

# **EXHIBIT 11**

DINE' CITIZENS AGAINST RUINING OUR ENVIRONMENT  
SAN JUAN CITIZENS ALLIANCE  
ENVIRONMENTAL DEFENSE FUND  
WESTERN RESOURCE ADVOCATES  
NATURAL RESOURCES DEFENSE COUNCIL  
SIERRA CLUB  
WILDEARTH GUARDIANS  
ENVIRONMENT COLORADO  
CLEAN AIR TASK FORCE  
GRAND CANYON TRUST

June 17, 2008

**BY ELECTRONIC MAIL**

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Air Permitting  
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**RE: Transmission of May 2008 “Scientific Assessment of the Effects of Global Change on the United States, A Report of the Committee on Environment and Natural Resources National Science and Technology Council” in support of November 13, 2006 comment letter**

Dear Mr. Lapka:

On November 13, 2006 the above-listed groups submitted a written comment letter regarding EPA Region 9’s draft Prevention of Significant Determination (“PSD”) permit for the proposed Desert Rock Energy Project. We also submitted Supplemental Comments on the proposed air permit on October 4, 2007, March 4, 2008, April 18, 2008, and April 25, 2008 addressing certain issues arising after the close of the comment period.<sup>1</sup> The purpose of today’s letter is to further supplement our comment letters to address additional information arising after the close of public comment. The above-listed groups hereby incorporate by reference their previous comment letters.

Submission of the information referred to in this letter into the administrative record now is timely because the information was not available until after the close of the

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<sup>1</sup> These issues included the legal implications of the Supreme Court’s decision in *Massachusetts v. EPA* and factual, legal, and policy implications of the Intergovernmental Panel on Climate Change’s Fourth Report.

comment period on the Desert Rock air permit proceeding. See 40 C.F.R. § 124.13; *In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 250 n.8 (EAB 1999) (“a petitioner may demonstrate that an issue was not reasonably ascertainable during the public comment period.”).

### **“Scientific Assessment of the Effects of Global Change on the United States”**

Attached to this comment letter is a recent May 2008 report by the Committee on Environment and Natural Resources National Science and Technology Council entitled “Scientific Assessment of the Effects of Global Change on the United States” (also referred to as “Scientific Assessment” herein).

This U.S. government Scientific Assessment Report makes the following factual findings regarding climate change:

- “The climate is changing, and these changes are affecting the world around us. In order to deal with the changes that are taking place now and to prepare for those that are likely to happen in the future, decisionmakers need information about global change and its effects on the Nation and the world we live in” at p. 1;
- “it is unequivocal that the average temperature of Earth’s surface has warmed recently and it is *very likely* (greater than 90% probability) that most of this global warming is due to increased concentrations of human generated greenhouse gases” at p. 1;
- “of the greenhouse gases that are increasing in atmospheric concentration as a direct result of human activities, carbon dioxide is contributing most to the recent warming. The globally averaged concentration of carbon dioxide in the atmosphere has increased from about 280 parts per million (ppm) in the 18th century to 383 ppm in 2007. Emissions of carbon dioxide from fossil fuel use and from the effects of land use change are the primary sources of this increase. The current atmospheric concentration of carbon dioxide greatly exceeds the natural range of the last 650,000 years (180 to 300 ppm) as determined from ice cores. Indeed, the atmospheric levels of all major greenhouse gases have also increased significantly in the past century” at p. 2;
- “An increasing body of scientific research supports the conclusion that, while greenhouse gases are but one of many factors that affect climate, they are *very likely* the single largest cause of the recent warming” at p. 2;
- “Studies that rigorously quantify the effect of different external influences on observed changes (attribution studies) conclude that most of the recent global warming is *very likely* due to human generated increases in greenhouse gas concentrations. A large number of climate model

simulations show that natural factors alone cannot explain the observed warming in the second half of the 20th century of Earth's land masses and oceans, or that of the North American continent. On the other hand, simulations that include human factors are able to reproduce important large-scale features of the recent changes. Several studies indicate that natural factors played an important role in the warming of the first half of the 20th century. Attribution studies show that it is *likely* (greater than 66% probability) that there has been a substantial human contribution to the surface temperature increase in North America” at p. 2. “The IPCC concluded that continued greenhouse gas emissions at or above current rates are expected to cause further warming and to induce many changes during the 21st century that will *very likely* be larger than those of the 20th century. For the next 20 years, a globally averaged warming of about 0.3 to 0.4 °F per decade is projected for a range of scenarios of greenhouse gas emissions. Through about 2030, there is little difference in the warming rate projected using a variety of emissions scenarios. Possible future variations in natural factors, such as a large volcanic eruption, could introduce variations to this long-term warming projection. Even if atmospheric greenhouse gas levels remained constant, the globally averaged warming would continue to be nearly 0.2 °F per decade during the next two decades because of the time it takes for the climate system, particularly the oceans, to reach equilibrium. [IV.3.b] By the mid-21st century, the effect of the choice of emission scenario becomes more important in terms of the magnitude of the projected warming, with model projections of increases in globally averaged temperature of approximately 2 to 3 °F for several of the IPCC scenarios. According to the IPCC, all of North America is *very likely* to warm during this century, and to warm more than the global average increase in most areas. Nearly all the models assessed by the IPCC project that the average warming in the United States will exceed 3.6 °F, with 5 out of 21 models projecting that average warming will exceed 7.2 °F by the end of the century” at p. 4;

