## *Coal Power Stations*

Nigeria has coal reserve of about 2.75 billion tonne which is made up of sub-bituminous, bituminous and lignite. The coal has a calorific value of 23,112.24 – 17,676.07kJ. Currently coal is not contributing to the Nigerian electricity generation mix.

### *Level 1*

Level 1 assumes that coal power plant is introduced in the country with a capacity of 1.4 GW by 2025. Remain the same up to 2050. This will generate approximately 9.20TWh at 75% load factor.

### *Level 2*

Level 2 assumes that coal power plant is introduced in the country with a capacity of 1.4 GW by 2025. Another power plant of 3 GW capacity is to be added by Federal Government by 2035. This makes a total of 4.5 GW by 2020 which is maintained up to 2050. This will generate approximately 29.57TWh of electricity at 75% load factor.

### *Level 3*

Level 3 assumes that 1.4 GW of coal plant becomes available by 2025 and increase to 19.25 by 2050. This will generate approximately 126.47TWh.

### *Level 4*

Level 4 assumes the coal power plant capacity should reach 55GW by 2050 and produce 361.35TWh/y of electricity. This should use about 78% of Nigerian coal reserve in 40 years. This can be achieved through public private partnership (PPP) due to high investment cost that is required in the implementation.

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