CO2.doc 6/8/04 DOE hearing

CO_2 SEQUESTRATION

Challenges:

Capturing the CO_2 from power plants, industry, home heating, vehicles

Storing this CO_2 reliably and indefinitely (forever)

Capture and storage must be economically feasible

CARBON-FREE HYDROGEN ECONOMY

Challenges:

Power Plants - Distributed wind & solar to supplement hydro & nuclear
Distributed H_2 fuel cells to meet peak power demand
Fuel cells run backwards to produce H_2 from wind or solar power

Industry - H_2 for fuel; mix of H_2, electric, and solar thermal heating

Home Heating - Mix of electric and solar thermal heating

Vehicles - Filling stations provide H_2 to fuel cars and trucks
Electric power to produce H_2 comes from grid or local wind/solar power

Economics - Home photovoltaic (PV) example:
Conservation can cut home average power from 1 kW to 500 watts
500-watt average requires 2 kW installation
PV system costs $5,000/kW, so $1,000/yr for 10 yrs provides 2-kW system
This sacrifice may alleviate drought, global warming, ocean rising
Comparable sacrifices should be made by industry and government
These sacrifices may be smaller than those needed for CO_2 sequestration

LET'S DO IT!

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JUN 0 8 2004

DOE/FE Carbon Sequestration Programmatic EIS

Public Scoping – Comment Sheet

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Date: 8 June '04

Comments:

Ocean Injection of CO_2 in photic zone.

70% of oxygen we breathe comes from oceanic photosynthesis. The very last thing we wish to do is to change our source of O_2!

Fertilization of the ocean with iron & adding CO_2 will probably grow more phytoplankton, but not necessarily the ones we, or the food chain, wants.

For instance:- Fertilizing the sea is the same as a farmer fertilizing a field where wheat was once grown & hoping it will still grow wheat without re-seeding with wheat. I think weeds will grow. The same may happen in the sea & the food web will be impacted in ways we do not know.

Submit comments to meeting moderator or send to:

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