

Mauritius 2050 Pathways Calculator
(Version 1)
Thermal generation

Coal is a major source of energy supply for the electricity generation. Currently, about 40 per cent of the electricity generated is from coal. According to the Long Term Energy Strategy of the Ministry of Energy and Public Utilities, coal will continue to be used for electricity generation by year 2050. In Mauritius, the combustion of coal has to also cover biomass since several coal-fired power plants also carry out the co-combustion of bagasse. There is an assumption that oil-fired power plants will be maintained at 221 MW to 2050, and that the ratio of coal-to-kerosene plants will be maintained at a fixed ratio of 310:1.

Definition of trajectories

In version 1 of the Mauritius 2050 Pathways Calculator, the four levels for coal and biomass thermal power plants are defined as follows:

For coal

Level 1	A drastic drop in the coal prices will increase its popularity in electricity generation. The share of coal in the electricity sector will increase at an average rate of 5% every five year and in 2050, it will reach to 50 percent.
Level 2	Current Energy policy measures is to reduce the use of coal but also at the same time ensure there is continuous supply of electricity in the country. Under this pathway, the use of coal will be about 30 percent by the year 2050.
Level 3	Due to high cost of investment to meet stringent environmental standards for use of coal in power pants, there will be a decreasing tendency to use coal over the years to come. Under this pathway, the percent of coal in our energy mix would reach 20 percent by the year 2050.
Level 4	The use of coal will be further decreased and will reach to less than 10 percent by the year 2050 (equivalent to about 600 GWh).

For biomass

Level 1	Bagasse is the only source of biomass for electricity production. With existing technologies, electricity from bagasse will drop to 250 GWh per year
Level 2	In order to ensure the survival of the sugar sector, the Government will give incentive to produce sugar and support the re-engineering program. Bagasse will be used and the availability will be maintained at the current level of 360 GWh with some improvement in power plant technologies and some amount of sugarcane trash recovery.
Level 3	The new sources of biomass, like Arundo Donax and King Grass to sustain and improve electricity production by biomass. Also, 40% dry sugar cane trash to be recovered. Total electricity generated will be 700 GWh in 2050.
Level 4	Biomass will be used intensively from various sources and the percentage will increase over years to reach up to 920 GWh in 2050.