

Did You Know?



Illinois, the birthplace of nuclear energy, gets more of its electricity from nuclear plants than any other state, about 51% (versus 20% nationally).

However, if you live in Chicagoland, it's closer to 80-90% nuclear!



Did You Know?



Argonne's Nuclear Energy Roots

Nobel laureate Enrico Fermi, Argonne's founding director, led the University of Chicago team that demonstrated the first controlled nuclear chain reaction in 1942. Argonne became the first national lab in 1946 with the mission to develop peaceful uses of the atom.

Today, our research is the basis for reactors in operation worldwide, and we continue to play a key role advancing technologies needed to ensure a reliable, sustainable supply of carbon-free energy for our future needs.

Tomorrow's clean cars will increasingly be powered by electricity, or even hydrogen – both which may come from future nuclear plants.

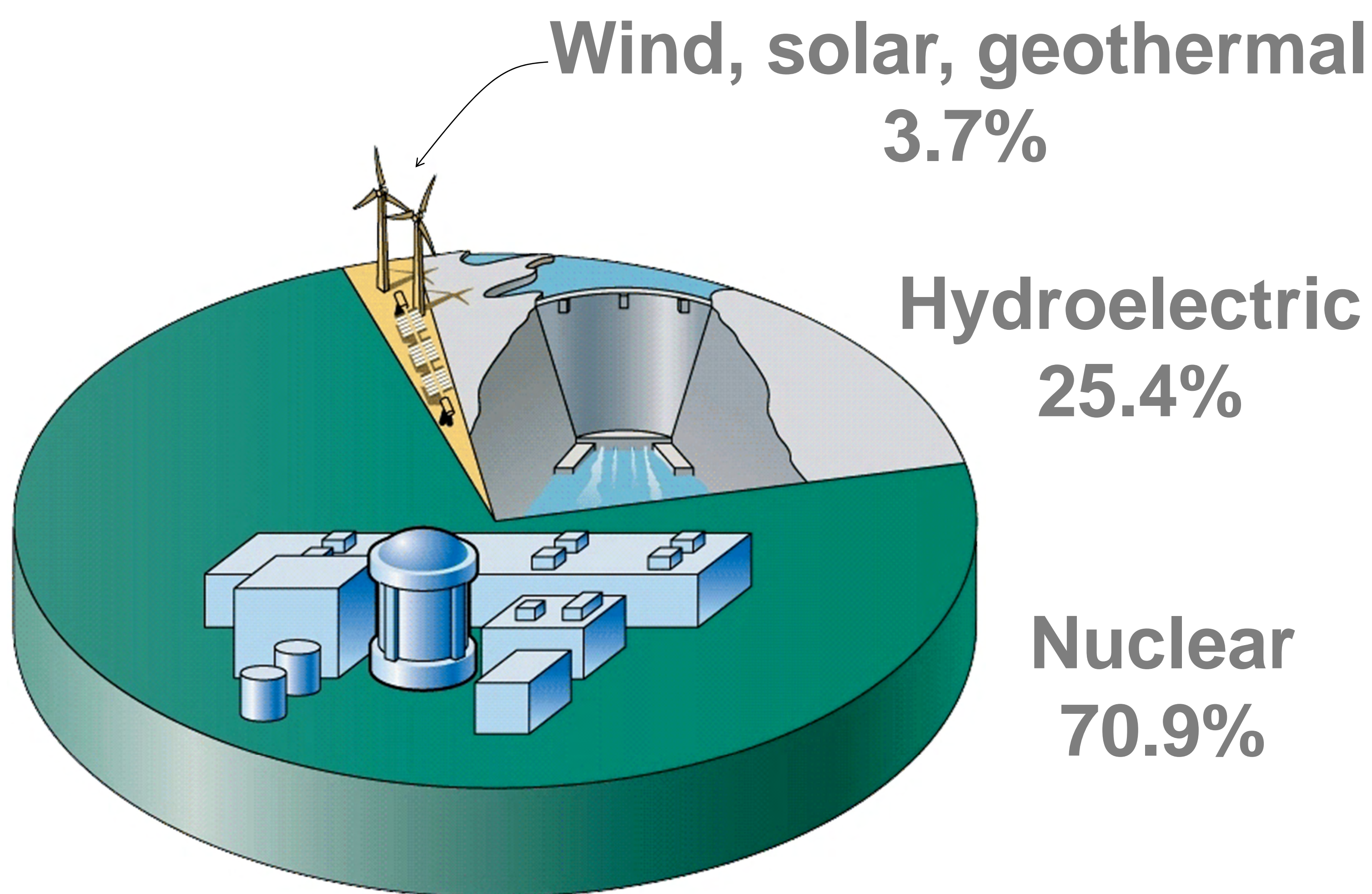


Did You Know?



