# MUSE and OSeMOSYS Starter Kits Scenario Comparison for Kenya

# Base Scenario





In both models there is a high amount of geothermal in Kenya, which reaches it’s total capacity limit of 315PJ. However, the models diverge in the technologies invested in addition to geothermal. MUSE invests more in firm technologies such as coal and biomass, whereas OSeMOSYS invests in offshore and onshore wind, as well as solar PV (utility). The differences here may be explained by a lack of perfect foresight in the MUSE model, where agents do not know that the costs of solar and wind will fall dramatically at the beginning of the simulation. They, therefore, rely on more traditional technologies.

# Net Zero Scenario



In the net-zero scenario there is a high amount of geothermal in both scenarios. However, MUSE, again, opts to invest in more traditional, firm technologies such as biomass and hydropower. OSeMOSYS, on the other hand, invests heavily in onshore and offshore wind as well as utility scale solar (including with 2 hour storage). These are similar to the results in the base scenario, where OSeMOSYS has perfect foresight and is therefore able to perfectly predict the following prices of solar, whereas MUSE opts to invest in traditional technologies.

# Fossil Fuel Scenario





In the fossil fuel scenario, a similar future electricity mix is observed in both models, with a high uptake of coal and gas (CCGT) power plants. There is more gas observed in MUSE, however.