

3GW Mambilla Hydroelectric Power Project

A large hydro-electric power project is proposed consisting of three dam scheme on the Gembu Plateau in the Mambilla highlands of Taraba State in Nigeria. The feasibility study for the project proposed Gembu dam [now Nya dam], Sumsum dam, Nghu dam and Api weir with interconnecting underground water power tunnels, an underground power house at Abong at the bottom of the Gembu plateau as well as other auxiliary works including switch yards and power evacuation transmission lines to Makurdi and Jalingo. The projected power output of the scheme is 4,473 GWh/a with average energy output of 5,459 GWh/a. The estimated project cost is \$5.8 billion.



The economic analysis suggests a base case IRR of 6.4% under a benchmarked Long Run Marginal Cost framework assuming energy charge of USD 45/MWh and Capacity Charge of kUSD 5.2/MW/month. The return on investment increases to an IRR of 10.22% when we assume an Energy Charge of USD 60/MWh and Capacity Charge of kUSD 7.2/MW/month. It is worth pointing out that current tariffs for thermal plants in Nigeria are around USD 100/MWh and kUSD 10/MW/month respectively.

The project owners, a SPV named “Mambilla Capital Partners” is proposing a structured framework that with a 85:15 Debt/Equity ratio, whereby 85% is already committed to be funded by Chinese Banks and guaranteed by SINOSURE. The 15% capital contribution (approximately USD 1.0 billion) is the component available for investors participate. The goal of the project owners is underwrite the \$1 billion Capital Contribution under an equity-bridge finance/venture capital/private equity framework with appropriate guarantees from the Federal Government of Nigeria.