Zero Carbon Emissions

Nuclear power accounts for 20% of U.S. electric power generation, but 70% of the carbon-free portion of electricity we use today.



Did You Know?



Over the last 15 years, the U.S. utilities have become the best operators of nuclear plants in the world.

U.S. nuclear power plants work at about 92% efficiency, up from 65% in 1990 and 56% in 1980.

This makes the U.S. the performance leader, with 12 of the world's top 25 reactors achieving over 98%.



Although no new nuclear plants have been built in the U.S. since 1979, this efficiency improvement is the equivalent of adding 38 new reactors since 1980.



Did You Know?



Hydrogen Economy

Hydrogen is a clean, efficient energy source that can reduce our dependence on foreign oil and significantly reduce pollution and global climate impacts. Future advanced nuclear reactors can provide the energy for a large-scale, emission-free, domestic hydrogen production capability.



Argonne is playing a key role in developing advanced reactor and hydrogen generation technologies needed to support the vision of a hydrogen economy.



Did You Know?



Nuclear energy is the only large-scale electrical generating technology that does not emit greenhouse gases, which contribute to climate change.

Through the use of nuclear energy, the U.S. has avoided over three billion tons of air emissions since 1970.



Did You Know?



Less radiation is emitted from a nuclear plant than from the stack of a coal plant! This is because coal contains naturally occurring radioactive materials – mainly, uranium and thorium.

However, the radiation exposure received near a coal plant is still 100 times less than natural background levels.

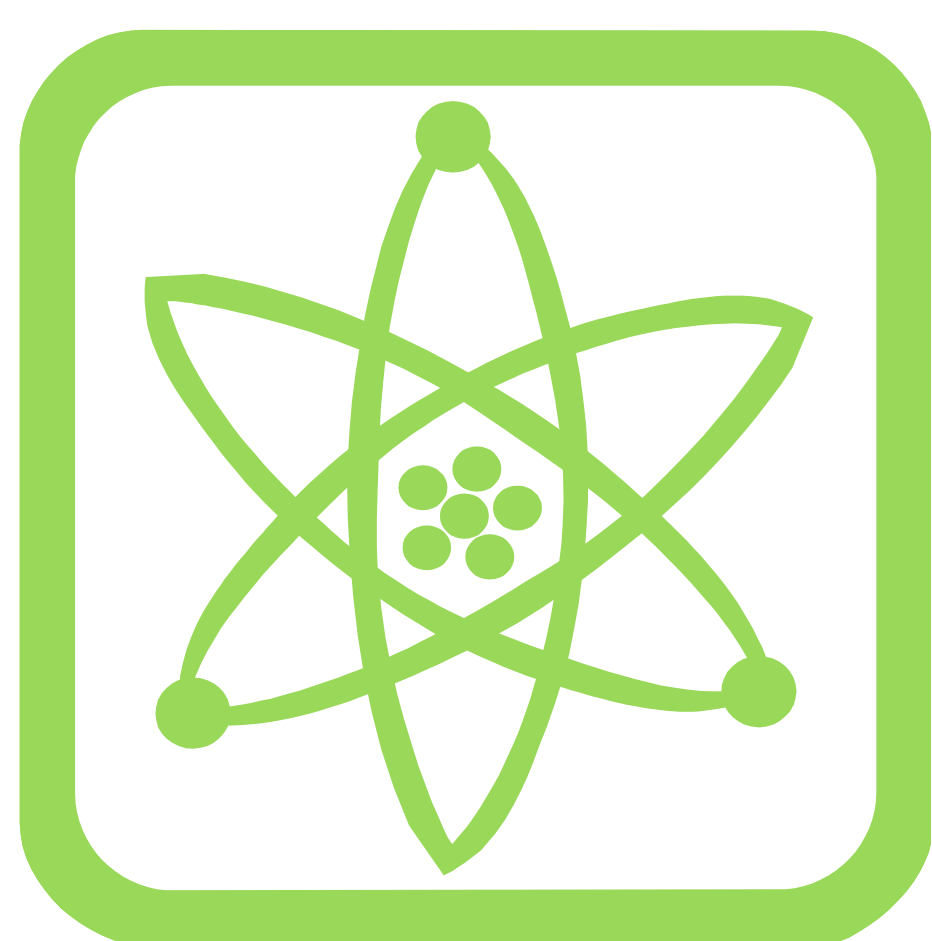


Did You Know?



