandum in Support of Motion to Enter. Dkt. # 23, at 6-19.

⁴ Presumably the applicant and EPA will conduct at least some of the missing analyses, including the mercury analysis and ESA consultation, after the permit is issued.

require Secretary of Commerce to adopt a schedule for development of regulations to limit over-fishing); Sierra Club v. Ruckleshaus, 602 F. Supp. 892 (D.C. Cal. 1984) (permitting mining company to intervene in environmental group's suit to compel EPA to issue regulations governing radionuclide emissions where there was no opposition to intervention).

D. The Existing Parties Do Not Adequately Represent Conservation Defendants' Interests.

The inadequate representation requirement of Rule 24(a)(2) "is satisfied if the applicant shows that representation of his interest *may* be inadequate; and the burden of making that showing should be treated as minimal." Trbovich v. United Mine Workers, 404 U.S. 528, 538 n.10 (1972) (emphasis added and internal quotations omitted); Ross, 426 F.3d at 761; Espy, 18 F.3d at 1207. The possibility that the interests of the applicant and the parties may diverge need not be great to satisfy this minimal burden. See Heaton v. Monogram Credit Card Bank of Ga., 297 F.3d 416, 425 (5th Cir. 2002) (stating that even when parties share common ground at time of motion to intervene, the possibility that interests will diverge is enough to satisfy minimal burden). "[T]his showing is easily made when the party upon which the intervenor must rely is the government, whose obligation is to represent not only the interest of the intervenor but the public interest generally" San Juan County v. United States, 420 F.3d 1197, 1212 (10th Cir. 2005) (quoting Utah Ass'n of Counties v. Clinton, 255 F.3d at 1254); see also Espy, 18 F.3d at 1208 (holding government's representation was inadequate because it "must represent the broad public interest" rather than the narrow concerns of one interest group).

None of the existing parties—Desert Rock, Diné Power Authority, or EPA—adequately represent Conservation Defendants' interests. The interests of Desert Rock and Diné Power Authority, which support issuance of a permit for DREF, are diametrically opposed to the

interests of Conservation Defendants. EPA has made clear, through its failure to assert any defenses and its lodging of the proposed consent decree providing for expedited action on the permit, that it does not adequately represent Conservation Defendants' interests.⁵

In sum, Conservation Defendants meet all of the requirements for, and should be permitted to intervene of right in this action pursuant to Fed. R. Civ. P. 24(a)(2).

D. In the Alternative, the Court Should Permit Conservation Defendants to Intervene Under Rule 24(b)(1).

If the Court declines to allow Conservation Defendants to intervene as of right, it should allow them permissive intervention pursuant to Rule 24(b)(1)(B). The rule allows permissive intervention “when an applicant’s claim or defense and the main action have a question of law and fact in common.” Fed. R. Civ. p. 24(b)(1)(B). The “‘claim or defense’ portion of Rule 24(b) has been construed liberally.” Newby v. Enron Corp., 443 F.3d 416, 422 (5th Cir. 2006). This standard is met here. Conservation Defendants seek to intervene, in part, to defend the claim asserted in the Complaint, and its defense therefore will have questions of law and fact in common with the main action asserted in the Complaint. Conservation Defendants’ intend to raise an issue that is central to the Complaint—whether Sithe’s application was complete so as to trigger a mandatory duty by EPA to take action on the permit within one year. Conservation Defendants proposed motion to dismiss raises issues concerning Plaintiffs’ interest in the claims asserted in the case, and compliance with notice requirements that involve issues common with

⁵ While the interests of Conservation Defendants and prospective intervenor State of New Mexico appear aligned at this time, their interests may diverge in the future. The State of New Mexico must accommodate a very broad range of interests, including economic development interests that may be contrary to the more particularized interests of Conservation Defendants. See San Juan County v. United States, 420 F.3d 1197, 1212 (10th Cir. 2005); see also Espy, 18 F.3d at 1208. Therefore, Conservation Defendants’ interests would not be adequately represented if the State is permitted to intervene.

the main action asserted in the Complaint. Accordingly, Conservation Defendants “claim or defense and the main action” share common questions of law and fact.

The permissive intervention rule also requires an application to be “timely,” and instructs courts to “consider whether the intervention will unduly delay or prejudice the adjudication of the rights of the original parties.” Id. For the reasons described above, Conservation Defendants’ Motion to Intervene is timely, and permitting Conservation Defendants to intervene will not unduly delay or prejudice the adjudication of the rights of the original parties.

If the Court declines to permit Conservation Defendants intervention of right, it should exercise its discretion under Rule 24(b)(1) to permit Conservation Defendants to intervene.

CONCLUSION

For these reasons, the Court should allow Conservation Defendants to intervene of right in this action pursuant to Fed. R. Civ. P. 24 (a)(2). In the alternative, the Court should permit Conservation Defendants to intervene permissively under Fed. R. Civ. P. 24(b)(1)(B).

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on this 11th day of July 2008, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system which will send notification of such filing to the following e-mail addresses:

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/s/ John M. Quinlan

Desert Rock Energy Co., PSD Appeal 08-03
Conservation Petitioners' Exhibits

EXHIBIT 56

EXHIBIT 2

* * * PUBLIC NOTICE * * *

OF A PROPOSED CONSTRUCTION PERMIT
WHICH REGULATES THE EMISSION OF AIR POLLUTANTS
AND
OF A PUBLIC HEARING

PUBLIC NOTICE NO. AZP 04-01

On July 27, 2006 the Region 9 office of the United States Environmental Protection Agency (EPA) requested public comment on our proposal to issue a construction permit granting conditional approval, in accordance with 40 CFR 52.21, to Sithe Global Power for the construction and operation of a mine-mouth coal-fired power plant, to be located on the Navajo Indian reservation, approximately 25 miles southwest of Farmington, New Mexico. The project is known as the "Desert Rock Energy Facility" and is proposed to be located within the trust lands of the Navajo Nation. The power plant will be a supercritical pressure pulverized coal type and is designed for a total nominal generation capacity of 1500 MW (gross), consisting of two 750 MW units equipped with state-of-the-art emission controls. Coal will be delivered to the power plant via a fully enclosed above ground conveyor belt from the crushing facilities at the nearby BHP Billiton coal mine.

Because of the significant public interest in the proposed project, EPA will hold four Public Information Meetings. EPA staff will be present to answer questions and provide information regarding the PSD permitting process. The purpose of these meetings is not to receive or respond to formal comments.

Date:	Tues, Sept 12	Wed, Sept 13	Wed, Sept 13	Thurs, Sept 14
Time:	3:00 to 7:00 pm	9:30 am to 1:00 pm	4:00 to 8:00 pm	4:00 to 8:00 pm
Location	Navajo Nation Museum	Burnham Chapter House	Sanostee Veterans Memorial Building	Fort Lewis College
Address:	Highway 264 & Postal Loop Window Rock AZ	Burnham, NM	Sanostee Chapter Compound, Road N-34	Noble Hall, Room 130 Durango, CO

Pursuant to 40 CFR 124.12, EPA also will hold two Public Hearings to provide the public an opportunity to submit formal comments on the proposed permit. Any person may provide written or oral comments and data pertaining to the proposed permit at any of the Public Hearings. EPA will not respond to questions at the Public Hearings. EPA will respond to the formal comments received at the Public Hearings in a written document following the close of the public comment period on October 27, 2006.

Date:	October 3, 2006	October 4, 2006
Time:	Afternoon Session: 1:00 to 5:00 pm Evening Session: 6:00 to 9:00 pm	Afternoon Session: 1:00 to 5:00 pm Evening Session: 6:00 to 9:00 pm
Location:	Iron Horse Inn 5800 N. Main Ave. Durango, Colorado	Shiprock High School Auditorium Highway 64 West Shiprock, New Mexico

Copies of the proposed permit and other pertinent information are available for inspection and duplication during normal business hours at the following locations:

Navajo Nation EPA
Old NDR Building
Window Rock Blvd
Building #W088-090
Window Rock, Arizona 86515

Dine College Library
1228 Yucca Street
Shiprock, New Mexico 97420

These documents are also available on the EPA Region 9 website at:
<http://www.epa.gov/region09/air/permit/> or may be obtained by calling Robert Baker at (415) 972-3979, or by writing to:

Robert Baker (AIR-3)
EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
Fax: (415) 947-3579
Email: desertrockairpermit@epa.gov

The Administrative Record for the proposed permit, which consists of the proposed permit, all data submitted by the applicant in support of the permit and additional documents relied upon to issue the proposed permit, is available for public inspection Monday through Friday from 9:00 A.M. until 4:00 P.M. in the Air Division of EPA (17th Floor), Region 9, 75 Hawthorne Street, San Francisco, California. Due to building security procedures, please call to arrange a visit 24 hours in advance. All public documents that are available in electronic form may be requested via email. Please contact Robert Baker for further information.

Comments on or objections to the proposed permit may be faxed, e-mailed, or delivered in writing to Robert Baker at the address shown above. Comments that are sent via fax or email or are hand-delivered must be received by October 27, 2006, and comments sent by regular mail must be postmarked by that date.

All comments will be included in the public docket without changes and may be made available to the public, including any personal information provided, unless the comment includes Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as

such and should not be submitted through e-mail. If you send e-mail directly to EPA, your e-mail address will be automatically captured and included as part of the public comment. Please note that an e-mail or postal address must be provided with your comments if you wish to receive direct notification of EPA's final decision regarding the permit and its responses to the comments submitted during the public comment period.