The Scientific Assessment Report also makes the following factual findings regarding the social and environmental impacts resulting from increased greenhouse gas emissions, such as:

- “a severe drought has affected the southwestern United States from 1999 through 2007” at p. 5;
- “Streamflow has decreased by about 2% per decade in the central Rocky Mountain region over the past century” at p. 5;
- “The annual peak of streamflow in snowmelt-dominated western mountains is now generally occurring at least a week earlier than in the middle of the 20th century. Winter stream flow is increasing in basins with

seasonal snow cover. The fraction of annual precipitation falling as rain (rather than snow) increased in the last half century” at p. 5;

- “Most climate models project an increase in winter precipitation in the northern tier of states and a decrease in portions of the Southwest during the 21st century” at p. 5; This fact is underscored by another recent scientific study which finds that global warming will likely reduce available water resources in the Colorado River Basin. *See, attached file “mccabe\_wolock\_2007”.*
- “it is *very likely* that the human-induced increase in greenhouse gases has contributed to the increase in sea surface temperatures in the hurricane formation regions. There is a strong statistical connection between tropical Atlantic sea surface temperatures and Atlantic hurricane activity as measured by an index that accounts for storm intensity, frequency, and duration on decadal timescales over the past 50 years. This evidence suggests a substantial human contribution to recent hurricane activity” at p. 3;
- “The snow-covered area of North America increased in the November to January season from 1915 to 2004 due to increases in precipitation. However, spring snow cover in mountainous regions of the western United States generally decreased during the latter half of the 20<sup>th</sup> century. The IPCC determined that this latter trend is *very likely* due to long-term warming... “ at p. 6;
- “In the last three decades, the wildfire season in the western United States has lengthened and burn durations have increased. Climate change has also *very likely* increased the size and number of insect outbreaks and tree mortality that help to fuel wildfires in the interior West, the Southwest, and Alaska. These trends are *very likely* to continue” at p. 10;
- “Projections suggest that efforts to offset the declines in available surface water by increasing withdrawal of groundwater will be hampered by decreases in groundwater recharge in some water-stressed regions, such as the southwestern United States” at p. 12;
- “Less reliable supplies of water are expected to create challenges for managing urban water systems as well as for industries that depend on large volumes of water. Across North America, vulnerability to extended drought is increasing as population growth and economic development create more demands from agricultural, municipal, and industrial uses, resulting in frequent over-allocation of water resources. Examples of vulnerable U.S. regions include: the heavily-used water systems of the West that rely on capturing snowmelt runoff, such as the Columbia and Colorado River systems; portions of California” at p. 12;

- “Trends toward more efficient water use are *likely* to continue in the coming decades. Pressures for reallocation of water will be greatest in areas of highest population growth, such as the Southwest” at p. 13;
- “Wildfires pose significant direct health threats. They can also have substantial effects through- increased eye and respiratory illnesses due to fire-related air pollution and mental health impacts from evacuations, lost property, and damage to resources” and “associated decrements to air quality and pulmonary effects, are likely to increase in frequency, severity, distribution, and duration in the Southeast, the Intermountain West and the West” at pp. 14-15;
- “Another example of the ecological consequences of climate change involving insects and affecting adaptability is the devastation of millions of acres of western U.S. and Canadian pines by bark beetles during the warmth and drought of 2000 to 2004. Recent modeling and observations revealed that beetles invading the northernmost lodgepole pine trees are now only a few miles from previously pristine jack pine populations (Logan and Powell, 2007). This may create a direct pathway of invasion to valued pine forests in the eastern United States and Canada” at pp. 39-40;
- “As the climate warms, stream temperatures are *likely* to increase, with effects on aquatic ecosystems. There is some evidence that temperatures have increased in some western U.S. streams, although a comprehensive analysis has yet to be conducted. Temperature changes will be most evident during low flow periods, when they are of greatest concern” at p. 89;
- “The forested area burned in the western United States from 1987 to 2003 is 6.7 times the area burned from 1970 to 1986 (Westerling et al., 2006)” at p. 113;
- “In regions with winter snow, warming has shifted the magnitude and timing of hydrologic events (Mote et al., 2005; Regonda et al., 2005; Stewart et al., 2005). The fraction of annual precipitation falling as rain (rather than snow) increased at 74% of the weather stations studied in the western mountains of the United States from 1949 to 2004 (Knowles et al., 2006)” at p. 147;
- “Streamflow peaks in the snowmelt-dominated western mountains of the United States occurred one to four weeks earlier in 2002 than in 1948 (Stewart et al., 2005). P. 147;
- “The most recent (IPCC Fourth Assessment Report) climate model simulations project increased runoff over the eastern United States,

gradually transitioning to little change in the Missouri and lower Mississippi, to substantial decreases in annual runoff in the interior of the West (Colorado and Great Basin). The projected drying in the interior of the West is quite consistent among models. These changes are, very roughly, consistent with observed trends in the second half of the 20th century, which show increased streamflow over most of the United States, but sporadic decreases in the West” at p. 148;

