

Attachment 2

Slack Dam Hydroelectric Project

The project is located at the Slack Dam in Springfield, Vermont. The dam is one of five existing concrete gravity dams on the Black River. (Comtu Falls site is immediately upstream, and the Lovejoy site is just downstream.) The project was reconstructed in 1986 and has an installed capacity of 400 KW. Annual energy production has averaged 2,000,000 KWH.

The project is strict run-of-river utilizing 21' of gross head, between the headwater and tailwater. There is no bypass reach. The project is served by a 190 square mile drainage area on the Black River, 75% of which is controlled by the U.S. Army Corps of Engineers Flood Control Project in N. Springfield, 4.5 miles upstream. A steel penstock 8' in diameter and 80' in length conducts water from the intake to the powerhouse.

The power house is 20' x 20' square and houses one horizontal full Kaplan turbine driving a vertical induction generator by means of an internal bevel gear, together with associated hydraulic, mechanical, electrical and electronic equipment. The powerhouse is constructed of reinforced concrete to an elevation greater than the 100 year flood level. A pad mounted transformer connects the station to 3-phase 4,160 V electrical service. A fishway, constructed in 2007 provides for downstream fish passage.