A final decision to set the conditions of and issue a Final Permit, or to deny the application for a permit, shall be made after all comments have been considered. Notice of the final decision shall be sent to each person who has submitted written or oral comments or requested notice of the final permit decision. The decision will become effective 30 days from the date of issuance unless the decision is appealed to the Environmental Appeals Board pursuant to 40 CFR 124.19 (any person who submits written comments on the proposed permit or who participates in the Public Hearing may petition the Environmental Appeals Board to review any part of the permit decision within 30 days after the decision has been issued. Any person who failed to file comments and failed to participate in the Public Hearing on the proposed permit may petition for review by the Environmental Appeals Board only those parts of the final permit decision which are different than the proposed permit).

If this proposed permit becomes final, and there is no appeal, construction and operation of the facility identified above may begin subject to the conditions of the permit and other applicable permit and legal requirements.

Please bring this notice to the attention of all persons who you know would be interested in this matter.

Desert Rock Energy Co., PSD Appeal 08-03
Conservation Petitioners' Exhibits

EXHIBIT 57

3. On July 31, 2008, EPA Region 9 issued a final permit decision, within the meaning of 40 C.F.R. § 124.15(a), on the Desert Rock Permit Application.

4. Therefore, Plaintiffs' claims with respect to the action described in paragraph 3, are hereby dismissed with prejudice.

5. The dismissal of Plaintiffs' claims in paragraph 4 does not limit either Plaintiffs' right to petition the EPA Environmental Appeals Board to review the final permit decision under 40 C.F.R. § 124.19 or Plaintiffs' right to seek judicial review of any final agency action, within the meaning of 40 C.F.R. § 124.19, under Section 307(b)(1) of the Clean Air Act, 42 U.S.C. § 7607(b)(1).

6. This dismissal does not include Plaintiffs' claims for costs of litigation, including attorneys' fees, under 42 U.S.C. § 7604(d), and the Parties agree that this Court shall retain jurisdiction for the sole purpose of resolving any such claims.

Dated: August 1, 2008

Respectfully submitted,

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AND STEPHEN L. JOHNSON, ADMINISTRATOR,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CERTIFICATE OF SERVICE

I certify that a true and correct copy of this Stipulation of Dismissal was served upon the following counsel of record via CM-ECF and/or U.S. Mail, on the 1st day of August, 2008:

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Desert Rock Energy Co., PSD Appeal 08-03
Conservation Petitioners' Exhibits

EXHIBIT 58

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

DESERT ROCK ENERGY COMPANY, LLC, }
and THE DINÉ POWER AUTHORITY, }

Plaintiffs, }

v. }

Civil Case No. 4:08-cv-872

U.S. ENVIRONMENTAL PROTECTION }
AGENCY, and STEPHEN L. JOHNSON, }

Defendants. }

ORDER

Presently before the Court are The State of New Mexico’s Motion to Intervene and Request for Stay of Entry of Consent Decree (Doc. 22) and the Motion to Intervene of Diné Care, Environmental Defense Fund, Natural Resources Defense Council, San Juan Citizens Alliance, and Sierra Club (Doc.25). Upon review and consideration of these documents, the memorandums in support thereof, the response thereto, and the relevant legal standards, the Court hereby ORDERS that both motions to intervene are DENIED.

In their complaint (Doc. 1), Plaintiffs allege that Defendants have failed to perform their nondiscretionary duty under section 165(c) of the Clean Air Act, 42 U.S.C. § 7475(c), to either grant or deny their completed application for a Prevention of Significant Deterioration (“PSD”) permit not later than one year after the date of its filing. Subsequently, the parties entered into a stipulation of dismissal (Doc. 34), which states that, on July 31, 2008, the Environmental Protection Agency Region 9 issued a final permit decision, within the meaning of 40 C.F.R. § 124.15(a), on the PSD permit application. As a result, Plaintiffs’ claims were dismissed with prejudice. The Stipulation of Dismissal went on to state that:

The dismissal of Plaintiffs' claims in paragraph 4 does not limit either Plaintiffs' right to petition the EPA Environmental Appeals Board to review the final permit decision under 40 C.F.R. § 124.19 or Plaintiffs' right to seek judicial review of any final agency action, within the meaning of 40 C.F.R. § 124.19, under Section 307(b)(1) of the Clean Air Act, 42 U.S.C. §7607(b)(1).

(Doc. 34 at ¶ 5). The parties wishing to intervene in this matter will have the opportunity to raise their objections during the appeal process, as outlined in 40 C.F.R. § 124.19. Accordingly, the Court finds that neither intervention as of right nor by permission is appropriate in this case.

SIGNED at Houston, Texas, this 13th day of August, 2008.



MELINDA HARMON
UNITED STATES DISTRICT JUDGE

Desert Rock Energy Co., PSD Appeal 08-03
Conservation Petitioners' Exhibits

EXHIBIT 59

ORIGINAL

**BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION**

**DOCKET NO. 070098-EI
FLORIDA POWER & LIGHT COMPANY**

**IN RE: FLORIDA POWER & LIGHT COMPANY'S
PETITION TO DETERMINE NEED FOR
FPL GLADES POWER PARK UNITS 1 AND 2
ELECTRICAL POWER PLANT**

REBUTTAL TESTIMONY & EXHIBIT OF:

JUDAH L. ROSE

DOCUMENT NUMBER - DATE

02769 MAR 30 05

FPSC-COMMISSION CLERK

1 **BEFORE THE PUBLIC SERVICE COMMISSION**

2 **FLORIDA POWER & LIGHT COMPANY**

3 **REBUTTAL TESTIMONY OF JUDAH L. ROSE**

4 **DOCKET NO. 070098-EI**

5 **MARCH 30, 2007**

6
7 **Q. Please state your name and business address.**

8 A. My name is Judah L. Rose. I am a Managing Director of ICF International
9 ("ICF"). My business address is 9300 Lee Highway, Fairfax, Va. 22031.

10 **Q. Please briefly describe your educational background and professional**
11 **experience.**

12 A. After receiving a degree in economics from the Massachusetts Institute of
13 Technology (MIT) and a Masters Degree in Public Policy from the John F.
14 Kennedy School of Government at Harvard University, I joined ICF
15 International in 1982. I have been working at ICF International since then and
16 now direct ICF's wholesale power practice. I have also been a member of the
17 Board of Directors of ICF International and am one of three people in a firm of
18 over 1,500 people to have been given the title Distinguished Consultant.

19 **Q. Have you worked with public sector clients on electric power issues?**

20 A. Yes. ICF has been the principal power consultant to the U.S. Environmental
21 Protection Agency (EPA) continuously for over 25 years, and analyzed all the
22 major policy initiatives involving regional controls on power plant emissions
23 such as SO₂, NO_x, and Hg. ICF also has extensive experience in analyzing the

DOCUMENT NUMBER-DATE

02769 MAR 30 5

1 impact of CO₂ regulations on the power sector including conducting the electric
2 sector analysis for the Regional Greenhouse Gas Initiative (RGGI) in the
3 Northeast and MidAtlantic.

4 **Q. Do you have other public sector clients?**

5 A. Yes. ICF has worked with the Federal Energy Regulatory Commission
6 (FERC), U.S. Department of Energy (DOE), Environment Canada, and the
7 European Union. We have also worked with state entities including those in
8 Ohio, New Jersey, California, South Carolina, New York, Connecticut,
9 Kentucky, and Michigan.

10 **Q. Do you have private sector clients?**

11 A. Yes. ICF provides assistance to electric utilities, financial institutions, power
12 marketers, fuel companies, and independent power producers. ICF also works
13 with Regional Transmission Organizations (RTOs).

14 **Q. What type of work do you typically do?**

15 A. I have extensive experience in assessing the effects of market and regulatory
16 trends on the wholesale power generation sector. This work regularly addresses
17 capacity expansion, market prices for power, and fuel and environmental
18 controls.

19 **Q. Are there other relevant aspects of your experience?**

20 A. Yes. I have authored numerous articles in industry journals and spoken at
21 scores of conferences. For additional details, please see my resume which is
22 labeled Document No. JLR-1.

1 **Q. Have you testified before other state regulators and legislators?**

2 A. Yes. I have testified before state regulators and legislators in Florida, New
3 Jersey, Ohio, California, North Carolina, Oklahoma, Louisiana, New York,
4 Pennsylvania, Indiana, Kentucky, and Minnesota.

5 **Q. On whose behalf are you testifying?**

6 A. I am testifying on behalf of Florida Power & Light Company ("FPL").

7 **Q. What is the purpose of your rebuttal testimony?**

8 A. The purpose of my testimony is threefold: first, to rebut Mr. David Schlissel's
9 supplemental testimony on the magnitude of his suggested CO₂ price forecast;
10 second, to demonstrate that the CO₂ allowance price forecasts used by FPL in
11 their costing calculations for FGPP were reasonable; and third, to demonstrate
12 that there is a direct linkage between the stringency of CO₂ policy and the
13 impact on gas prices.

14 **Q. Are you sponsoring any exhibits to your rebuttal testimony?**

15 A. Yes. I am sponsoring an exhibit consisting of one document, JLR-1, which is
16 attached to my rebuttal testimony.

17 **Q. Can you summarize your testimony?**

18 A. Yes. My testimony centers on seven main points:

19 First, I believe it is reasonable and prudent to take plausible CO₂ allowance
20 prices into account when planning future generation and that the allowance
21 prices used by FPL in their planning process meet these criteria.

