

Nam Ngiep 2 Dam Hydropower info by Hobo Maps - [Home](#) [Go Back to Hydropower Web Page](#)

Note: Nam Ngiep 2 is also sometimes spelled Nam Ngieb 2 or as Nam Ngiep II with Roman numerals. There also is much info on the web regarding Nam Ngiep 2 hydropower project that is outdated and no longer relevant. A prior 261 MW project planned by Japan's Kansai Electric and Thailand's EGAT around year 2007 has apparently been cancelled.

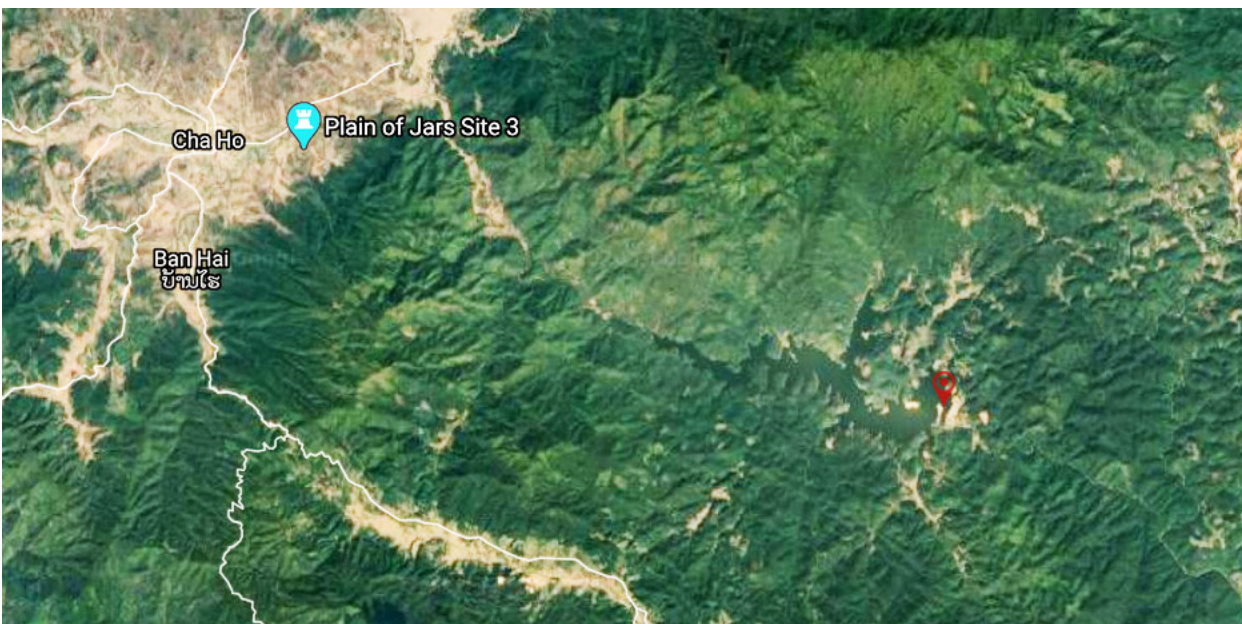
Also note: Nam Ngiep 2 hydropower project is not related to the Nam Ngiep 2A, 2B & 2C hydropower projects developed by Nonghai Group far away on the eastern side of the Nam Ngiep river.

Nam Ngiep 2 Dam and reservoir image below:



Nam Ngiep 2 Hydropower work on the site commenced October 2011 and the facility was commissioned in December 2015.

Red marker in satellite images below shows dam location at 19°14'23.6"N 103°17'06.4"E (19.239900, 103.285100).



