

## **Green Coal Use: Can Coal Be Clean?**

When you think of clean, green, renewable energy sources, chances are coal doesn't pop into your mind! Because it has been plentiful and inexpensive, coal is still responsible for generating about half of the electricity in the United States. But coal is reputed to be the dirtiest and sootiest of all fossil fuels. When traditional coal is burned, it is responsible for acid rain, water pollution, and the emission of gases largely blamed for global warming. However, clean coal technology has caused many to give coal a second look as a green power source. This involves the use of different processes to lessen harmful effects on the environment and to contain emissions.

Even with clean coal technology, whether or not coal can ever be truly considered a green energy source is hotly debated. Many environmentalists believe that the term 'clean coal' is an oxymoron, and that the damage to the environment from burning coal can never be mitigated enough by technology to make it a renewable energy source. Carbon dioxide emissions will always be an issue with burning coal. They also argue that despite all of the hype and advertising about clean coal from companies that stand to profit, there are still no clean coal plants in existence in the United States today.

The clean coal industry is aware of all of the issues and has been undergoing research and development to deal with them. Learn more about some of the technologies to see if you agree whether it is worth the effort to make coal greener, or if coal shouldn't be pursued as an energy source at all but replaced by natural renewable sources like solar or wind power.

### ***Coal Washing***

Just by washing coal, some impurities can be removed, allowing it to burn cleaner and with less pollution. However, since coal is still being burned, pollution is unavoidable. It is just a matter of how much. Can pollution be justified just because it has been reduced?

### ***Flue scrubbing***

This involves spraying a solution comprising limestone and water into a flue. Here a reaction between the solution and sulphur dioxide creates gypsum. Gypsum is significantly cleaner than coal and can be utilized for construction purposes.

### ***Gasification***

This may be a more promising process. Instead of burning coal, it reacts with steam and oxygen to create syngas. Composed of hydrogen, syngas can be burned cleaner than the pure coal itself using a gas turbine.

### ***Low NOx burners***

These burners help to cut down on the creation of nitrogen oxide, one of the major pollutants resulting from burning coal. Reducing nitrogen oxide reduces the polluting emissions of coal, but doesn't eliminate them.

Can coal really be green or clean? The general consensus is that clean coal technology makes coal greener for when coal must be used for power. However, because carbon dioxide emissions still can't be eliminated, other natural renewable energy sources are much greener and better for the environment than coal. But with all of the research and development in the works, maybe someday soon there will be a clean coal technology that eliminates carbon dioxide emissions in order to make it a true green energy source.