

JUST SAY NO TO BUILDING COAL PLANT AT WALLULA

Energy Resource Center proposes to build a coal-fired plant to produce electricity in Walla Walla County. The plant is new technology, integrated gasification combined cycle (IGCC), and the intent is to pump 65% of the carbon dioxide (CO₂) that is generated deep into the basaltic lava flows beneath Wallula.

The phrase “clean coal” is an oxymoron. Coal is a killer, from locally where it is mined, to the entire earth as a result of its combustion products. Coal mining is a hazardous occupation; many miners die quickly from rock failure, explosions, poison gas, etc., and slowly from black-lung disease and other causes. The Wallula coal will come by train more than 900 miles from eastern Wyoming, where open-pit mines ravage the landscape. Coal plants release toxic mercury, and more radioactivity than nuclear power plants. Burning coal (which contains sulfur compounds) with air (which is 78% nitrogen) generates sulfur and nitrogen oxides which combine with water in the atmosphere to make acid rain that kills plants and fish, and leaches nutrients and toxic heavy metals from the soil.

All fossil-fuel plants emit carbon dioxide (CO₂) which is causing global climate change. Not only is the earth warming, but there is also a tendency for wet places to get wetter, for dry places to get drier, and, because a warmer atmosphere and ocean have more energy, for more extreme weather events. Approximately half of the CO₂ emitted is taken up by our oceans, which then become more acidic. The warmer climate affects most species, from polar bears to malaria-bearing mosquitoes. The warmer and more acidic oceans are killing coral reefs, reducing the number of organisms utilizing them (including tourists). Another grave problem with global warming is the melting of glaciers.

Washington State has lost one third of its glacial ice since 1950. We will probably be able to compensate because of other water supplies, but the Andes and Himalayas will likely lose 80% of their glacier volume within three decades. In winter mountains store water in snow and glaciers. Melting snow provides a spring/early summer water supply, whereas melting glaciers are often the chief water supply in late summer/fall. The economies of hundreds of millions of people dependent on glacial melt water will be hard hit. Melting glaciers and permafrost and a warming (and therefore expanding) ocean mean sea level rise. Coastal wetlands, which are nurseries for fish, are being drowned and eroded with a higher sea level. Flooding and wave erosion from tropical storms go farther inland. Already environmental refugees have moved to New Zealand as low-lying islands are inundated by the Pacific Ocean.

The IGCC plant proposed at Wallula is designed to be less polluting than a conventional coal plant. Toxic elements in the coal will still go up the stack and into the Walla Walla Valley, which is surrounded by hills in all directions except to the west, where it is open to the prevailing winds. What will be the effects of the pollutants on our residents, vineyards, and water? All coal plants consume great quantities of water. Isn't this water better used for agriculture and other purposes? All coal plants release enormous amounts of water vapor and heat. Will this increase temperature inversions, fog, and with the pollutants, smog in our valley?

Will this lead to more cancelled airline flights and more highway accidents? The proposal is to sequester 65% of the CO₂ in basalt--a worthy goal for an unproven method, but why not 90%? (Answer: economics.) The hope is that the CO₂ will react with the calcium in the basalt to make harmless limestone. The limestone would fill the spaces in the basalt, reducing its capacity to sequester more CO₂. Would the injected CO₂ pollute our precious groundwater? Would it leak to kill plants or animals? Might the injection trigger an earthquake? My single greatest concern is that the small-scale tests that are underway will indicate that a little CO₂ can be sequestered in basalt.

The plant is then built, but large-scale sequestration does not work. After that demand for electricity becomes so great that a decision is made to let the plant operate without sequestration. Within 100 miles of Walla Walla are a biodiesel facility (Walla Walla), a nuclear power plant (Hanford), gas turbines (Hermiston), a coal power plant (Boardman), micro hydro (Mill Creek), eight big dams, and hundreds of wind turbines. We are already doing our share of electrical generation. If the United States is short of electricity, conservation is the best and cheapest choice. Renewable energy such as wind and solar is the second choice. Just because there is a paper mill and a feed lot at Walla Walla does not mean that the residents there want more heavy industry, or that it would not harm McNary National Wildlife Refuge. Are property taxes and 50 jobs worth the risk to our county and to the earth?

If you are skeptical about the risks from global warming in general or this coal plant in particular, I suggest the precautionary principle. Most of us always wear seat belts, not just because it's the law, but also because on every trip there is some chance of a wreck. There is a very reasonable possibility that a coal plant at Walla Walla will cause more harm than good. Just say no to our Port Commission, our County Commissioners, and the Washington State Energy Facility Site Evaluation Council. Just say no to coal. –Bob Carson

Bob Carson is Phillips professor of geology and environmental studies at Whitman College. After he earned an A.B. in geology from Cornell University, he worked for Texaco Inc. His other geology degrees are an M.S. from Tulane University and a Ph.D. from the University of Washington. His summer employment has included the Washington Department of Ecology and the Washington Department of Natural Resources.