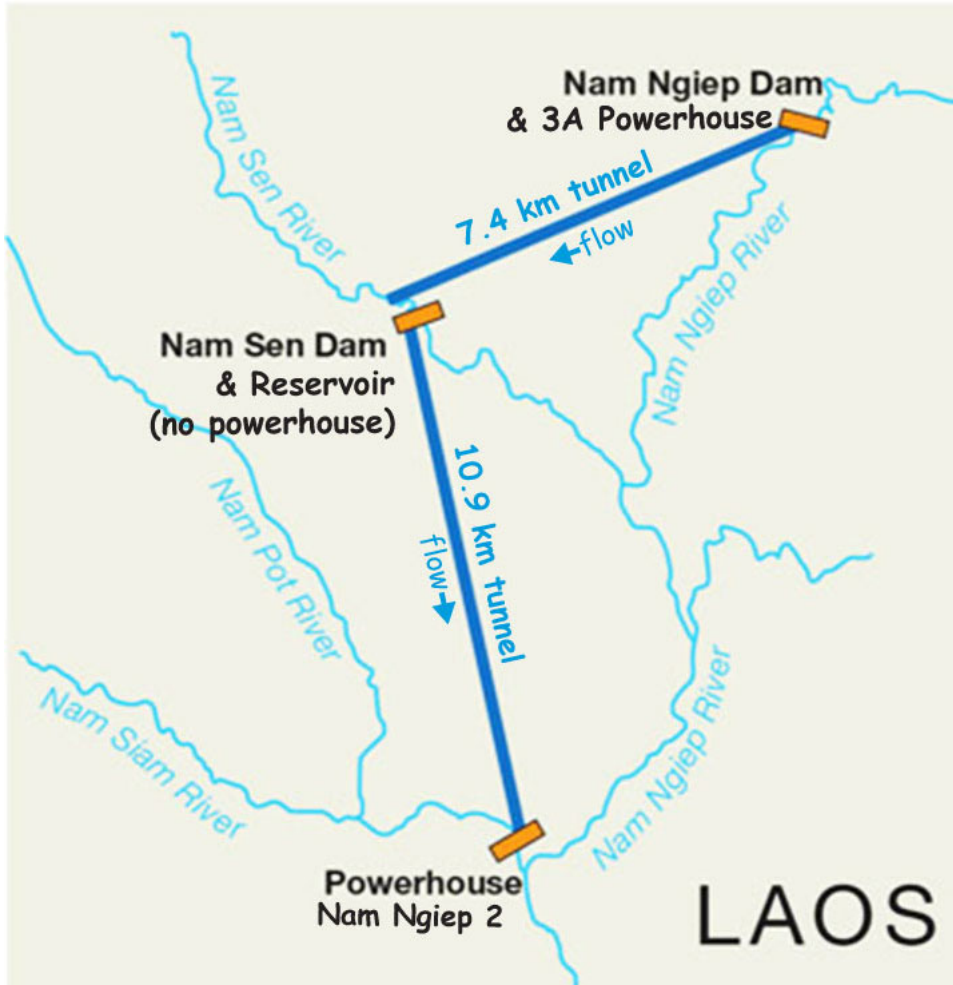
The Project is financed, built and operated as a build-own-operate-transfer (BOOT) project under a 25-year concession agreement with the government of Laos starting from the date of commercial operation.

The project is owned by Nam Ngiep II Hydropower Project Company with Electricite du Laos (EDL) holding 10 percent ownership and China International Water & Electric Corp (CWE) holding the other 90 percent. CWE is a subsidiary company of China Three Gorges Corporation. The project cost was about US \$345 million.

Nam Ngiep 2 has three generators with an installed capacity of 60 MW per unit for a combined capacity of 180 MW and 723 GWh output of electricity per year into the national power grid for local supply. The operation head of the hydropower station varies from 430 meters to 491 meters.

The main dam on the Nam Sen river is a 70.5 meter-high clay core rockfill dam that creates a reservoir with storage capacity of 163 million cubic meters.

Nam Ngiep 2 project involved diverting water west from the Nam Ngiep River through a 7.4 km-long tunnel to the Nam Sen Dam and Reservoir. Water is then diverted 10.9 km south to the Nam Ngiep 2 powerhouse which contains three Francis turbine-generator units. See diagram below:



Nam Ngiep 2 plant site images below at 19°08'16.0"N 103°18'33.7"E (19.137763, 103.309364):



Nam Ngiep 2 hydropower project is on Nam Sen and Nam Siam (rivers) - tributaries of the Nam Ngiep (river) about 94 km upstream from the Nam Ngiep 1 dam site. In one place, the Nam Ngiep 2 powerhouse is only 10 km away from a northerly part of the Nam Ngiep 1 reservoir.