1 Second, while I believe that there is uncertainty involved in forecasting CO₂
2 prices, reasonable parameters can be defined to develop plausible ranges of
3 potential prices.

4
5 Third, the CO₂ prices that Mr. Schlissel suggests be used to evaluate the
6 economics of building FGPP, and his high case in particular, are extreme and
7 represent a view unsupported by any analysis conducted by Mr. Schlissel and
8 Synapse. I say this because of a variety of policy and technology options that
9 I believe are likely to be employed that will reduce the cost of CO₂
10 allowances. These include the use of offsets and international allowance
11 trading and the deployment of new low emitting technologies including
12 nuclear, coal with carbon capture and sequestration (CCS), and renewables
13 such as wind and biomass.

14
15 Fourth, as has been stated in previous testimony by Rene Silva (pg 34), the
16 economics of building gas versus coal will largely hinge on the relative fuel
17 price versus the relative cost of environmental regulation – most notably CO₂.
18 Both of these issues are highly uncertain, but plausible, integrally related
19 scenarios can be developed and appropriately weighted.

20
21 Fifth, even if one assumes that allowance prices could potentially reach
22 \$50/ton from a fundamental perspective, I do not believe that many countries,

1 including the U.S., would tolerate the impact that such an allowance price
2 would have on the broader economy.

3
4 Sixth, not only does Mr. Schlissel's \$50/ton CO₂ price represent an extreme
5 view, but there is no evidence that he has effectively or systematically
6 modeled CO₂ prices using industry-accepted modeling techniques.

7
8 And seventh, Mr. Schlissel's characterization of EIA and MIT analyses are
9 incomplete and selective.

10 **Q. Do you believe it is reasonable and prudent to take CO₂ allowance prices
11 into account when planning future generation?**

12 A. Yes. Although nothing is certain of course, there is increasing momentum in
13 the U.S. that points to the fact that CO₂ will most likely be regulated in the
14 mid to long-term. This is evident in the six legislative initiatives that have
15 been introduced in the 110th Congress.

16 **Q. Will potential CO₂ emission reduction requirements tend to favor new
17 natural gas power plants over new coal power plants, all else being equal?**

18 A. Yes. This is because coal power plant emissions of CO₂ are higher per unit of
19 fuel input and electrical output compared to gas plants, and this issue is not in
20 dispute. What is in dispute is the extent new gas plants will be favored.

21 **Q. Are there aspects of CO₂ emission regulations that tend to mitigate the
22 effect on coal power plants?**

23 A. Yes. The principal mitigants are:

- 1 • Natural gas demand is expected to increase due to CO₂ emission
2 regulations and as a result, natural gas prices are expected to be higher
3 than otherwise would be the case. This natural gas price increase is
4 expected to be substantial and must be accounted for in any analysis of
5 a policy to control CO₂. This increase in gas prices at least partially
6 rebalances the cost comparison in favor of coal plants, especially high
7 efficiency coal plants, to say nothing of the reliability benefits
8 associated with fuel diversity.
- 9 • Coal demand is expected to decrease, especially from older existing
10 plants. As a result, coal prices would be lower than if CO₂ reduction
11 regulations did not exist, also partly readjusting the balance. While
12 this effect is likely to be smaller than the gas price increase, it should
13 be considered.
- 14 • Allocations of CO₂ emission allowances or permits from the
15 government can be extremely valuable in a marketized version of CO₂
16 control. The U.S. DOE considers the technology being proposed by
17 FPL as a clean coal technology. This is because it uses advanced
18 technology to increase thermal efficiency and could be favored by the
19 provision of extra CO₂ emission allowance allocations. This can also
20 partially redress the balance between new coal and gas plants in the
21 favor of coal. As an example, with regards to clean coal technology,
22 the Feinstein Bill to control CO₂ emissions S. 317 orders the EPA to
23 create a definition of 'qualifying advanced clean coal technology'

1 within 18 months of enactment. It must reflect advances in available
2 technology, taking into consideration net thermal efficiency, measures
3 to capture and sequester carbon dioxide, and output-based emission
4 rates for CO₂, SO₂, NO_x, PM, and Hg. In another example, in Europe,
5 CO₂ emission allowance allocations are being used to cushion the
6 effect on various sectors in accordance with national policy. A fair
7 consideration of the decision to build new coal plants like the one
8 being proposed by FPL must at least give qualitative consideration to
9 this potential.

10 **Q. What are the factors that tend to limit future long-term CO₂ emission**
11 **allowance prices separate from limiting the stringency of the policy?**

12 **A.** There are numerous options for reducing CO₂ and other greenhouse gas
13 (GHG) emissions (CH₄, N₂O, PFC, HFC and SF₆) which are believed to
14 contribute to climate change. These various measures of reducing GHG
15 emissions form a supply curve of mitigation options. In order for CO₂ prices
16 to be extremely high, not only does the demand for CO₂ reductions have to be
17 high (i.e., the program is very stringent), but the supply of reductions has to be
18 severely limited. The CO₂ reduction options that should be addressed in an
19 analysis of CO₂ emission allowance prices include a combination of on-
20 system reductions specific to the power system and off-system reductions, or
21 offsets, which occur outside the power sector. On-system reductions include
22 measures such as fuel switching, unit redispatch, technology and efficiency
23 improvements at existing units as well as the deployment of carbon capture

1 and sequestration, nuclear power and renewables. The deployment and
2 adoption of energy efficiency measures can also play a role. Off-system
3 reductions include such measures as CO₂ offsets from forestry and other
4 sources, and non-CO₂ greenhouse gas (GHG) reductions from other sectors.
5 These include both reductions that occur domestically in the U.S., as well as
6 those that occur abroad, particularly in developing countries. Taken as a
7 whole, these mitigating options are significant and, depending on the way in
8 which CO₂ regulation is implemented and coupled with other market forces,
9 could significantly offset any direct cost differential between a gas-fired plant
10 and a coal-fired plant imposed by CO₂ regulation.

11 **Q. Can you elaborate on the on-system reductions in more detail?**

12 **A.** Yes. On-system reductions, as mentioned above include a portfolio of
13 measures and actions that the power system, in aggregate, can undertake to
14 reduce CO₂ emissions. These measures can impact the dispatch and, in some
15 cases, the fuel choices of existing units as well as decisions regarding what
16 type of new capacity is added to the system in the future to meet load growth
17 and peak demand plus reserve margin requirements. In forecasting CO₂
18 allowance prices, new build options and their cost and performance
19 characterizations play an important role in determining the cost of complying
20 with future carbon constraints. Assumptions regarding the ability of existing
21 units to retrofit with controls can also play a role.

1 Q. Is it reasonable to believe that carbon capture and sequestration (CCS)
2 will play a role in mitigating rapid growth in CO₂ costs?

3 A. Yes. Numerous parties have discussed the importance of CCS in meeting
4 future energy needs in the U.S. and the world and are encouraging research
5 and development of CCS options. A recent study by MIT called "The Future
6 of Coal" concluded that CCS is "the critical enabling technology that would
7 reduce CO₂ emissions significantly while also allowing coal to meet the
8 world's pressing energy needs." (Executive Summary, p.x) President Bush has
9 stated that CCS is a top priority and supports the FutureGen project to develop
10 a low- to zero-emissions coal plant early in the next decade. Two bills have
11 been introduced this Congressional session with goals of providing financial
12 support to facilities that capture carbon emissions and improving carbon
13 capture and sequestration research, development and demonstration (S. 155
14 and S. 962).

15
16 There is a large effort underway, both in the private and public sectors, to
17 evaluate the technologies and resources necessary for CCS to work. The U.S.
18 Department of Energy's National Energy Technology Laboratory (NETL) is
19 working on several fronts to bring CCS to commercialization. These include:
20 developing a network of regional partnerships to determine approaches for
21 CCS; funding several technology research projects to assess the potential for
22 different capture options; and researching measurement, monitoring and
23 verification approaches for the CO₂ once it is stored.

1 Q. Does the MIT study indicate any factors with potential to alter the cost of
2 retrofitting CCS on existing plants?

3 A. Yes. According to the study, the largest source of efficiency loss observed
4 with CO₂ capture on a pulverized coal plant and therefore the largest cost
5 increase comes from recovering the CO₂. The efficiency loss associated with
6 this process could potentially be reduced by one-half with a more efficient
7 capture technology, resulting in a decrease in costs per ton of CO₂ of 25%. (p.
8 28)

9 Q. Can you elaborate on the off-system reductions in more detail?

10 A. Yes. Off-system reductions, or offsets, represent the ability to reduce CO₂ or
11 CO₂ equivalent emissions from the six greenhouse gases identified under the
12 Kyoto Protocol (CO₂, CH₄, N₂O, PFC, HFC and SF₆) outside of the GHG
13 regulated sector. One of course has to be convinced these offsets represent
14 reductions that are equivalent to reduced on-system emissions; measurement
15 and verification protocol are currently being developed to assure that these
16 off-system reductions are real and quantifiable. The Kyoto Protocol has set
17 up flexibility mechanisms such as the Clean Development Mechanism (CDM)
18 and Joint Implementation (JI) mechanisms to assure that compliance with a
19 CO₂ cap can be met through the investment in, and purchase of, low cost
20 GHG abatement options.