Future of Energy

“Fast” reactors in conjunction with fuel recycling technologies can reduce the cost and duration of storing and managing nuclear waste significantly, while extracting 100 times more energy from the same amount of uranium.



These new technologies, substantially developed by Argonne, also enhance safety and nonproliferation, and ensure a reliable, sustainable energy supply for the future.



Did You Know?



Flora, farmers, and wildlife – fans of nuclear power plants

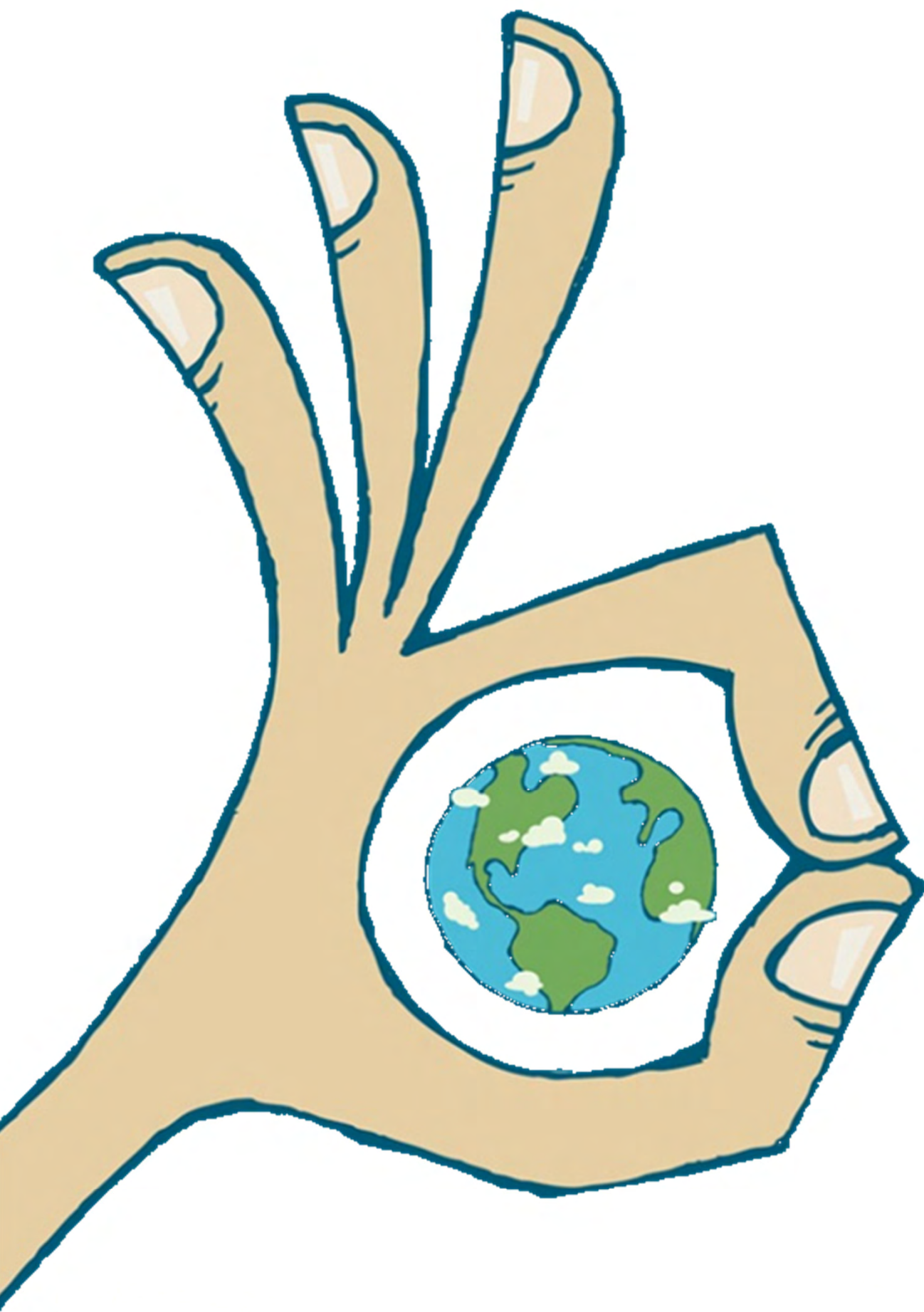
- **Turkey Point plant near Miami:** mangrove swamps cover most of the site, plant cooling canals shelter over 1/5 of the US crocodile population (400 crocodiles).
- **Byron nuclear power plant west of Chicago:** corn grows on most of the plant site while the two reactors power two million homes.