- The area that is expected to face the most serious water constraints is the arid southwestern United States. P. 191;
- Stream temperatures are *likely* to increase as the climate warms and are *very likely* to have effects on aquatic ecosystems and water quality. Changes in temperature will be most evident during low flow periods, when they are of greatest concern. P. 12;

As you know, the Desert Rock coal plant is proposed for the Four Corners region of the southwestern United States. According to the Scientific Assessment Report, the southwestern United States is experiencing, and will continue to experience, some of the most severe impacts as a result of climate change. The Desert Rock coal plant will emit 12.7 million tons/year of carbon dioxide and over 635 million tons of the greenhouse gas over its expected 50-year lifetime. It cannot be reasonably questioned that the Desert Rock power plant will likely exacerbate the social and environmental impacts in the southwestern United States as identified in the Scientific Assessment Report.

Commenters, including the groups identified above, have already squarely raised the assessment and regulation of greenhouse gases in this proceeding. These issues include, among other things, whether EPA must or should regulate CO<sub>2</sub> as a PSD pollutant, whether EPA has an obligation to evaluate the collateral environmental implications associated with greenhouse gas emissions, and whether EPA must or should exercise its discretion to consider alternatives to the project to evaluate and address CO<sub>2</sub>-related impacts. Given the tremendous significance and far-reaching implications of the analysis and conclusions in the attached Scientific Assessment Report, and the direct relevance of this information in this instance, it would be arbitrary and capricious for the government to ignore its own Scientific Assessment Report in its resolution of the current permit proceeding. Significantly, the information presented in the attached Scientific Assessment Report specifically addresses the nature, extent and causation of impacts caused by man-made greenhouse emissions (especially CO<sub>2</sub>). EPA may not make a decision in this permit proceeding that fails to evaluate the significance of each of the concerns raised in the Scientific Assessment Report and to explore all available opportunities to ameliorate any contribution of the proposed project to adverse health, welfare or environmental effects. Accordingly, this Scientific Assessment Report is appropriately included in the administrative record for the Agency’s ongoing deliberations on this permit decision, and probative of important factual and policy considerations that are central to EPA’s decision.

## **“The Effects of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity in the United States”**

The U.S. Climate Change Science Program and the Subcommittee on Global Change Research recently issued a report entitled “The Effects of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity in the United States” (“Effects Report” which is attached hereto). The purpose of the Effects Report is to provide “current assessments of climate change science to inform public debate, policy, and operational decisions.” *See* Effects Report cover page.

The Effects Reports makes the following findings:

### Agriculture

- With increased CO<sub>2</sub> and temperature, the life cycle of grain and oilseed crops will likely progress more rapidly. But, as temperature rises, these crops will increasingly begin to experience failure, especially if climate variability increases and precipitation lessens or becomes more variable.
- The marketable yield of many horticultural crops – e.g., tomatoes, onions, fruits – is very likely to be more sensitive to climate change than grain and oilseed crops.
- Climate change is likely to lead to a northern migration of weeds. Many weeds respond more positively to increasing CO<sub>2</sub> than most cash crops, particularly C<sub>3</sub> “invasive” weeds. Recent research also suggests that glyphosate, the most widely used herbicide in the United States, loses its efficacy on weeds grown at the increased CO<sub>2</sub> levels likely in the coming decades.
- Disease pressure on crops and domestic animals will likely increase with earlier springs and warmer winters, which will allow proliferation and higher survival rates of pathogens and parasites. Regional variation in warming and changes in rainfall will also affect spatial and temporal distribution of disease.
- Projected increases in temperature and a lengthening of the growing season will likely extend forage production into late fall and early spring, thereby decreasing need for winter season forage reserves. However, these benefits will very likely be affected by regional variations in water availability.
- Climate change-induced shifts in plant species are already under way in rangelands. Establishment of perennial herbaceous species is reducing soil water availability early in the growing season. Shifts in plant productivity and type will likely also have significant impact on livestock operations.
- Higher temperatures will very likely reduce livestock production during the summer season, but these losses will very likely be partially offset by warmer temperatures during the winter season. For ruminants, current management systems generally do not provide



shelter to buffer the adverse effects of changing climate; such protection is more frequently available for non-ruminants (e.g., swine and poultry).

- Monitoring systems for measuring long-term response of agricultural lands are numerous, but integration across these systems is limited. Existing state-and-transition models could be expanded to incorporate knowledge of how agricultural lands and products respond to global change; integration of such models with existing monitoring efforts and plant developmental data bases could provide cost-effective strategies that both enhance knowledge of regional climate change impacts and offer ecosystem management options. In addition, at present, there are no easy and reliable means to accurately ascertain the mineral and carbon state of agricultural lands, particularly over large areas; a fairly low-cost method of monitoring biogeochemical response to global change would be to sample ecologically important target species in different ecosystems.

See, Effects Report at pp. 6-7.

