



Development of a Green Least-Cost Generation Expansion Plan for Kenya

By Simiyu, Patrobers / Pereira Da Silva, Izael

Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | In this book, a green generation expansion plan (GLCGEP) for Kenya is derived as a substitute of the previously proposed carbon intensive 2011-2031 least-cost power development plan (LCPDP) for Kenya. The research established that the GLCGEP generation capacity is projected to grow from 1382 MW in the base year to 19828 by 2031. Out of the total capacity, 40.8% is geothermal, 19.5% wind, 11.1% Ethiopian imports, 10.9% natural gas, 9.1% nuclear, 5.2% hydro, 2.3% HFO and 1.0% solar PV. The generation system is expected to supply 7721 GWh to 105766 GWh by 2031. The GLCGEP and the LCPDP capacities depicts 25% and 28% average reserve margins respectively; the later providing excess. By 2031, the GLCGEP; 78% green almost twice the LCPDP at 49% is projected to accrue a total of 20.2 Mt CO₂ avoided CO₂ emissions estimated at US\$ 62.9 million carbon credits besides other invaluable green fringe benefits. The GLCGEP is also more feasible as it showed more revenues approximated at US\$ +2.16 billion NPV unlike the US\$ - 0.31 billion for the LCPDP. The study demonstrates a feasible future for green-based generation in Kenya with security of supply and sustainable...

DOWNLOAD



READ ONLINE

[7.64 MB]

Reviews

Absolutely essential go through publication. This can be for all who statte there was not a worthy of looking at. Its been printed in an remarkably basic way and it is just right after i finished reading this book through which in fact altered me, modify the way i think.

-- **Dr. Haskell Osinski**

Very useful to all category of men and women. I actually have study and i also am certain that i am going to going to read through again once more down the road. Its been written in an exceptionally simple way and is particularly only soon after i finished reading this publication by which basically altered me, modify the way in my opinion.

-- **Dr. Sarai Fisher DDS**