

Ethiopia readies Grand Renaissance Dam

Ethiopia is finalizing construction of the Grand Renaissance Dam, its first major dam on the Blue Nile, and will then start filling the giant reservoir behind it to power Africa's biggest hydroelectric plant



Grand Ethiopian Renaissance Dam (GERD)

Construction: Launched in December 2010. Dam likely to be finished late 2017 or early 2018

Cost: \$5 billion

Power: 6,400MW – big boost for Ethiopia's 100 million people, most of whom lack access to electricity

Reservoir: 74bn cubic metres of water – equivalent to entire annual flow of Blue Nile at Sudan border

Impact: Downstream countries fear dam will reduce water supplies. Blue Nile supplies 60 percent of water that reaches Nile – main water source for Egypt's 93 million people

Reservoir: Covers 1,680 sq km – about four times as big as Cairo. Could take from five to 15 years to fill

Penstocks

Emergency spillway

Main dam
World's largest roller-compacted concrete dam.
Height: **155m**
Length: **1,780m**

Powerhouses
16 turbines*

Project also includes rockfill saddle dam and gated spillway south of main dam

*Estimated annual capacity 15,000 gigawatt hours

BLUE NILE