### Land Resources

- Climate change has very likely increased the size and number of forest fires, insect outbreaks, and tree mortality in the interior West, the Southwest, and Alaska, and will continue to do so.
- Rising CO<sub>2</sub> will very likely increase photosynthesis for forests, but this increase will likely only enhance wood production in young forests on fertile soils.
- Nitrogen deposition and warmer temperatures have very likely increased forest growth where adequate water is available and will continue to do so in the near future.
- The combined effects of rising temperatures and CO<sub>2</sub>, nitrogen deposition, ozone, and forest disturbance on soil processes and soil carbon storage remains unclear.
- Higher temperatures, increased drought, and more intense thunderstorms will very likely increase erosion and promote invasion of exotic grass species in arid lands.
- Climate change in arid lands will create physical conditions conducive to wildfire, and the proliferation of exotic grasses will provide fuel, thus causing fire frequencies to increase in a self-reinforcing fashion.
- In arid regions where ecosystems have not coevolved with a fire cycle, the probability of loss of iconic, charismatic megafauna such as saguaro cacti and Joshua trees is very likely.
- Arid lands very likely do not have a large capacity to absorb CO<sub>2</sub> from the atmosphere and will likely lose carbon as climate-induced disturbance increases.

- River and riparian ecosystems in arid lands will very likely be negatively impacted by decreased streamflow, increased water removal, and greater competition from non-native species.
- Changes in temperature and precipitation will very likely decrease the cover of vegetation that protects the ground surface from wind and water erosion.
- Current observing systems do not easily lend themselves to monitoring change associated with disturbance and alteration of land cover and land use, and distinguishing such changes from those driven by climate change. Adequately distinguishing climate change influences is aided by the collection of data at certain spatial and temporal resolutions, as well as supporting ground truth measurements.

*See, Effects Report at pp. 7-8.*

### Water Resources

- Most of the United States experienced increases in precipitation and streamflow and decreases in drought during the second half of the 20th century. It is likely that these trends are due to a combination of decadal-scale variability and long-term change.
- Consistent with streamflow and precipitation observations, most of the continental United States experienced reductions in drought severity and duration over the 20th century. However, there is some indication of increased drought severity and duration in the western and southwestern United States.
- There is a trend toward reduced mountain snowpack and earlier spring snowmelt run-off peaks across much of the western United States. This trend is very likely attributable at least in part to long-term warming, although some part may have been played by decadal-scale variability, including a shift in the phase of the Pacific Decadal Oscillation in the late 1970s. Where earlier snowmelt peaks and reduced summer and fall low flows have already been detected, continuing shifts in this direction are very likely and may have substantial impacts on the performance of reservoir systems.
- Water quality is sensitive to both increased water temperatures and changes in precipitation. However, most water quality changes observed so far across the continental United States are likely attributable to causes other than climate change.
- Stream temperatures are likely to increase as the climate warms, and are very likely to have both direct and indirect effects on aquatic ecosystems. Changes in temperature will be most evident during low flow periods, when they are of greatest concern. Stream temperature increases have already begun to be detected across some of the United States, although a comprehensive analysis similar to those reviewed for streamflow trends has yet to be conducted.

- A suite of climate simulations conducted for the IPCC AR4 show that the United States may experience increased runoff in eastern regions, gradually transitioning to little change in the Missouri and lower Mississippi, to substantial decreases in annual runoff in the interior of the west (Colorado and Great Basin).

- Trends toward increased water use efficiency are likely to continue in the coming decades. Pressures for reallocation of water will be greatest in areas of highest population growth, such as the Southwest. Declining per capita (and, for some cases, total) water consumption will help mitigate the impacts of climate change on water resources.

- Essentially no aspect of the current hydro-logic observing system was designed specifically to detect climate change or its effects on water resources. Recent efforts have the potential to make improvements, although many systems remain technologically obsolete, incompatible, and/or have significant data collection gaps in their operational and maintenance structures. As a result, many of the data are fragmented, poorly integrated, and unable to meet the predictive challenges of a rapidly changing climate.

*See, Effects Report pp. 8-9.*

### Biodiversity

- There has been a significant lengthening of the growing season and increase in net primary productivity (NPP) in the higher latitudes of North America. Over the last 19 years, global satellite data indicate an earlier onset of spring across the temperate latitudes by 10 to 14 days. • In an analysis of 866 peer-reviewed papers exploring the ecological consequences of climate change, nearly 60 percent of the 1598 species studied exhibited shifts in their distributions and/or phenologies over the 20- and 140-year time frame. Analyses of field-based phenological responses have reported shifts as great as 5.1 days per decade, with an average of 2.3 days per decade across all species.

- Subtropical and tropical corals in shallow waters have already suffered major bleaching events that are clearly driven by increases in sea surface temperatures. Increases in ocean acidity, which are a direct consequence of increases in atmospheric carbon dioxide, are calculated to have the potential for serious negative consequences for corals.

- The rapid rates of warming in the Arctic observed in recent decades, and projected for at least the next century, are dramatically reducing the snow and ice covers that provide denning and foraging habitat for polar bears.

- There are other possible, and even probable, impacts and changes in biodiversity (e.g., disruption of the relationships between pollinators, such as bees, and flowering plants), for which we do not yet have a substantial observational database. However, we cannot conclude that the lack of complete observations is evidence that changes are not occurring.

