g-res tool
assessing ghg emissions from reservoirs

G-RES TOOL VALIDATION REPORT #2.102152
Binga

The G-res tool is a web-based tool that allows hydropower companies, investors, consultants, decision-makers and other stakeholders to more accurately report on the net impact on GHG emissions resulting from the introduction of a reservoir in a landscape, whether for an existing or planned reservoir.

The G-res tool accounts for pre-impoundment GHG emissions, post-impoundment GHG emissions, unrelated anthropogenic sources (UAS) emissions, along with the temporal evolution of emissions over the lifetime (100yrs) of the reservoir, the emissions from the construction phase, and the allocation of GHG emissions to hydropower and any other services provided by the reservoir.

RESERVOIR CHARACTERISTICS

G-res ID	Name	Climate	Reservoir Area (km^2)	Net GHG Footprint ($gCO2e/m2/yr$)
2.102152	Binga	Tropical	1.73	280 (170-405)

HYDROPOWER ASSESSMENT

Installed Capacity (MW)	Annual Mean Generation (GWh/yr)	Power Density (W/m^2)	Allocated Emissions Intensity (gCO_2e/kWh)	Service Allocation
140	430	80.9	1.1 (1 - 2)	Flood Control Fisheries Irrigation Navigation Environmental Flow Recreation Water Supply Hydroelectricity = 100%

*See G-res Tool assessment report for detailed input values and results.

iha international hydropower association
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