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Energy Generation from Biomass Residues in the Municipality of Xapuri /AC

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Abstract

The municipality of Xapuri is located in a region characterized by a diverse logging and agricultural expansion. As a result, Xapuri has a great potential for power generation from biomass residues so as to foster its local development. This study estimates the theoretical biomass volumes available in the region that has a potential for energy generation. For this, we used a 4 MW steam cycle turbine (Rankine cycle) as the baseline equipment. Our results show that local biomass residues are able to supply the energy demand of 26 households.

Keywords: Xapuri municipality, Biomass, Residues, Electricity generation.