- It is difficult to pinpoint changes in ecosystem services that are specifically related to changes in biological diversity in the United States. A specific assessment of changes in ecosystem services for the United States as a consequence of changes in climate or other drivers of change has not been done.

- The monitoring systems that have been used to evaluate the relationship between changes in the physical climate system and biological diversity have three components: species-specific or ecosystem-specific monitoring systems, research activities specifically designed to create time-series of population data and associated climatic and other environmental data, and spatially extensive observations derived from remotely sensed data. However, in very few cases were these monitoring systems established with climate variability and climate change in mind, so the information that can be derived from them specifically for climate-change-related studies is somewhat limited. It is also not clear that existing networks can be maintained for long enough to enable careful time-series studies to be conducted.

*See, Effects Report pp. 9-10.*

For the reasons stated above, we request that EPA conduct a CO<sub>2</sub> BACT analysis and regulate the emission of CO<sub>2</sub> from the proposed Desert Rock coal plant.

**“A Climate Change Vulnerability Assessment for Biodiversity in New Mexico, Part I”**

The Nature Conservancy recently published “A Climate Change Vulnerability Assessment for Biodiversity in New Mexico, Part I, Implications of Recent Climate Change on Conservation Priorities in new Mexico” which is attached hereto. This study compiled peer-reviewed literature, published reports, and unpublished expert provided evidence to document climate related changes to biodiversity in New Mexico and the Southwestern United States. The study made the following findings:

- In peer reviewed literature, 11 cases of ecological change linked to climate change were documented in peer reviewed literature, including: population reductions in bird and tree species; distribution shifts in a riparian bird and desert rodent; egg hatching in Mexican; a temperature induced shift in the timing of blooming in various plant species; climate induced change in the body size of the woodrat; increased invasion of the salt cedar into cottonwood habitat;
- In published reports, population changes in salamanders, pika, insects, and birds due to climate change;
- In unpublished expert provided evidence, population decline in birds, plants and bats and increased exotic species invasion

These documented adverse climate induced changes in biodiversity in New Mexico and the southwestern United States must be considered in reaching a decision on the Desert Rock coal plant.

### **EPA Final Rule Lowering 8-Hour Ozone NAAQS**

Also attached hereto is a March 27, 2008 Final Rule promulgated by EPA which lowers the 8 hour National Ambient Air Quality Standards for ground level ozone from 0.080 ppm to 0.075 ppm. *See, attached Final Rule.* The Final Rule became effective on May 27, 2008.

The purpose of the March 27, 2008 Final Rule is “to provide increased protection for children and other ‘at risk’ populations against an array of O<sub>3</sub>-related adverse health effects that range from decreased lung function and increased respiratory symptoms to serious indicators of respiratory morbidity including emergency department visits and hospital admissions for respiratory causes, and possibly cardiovascular-related morbidity as well as total nonaccidental and cardiorespiratory mortality.” *See, Final Rule.*

Our previous comment letter dated November 13, 2006 squarely raised the issue of the inadequacy of the ozone analysis in the permit application. *See, 11/13/06 comment letter pp 52-54 and October 25, 2006 “Ozone Air Quality Analyses in the PSD Permit Application for the Desert Rock Energy Facility” by Jana Milford.*

EPA’s lowering of the 8-hour ozone standard increases the risk that the standard will be violated in the Four Corners Region in the future. In fact, the State of New Mexico has conducted preliminary air quality modeling and has concluded, “we will classify [San Juan] county as non-attainment which will limit development there.” *See, March 22, 2008 article on San Juan County ozone, attached hereto.* In fact, recent ozone monitoring data for San Juan County, New Mexico confirms that the new 8-hour ozone standard has been violated. *See, attached ozone monitoring data for San Juan County, New Mexico.*

To date, there has been no meaningful analysis of how the proposed Desert Rock coal plant may impact compliance with the recently lowered 8-hour ozone standard. However, Sithe admits that the Desert Rock coal plant will emit 3,325 tons per year (tpy) of NO<sub>x</sub> and 166 tpy of Volatile Organic Compounds (VOCs). Given the significant emission of these ozone precursors, it is likely that construction and operation of the proposed Desert Rock coal plant will only exacerbate the 8-hour non-attainment ozone problems in the Four Corners region.

Finally, we also request that the EPA consider the implications of the new ozone standard in analyzing the Desert Rock plant’s impacts to soil and vegetation as required by the PSD regulations.

### **Polar Bear Listed as Endangered Species**

Also since our last comment letter, on May 14, 2008, the U.S. Department of Interior listed polar bears as a threatened species under the Endangered Species Act. *See, polar bear listing file attached hereto.* The polar bear listing states, “the observed declines in the extent of Arctic sea ice are well documented, and more pronounced in the

summer than in the winter. There is also evidence that the rate of sea ice decline is increasing. This decline in sea ice is of great importance to our determination regarding the status of the polar bear.” *See*, polar bear listing at p. 43. This decline in Arctic sea ice is attributable at least in part to global warming. *Id.*

As noted above, the Desert Rock coal plant will emit 12.7 million tons/year of carbon dioxide and over 635 million tons of the greenhouse gas over its expected 50-year lifetime. Emission of these greenhouse gases by the proposed Desert Rock power plant and its impacts on polar bears and other species should be considered prior to issuance of a final determination on Sithe’s permit application. As with other comments raised in this letter, these comments are appropriate and timely given their relationship to important developments arising after the close of the comment period.

