

The Path to Fusion Energy

Fusion energy is a possible major contributor to a long-term solution to our energy needs. Fusion energy will be nearly limitless, safe, carbon-free, and available to all nations. Although one of the most difficult scientific and engineering challenges ever undertaken, progress has been prodigious. In the laboratory, we have progressed from producing milliwatts of fusion power in the 1970s to 15 million watts produced (although for 1 second only) in the late 1990s. An international experiment (called ITER), under construction in France, is designed to produce 500 million watts of fusion power. The experiment - an extraordinary collaboration among the governments of half the world's population - will begin operation in about 10 years. In addition, strong research programs are in place, particularly outside the US, to surmount the final technical hurdles to fusion power.