The project has an inter-basin transfer between the Nam Sen and Nam Siam rivers and a diversion tunnel to supply the reservoir during the dry season from the headwaters of the Nam Ngiep. The catchment area of the reservoir is 693 square kilometers.

The works comprise a transfer weir on the Nam Ngiep, a 7.4 km long transfer tunnel, a 70 meter high earth rock dam on the Nam Sen, a 10.9 km long headrace tunnel, a surface power station on the Nam Siam equipped with 3 x 60 MW Francis turbines and generators and a 230 kV transmission line to the Tha Vieng substation.

nice aerial-view video of dam project at end of construction - <https://www.youtube.com/watch?v=Pgm-42yzFcu>

The main structures of the complex are a 70.5 meter-high clay core rockfill dam, a right bank open spillway, a right bank discharge scour outlet for river diversion, a 10.94 km-long right bank headrace tunnel and surge tank (136 meter height and 7 meter diameter), penstock (1,203 meters long with 3.4 meter diameter), ground powerhouse, 20 meter-high tributary dam and 7.4 km long headrace tributary tunnel.

Nam Ngiep 2 dam structure below:



Nam Ngiep 2 (Nam Sen) Dam & Intake Structures below - unusual to have two intake structures:



Nam Ngiep 2 downriver view below:



Nam Ngiep 2 powerhouse building images below:





Nam Ngiep 2 turbines and control room below:



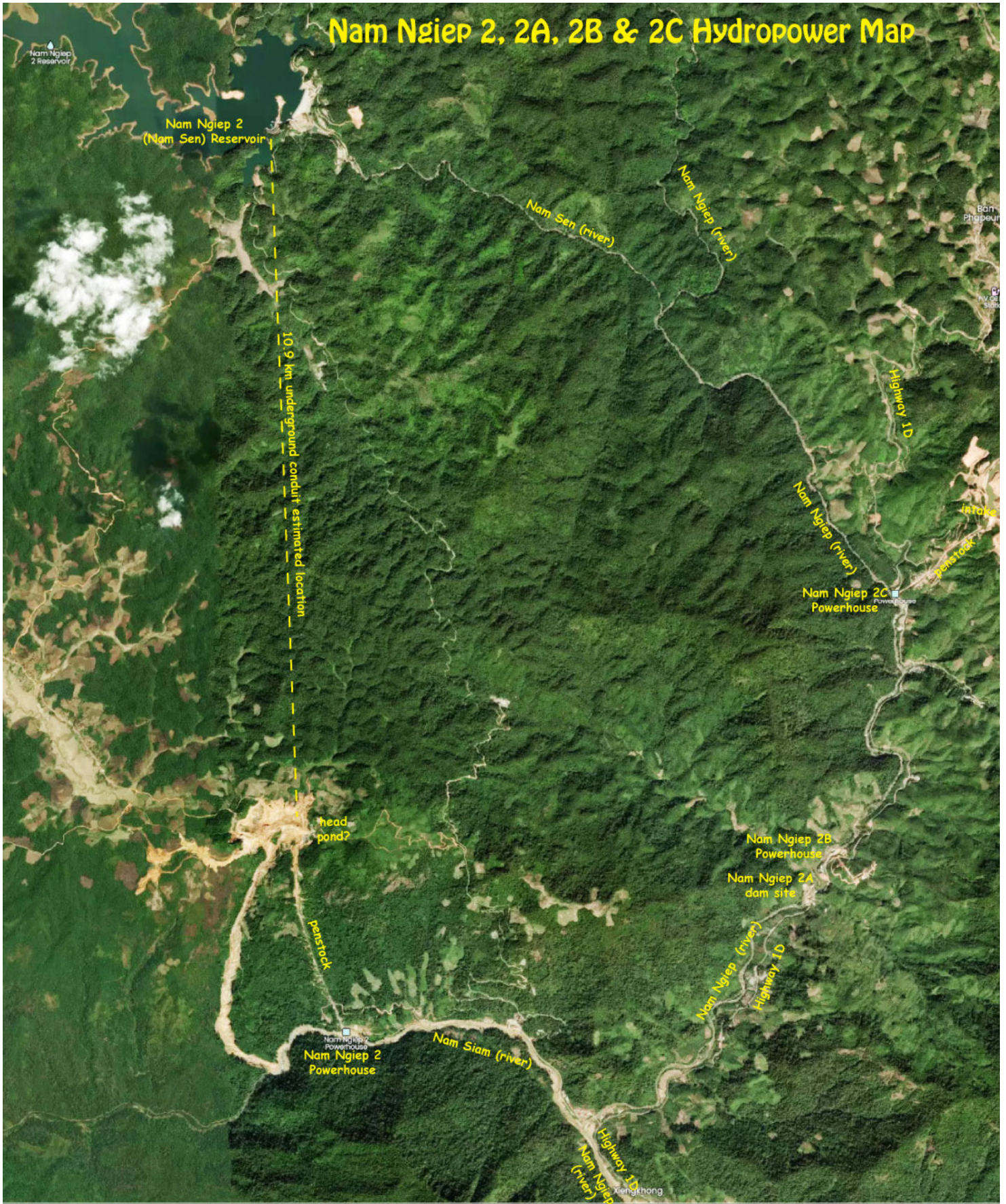
Nam Ngiep 2 powerhouse was damaged in Sept. 2017 as floodwaters from the Nam Ao hydropower project accident upriver came all the way down to the Nam Ngiep 2 site - see damage images below:



Nam Ngiep 2 powerhouse image below:



Nam Ngiep Dams shown on middle of map below:

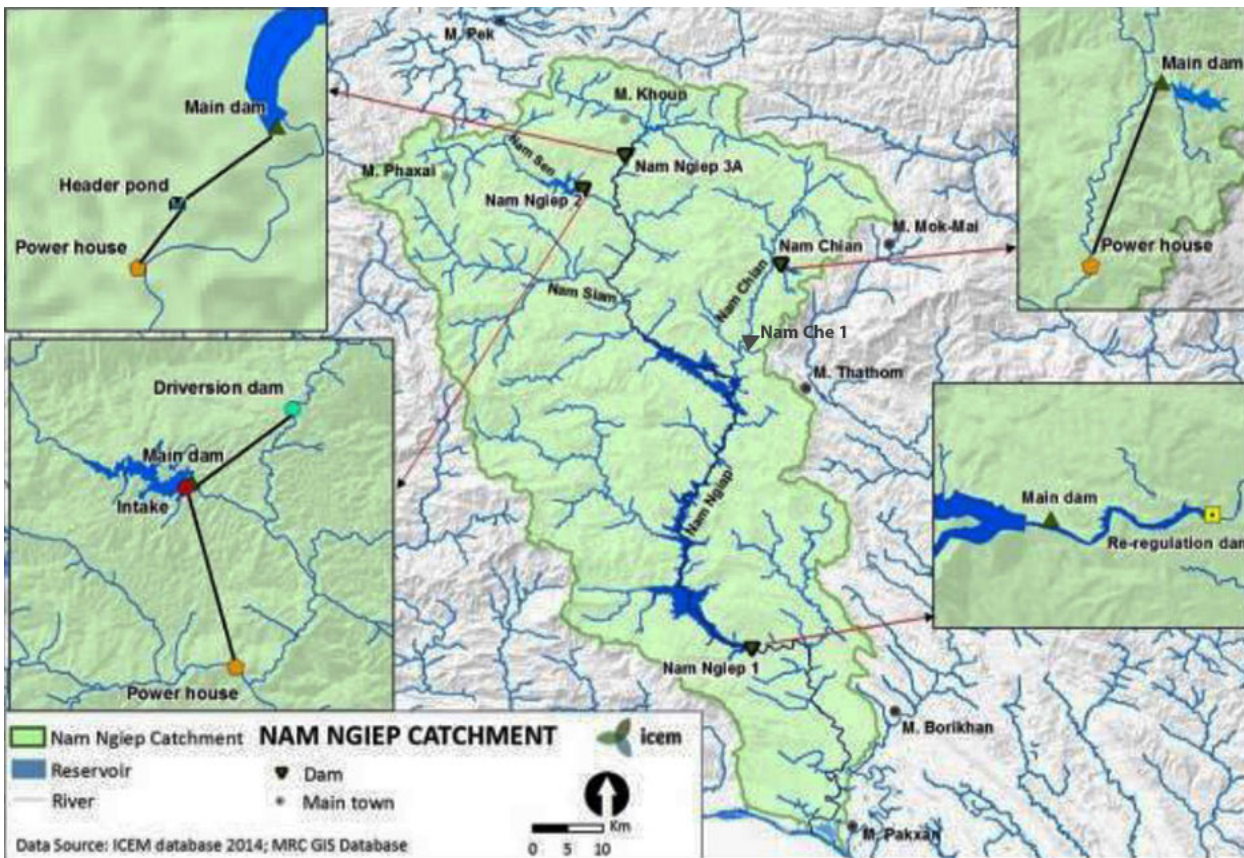
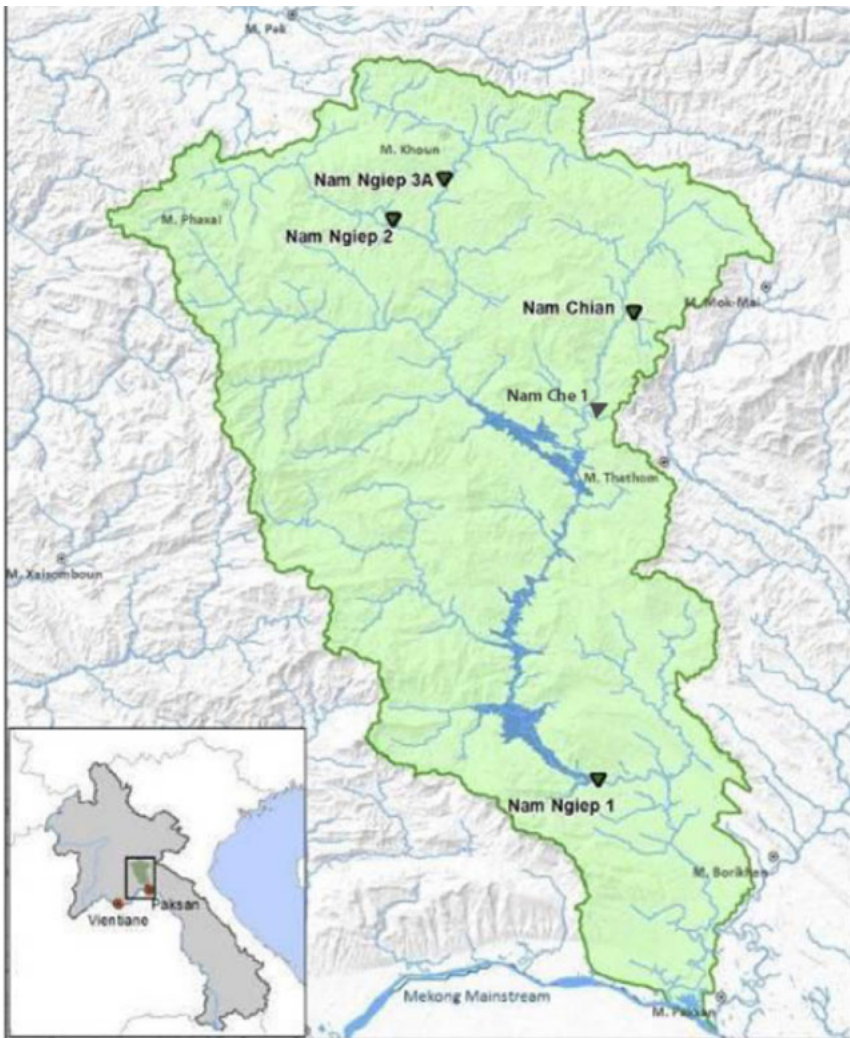


Satellite image map below for Nam Ngiep River Basin hydropower projects:



Nam Ngiep 2 Hydropower project is a clean green project qualified under the Kyoto Protocol as a greenhouse-gas-reducing project and is estimated to reduce carbon dioxide emissions by about 387,000 tons per year. This qualifies it as a Clean Development Mechanism (CDM) project and able to earn CO2 reduction credits. View or download the CDM application document [HERE](#) .

Nam Ngiep catchment area shown in images below:



Click [HERE](#) to see our hydropower web page for the greater Nam Ngiep catchment basin which describes the various dams, reservoirs and diversion projects in the drainage basin that are often inter-connected.