Moreover, these considerations should be a part of the Agency’s required Endangered Species Act (“ESA”) consultation process, and that process should be complete before EPA issues a final PSD permit. As EPA has acknowledged, the Endangered Species Act (“ESA”) serves an important function in protecting species and is relevant to the PSD permitting process. *See In re Indeck Elwood*, PSD Appeal 03-04, 13 E.A.D. \_\_\_ (EAB 2006). In *Indeck*, the Environmental Appeals Board (“EAB”) described the importance of the ESA this way:

The ESA, 16 U.S.C. §§ 1531-1544, was enacted in 1973 in response to increasing concerns about the impacts of human activities on fish, wildlife, and plants and their natural habitats. Endangered Species Act of 1973, Pub. L. 93-205, 81 Stat. 884 (1973) (codified at 16 U.S.C. §§ 1531-1544). Of particular concern were those species that had been rendered extinct or whose numbers were so depleted as to be in danger of or threatened with extinction. ESA § 2(a)(1)-(2), 16 U.S.C. § 1531(a)(1)-(2). Thus, one of the ESA’s primary purposes is “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species.” ESA § 2(b), 16 U.S.C. § 1531(b). In order to accomplish this goal, the ESA contains provisions for the “listing” of endangered or threatened species and the designation of critical habitat for those species by the Secretary of the Interior and the Secretary of Commerce. . . . In addition, the ESA imposes a number of specific substantive and procedural obligations on the activities of federal agencies, including EPA. *See, e.g.*, ESA §§ 7(a)(1), (a)(2), 9(a)(1), (a)(2), 16 U.S.C. §§ 1536(a)(1), (a)(2), 1538(a)(1), (a)(2); *see also* 50 C.F.R. § 402.06(a) (noting both procedural and substantive requirements under the ESA).<sup>2</sup>

Section 7 of the ESA requires that the federal government consult with the appropriate agency within the Departments of Interior and Commerce regarding the potential affects on threatened or endangered species of any “agency action.”<sup>3</sup> If there is

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<sup>2</sup> *Indeck Elwood*, slip op. at 93.

<sup>3</sup> As the EAB acknowledged, in the context of the ESA, that:

likely to be *any* affect, a formal consultation or other action is required to ensure not adverse affects. In particular, section 7(a)(2), contains important substantive and procedural provisions which require, among other things, that:

Each Federal agency shall, in consultation with and with the assistance of the [FWS], *insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species* which is determined by the [FWS] . . . to be critical, unless such agency has been granted an exemption for such action . . . .

ESA § 7(a)(2), 16 U.S.C. § 1536(a)(2) (emphasis added). In turn, Section 402.14 of 50 C.F.R. provides as follows:

(a) Requirement for formal consultation. Each Federal agency shall review its actions at the earliest possible time to determine whether any action may affect listed species or critical habitat. If such a determination is made, formal consultation is required, except as noted in paragraph (b) of this section. The Director may request a Federal agency to enter into consultation if he identifies any action of that agency that may affect listed species or critical habitat and for which there has been no consultation. When such a request is made, the Director shall forward to the Federal agency a written explanation of the basis for the request.

(b) Exceptions. (1) A Federal agency need not initiate formal consultation if, as a result of the preparation of a biological assessment under § 402.12 or as a result of informal consultation with the Service under § 402.13, the Federal agency determines, with the written concurrence of the Director, that the proposed action is not likely to adversely affect any listed species or critical habitat. (2) A Federal agency need not initiate formal consultation if a preliminary biological opinion, issued after early consultation under § 402.11, is confirmed as the final biological opinion.

50 C.F.R. § 402.14.

As EPA has acknowledged, these obligations are both procedural and substantive, and they are specifically intended to *ensure* that any agency action (including the issuance of a PSD permit) will not adversely impact protected species or habitat. At the very heart of this obligation is the idea that the agency action must not occur *unless and until* a determination has been made that there will be no adverse affect on any protected

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agency “action” has been broadly defined by regulation to include “the granting of licenses, contracts, leases, easements, rights-of-way, [or] *permits*.” 50 C.F.R. § 402.02; *see also In re Dos Republicas Resources Co.*, 6 E.A.D. 643, 649 (EAB 1996) (noting that “[c]overed ESA Federal actions include the granting of a permit”); *Envtl. Prot. Info. Ctr. (“EPIC”) v. Simpson Timber Co.*, 255 F.3d 1073, 1075 (9th Cir. 2001) (same). Section 7(a)(2), therefore, imposes a *substantive duty on federal agencies to ensure that none of their actions, including the issuance of a permit, is likely to jeopardize listed species or destroy or adversely modify such species’ critical habitat.* *Indeck Elwood*, slip op. at 94-95 (emphasis added).

species.<sup>4</sup> And the agency should exercise its discretion to tailor any action it ultimately takes to avoid adverse impacts on species. These requirements are meaningless if the final action *precedes* the analysis necessary to determine if there will be any affect, what the affect will be, and what steps are required to prevent any adverse affects. And impacts on the recently list polar bear, as well as any other potentially affected species, should be included in this analysis.<sup>5</sup>

Because it would be absolutely antithetical to the structure and intent of these ESA provisions, EPA should not issue a final PSD permit for construction of the proposed Desert Rock plant before a biological opinion has been issued, including assessment of impacts on the polar bear, and the Fish and Wildlife Service has determined that the project will have no adverse impacts on polar bears or any other protected species.

