

How It Kills: Some Elementary Facts

by Laurence Hecht

The genocidal Al Gore's widely advertised claims to the contrary, there are no improvements in solar conversion energy technology significant enough to make his solar power proposal into anything but a greenie wet dream—and, for basic scientific reasons, there never will be. If implemented, the great achievement of solar power would be the needless death of hundreds of millions, perhaps billions, around the globe by the denial of nuclear power. Gore's proposal to replace fossil fuels with solar, wind, and other "renewable" energy sources is thus a deadly fraud.

The basic problem with using solar power as a source of electrical power is the low density of energy flux from the Sun. Measured in watts received per square meter of land area at the Earth's surface, the yearly averaged solar flux varies across the United States from about 160 in the New England states, to 240 in Albuquerque, N.M., for a nationwide average of 200 watts per square meter. If all that solar energy could be converted directly into electricity, you could light two 100-watt bulbs for every square meter (about 11 square feet) of land area—during the day, that is.

Of course, all the Sun's heat cannot be converted into electricity. Take the latest solar plant to be brought on line, Nevada Solar One, a solar concentrator plant near Boulder City, Nev., which incorporates the latest German-built parabolic mirrors to focus the Sun's heat on specially designed vacuum-insulated steel and glass receivers produced by Germany's Schott firm. Although rated at 64 megawatts peak generating capacity (that is, at full Sun), the actual averaged generating capacity of the plant over the 24-hour day is somewhat under 15 MW. This is produced on a land surface area of 1.3 million square meters (321 acres, not counting auxiliary facilities), bringing the actual electrical generating capacity of the plant to 11.4 watts per square meter. Thus it takes about 9 square meters, or 96 square feet of plant area, to generate enough electricity to light a 100-watt bulb—during the daytime.¹

1. To replace all 1,090 gigawatts of electrical generating capacity of the United States with solar plants would require a surface area of 37,000 square miles—approximately the land surface area of Virginia. To deliver a modern level of electric power to the world's population and industrial



Government waste: A test solar electric rooftop system on a U.S. Navy building in Pearl Harbor. Gore's proposal to replace fossil fuels with solar power is a fool's errand.

Compare that to the power density of modern nuclear reactors, which produce from 2 million to 100 million watts per cubic meter of reactor core. The comparison is not merely a question of magnitude, however. A modern high-temperature reactor provides the electrical output and core temperatures to make possible such additional capabilities as the generation of industrial process heat, seawater desalination, hydrogen production for fuels, and the creation of isotopes for use in industry, medicine, and research. More importantly, the development of a cadre of scientists, engineers, and related personnel, competent in nuclear power production and research, paves the road to man's mastery over the subnuclear domains in which the secrets of fusion, and eventually matter-anti-matter reactions, are to be revealed.

Commercially available photovoltaic cells, the other principal way of converting the Sun's heat to electricity, have an energy conversion efficiency of 9 to 14%. Higher efficiencies, up to 30%, have been achieved in laboratory settings, but at costs that are not commercially feasible. But

base (2 to 3 kilowatts of generating capacity per person), using solar plants, would take 548,000 square miles, five times the land area of the United Kingdom and the Netherlands combined. Germany, which abandoned nuclear power development in favor of wind, solar and wood, still relies on nuclear for 26% of its electric power, coal for 62%, and wind, solar, geothermal and wood burning for only 7%.

let us take the best, nonexistent case of a 30% efficient solar cell. Remembering that the average solar flux is 200 watts per square meter, during half the day, it would mean a real averaged energy production capability of 30 watts per square meter per day (36 square feet to light a 100-watt bulb), under ideal conditions. One thus easily sees why solar energy exists only where Federally financed demonstration projects, subsidies, and laws requiring a certain percentage of retail power be produced by "renewable energy" are in effect, as in Nevada and California.

Solar energy is a great fraud, which actually deprives the world of desperately needed modern forms of power production, of which the most feasible is nuclear. Only a population driven insane by decades of Malthusian green propaganda in the schools, television, and other popular media would even seriously entertain a solar-powered electrical grid. What is really under attack in the proposal by Gore, the frontman for the Anglo-Dutch oligarchy's wish to return to a new Dark Age, is science itself. Having largely destroyed the nuclear capability of the United States, the intent is to channel what remains of the next generation's scientific impulse into the pursuit of better solar cells, climate frauds, and cataloging extinct species, of which the fastest accelerating is mankind.

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