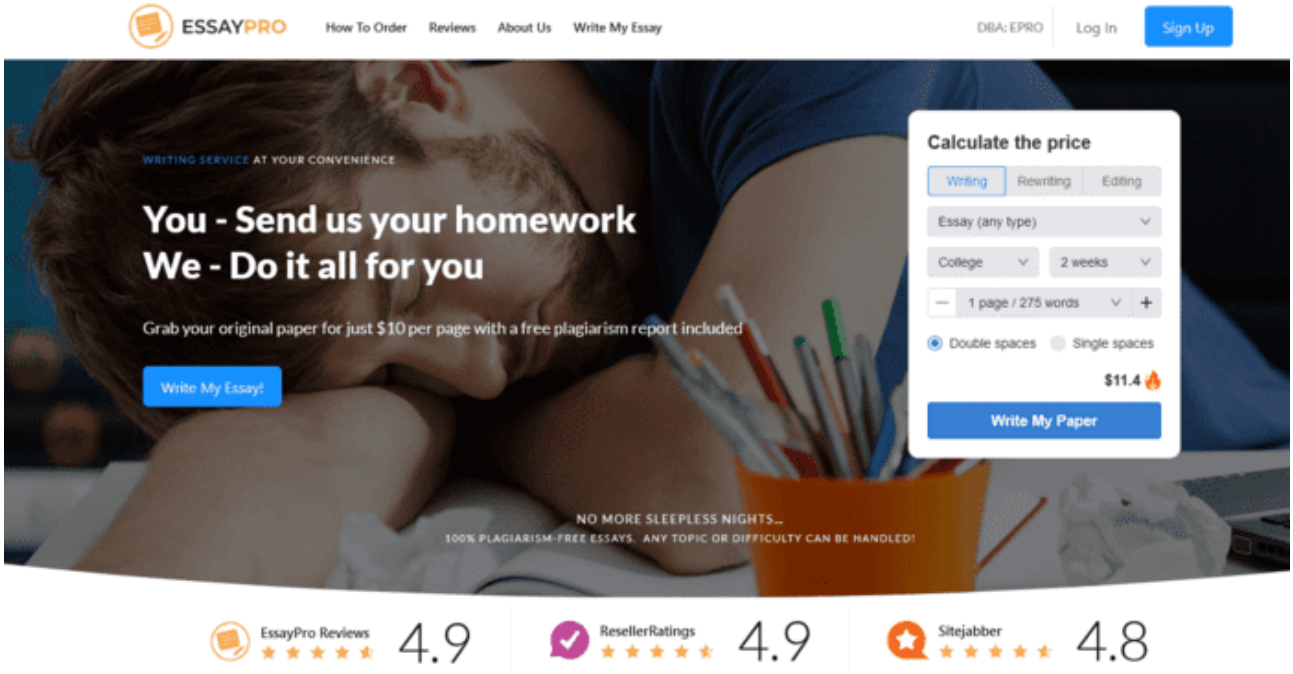
Fuel for Ever-Growing America; Power Consumption Essay



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More than half of all electricity in the United States is generated by fossil fuel-fired power plants (Background Coal). In some states, such as South Carolina and Vermont, more than half of the state's power is generated through nuclear power (Metcalf), and Duke Energy Corporation says, "Nuclear power plants are important for the clean energy mix, providing a steady base to back up less consistent renewables like solar, hydro and wind power," (Background Nuclear). Power consumption in the United States is on the rise, and fossil fuel and nuclear power plants are multiplying in quantity to provide for this demand. Fossil fuel-fired sources of power have been around since the Industrial Revolution, which was initiated in Great Britain in the late 1800s. Nuclear power emerged when scientists discovered its peaceful and humanitarian uses, shortly after the United States dropped the atomic bombs on the Japanese cities of Hiroshima and Nagasaki. Fossil fuel-fired and nuclear-fired power plants are polar opposites when analyzing operating costs, power production and operation of the plants, and the byproducts of the power generation of each.

Nuclear and fossil fuel power plants have very diverse operating costs. The actual cost of running the plants goes in favor of fossil fuel-fired plants. In 2012, fossil fuel plants

averaged at .373 cents per kilowatt hour for the power generation process (SAS). Nuclear plants averaged in at 1.160 cents per kilowatt hour for power generation (SAS). Fossil fuel plants also had a lower cost in maintenance, averaging .399 cents per kilowatt hour (SAS). Nuclear was almost double at .680 cents per kilowatt hour (SAS). The costs differences can be attributed to the operation of each type of plant and the...

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