### **Final Decision on MACT for EGUs**

Since our last letter, the D.C. Circuit Court of Appeals has reached its final disposition (as described below) regarding EPA's attempted removal of electric generating units (EGUs) from the list of regulated source categories under section 112 of the Clean Air Act. As we observed in a March 4, 2008 letter to EPA, the Agency has an obligation to ensure that the proposed Desert Rock facility complies with the requirements of section 112 of the CAA. The CAA requires that EPA list "all categories of and subcategories of major sources" of HAP, CAA § 112(c)(1), and promulgate

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<sup>4</sup> The scope of applicability of ESA section 7 clearly illustrates that final action *before* completion of the ESA analysis makes no sense. This provision applies only where "there is discretionary Federal involvement or control." 50 C.F.R. § 402.03; *see Sierra Club v. Babbitt*, 65 F.3d 1502, 1509 (9th Cir. 1995). The purpose of the "discretion" requirement is to limit applicability of the consultation provision to those situation where the required consultation and analysis can actually influence the substantive outcome of the agency decision – i.e., where the agency has discretion to withhold or modify its decision so as to prevent or reduce adverse impacts on species. As the EAB explains:

The consultation procedures are intended to give the FWS the opportunity to determine whether the federal action is likely to jeopardize protected species or adversely impact critical habitat. ESA § 7(b)(3)(A); 16 U.S.C. § 1536(b)(3)(A). If such impacts are likely, the consultation process allows for identification of reasonable and prudent alternatives to avoid such unfavorable impacts. *Id.*; 50 C.F.R. § 402.14(g)(5).

*Indeck Elwood* slip op. at 95 n.132. Obviously, this intent would be entirely undermined if an agency were permitting to take the final action *prior* to completion of the analysis required to assess the full nature and extent of any affects. Indeed, the ESA itself includes a requirement that once consultation has been initiated, an agency must refrain from "any irreversible or irretrievable commitment of resources" that would serve to foreclose the implementation of protective measures that might flow out of the consultation process (see ESA § 7(d), 16 U.S.C. § 1536(d) – clearly issuance of a final permit fits the bill. Accordingly, the EAB has explained that "the issuance of a final PSD permit would appear to be the point at which the permitting agency has irretrievably committed itself with respect to the discrete act of permitting a given activity. Accordingly, to avoid violating this requirement, the Agency should *complete* the ESA process prior to the issuance of the final permit." *Indeck Elwood*, slip op. at 111.

<sup>5</sup> Moreover, the listing of polar bears as a threatened species provides a new and compelling basis for EPA to perform a robust analysis and exercise its discretion to the fullest degree to address GHG emissions (especially CO<sub>2</sub>) under the PSD program's provisions for establishing best available control technology, addressing collateral environmental impacts, and considering alternatives to the proposed projects. *See* CAA §§ 165(a)(2) and 169(3).



regulations that establish “emissions standards . . . applicable to new and existing sources of hazardous air pollutants [that] require the maximum degree of reduction in emission” that the Administrator determines is achievable, CAA § 112(d)(2). These “maximum achievable control technology” standards for new sources must be no less stringent than “the emission control that is achieved in practice by the best controlled similar source.” CAA § 112(d)(3). The Act requires that EPA meet certain deadlines for promulgating standards under section 112(d). *See, e.g.*, CAA § 112(c)(5), (c)(6), (c)(8), (e)(1), (e)(3). However, even when EPA has failed to promulgate emission standard under section 112(d), new sources (and modifications to existing sources) must have MACT emission limitations before they can be built. *See* CAA § 112(g)(2). In particular, Section 112(g)(2)(B) provides:

After the effective date of a permit program under subchapter V of this chapter in any State, no person may construct or reconstruct *any* major source of hazardous air pollutants, unless the Administrator (or the State) determines that the maximum achievable control technology emission limitation under this section for new sources will be met. Such determination shall be made on a case-by-case basis where no applicable emission limitations have been established by the Administrator.

It is undeniable that EPA has failed to meet its obligation to promulgate MACT standards for new and existing EGUs. This failure is made clear by a recent decision by the United States Court of Appeals for the D.C. Circuit. *New Jersey v. EPA*, D.C. Cir. Case No. 05-1097 (decided Feb. 8, 2008). In vacating EPA’s “clean air mercury rule,” the Court acknowledged that the Agency had illegally attempted to remove EGUs from the list of source categories established pursuant to CAA § 112(c). Accordingly, EPA’s purported “delisting” was ineffectual, and the December 2000 source category listing of EGUs remains in effect.