Did You Know?



One pound of uranium provides the same energy as 10 tons of coal.



One pound of uranium will make a ball only 1.4 inches in diameter.

Make an “OK” sign with your forefinger and thumb to see how big that ball would be.

Ten tons of anthracite coal would make a ball about 9 feet in diameter.

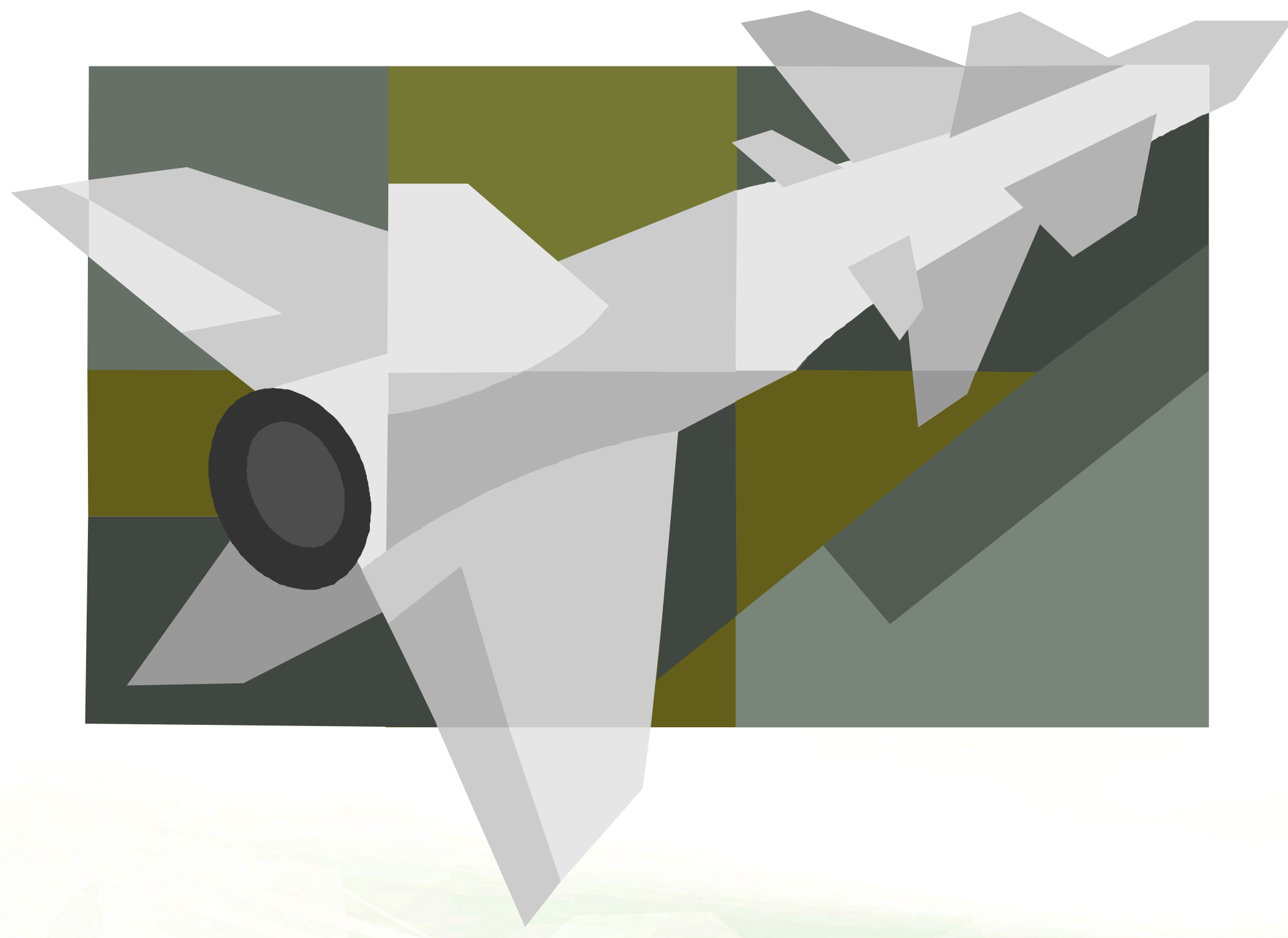


Did You Know?



