Coal

Coal is a very common energy source that can date back millions of years. The process for coal to form is a very long process. Over three hundred million years ago, before dinosaurs lived, many giant plants died in swamps. Over the next 200 million years the plants became buried under water and dirt, finally heat and pressure turned the dead plants into coal. Coal has many uses, as an energy source it has several positive aspects as well as negative drawbacks.

Coal is used all over the United States, although it is only produced in a few areas. The Western Region produces the largest percent of coal; fifty-two percent, has the largest coal mines in the world and Wyoming is part of the Western region which accounts for over thirty percent of total U.S. coal production and is the number one coal state. The Appalachian Region is responsible for thirty-five percent of coal production. The coal mined of this area is mostly used for steam generation for electricity, metal production, and export. Thirteen percent of the United States coal mining comes from the Interior region which has mostly average sized mines. The United States had the world’s largest known coal mines; about two hundred and seventy-five short tons. If we keep using the same amount of coal as today then our coal supply will last over two hundred
years. Coal takes millions of years to reproduce so hopefully we take care of our current supply and not take advantage of it.

Over half of all electricity produced in the United States is generated by coal. Our country relies on coal for numerous reasons. Electric power, industry, making steel, and export are the main uses for coal in the United States. Power plants burn coal that causes steam to turn turbines to generate electricity. In addition to electric companies and power plants businesses with their own power plants use coal to generate electricity. Industries use coal in the process of making plastics, tar, synthetic fibers, fertilizers, and medicines. The concrete and paper factories also burn huge amounts of coal which makes coal another important source for factories. Coal is also a huge factor and important ingredient when making steel. Coal is baked in hot furnaces to make coke, which is used to smelt iron ore into iron needed to make steel. This iron made goes on to be made into bridges, buildings and even cars. Finally export is another use for coal. Last year, forty-eight million short tons, about four percent of the coal produced in the U.S., was exported to other countries. This common energy source can be used for many important things in the United States.

There are few obstacles we endure with coal as a reliable energy source coal is mostly a positive source of energy. Coal is very affordable. America has majority of all coal mines which makes it cheap for us to use as an energy source. The coal mines in the U.S. are spread out so transportation costs are very efficient and on average coal energy is about one-quarter the cost of natural gas. Coal is overall an great energy source to use.
There are four main types of coal; lignite, subbituminous, bituminous, and anthracite. Lignite coal is the lowest rank of coal with the lowest energy content and it produced mainly in Texas and North Dakota. Lignite is burned mostly in power plants to generate electricity. Subbituminous coal has a higher heating value than lignite, over forty percent of the coal produced in the U.S. is subbituminous and it is at least one million years old. Bituminous coal has two to three times the heating value of lignite coal. It is the most abundant coal found in the United States and it all between one hundred to three hundred million years old. Bituminous coal is used to generate electricity and it is an important fuel and raw material for the steel and iron industries. The final type of coal found in the U.S. is called anthracite and is very rare. The only mine that has this type of coal is in Pennsylvania. Coal takes a long time to produce, but once it is made it is fairly simple to retrieve. Access to reliable supplies of coal energy at affordable prices has allowed our economy to grow. In the future, other energy sources will be limited whereas our current coal supply should last over two hundred years.

There are a few drawbacks for using coal. The main negative aspect is it’s environmental impact. When coal is burned as fuel it gives off carbon dioxide, the main gas that is linked to global warming. Burning coal also causes emissions, such as sulfur, nitrogen oxide, and mercury that can badly pollute the air and water. Environmental laws and modern technology have greatly reduced coal’s impact on the environment. Without care, mining can destroy land and coal can pollute water. Thankfully, we have found more effective ways to clean coal before it leaves the mine. Using coal ensures many jobs for men in America. But mining for coal is also another drawback. Coal miners are at a
huge risk every time they go into coal mines. Currently the Department of Labor has enforced rules and regulations that make coal mining safer for everyone. Today mining has a lower injury and illness rate. The accident and injury rate today is comparable to that of grocery store workers. Miners are also required to wear hard helmets, steel toe boots, hearing protection, air purifying systems and high intensity lamps that improve visibility underground. They also carry self-rescuers that filter out harmful gases in case of emergency. Coal does have a few drawbacks but they are simple enough that things can be done to fix them.

Coal is overall a very reliable and good energy source. It is cheap to use, easy to find, and we have a large supply that will last America a long time. It has many different uses and is an important factor in the production of many things. Coal does have a few negative aspects but also many positive ones as well. Coal is a timeless and dependable source of energy.
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