Specifically, in vacating EPA’s delisting decision and the associated Clean Air Mercury Rule (CAMR), the Court concluded:

[I]n view of the plain text and structure of section 112, we grant the petitions and vacate the Delisting Rule. *See Allied-Signal, Inc. v. U.S. Nuclear Regulatory Comm’n*, 988 F.2d 146, 150-51 (D.C. Cir. 1993). This requires vacation of CAMR’s regulations for both new and existing EGUs. EPA promulgated the CAMR regulations for existing EGUs under section 111(d), but under EPA’s own interpretation of the section, it cannot be used to regulate sources listed under section 112; EPA thus concedes that if EGUs *remain listed under section 112, as we hold*, then the CAMR regulations for existing sources must fall. Resp’t Br. at 99, 101-02; see also Delisting Rule, 70 Fed. Reg. at 16,031.

(emphasis added). On March 14, 2008, the D.C. Circuit issued the Mandate in *New Jersey*, making its decision official. Subsequently, on May 20, 2008, the Court denied the petition for reconsideration filed by EPA and industry intervenors. The finality of the

D.C. Circuit’s review demonstrates compellingly that EPA (or an otherwise appropriate permitting authority) must issue a 112(g) MACT determination for Desert Rock.<sup>6</sup>

We also pointed out in our March 4, 2008 letter that it is essential that the MACT determination be issued *before* any final PSD permit is issued. The reasons for this requirement are clear, as a MACT analysis and the obligations imposed on a proposed source in order to comply with MACT may have significant implications for the PSD analysis – requiring changes in equipment, operation and/or control technology, and having potentially important ancillary implications for other facility parameters (such as solid waste production, etc.). This obligation to complete MACT review prior to issuance of a final PSD permit is also supported by the language and structure of the CAA.

Section 165(a) of the Act describes the basic obligations of the PSD permitting requirements. Among these provision is the following preclusion:

No major emitting facility . . . may be constructed in any area to which this part applies unless . . .

\* \* \*

(3) the owner or operator of such facility demonstrates, as required pursuant to section 110(j) of the Act, that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of . . . (C) any other applicable emission standard or standards of performance under the Act.

Section 110(j), in turn, provides:

As a condition for issuance of any permit required under this subchapter, the owner or operator of each new or modified stationary source which is required to obtain such a permit must show to the satisfaction of the permitting authority that the technological system of continuous emission reduction which is to be used will enable such source to comply with the standards of performance which are to apply to such source and that the construction or modification and operation of such source will be in compliance with all other requirement of the Act.

In this instance, when it comes to demonstrating that “emissions from construction or operation of [a] facility will not cause, or contribute to, air pollution in excess of” any standard applicable to hazardous air pollutants under section 112, or demonstrating “that

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<sup>6</sup> Indeed, in this instance it is unclear even how a MACT determination will be issued. EPA’s regulations provide for several mechanisms for issuing case-by-case 112(g) determinations (including pre-construction Title V permits), *see* 40 C.F.R. § 63.40 et seq.; however, any permitting authority must have appropriate legal authority to issue such a permit. While the Navajo have received a delegation of authority to administer a Part 71 Title V operating permits program, there is no mention of section 112 in this delegation agreement and it does not appear that the Navajo have received approval under section 112(l) to implement and enforce standards under section 112. Nor does it appear that any Navajo 112(g) program (including any Title V approach) has been certified as compliant (see EPA criteria at: <http://www.epa.gov/ttn/atw/112g/chkfstg.pdf>). In any event, neither EPA nor the Navajo clearly indicated how and when a MACT determination will occur, or who will function as the permitting authority.

the technological system of continuous emission reduction which is to be used will enable such source to comply with the standards of performance which are to apply” under the section 112, EPA’s section 112(g) regulations provide the specific and exclusive mechanism for making such determinations.<sup>7</sup> Because that process has not occurred, the PSD permit may not properly issue.

Accordingly, as we pointed out in our March 4, 2008 letter, in the immediate wake of the *New Jersey* decision, EPA may not issue the PSD permit for the proposed Desert Rock plant unless and until the section 112(g) MACT determination has been completed.<sup>8</sup> At present, it is entirely unclear that the proposed Desert Rock plant will meet the requirements that apply under section 112, and unclear even that a pre-construction MACT determination is planned. As such, Sithe has not met its application obligations under section 165(a), EPA and/or the Navajo Nation have failed to implement the requirements of section 112(g), and issuance of a PSD permit is therefore impermissible.

### **Conclusion**

In conclusion, we reiterate our previous request that EPA Region 9 assess and regulate the emission of greenhouse gases from the proposed Desert Rock coal plant in the PSD permitting process, more specifically through its Best Available Control Technology (“BACT”) analysis. We also request that you address the other issues raised in this comment letter and our previous comment letters. In view of the serious impacts and less harmful available alternatives, and in light of the other issues raised during the course of this permit proceeding, we believe that issuance of a final air permit for the proposed coal plant would be inappropriate.

Sincerely yours,

s/ Mike Eisenfeld

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Attachments

*Supplemental comment letter and attachments submitted on the behalf of:*

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<sup>7</sup> Just as the CAA’s section 112(c)(9) provision provide the exclusive means for removing source categories from the Agency’s section 112 source category list.

<sup>8</sup> This is true whether EPA is the permitting authority for the MACT determination or not.

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