Coal
Coal is a fossil primary fuel, usually with the physical appearance of a black or brown rock, consisting of carbonised vegetal matter. The higher the carbon content of a coal, the higher its rank or quality. Coal types are distinguished by their physical and chemical characteristics. These characteristics determine the suitability for various uses. There are three main categories of coal: hard coal, sub-bituminous coal and brown coal (also called lignite). Peat, which is another primary fuel closely related to coal, is often included under coal.

Hard Coal
Coal that has a high degree of coalification with a gross calorific value above 23,865 kJ/kg (5,700 kcal/kg) on an ash-free but moist basis, and a mean random reflectance of vitrinite of at least 0.6. Hard coal comprises anthracite, coking coal and other bituminous coal (a.k.a steam coal).

Anthracite
High rank coal used for industrial and residential applications. It has generally less than 10% volatile matter and a high carbon content (about 90% fixed carbon). Its gross calorific value is greater than 23 865 kJ/kg (5 700 kcal/kg) on an ash-free but moist basis.

Coking Coal
Bituminous coal with a quality that allows the production of a coke suitable to support a blast furnace charge. Its gross calorific value is greater than 23 865 kJ/kg (5 700 kcal/kg) on an ash-free but moist basis.

Other Bituminous (Steam) Coal
Coal used for steam raising purposes and includes all bituminous coal that is not included under coking coal nor anthracite. It is characterized by higher volatile matter than anthracite (more than 10%) and lower carbon content (less than 90% fixed carbon). Its gross calorific value is greater than 23 865 kJ/kg (5 700 kcal/kg) on an ash-free but moist basis.

Sub-Bituminous Coal
Refers to non-agglomerating coal with a gross calorific value between 17 435 kJ/kg (4 165 kcal/kg) and 23 865 kJ/kg (5 700 kcal/kg) containing more than 31% volatile matter on a dry mineral matter free basis. This category includes Brown Coal (Lignite).

Brown Coal (Lignite)
A relatively soft, non-agglomerating coal with a gross calorific value less than 17 435 J/kg (4 165 kcal/kg) and greater than 31% volatile matter on a dry mineral matter free basis.

Peat
A solid fuel formed from the partial decomposition of dead vegetation under conditions of high humidity and limited air access (initial stage of coalification). It is available in three forms as a fuel.

- Sod peat: slabs of peat, cut by hand or by machine, and dried in the air; mostly used as a household fuel;
- Milled peat: granulated peat, produced on a large scale by special machines; used either as a power station fuel or as raw material for briquettes;
- Peat briquettes: small blocks of dried, highly compressed peat; used mainly as a household fuel.

Tim Simmons 10/4/08 9h31
Note that I have omitted reference to reporting of steam coal in coke ovens as coking coal. The definition of coking coal allows for this although the wording is a bit subtle.

Tim Simmons 10/4/08 11h02
Before inserting them, we need to consider whether oil shale and tar sands are appropriately placed here.

Tim Simmons 10/4/08 11h38
Classification as fossil or renewable must be faced here. The definition I have selected does not choose but the final definition should be clear on this point. I have used UNSD and WEC definitons.

Brown Coal (Lignite) Briquettes (a.k.a Braunkohlenbriketts, BKB)
A composition fuel manufactured from brown coal. The brown coal is crushed, dried and moulded under high pressure into an even shaped briquette without the addition of binders.

Brown Coal Coke
A solid product obtained from carbonization of brown coal briquettes.

Patent Fuel
A composition fuel manufactured from coal fines by shaping with the addition of a binding agent such as pitch.

Coke Oven Coke (Metallurgical Coke)
The solid product obtained from carbonization of coal at high temperature. Coke oven coke is low in moisture and volatile matter and has the mechanical strength to support the blast furnace charge. It is used mainly in the iron and steel industry acting as heat source and chemical agent.

Semi Cokes
Cokes produced by low temperature carbonization and used as a heating fuel. Note that semi cokes may be made from bituminous and sub-bituminous coals including brown coals.

Coke Breeze
A by product of coke manufacture. It is the residue from screening coke and comprises particle sizes less than 10 mm. Note that the coke which is screened may be made from bituminous and sub-bituminous coals including brown coals.

Gas Coke
A by-product from the carbonization of bituminous coal for the manufacture of town gas. Gas Coke is used for heating purposes.

Coal Tar
A liquid by-product of the carbonization of coal in coke ovens.

Coke Oven Gas
A gas of high calorific value produced from coke ovens during the high temperature carbonization of coal for the manufacture of metallurgical coke.

Tim Simmons 10/4/08 14h00

I am not happy with this entry in the definitions because it defines the gas (the product) in terms of its provenance and function rather than its qualities. The definition exists to overcome a reporting issue and I suggest that its use be limited to the questionnaires.

~~Gas Works Gas (a.k.a Town Gas)~~
Covers all types of gases produced in public utility or private plants, whose main purpose is manufacture, transport and distribution of gas. It includes gas produced by carbonization (including gas produced by coke ovens and transferred to gas works gas), by total gasification with or without enrichment with oil products (LPG, residual fuel oil, etc.), and by reforming and simple mixing of gases and/or air.

Blast Furnace Gas
A low calorific value gas which is a by-product of blast furnace operation for the manufacture of iron. Its heating value arises from the carbon monoxide produced by the partial combustion of coke in the blast furnace It is used to heat blast air and as a fuel in the iron and steel industry. It may also be used by other industrial plants.

Basic Oxygen Steel Furnace Gas (BOSF gas)
A by-product of the production of steel in a basic oxygen furnace. The gas is recovered as it leaves the furnace. The gas is also known as converter gas, LD gas or BOSF gas.

Oil Shale, Shale Oil and Tar Sands??