

Summary of engineering activities carried out by CIMA+ between 2022 and 2025

ID	Season / Year	Sector	Details of activities	Key deliverables
1	2022-2023	Onimiki 1 and 2	*Preliminary engineering project description *Analysis of publicly available data *Preliminary calculations of energy production	Project description and preliminary summary calculations of outputs
2	Printemps 2024	Onimiki North and Onimiki South	*Project notice redaction (engineering section) *Public data analysis *Project notice map creation *Engineers field visit planning *Development of preliminary concepts *Writing of a bathymetric survey estimate	Project notice including development maps Bathymetric survey specifications for submission
3	Summer 2024	Onimiki North and Onimiki South	*Field visit by the engineering team *Calculations and sizing of the structures for both facilities (dam, dike, canals, water intakes, debris grid, underground galleries, penstocks, turbine-generator units, power plant) *Hydraulic modeling of the upstream reach (including the canals and ice cover) of Onimiki North to size the channels and calculate the pressure drops *Energy production calculations *Writing of the field survey report *Realization of the 3D model of the project *Elaboration of the layout concept plans *Determination of ecological flows of certain watercourses in the project areas *Choice of the type of turbine-generator units by ATM at both generating stations	Field survey report
4	Fall 2024	Onimiki North and Onimiki South	*Development of different variants for Onimiki North project *Writing of engineering reports *Realization of conceptual plans *Drone flight of the Kipawa River *Development of the geotechnical investigation estimate at the Onimiki North power plant	Preliminary and Final Engineering Report Preliminary Hydraulics Report Preliminary Conceptual Plans Quantity Schedule Summary Schedule Geotechnical Survey Specifications at ON

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5	Winter 2025	Onimiki North and Onimiki South	*Hydraulics report completion *Preparation of project maps and 3D images for consultation purposes	Final Hydraulics Report
6	Summer 2025	Onimiki North and Onimiki South	*Planning of geotechnical investigations at the Onimiki North power plant (seismic lines) *Development of different access route options to the Onimiki North power plant *Determination of Gordon Creek reach flow rates for industrial purposes (RYAM plant) and municipal purposes (drinking water intake). *Approach to planning temporary power supply at the Onimiki North construction site by Hydro-Québec	
7	Fall 2025	Onimiki North and Onimiki South	*Geotechnical investigations at the Onimiki North power plant (seismic lines) *Validation of the Onimiki North power plant access route during a site visit *Determination of ecological flows for the Kipawa River and Gordon Creek *Update of energy models for the different project variants *Hydraulic modeling of Lake Kipawa (before and after the project) * Hydraulic modeling of the Outaouais River at the Onimiki North power plant (before and after the project) * Hydraulic modeling of Lake Thiriot's reach (post-project)	Technical note on the hydraulic modeling of Lake Kipawa