21

22 Offsets exist both domestically and internationally. ICF has been at the
23 forefront of developing the inventory and cost of these potential reductions

1 through the development of both domestic marginal abatement cost curves
2 (MACCs) for the U.S. EPA and international MACCs for the International
3 Energy Agency (IEA), and we incorporate these MACC curves in our
4 analyses.

5 **Q Can you explain why you think the CO₂ allowance price forecasts**
6 **developed by Synapse are unreasonable?**

7 A. Yes. I believe that the CO₂ price forecasts developed by Synapse are
8 unreasonable because Synapse has not conducted any modeling in order to
9 forecast CO₂ allowance prices. In developing prices they have relied
10 indirectly upon studies conducted by others, giving no explanation of how
11 they arrived at the specific CO₂ price forecasts represented.

12 **Q. What is wrong with relying on other studies?**

13 A. There are several problems. First, the studies in some cases analyze the same
14 program with very different results. An expert opinion should not give equal
15 weight to contradictory inputs or methodologies. Second, the studies are of
16 different vintages and some are likely out-of-date. Mr. Schlissel elsewhere
17 emphasizes in his testimony recent developments and should not ignore recent
18 information here. Third, the studies in some cases have clear and obvious
19 methodological flaws which Mr. Schlissel ignores. These studies should not
20 be included. Fourth, Synapse selectively used certain scenarios from studies,
21 ignoring or rejecting others with no explanation. Fifth, there are certain
22 aspects of these studies that are not apparent to outsiders without full and
23 complete access to the models, data, results, limitations, etc. This would not

1 be a problem if Synapse and Mr. Schlissel did their own analysis and
2 presented the results of their own studies.

3 **Q. Can you provide examples of flaws in the studies that should have caused**
4 **them to be given significantly less weight?**

5 **A. Yes. Examples of significant problems include:**

- 6 • EPA Analysis of S. 843 – This analysis used offset curves only and did
7 not include CO₂ costs in plant dispatch and operation.
- 8 • MIT was not an energy sector specific model. The Emissions
9 Prediction and Policy Analysis Model is a multi-regional general
10 equilibrium model of the world economy. The version of the model
11 used in their analysis did not have the capability to represent policies
12 that discriminate among economic sectors, so MIT approximated the
13 S. 139 as applying to the entire United States economy, rather than
14 only applying it to the specific affected sectors. The MIT study
15 explains this probably causes a slight overestimation of CO₂ prices, yet
16 this point is ignored by Mr. Schlissel.
- 17 • Tellus and EIA use the National Energy Modeling System (NEMS),
18 developed by EIA, but with contradictory results. While the electric
19 sector representation in NEMS is reasonable from a national
20 perspective, it lacks detail at the regional level. For example, NEMS
21 lacks transmission transfer capabilities and treats each NERC region as
22 one large market. There is a general lack of granularity at the more
23 disaggregated regional level. The contradictory results, as filed by Mr.

1 Schlissel in exhibit DAS-3, are the result of widely divergent input
2 assumptions. Mr. Schlissel makes no determination as to which set of
3 assumptions are more or less plausible and therefore which outcome
4 should be given greater weight.

5 • It is important to note that the model developed and used by ICF – the
6 Integrated Planning Model (IPM[®]) has undergone a rigorous peer
7 review process and is regularly used for financial due diligence and
8 regulatory analysis.

9 **Q. Can you provide examples of studies of the same program which are**
10 **widely divergent?**

11 A. Yes. Mr. Schlissel identifies three studies each (MIT, EIA, Tellus) of the two
12 versions of the McCain Lieberman bill (S139 and SA 2028) with widely
13 different results. Nonetheless, he gives equal weight to each. The Tellus
14 results are much lower for the same program compared to EIA and Mr.
15 Schlissel provides no view as to which is correct.

16 **Q. How does Mr. Schlissel handle multiple results in the same study?**

17 A. He excludes results from some of the studies without explanation. For
18 example, the MIT study was conducted with and without offsets and with
19 different baseline growth assumptions, but it is unclear which version of the
20 analysis he is presenting. Understanding the amount of offsets and their cost
21 is critical to understanding the relative impact of on-system reductions versus
22 the amount of reductions coming from outside the system. These factors

1 together determine the effective stringency of a CO₂ policy and determine the
2 directionality and order of magnitude of the allowance price forecast.

3

4 Additionally, Mr. Schlissel does not explain why one scenario from a study
5 was accepted and plotted while other scenarios were rejected. For example, in
6 presenting the EIA analysis of S. 139, Mr. Schlissel showed only one set of
7 results (the analysis of S. 139 with *AEO2003* reference case assumptions)
8 from a study that included eight sensitivity analyses. Among the sensitivities
9 left out is an analysis of the bill using *AEO2003* high technology assumptions
10 (earlier availability, lower cost, and higher efficiencies for advanced
11 technologies), which results in CO₂ allowance prices that are 25% lower in
12 2010 and 29% lower in 2025.

13 **Q. Do any or all of the analyses address the effects of CO₂ on gas and coal
14 prices?**

15 **A.** Mr. Schlissel provides CO₂ prices but not fuel prices, and the numerous
16 studies he relied upon have different treatment ranging from no treatment to
17 more nuanced treatment. While Mr. Schlissel seems to acknowledge that gas
18 prices are important in evaluating power sector economics, he gives no weight
19 to the fact that CO₂ policy would have a direct impact on the price of natural
20 gas. I believe this is a key flaw in his understanding of how CO₂ prices are
21 determined and the feedback that CO₂ has on fuel prices in general and gas
22 prices in particular.

1 Q. Do any or all of the analyses address the effects of new technologies in
2 mitigating the growth in CO₂ allowance price projections that were
3 developed?

4 A. All studies implicitly had to make assumptions in this regard even if that
5 assumption was no technological improvement. Some of the studies
6 conducted by EIA for example did explicitly include an advanced technology
7 scenario that resulted in lower CO₂ prices – and it is interesting to note that
8 Mr. Schlissel explicitly chose not to represent those lower CO₂ prices in his
9 presentation of the different analyses or to take them into account when he
10 interpolated between the price points of the various analyses. Mr. Schlissel
11 himself does not provide a view regarding the issue of technology
12 development in mitigating CO₂ prices other than to say it is a contributing
13 factor.

14 Q. Do any or all of the analyses address the effects of alternative emission
15 allowance allocation programs?

16 A. Mr. Schlissel does not address this important issue and treatment of this issue
17 varies across the studies. None address the issue of clean coal technology
18 allowance bonuses.

19 Q. Does Mr. Schlissel contradict Synapse and his own testimony by giving
20 equal weight to the High CO₂ Case?

21 A. Yes, in his corrected direct testimony, Exhibit DAS-3, pg 53 of 63, Mr.
22 Schlissel says “the most likely scenario (will be) closer to (though not equal
23 to) low-case scenarios than the high case scenario...”. He states that after

1 2030 allowance prices could be higher in response to more stringent emissions
2 caps to achieve atmospheric stabilization. This notwithstanding, he gives
3 added weight to the high CO₂ case in his supplemental testimony where he
4 concludes that the proposed new coal plant has costs above new gas plants. I
5 discuss this contradiction later in my testimony.

6 **Q. Do you find Mr. Schlissel's CO₂ scenarios reasonable?**

7 A. No, for all the reasons I describe above. I especially take issue with his higher
8 CO₂ estimates which reach \$40 to \$50/ton CO₂. These scenarios represent
9 extreme views and should be given a very low weight by decisions makers. It
10 is important to note the extreme implications of a \$50/ton CO₂ price on the
11 power sector specifically and the U.S. economy in general. These
12 implications include:

- 13 • Very large increases in natural gas prices of \$2/MMBtu in real 2006
14 dollars. Natural gas is a crucial fuel for home heating and industrial
15 activity, including power generation.
- 16 • Very large decreases in coal use of 40 percent with adverse
17 consequences for coal using and producing areas.
- 18 • Average power sector costs increase 3¢/kWh in 2006 dollars versus
19 U.S. average rates of approximately 7¢/kWh.
- 20 • If \$50/ton CO₂ is applied nationwide, this is equivalent to adding \$357
21 billion in costs in today's dollars. On a net present value basis, this
22 equals roughly \$3.6 trillion dollars. Total wealth of U.S. households

1 (real estate, stocks, bonds, bank deposits) is \$45 trillion, and hence,
2 such a program equals a burden 8 percent of total U.S. wealth.

- 3 • U.S. power sector CO₂ emissions by 2030 decrease 47 percent from
4 base line. China alone is increasing its CO₂ emissions by over 10
5 percent per year and is poised to overtake the U.S. this year as the
6 world's largest carbon emitter and is not subject to controls as are
7 many other countries. The \$50/ton price is associated with small
8 effects in terms of CO₂ controls, but huge economic effects, and hence,
9 is extreme.

10 Current CO₂ prices in Europe are \$6/ton. Thus, there is no history to support
11 \$50/ton, adding to the implausibility and the inappropriateness of such an
12 extreme price forecast.

13 **Q. How do you forecast CO₂ emission prices?**

14 A. ICF explicitly takes into account up-to-date policy, market and technical
15 information and integrates these factors in our sophisticated modeling
16 framework – the Integrated Planning Model (IPM[®]) that has been used by
17 multiple utilities as well as by the US EPA and others. When conducting this
18 type of analysis, we take into account the fundamental supply and demand of
19 CO₂ reduction options including on-system reductions, offsets and alternative
20 technologies. This allows us to provide decision makers a coherent integrated
21 and documented view upon which to base decisions. Further, since it is our
22 analysis, we are in a position to fully present it in forums such as this
23 proceeding.