Megatons to Megawatts

About 10% of America's electricity comes from dismantled Soviet nuclear warheads! The U.S.-Russian megatons to megawatts program has recycled 352 tons of highly enriched uranium, the equivalent of over 14,000 warheads eliminated.



Did You Know?




We are surrounded by naturally occurring radiation.

Only 0.005% of the average American's yearly radiation dose comes from nuclear power – 100 times less than we get from coal, 200 times less than on a cross-country flight, and about the same as eating 1 banana per year.



Did You Know?



The amount of nuclear waste generated to produce 1000 KWhrs of electricity, the typical monthly usage of a U.S. household, is about 0.006 pounds – the weight of a penny. 



Did You Know?



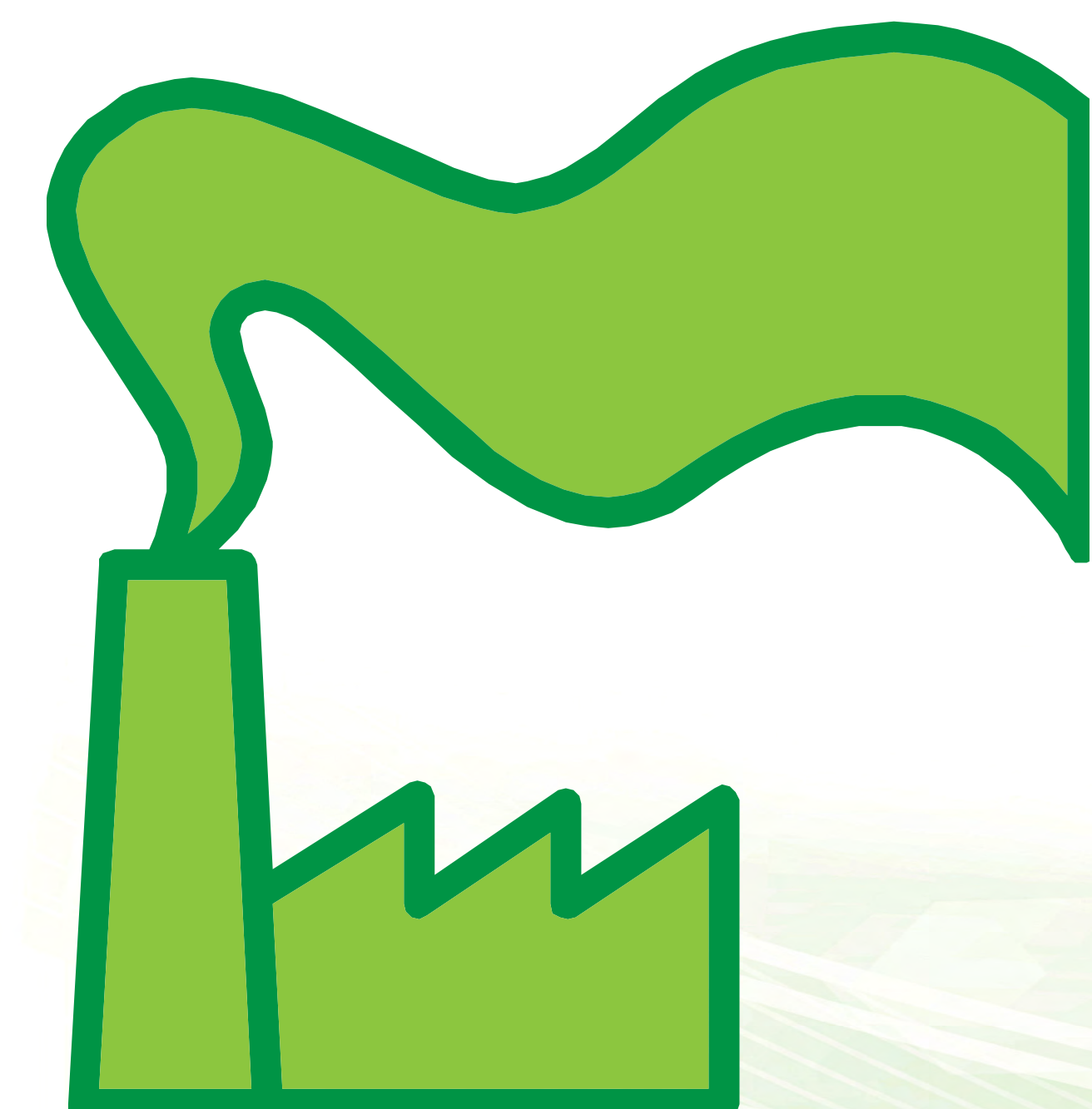
If all the energy you will ever use in your lifetime for every purpose – transportation, heating, cooling, recreation, etc. – came from nuclear energy, the total nuclear waste produced would fit in a soda can.



