What is black liquor?
Black liquor is a thick, dark liquid that is a byproduct of the process that transforms wood into pulp, which is then dried to make paper. One of the main ingredients in black liquor is lignin, which is the material in trees that binds wood fibers together and makes them rigid, and which must be removed from wood fibers to create paper.

How is it used?
Lignin, and therefore black liquor, contains the bulk of the energy content of wood. Black liquor is used as fuel at papermaking facilities to generate electricity as well as the heat needed to remove the water from pulp to make paper.

Are other fuels ever added to black liquor?
Sometimes. Small amounts of other fuels, such as diesel fuel, can be added to help light a furnace when it is started, as well as to help improve the quality of its combustion.

Is black liquor hazardous waste?
No. EPA has explicitly stated it is not a hazardous waste. Black liquor is a renewable biomass fuel classified as a “liquid fuel derived from biomass”. In addition to sawdust, bark, and other parts of the tree, black liquor is one of the renewable, carbon-neutral fuels used by pulp mills to produce electricity and heat, thus making it possible for these facilities to generate approximately 66 percent of their energy needs onsite.

How much black liquor can a papermaking facility produce?
Processes and facilities vary, but a typical pulp mill will produce 250-400 gallons of black liquor per ton of pulp, most of which is consumed onsite to produce energy.

Is using black liquor for fuel good for the environment?
Yes. Using black liquor to fuel mills avoids fossil fuel use and is highly efficient. Black liquor is a carbon-neutral biomass-based fuel that results in no net increase of carbon dioxide in the atmosphere. This is because the carbon in black liquor was originally extracted from the atmosphere and its release during fuel use mimics the same natural cycle that occurs in the forest when trees decompose and release their carbon.