

in a gallon of water. Yet if all the energy could be extracted from that small fraction of an ounce, it would be the equivalent of 300 gallons of high-test gasoline.

Edward Teller was once asked what he thought mankind would do with the abundance of energy promised by nuclear fusion. He replied that such a question was like asking a prehistoric caveman crouched over the newly discovered miracle of fire how he intended to make a steam locomotive.

Geothermal energy is the energy below the surface of the earth. The most visible manifestations of this largely unexploited source are the volcanoes, geysers and hot springs we see in national parks. But like icebergs, these are only a tiny fraction of what lies underneath the earth's surface.

Geologists estimate that by the year 2000 geothermal sources could be developed to produce almost as much

electric energy as the nation's entire utility industry is producing today. But access to it will be, for the most part, in the western part of the country.

The greatest energy source of all, of course, is the sun itself. Its energy warms the earth and produces, through photosynthesis, all of the food, fuel and oxygen we need to sustain life.

Every day the sun floods the earth with a hundred thousand times as much energy as is produced in the same period by all the electricity generating plants in the world. In just two hours, its warmth provides the United States with enough energy to outlast all of the fossil-fuel reserves we have left. And the technologies to capture useful amounts of this energy are becoming more advanced daily.

In contemplating facts like these, it is difficult to remain pessimistic. Given world peace and economic stability, the transitional storm will pass and

the great drama will come to a happy ending if the participants in it play out their roles conscientiously.

Dr. Glenn Seaborg, Nobel prize winner and former Chairman of the now disbanded Atomic Energy Commission, has this vision of the future: "The wise use of energy," says Dr. Seaborg, "can restore nature and rejuvenate man. It can help us to turn green again much of the desert wasteland that was once natural gardens. It can help us clean up our man-made environment and rebuild the lives of men and the lands and cities they inhabit. It can help us build the foundation for lasting peace on this planet. And it can give us the means to explore beyond this planet—to open new frontiers to man, physical frontiers and those of the mind and spirit. In short, the future of energy is the future of man. Without it we become nothing. With it, we become whatever we wish to be." □