1 Q. Did you model the CO₂ allowance prices used by FPL in their analysis?

2 A. Yes. ICF developed these CO₂ allowance price streams by conducting
3 rigorous, bottom-up analyses of the cost of meeting specific CO₂ cap limits
4 using our IPM[®] model. We specifically developed the following scenarios:

- 5 • Mild CO₂ – representative of the Senator Bingaman’s Policy (S.A.
6 868) as proposed in 2005.
- 7 • Stringent CO₂ – representative of the Senators McCain and
8 Lieberman’s (S. 1151) policy as introduced in 2006.
- 9 • Moderate CO₂ – representative of a weighted price stream that used
10 the Bingaman and McCain-Lieberman policies as noted above plus an
11 analysis ICF conducted of Senator Carper’s policy introduced in 2006.

12

13 It is important to note that CO₂ prices, like any allowance price under a cap
14 and trade policy, are representative of the marginal cost of imposing emissions
15 limits. In the case of CO₂, meeting those emission limits can mean a variety
16 of responses as noted earlier including fuel switching away from more carbon
17 intensive fuels, shifting dispatch away from less efficient generation sources,
18 building more efficient generation such as ultra-super critical pulverized coal,
19 and building less carbon-intensive, but generally more expensive generation
20 sources such as renewables.

1 Q. Is this approach consistent with your firm's historical role in assessing
2 the impacts of air emission regulations?

3 A. Yes. ICF has a long history of forecasting emission allowance prices and the
4 impact of air regulations on the power and other sectors. This capability has
5 been built over the past three decades through the Firm's continuous support
6 for the U.S. EPA Office of Air and Radiation, as well as our work with a wide
7 range of utilities, merchant generators, power marketers, environmental
8 groups, fuel companies, and public agencies across the country and
9 internationally. Our analysis is based on the same framework that we use for
10 our power market evaluation, providing internal analytical consistency. As
11 noted, ICF has been the leading consultant to the US Environmental
12 Protection Agency and to commercial industry on the economic and
13 environmental impacts of the Clean Air Act Amendments (CAAA) and other
14 environmental policies for over 30 years. We evaluated the costs of
15 compliance with the acid rain regulations (Title IV) of the CAAA of 1978 and
16 1990, focusing on forecasted effects on utility SO₂ emissions, utility costs,
17 electricity rate increases, and regional coal markets.

18
19 Prior to the CAAA, ICF evaluated all of the major legislative proposals from
20 industry and environmental groups, appraising the emissions, costs, and coal
21 market impacts of various proposed and final revisions to the CAAA. We
22 have assessed impacts of SO₂ emissions trading on utility compliance costs
23 and regional coal markets under an acid rain control program. We continue to

1 support EPA's air regulatory analyses. We were the lead analysts supporting
2 the Clean Air Power Initiative (CAPI); provided analytic and other support for
3 the SIP Call process; provided carbon related analysis, and currently support
4 ongoing multi-pollutant and related analyses including the Clear Skies Act,
5 Senator Carper's Clean Air Planning Act, the Clean Air Interstate Rule
6 (CAIR) and Clean Air Mercury Rule (CAMR) regulations and mercury
7 maximum achievable control technology (MACT) proposals. In addition, ICF
8 has been one of the world's leading firms in the development and application
9 of GHG estimation protocols. We have provided technical knowledge of
10 GHG and other emissions sources in energy production operations to a wide
11 range of clients including the Federal Government, the Intergovernmental
12 Panel on Climate Change, Environment Canada, the UN, World Bank, and a
13 number of public and private organizations across the U.S. and in Europe. We
14 are increasingly working with states and regions to analyze the impacts of
15 regional emissions caps, including the Regional Greenhouse Gas Initiative
16 (RGGI), and the states of New York and Connecticut.

17 **Q. Are there any errors in Mr. Schlissel's supplemental direct testimony that**
18 **are pertinent to your rebuttal?**

19 **A. Yes.** In Table 1 of his supplemental direct testimony, Mr. Schlissel makes
20 two errors in replicating summary results originally provided in Mr. Silva's
21 direct testimony. Table 1 shows the summary results of the cost differential
22 analysis described in Mr. Silva's direct testimony and notes the errors made
23 by Mr. Schlissel in his representation of the same results. A negative value in

1 the table indicates that the Plan with Coal is less costly than the Plan without
 2 Coal.

Table 1. Cost Differentials of FPL Scenarios (Millions, 2006\$)

Fuel Cost Forecasts	Environmental Compliance Cost Forecasts			
	A – No CO ₂	B – Low CO ₂	C – MidCO ₂	D – High CO ₂
High Differential	(2,792)	(2,045)	(1,127)	(666)*
Shocked Differential	(873)	(113)	804	1,278
Medium Differential	(219)	537	1,466	1,930
Low Differential	1,912^	2,670	3,604	4,037

* In his Supplemental Direct Testimony, Mr. Schlissel entered an incorrect value of 1,912.

^ In his Supplemental Direct Testimony, Mr. Schlissel entered an incorrect value of (1,912).

3 **Q. Can you please explain why Mr. Schlissel’s conclusions from the results**
 4 **shown in Table 1 are unreasonable?**

5 **A.** In his examination of the results in Table 1, Mr. Schlissel states that the cases
 6 under Environmental Cost A “are not reasonable and should not be
 7 considered.” Similarly, he describes the Low CO₂ cost forecast in column B
 8 as an “unreasonable assumption over such a long period of time.” He then
 9 concludes that “just one out of eight scenarios ... suggest[s] that FGPP would
 10 be the lower cost capacity addition to FPL’s system,” referring to the case
 11 combining CO₂ Cost Forecast C and the High Differential Fuel Forecast.

1 I would first point out that correcting the error in Mr. Schlissel's Table 1, even
2 under his unduly narrow approach, results in 2 of the 8 scenarios showing
3 FGPP as the lower cost option relative to new gas capacity.

4
5 More importantly, however, is that Mr. Schlissel fails to evaluate the potential
6 for each of the scenarios with an integrated view of fuel and CO₂ markets and
7 therefore is too broad in his determination of which scenarios he considers
8 reasonable. As discussed earlier, ICF regularly analyzes the interactions of
9 fuel markets and environmental regulations. In those analyses, it quickly
10 becomes apparent that as environmental costs for coal-fired plants increase
11 relative to those for gas-fired plants, as they would under any sort of CO₂
12 regulation, the demand for gas-fired generation and therefore for natural gas
13 itself increases. At the same time, coal prices tend to decrease, broadening the
14 differential between gas and coal prices.¹ Therefore, the Fuel Cost Forecasts
15 with lower differentials between gas and solid fuel costs are unlikely under the
16 Mid and High Environmental Cost Forecasts.

17
18 By narrowing Mr. Schlissel's subset of 8 cases further by removing the Low
19 and Medium Differential Fuel Cost Forecasts, 2 of 4 cases show FGPP as the
20 lower cost option for FPL's system, with the upside of the project roughly
21 equivalent to the downside. Based on this subset of cases in Table 1, the

¹ Mr. Yupp describes the relationship between environmental cost and gas prices the same way in his testimony.

1 upper bound of the potential cost of FGPP over natural gas generation is
2 \$1.278 billion, as compared to Mr. Schlissel's conclusion of \$4.037 billion.

3 **Q. Would higher CO₂ costs than those included in the analysis in Table 1,**
4 **such as the Synapse Mid and High Cases proposed by Mr. Schlissel,**
5 **increase the potential cost of FGPP relative to the costs presented in**
6 **Table 1?**

7 A. Not necessarily. First, as discussed earlier, I believe the higher CO₂ costs
8 proposed by Synapse are unreasonable for a number of reasons. But even if
9 CO₂ costs did rise above those assumed in the High Environmental Cost
10 Forecast reflected in Table 1, natural gas prices would likely rise as well,
11 thereby offsetting some of the additional cost incurred by FGPP relative to a
12 gas-fired generator. Depending on the relative stringency and the reaction of
13 gas prices, FGPP may or may not remain the lower cost option for FPL's
14 customers.

15 **Q. So Mr. Schlissel's conclusion that the cost to FPL's customers "would rise**
16 **significantly above \$4.037 billion" under Synapse's Mid and High CO₂**
17 **Price Forecasts is unreasonable?**

18 A. Yes, for a couple of reasons. First, Mr. Schlissel uses the highest cost in
19 Table 1 as a basis for his comparison even though, as noted above, the
20 combination of a High CO₂ cost and low fuel price differential is very
21 unlikely. I would argue that the Shocked or High Differential costs would
22 serve as the starting point for such a comparison. Second, the higher CO₂

1 costs assumed in the Synapse cases would drive up gas prices, offsetting some
2 of the added cost to FGPP of the higher CO₂ cost.

3

4 As with the Synapse CO₂ forecasts themselves, Synapse does not appear to
5 have done any analysis to support Mr. Schlissel's claim that costs would rise
6 "significantly" and certainly not as compared to the \$4.037 billion value.

7

8 In fact, Mr. Schlissel concedes in his recent deposition that while he
9 understands that CO₂ regulations have the effect of increasing natural gas
10 prices, no specific gas price forecast or price response was assumed in his
11 studies. By not taking a position on this effect, he did not adequately consider
12 the impacts to natural gas prices that would result from higher CO₂ prices.

