RIVERKEEPER EXHIBIT A

Questions & Answers

Carbon Sequestration & the Program Environmental Impact Statement (EIS)

What is Carbon Sequestration?

Carbon sequestration involves capturing and permanently storing carbon dioxide (CO_2) gases that could otherwise contribute to global climate change. Affordable and environmentally safe approaches could offer a way to stabilize atmospheric levels of CO_2 without requiring potentially costly changes to the United States energy infrastructure.

What is DOE Doing to Develop Carbon Sequestration Technology?

DOE's Carbon Sequestration Program includes several efforts:

- ***The Carbon Sequestration Leadership Forum***, an international ministerial-level panel that meets regularly to discuss the growing body of scientific research and emerging technologies and to plan joint projects for carbon sequestration.
- ***Regional Partnerships Program***, a nationwide network of federal, state and private sector partnerships to determine the most suitable technologies, regulations and infrastructure for future carbon capture, storage and sequestration in different areas of the country.
- ***FutureGen***, a full-scale demonstration project that will capture and store CO_2, making it the world's first coal-fueled prototype power plant to incorporate carbon sequestration technologies.
- ***Carbon Sequestration Core R&D Program***, a portfolio of technologies that will capture and permanently store greenhouse gases.

How is Montana Involved?

Montana State University is leading the DOE Big Sky Carbon Sequestration Partnership, one of DOE's seven regional partnerships. The partnership is comprised of 14 public and private organizations including two Indian tribes. Funded with a $1.6-million DOE grant matched by $400,000 of state and regional dollars, the Partnership is identifying the most suitable ways of sequestering CO_2 in Montana, Idaho and South Dakota. The Partnership is also developing a framework to validate and potentially deploy carbon sequestration technologies, study regional regulations, safety and environmental concerns and explore public acceptance issues. At the end of the first, two-year phase, the Partnership will recommend technologies for small-scale validation testing in a Phase II competition expected to begin in 2005.

Who can I contact to learn more about the Big Sky Carbon Sequestration Partnership?

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Why Sequester CO_2?

Growing populations and economies worldwide will demand more energy. Meeting demand while balancing economic, social and environmental considerations require all energy technologies. Each must be harnessed as efficiently and cleanly as possible. Burning fossil fuels (coal, oil and natural gas) for transportation, electricity generation and industrial processes greenhouse gases (GHGs) into the atmosphere that may cause changes in regional and global climate. The most abundant GHG is CO_2. The challenge is transforming the world's massive, capital-intensive fossil energy system to achieve GHG stabilization without impacting the environment or the abilities of economies to grow and prosper. Because fossil fuels dominate energy production, carbon sequestration is critical to managing GHG emissions.

How is CO_2 Sequestered?

Terrestrial carbon sequestration relies on land management practices and technologies to remove CO_2 from the atmosphere through photosynthesis where it is stored in trees, plants and soils. Terrestrial sequestration reduces emissions while improving land and water quality thus making soils healthier, more productive and less susceptible to large-scale CO_2 releases. Also, CO_2 can be captured directly from large point sources such as power plants, oil refineries or large industrial facilities. The CO_2 can be transported in the Big Sky Region for injection into geologic formations including depleted oil and gas, saline formation(s), and deep unmineable coal seams.

What Do We Know?

Fossil fuels will remain the mainstay of energy production well into the 21st century. To stabilize and ultimately reduce concentrations of CO_2 it will be necessary to capture, separate, and store or reuse it.

Certain land management practices can reduce CO_2 emissions and store carbon in terrestrial ecosystems which improves land and water quality. Furthermore, CO_2 is routinely separated and captured as a by-product from industrial processes such as synthetic ammonia production, hydrogen production, and limestone calcination. The concept of geologic sequestration is based on the fact that carbon and CO_2 have been stored in naturally occurring geologic reservoirs throughout the world for thousands of years. CO_2 is also routinely injected into deplete oil fields to enhance recovery and there is an extensive pipeline network primarily in the U.S. that has been transporting CO_2 for decades. Also, geologic sequestration is currently being done. Since 1996 the Norwegian oil company, Statoil, has been reinjecting approximately one million tons per year of CO_2 that is stripped from its natural gas production into a thick saline formation beneath the North Sea floor. The amount being sequestered is equivalent to the output of a 150-megawatt coal-fired power plant. The formation is enormous -- to provide a sense of scale, it takes one hour to fly over the length of the formation, which is about as big as Norway. This, and other geologic formations located throughout the world, have potential to hold significant amounts of CO_2, safely and permanently.

What Needs to be Done?

Existing CO_2 capture technologies are energy intensive and not cost-effective. Research is underway to improve performance, reduce costs and develop novel capture technologies. Assuring the environmental acceptability and safety of CO_2 storage in geologic formations is a key issue and a major component of the research being done worldwide. Determining that CO_2 will be permanently stored in geologic formations is essential. Although much work is needed to better understand and characterize sequestration of CO_2 in geologic formations, researchers are building on the significant baseline of information and experience that exists. Furthermore, the U.S. Department of Energy is conducting an Environmental Impact Statement (EIS).

What Will the EIS Do?

The EIS will analyze the impacts of carbon sequestration technologies and potential future DOE demonstration activities programmatically, including CO_2 capture; sequestration (geological, terrestrial and oceanic); measurement, monitoring and verification; and "breakthrough" concepts. It will not directly evaluate specific field demonstration projects. The programmatic EIS will evaluate issues and impacts associated with regional carbon sequestration approaches, opportunities and needs. Findings from the EIS may be applicable to future site-specific projects within the DOE Carbon Sequestration Program for which separate National Environmental Policy Act (NEPA) documents would be prepared that tier from the programmatic EIS.

What Will DOE Do With Public Comments?

Comments submitted will become part of the public record for the EIS process and will be considered by DOE as it develops the draft programmatic environmental impact statement. The draft programmatic EIS will be published in 2005. DOE will then solicit public comments on it at the same location as this year's meeting. The final programmatic EIS will be issued in 2006.

How can I submit comments?

Written comments on the scope of the programmatic EIS can also be submitted to:

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