Did You Know?



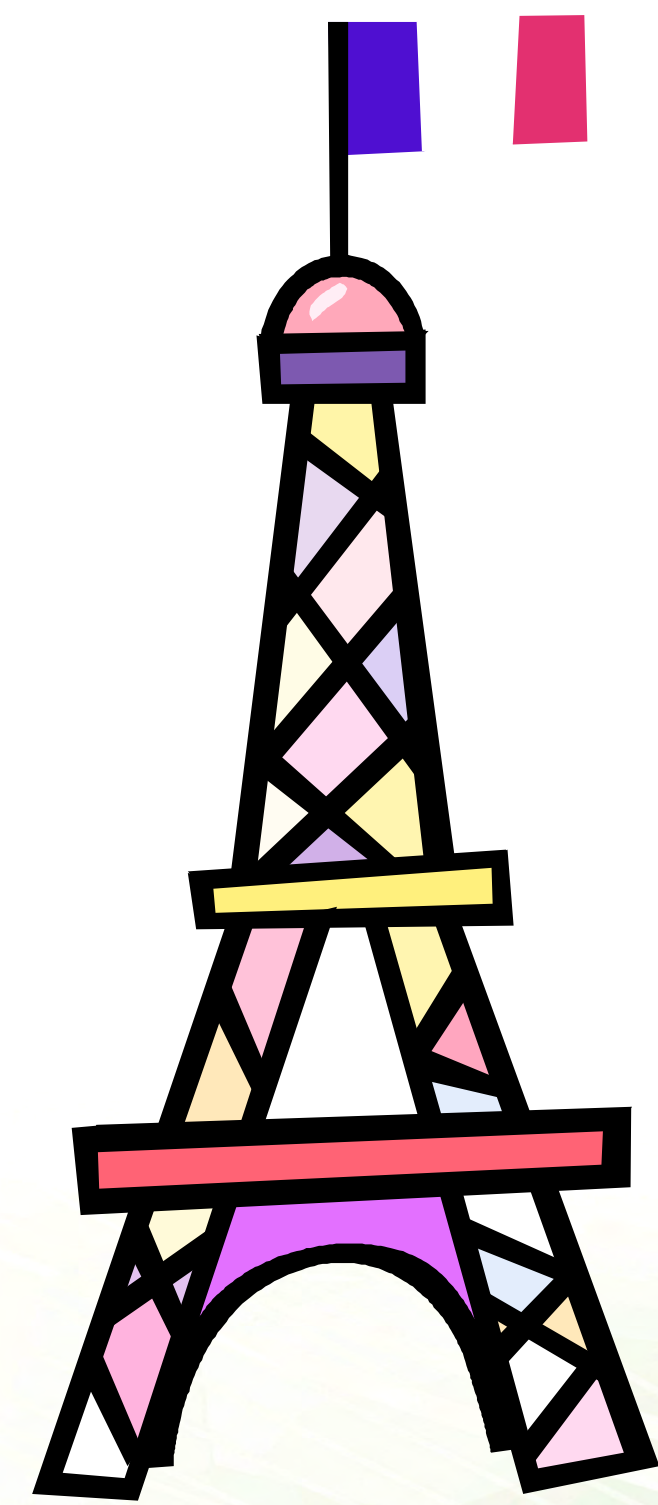
The U.S. has 104 operating nuclear plants that efficiently provide one-fifth of the nation's electricity. These plants do not emit greenhouse gases, operate year-round in all weather conditions, and produce the least expensive power on the grid today (other than hydroelectric).



Did You Know?



While the U.S. has more operating nuclear plants (104) than any other country in the world, generating 20% of our electricity, other countries get a larger fraction of their power from nuclear.



Among the highest is France, which gets 80% of its electric power from nuclear.



Did You Know?



A single uranium fuel pellet the size of your fingertip contains as much energy as 17,000 cubic feet of natural gas, 1,780 pounds of coal, or 149 gallons of oil.