13 **Q. Does this conclude your testimony?**

14 **A. Yes.**

JUDAH L. ROSE

EDUCATION

- 1982 M.P.P., John F. Kennedy School of Government, **Harvard University**
- 1979 S.B., Economics, **Massachusetts Institute of Technology**

EXPERIENCE

Judah L. Rose joined ICF in 1982 and currently serves as a Managing Director of ICF International. Mr. Rose has more than 25 years of experience in the energy industry, with emphasis on electric power, generation and transmission. Mr. Rose directs ICF International's wholesale power Line of Business (including assistance to electric utilities, financial institutions, law firms, government agencies, fuel companies, and IPPs). Mr. Rose is one of ICF's Distinguished Consultants, an honorary title given to three of ICF's 1,800 employees, and has served on the Board of Directors of ICF International as the Management Shareholder Representative. Mr. Rose co-manages ICF's IPM[®] (Integrated Power Model). Mr. Rose has supported the financing of tens of billion dollars of new and existing power plants and is a frequent counselor to the financial community on power issues. Mr. Rose has also served as lead negotiator, and he frequently provides expert testimony and litigation support in power-related court cases. Mr. Rose received a M.P.P. from the John F. Kennedy School of Government, Harvard University, and an S.B. in Economics from the Massachusetts Institute of Technology.

Mr. Rose has publicly testified in scores of state and other legal proceedings, addressed approximately 100 major energy conferences, authored numerous articles published in Public Utilities Fortnightly, the Electricity Journal, Project Finance International, and written numerous company studies on power, coal, and gas related issues, and managed large consulting projects. Mr. Rose has also appeared in TV interviews. Details are provided below.

PRESS INTERVIEWS

TV: "The Most With Allison Stewart," MSNBC, "Blackouts in NY and St. Louis & ongoing Energy Challenges in the Nation," July 25, 2006
CNBC Wake-Up Call, August 15, 2003
Wall Street Journal Report, July 25, 1999
Back to Business, CNBC, September 7, 1999

Journals: Electricity Journal
Energy Buyer Magazine
Public Utilities Fortnightly
Power Markets Week

Magazine: Business Week

Power Economics
Costco Connection

Newspapers: Denver Post
Rocky Mountain News
Financial Times Energy
LA Times
Arkansas Democratic Gazette
Galveston Daily News
The Times-Picayune
Pittsburgh Post-Gazette
Power Markets Week

Wires: Bridge News
Associated Press
Dow Jones Newswires

TESTIMONY

Confidential Expert Report, Nuclear Power Siting, December 2006, South Carolina.

Electric Utility Power Hedging, on behalf of Duke Energy Indiana, Cause No. 38707-FAC6851, February 9, 2007.

CPCN for Cliffside Coal Plant, on behalf of Duke Carolinas, Docket No. E7, SUB790, December 2006.

IGCC Coal Plant, Testimony on behalf of Duke Energy Indiana, Cause No. 43114, October 2006.

Expert Report, Chapter 11, Case No. 01-16034 (AJG) and Adv. Proc. No. 04-2933 (AJG), November 6, 2006.

Market Power and the PSEG Exelon Merger on Behalf of the NJBPU Staff, NJBPU, BPU Docket No. EM05020106, OAL Docket No. PUC-1874-05, Supplemental Testimony March 20, 2006.

Market Power and the PSEG Exelon Merger on Behalf of the NJBPU Staff, NJBPU, BPU Docket No. EM05020106, OAL Docket No. PUC-1874-05, Surrebuttal Testimony December 27, 2005.

Market Power and the PSEG Exelon Merger on Behalf of the NJBPU Staff, NJBPU, BPU Docket No. EM05020106, OAL Docket No. PUC-1874-05, November 14, 2005.

Brazilian Power Purchase Agreement, confidential international arbitration, October 2005.

Cost of Service and Fuel Clause Issues, Rebuttal Testimony on behalf of Public Service of New Mexico, Docket No. EL05-151, November 2005.

Cost of Service and Peak Demand, FERC, Testimony on behalf of Public Service of New Mexico, September 19, 2005, Docket No. EL05-19.

Cost of Service and Fuel Clause Issues, Testimony on behalf of Public Service of New Mexico, FERC Docket No. EL05-151-000, September 15, 2005.

Prudence of Acquisition of Power Plant, Testimony on behalf of Redbud, September 12, 2005, No. PUD 200500151.

Proposed Fuel Cost Adjustment Clause, FERC, Docket Nos. EL05-19-002 and ER05-168-001 (Consolidated), August 22, 2005.

Market Power and the PSEG Exelon Merger on Behalf of the NJBPU, FERC, Docket EC05-43-000, May 27, 2005.

New Air Emission Regulations and Investment in Coal Power Plants, rebuttal testimony on behalf of PSI, April 18, 2005, Causes 42622 and 42718.

Rebuttal Report: Damages due to Rejection of Tolling Agreement Including Discounting, February 9, 2005, CONFIDENTIAL.

New Air Emission Regulations and Investment in Coal Power Plants, supplemental testimony on behalf of PSI, January 21, 2005, Causes 42622 and 42718.

Damages Due to Rejection of Tolling Agreement Including Discounting, January 10, 2005, CONFIDENTIAL.

Discount rates that should be used in estimating the damages to GTN of Mirant's bankruptcy and subsequent abrogation of the gas transportation agreements Mirant had entered into with GTN, December 15, 2004. CONFIDENTIAL

New Air Emission Regulations and Investment in Coal Power Plants, testimony on behalf of PSI, November 2004, Causes 42622 and 42718.

Rebuttal Testimony of Judah Rose on behalf of PSI, Cause No. 42469, August 23, 2004.

Rebuttal Testimony of Judah Rose on behalf of the Hopi Tribe, Case No. A.02-05-046, June 4, 2004.

Supplemental Testimony "Retail Generation Rates, Cost Recovery Associated with the Midwest Independent Transmission System Operator, Accounting Procedures for Transmission and Distribution System, Case No. 03-93-EL-ATA, 03-2079, EL-AAM, 03-2081, EL-AAM, 03-2080, EL-ATA for Cincinnati Gas & Electric, May 20, 2004.

- "Application of Southern California Edison Company (U338-E) Regarding the Future Disposition of the Mohave Generating Station," May 14, 2004.
- "Appropriate Rate of Return on Equity (ROE) TransAlta Should be Authorized For its Capital Investment Related to VAR Support From the Centralia Coal-Fired Power Plant", for TransAlta, April 30, 2004, FERC Docket No. ER04-810-000.
- "Retail Generation Rates, Cost Recovery Associated with the Midwest Independent Transmission System Operator, Accounting Procedures for Transmission and Distribution System, Case No. 03-93-EL-ATA, 03-2079, EL-AAM, 03-2081, EL-AAM, 03-2080, EL-ATA for Cincinnati Gas & Electric, April 15, 2004.
- "Application of Southern California Edison Company (U338-E) Regarding the Future Disposition of the Mohave Generating Station," May 14, 2004.
- "Appropriate rate of return on equity (ROE) TransAlta should be authorized for its capital investment related to VAR support from the Centralia coal-fired power plant", for TransAlta, April 30, 2004.
- "Retail Generation Rates, Cost Recovery Associated with the Midwest Independent Transmission System Operator, Accounting Procedures for Transmission and Distribution System, Case No. 03-93-EL-ATA, 03-2079, EL-AAM, 03-2081, EL-AAM, 03-2080, EL-ATA for Cincinnati Gas & Electric, April 15, 2004.
- "Valuation of Selected MIRMA Coal Plants, Acceptance and Rejection of Leases and Potential Prejudice to Leasors" Federal Bankruptcy Court, Dallas, TX, March 24, 2004
CONFIDENTIAL.
- "Certificate of Purchase as of yet Undetermined Generation Facility", Cause No. 42469 for PSI, March 23, 2004.
- "Ohio Edison's Sammis Power Plant BACT Remedy Case", In the United States District Court of Ohio, Southern Division, March 8, 2004.
- "Valuation of Power Contract," January 2004, confidential arbitration.
- "In the matter of the Application of the Union Light Heat & Power Company for a Certificate of Public Convenience and Necessity to Acquire Certain Generation Resources, etc.", before the Kentucky Public Service Commission, July 21, 2003.
- "In the Supreme Court of British Columbia", July 8, 2003. CONFIDENTIAL
- "The Future of the Mohave Power Plant – Rebuttal Testimony", California P.U.C., May 20, 2003.
- "Affidavit in Support of the Debtors' Motion", NRG Bankruptcy, May 14, 2003. CONFIDENTIAL
- "IPP Power Purchase Agreement," confidential arbitration, April 2003.

"The Future of the Mohave Power Plant", California P.U.C., March 2003.

"Power Supply in the Pacific Northwest," contract arbitration, December 5, 2002.
CONFIDENTIAL

"Power Purchase Agreement Valuation", Confidential Arbitration, October 2002.

"Cause No. 42145 - rebuttal testimony on behalf of PSI. Filed on 8/23/02."

"Cause No. 42200 - in support of PSI's petition for authority to recover through retail rates on a timely basis. Filed on 7/30/02."

"Cause No. 42196 - in support of PSI's petition for interim purchased power contract. Filed on 4/26/02."

"Cause No. 42145 - in support of PSI's petition for authority to acquire the Madison and Henry County plants. Filed on 3/1/2002."

"Analysis of an IGCC Coal Power Plant", Minnesota state senate committees, January 22, 2002

"Analysis of an IGCC Coal Power Plant", Minnesota state house of representative committees, January 15, 2002

"Interim Pricing Report on New York State's Independent System Operator", New York State Public Service Commission (NYSPSC), January 5, 2001

"The need for new capacity in Indiana and the IRP process", Indiana Utility Regulatory Commission, October 26, 2000

"Damage estimates for power curtailment for a Cogen power plant in Nevada", August 2000.
CONFIDENTIAL

"Valuation of a power plant in Arizona", arbitration, July 2000. CONFIDENTIAL

Application of FirstEnergy Corporation for approval of an electric Transition Plan and for authorization to recover transition revenues, Before PUCO, Case No. 99-1212-EL-ETP, October 4, 1999 and April 2000.

"Issues Related to Acquisition of an Oil/Gas Steam Power plant in New York", September 1999
Affidavit to Hennepin County District Court, Minnesota

"Wholesale Power Prices, A Cost Plus All Requirements Contract and Damages", July 1999.
Testimony to U.S. Bankruptcy Court.

"Power Prices." Testimony in confidential contract arbitration, July 1998.

"Horizontal Market Power in Generation." Testimony to New Jersey Board of Public Utilities, May 22, 1998.

"Basic Generation Services and Determining Market Prices." Testimony to the New Jersey Board of Public Utilities, May 12, 1998.

"Generation Reliability." Testimony to New Jersey Board of Public Utilities, May 4, 1998.

"Future Rate Paths and Financial Feasibility of Project Financing." Testimony to U.S. Bankruptcy Court, April 1998.

"Stranded Costs of PSE&G." Testimony to New Jersey Board of Public Utilities, February 1998.

"Application of PECO Energy Company for Approval of its Restructuring Plan Under Section 2806 of the Public Utility Code." Rebuttal Testimony filed July 1997.

"Future Wholesale Electricity Prices, Fuel Markets, Coal Transportation and the Cajun Bankruptcy." Testimony to Louisiana Public Service Commission, December 1996.

"Curtailement of the Saguaro QF, Power Contracting and Southwest Power Markets." Testimony on a contract arbitration, Las Vegas, Nevada, June 1996.

"Future Rate Paths and the Cajun Bankruptcy." Testimony to the U.S. Bankruptcy Court, June 1997.

"Fuel Prices and Coal Transportation." Testimony to the U.S. Bankruptcy Court, June 1997.

"Demand for Gas Pipeline Capacity in Florida from Electric Utilities." Testimony to Florida Public Service Commission, May 1993.

"The Case for Fuel Flexibility in the Florida Electric Generation Industry." Testimony to the Florida Department of Environmental Regulation (DER), Hearings on Fuel Diversity and Environmental Protection, December 1992.

SELECTED SPEAKING ENGAGEMENTS

Rose, J.L., AESP, NEEC Conference, Rising Prices and Failing Infrastructure: A Bleak or Optimistic Future, Marlborough, MA, October 23, 2006.

Rose, J.L., Infocast Gas Storage Conference, "Estimating the Growth Potential for Gas-Fired Electric Generation," Houston, TX, March 22, 2006.

- Rose, J.L., "Power Market Trends Impacting the Value of Power Assets," Infocast Conference, Powering Up for a New Era of Power Generation M&A, February 23, 2006.
- Rose, J.L., "The Challenge Posed by Rising Fuel and Power Costs", Lehman Brothers, November 2, 2005.
- Rose, J.L., "Modeling the Vulnerability of the Power Sector", EUCI – Securing the Nation's Energy Infrastructure, September 19, 2005
- Rose, J.L., "Fuel Diversity in the Northeast, Energy Bar Association, Northeast Chapter Meeting, New York, NY, June 9, 2005.
- Rose, J.L., "2005 Macquarie Utility Sector Conference", Macquarie Utility Sector Conference, Vail, CO, February 28, 2005.
- Rose, J.L., "The Outlook for North American Natural Gas and Power Markets", The Institute for Energy Law, Program on Oil and Gas Law, Houston, TX, February 18, 2005.
- Rose, J.L. "Assessing the Salability of Merchant Assets – What's on the Horizon?", Infocast – The Market for Power Assets, Phoenix, AZ, February 10, 2005.
- Rose, J.L. "Market Based Approaches to Transmission – Longer-Term Role", National Group of Municipal Bond Investors, New York, NY, December 10, 2004.
- Rose, J.L. "Supply & Demand Fundamentals – What is Short-Term Outlook and the Long-Term Demand? Platt's Power Marketing Conference, Houston, TX, October 11, 2004.
- Rose, J.L. "Assessing the Salability of Merchant Assets – When Will We Hit Bottom?, Infocast's Buying, Selling, and Investing in Energy Assets Conference, Houston, TX, June 24, 2004.
- Rose, J. L. "After the Blackout – Questions That Every Regulator Should be Asking," NARUC Webinar Conference, Fairfax, VA, November 6, 2003.
- Rose, J. L., "Supply and Demand in U.S. Wholesale Power Markets," Lehman Brothers Global Credit Conference, New York, NY, November 5, 2003.
- Rose, J.L., "Assessing the Salability of Merchant Assets – When Will We Hit Bottom?", Infocast's Opportunities in Energy Asset Acquisition, San Francisco, CA, October 9, 2003.
- Rose, J.L., "Asset Valuation in Today's Market", Infocast's Project Finance Tutorial, New York, NY, October 8, 2003.
- Rose, J.L., "Forensic Evaluation of Problem Projects", Infocast's Project Finance Workouts: Dealing With Distressed Energy Projects, September 17, 2003.

- Rose, J.L., National Management Emergency Association, Seattle, WA, September 8, 2003.
- Rose, J.L., "Assessing the Salability of Merchant Assets – When Will We Hit Bottom?", Infocast's Buying, Selling & Investing in Energy Assets, Chicago, IL, July 24, 2003.
- Rose, J.L., CSFB Leveraged Finance Independent Power Producers and Utilities Conference, New York, NY, "Spark Spread Outlook", July 17, 2003.
- Rose, J.L., Multi-Housing Laundry Association, Washington, D. C., "Trends in U.S. Energy and Economy", June 24, 2003.
- Rose, J.L., "Power Markets: Prices, SMD, Transmission Access, and Trading", Bechtel Management Seminar, Frederick, MD, June 10, 2003.
- Rose, J.L., Platt's Global Power Market Conference, New Orleans, LA, "The Outlook for Recovery," March 31, 2003.
- Rose, J.L., "Electricity Transmission and Grid Security", Energy Security Conference, Crystal City, VA, March 25, 2003.
- Rose, J.L., "Assessing the Salability of Merchant Assets – When Will We Hit Bottom?", Infocast's Buying, Selling & Investing in Energy Assets, New York City, February 27, 2003.
- Rose, J.L., Panel Discussion, "Forensic Evaluation of Problem Projects", Infocast Conference, NY, February 24, 2003.
- Rose, J.L., PSEG Off-Site Meeting Panel Discussion, February 6, 2003 (April 13, 2003).
- Rose, J.L., "The Merchant Power Market—Where Do We Go From Here?" Center for Business Intelligence's Financing U.S. Power Projects, November 18-19, 2002.
- Rose, J.L., "Assessing U.S. Regional And The Potential for Additional Coal-Fired Generation in Each Region," Infocast's Building New Coal-Fired Generation Conference, October 8, 2002.
- Rose, J.L., "Predicting the Price of Power for Asset Valuation in the Merchant Power Financings, "Infocast's Product Structuring in the Real World Conference, September 25, 2002.
- Rose, J.L., "PJM Price Outlook," Platt's Annual PJM Regional Conference, September 24, 2002.
- Rose, J.L., "Why Investors Are Zeroing in on Upgrading Our Antiquated Power Grid Rather Than Exotic & Complicated Technologies," New York Venture Group's Investing in the Power Industry—Targeting The Newest Trends Conference, July 31, 2002.
- Rose, J.L., Panel Participant in the Salomon Smith Barney Power and Energy Merchant Conference 2002, May 15, 2002.

- Rose, J.L., "Locational Market Price (LMP) Forecasting in Plant Financing Decisions," Structured Finance Institute, April 8-9, 2002.
- Rose, J.L., "PJM Transmission and Generation Forecast", Financial Times Energy Conference, November 6, 2001.
- Rose, J.L., "U.S. Power Sector Trends", Credit Suisse First Boston's Power Generation Supply Chain Conference, Web Presented Conference, September 12, 2002.
- Rose, J.L., "Dealing with Inter-Regional Power Transmission Issues", Infocast's Ohio Power Game Conference, September 6, 2001
- Rose, J.L., "Where's the Next California", Credit Suisse First Boston's Global Project Finance Capital Markets Conference, New York NY, June 27 2001
- Rose, J.L., "U.S. Energy Issues: What MLA Members Need to Know," Multi-housing Laundry Association, Boca Raton Florida, June 25, 2001
- Rose, J.L., "How the California Meltdown Affects Power Development", Infocast's Power Development and Finance Conference 2001, Washington D.C., June 12, 2001
- Rose, J.L., "Forecasting 2001 Electricity Prices" presentation and workshop, What to Expect in western Power Markets this Summer 2001 Conference, Denver, Colorado, May 2, 2001
- Rose, J.L., "Power Crisis in the West" Generation Panel Presentation, San Diego, California, February 12, 2001
- Rose, J.L., " An Analysis of the Causes leading to the Summer Price Spikes of 1999 & 2000" Conference Chair, Infocast Managing Summer Price Volatility, Houston, Texas, January 30, 2001.
- Rose, J. L., " An Analysis of the Power Markets, summer 2000" Generation Panel Presentation, Financial Times Power Mart 2000 conference, Houston, Texas, October 18, 2000
- Rose, J.L., "An Analysis of the Merchant Power Market, Summer 2000" presentation, Conference Chair, Merchant Power Finance Conference, Atlanta, Georgia, September 11 to 15, 2000
- Rose, J.L., "Understanding Capacity Value and Pricing Firmness" presentation, Conference Chair, Merchant Plant Development and Finance Conference, Houston, Texas, March 30, 2000.
- Rose, J.L., "Implementing NYPP's Congestion Pricing and Transmission Congestion Contract (TCC)", Infocast Congestion Pricing and Forecasting Conference, Washington D.C., November 19, 1999.
- Rose, J.L., "Understanding Generation" Pre-Conference Workshop, Powermart, Houston, Texas, October 26-28, 1999.

- Rose, J.L., "Understanding Capacity Value and Pricing Firmness" presentation, Conference Chair Merchant Plant Development and Finance Conference, Houston, Texas, September 29, 1999.
- Rose, J.L., "Comparative Market Outlook for Merchant Assets" presentation, Merchant Power Conference, New York, New York, September 24, 1999.
- Rose, J.L., "Transmission, Congestion, and Capacity Pricing" presentation, Transmission The Future of Electric Transmission Conference, Washington, DC, September 13, 1999.
- Rose, J.L., "Effects of Market Power on Power Prices in Competitive Energy Markets" Keynote Address, The Impact of Market Power in Competitive Energy Markets Conference, Washington, DC, July 14, 1999.
- Rose, J.L., "Peak Price Volatility in ECAR and the Midwest, Futures Contracts: Liquidity, Arbitrage Opportunity" presentation at ECAR Power Markets Conference, Columbus, Ohio, June 9, 1999.
- Rose, J.L., "Transmission Solutions to Market Power" presentation, Do Companies in the Energy Industry Have Too Much Market Power? Conference, Washington, DC, May 24, 1999.
- Rose, J.L., "Repowering Existing Power Plants and Its Impact on Market Prices" presentation, Exploiting the Full Energy Value-Chain Conference, Chicago, Illinois, May 17, 1999.
- Rose, J.L., "Transmission and Retail Issues in the Electric Industry" Session Speaker, Gas Mart/Power 99 Conference, Dallas, Texas, May 10, 1999.
- Rose, J.L., "Peak Price Volatility in the Rockies and Southwest" presentation at Repowering the Rockies and the Southwest Conference, Denver, Colorado, May 5, 1999.
- Rose, J.L., "Understanding Generation" presentation and Program Chairman at Buying & Selling Power Assets: The Great Generation Sell-Off Conference, Houston, Texas, April 20, 1999.
- Rose, J.L., "Buying Generation Assets in PJM" presentation at Mid-Atlantic Power Summit, Philadelphia, Pennsylvania, April 12, 1999.
- Rose, J.L., "Evaluating Your Generation Options in Situations With Insufficient Transmission," presentation at Congestion Management conference, Washington, D.C., March 25, 1999.
- Rose, J.L., "Will Capacity Prices Drive Future Power Prices?" presentation at Merchant Plant Development conference, Chicago, Illinois, March 23, 1999.
- Rose, J.L., "Capacity Value – Pricing Firmness," presentation at Market Price Forecasting conference, Atlanta, Georgia, February 25, 1999

- Rose, J.L., "Developing Reasonable Expectations About Financing New Merchant Plants That Have Less Competitive Advantage Than Current Projects," presentation at Project Finance International's Financing Power Projects in the USA conference, New York, New York, February 11, 1999.
- Rose, J.L., "Transmission and Capacity Pricing and Constraints," presentation at Power Fair 99, Houston, Texas, February 4, 1999.
- Rose, J.L., "Peak Price Volatility: Comparing ERCOT With Other Regions," presentation at Megawatt Daily's Trading Power in ERCOT conference, Houston, Texas, January 13, 1999.
- Rose, J.L., "The Outlook for Midwest Power Markets," presentation to The Institute for Regulatory Policy Studies at Illinois State University, Springfield, Illinois, November 19, 1998.
- Rose, J.L., "Developing Pricing Strategies for Generation Assets," presentation at Wholesale Power in the West conference, Las Vegas, Nevada, November 12, 1998.
- Rose, J.L., "Understanding Electricity Generation and Deregulated Wholesale Power Prices," a full-day pre-conference workshop at Power Mart 98, Houston, Texas, October 26, 1998.
- Rose, J.L., "The Impact of Power Generation Upgrades, Merchant Plant Developments, New Transmission Projects and Upgrades on Power Prices," presentation at Profiting in the New York Power Market conference, New York, NY, October 22, 1998.
- Rose, J.L., "Capacity Value – Pricing Firmness," presentation to Edison Electric Institute Economics Committee, Charlotte, NC, October 8, 1998.
- Rose, J.L., "Locational Marginal Pricing and Futures Trading," presentation at Megawatt Daily's Electricity Regulation conference, Washington, D.C., October 7, 1998.
- Rose, J.L., Chairman's opening speech and "The Move Toward a Decentralized Approach: How Will Nodal Pricing Impact Power Markets?" at Congestion Pricing and Tariffs conference, Washington, D.C., September 25, 1998.
- Rose, J.L., "The Generation Market in MAPP/MAIN: An Overview," presentation at Megawatt Daily's MAIN/MAPP – The New Dynamics conference, Minneapolis, Minnesota, September 16, 1998.
- Rose, J.L., "Capacity Value – Pricing Firmness," presentation at Market Price Forecasting conference, Baltimore, Maryland, August 24, 1998.
- Rose, J.L., "ICF Kaiser's Wholesale Power Market Model," presentation at Market Price Forecasting conference, New York, New York, August 6, 1998.

- Rose, J.L., Campbell, R., Kathan, David, "Valuing Assets and Companies in M&A Transactions," full-day workshop at Utility Mergers & Acquisitions conference, Washington, D.C., July 15, 1998.
- Rose, J.L., "Must-Run Nuclear Generation's Impact on Price Forecasting and Operations," presentation at The Energy Institute's conference entitled "Buying and Selling Electricity in the Wholesale Power Market," Las Vegas, Nevada, June 25, 1998.
- Rose, J.L., "The Generation Market in PJM," presentation at Megawatt Daily's PJM Power Markets conference, Philadelphia, Pennsylvania, June 17, 1998.
- Rose, J.L., "Market Evaluation of Electric Generating Assets in the Northeast," presentation at McGraw-Hill's conference: Electric Asset Sales in the Northeast, Boston, Massachusetts, June 15, 1998.
- Rose, J.L., "Overview of SERC Power," opening speech presented at Megawatt Daily's SERC Power Markets conference, Atlanta, Georgia, May 20, 1998.
- Rose, J.L., "Future Price Forecasting," presentation at The Southeast Energy Buyers Summit, Atlanta, Georgia, May 7, 1998.
- Rose, J.L., "Practical Risk Management in the Power Industry," presentation at Power Fair, Toronto, Canada, April 16, 1998.
- Rose, J.L., "The Wholesale Power Market in ERCOT: Transmission Issues," presentation at Megawatt Daily's ERCOT Power Markets conference, Houston, Texas, April 1, 1998.
- Rose, J.L., "New Generation Projects and Merchant Capacity Coming On-Line," presentation at Northeast Wholesale Power Market conference, New York, New York, March 18, 1998.
- Rose, J.L., "Projecting Market Prices in a Deregulated Electricity Market," presentation at conference: Market Price Forecasting, San Francisco, California, March 9, 1998.
- Rose, J.L., "Handling of Transmission Rights," presentation at conference: Congestion Pricing & Tariffs, Washington, D.C., January 23, 1998.
- Rose, J.L., "Understanding Wholesale Markets and Power Marketing," presentation at The Power Marketing Association Annual Meeting, Washington, D.C., November 11, 1997.
- Rose, J.L., "Determining the Electricity Forward Curve," presentation at seminar: Pricing, Hedging, Trading, and Risk Management of Electricity Derivatives, New York, New York, October 23, 1997.
- Rose, J.L., "Market Price Forecasting In A Deregulated Market," presentation at conference: Market Price Forecasting, Washington, D.C., October 23, 1997,

Rose, J.L., "Credit Risk Versus Commodity Risk," presentation at conference: Developing & Financing Merchant Power Plants in the New U.S. Market, New York, New York, September 16, 1997.

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- Mann, C. and J.L. Rose, "Price Risk Management: Electric Power vs. Natural Gas," *Public Utilities Fortnightly*, February 1996.
- Rose, J.L. and C. Mann, "Unbundling the Electric Capacity Price in a Deregulated Commodity Market," *Public Utilities Fortnightly*, December 1995.
- Booth, William and J.L. Rose, "FERC's Hourly System Lambda Data as Interim Bulk Power Price Information," *Public Utilities Fortnightly*, May 1, 1995.
- Rose, J.L. and M. Frevert, "Natural Gas: The Power Generation Fuel for the 1990s." Published by Enron.

EMPLOYMENT HISTORY

ICF Resources Incorporated	Managing Director	1999-Present
	Vice President	1996-1999
	Project Manager	1993-1996
	Senior Associate	1986-1993
	Associate	1982-1986

