



**ONTARIO CHAPTER**  
Tunnelling Association of Canada  
Association Canadienne Des Tunnels

## INVITATION

# Kidston 250MW Pumped Hydro Energy Storage Project Design and Construction



**Presenters:** Brendan Henry C.Eng MICE, GHD

**Date & Time:** Wednesday, May 24, 2023  
Doors and registration: 5:30pm  
Presentation: 6:00pm

**Location:** Lone Star Texas Grill  
930 Dixon Road, Toronto ON, M9W 1J9

**Cost:** TAC Members: \$10 at the Door  
Non-Members: \$20 at the Door  
Government Employees: \$10 at the Door

**RSVP:** It isn't required to RSVP, but please notify [onttac@gmail.com](mailto:onttac@gmail.com) if you plan to attend.

### Presentation Overview

When operational, the Kidston Pumped Hydroelectric Scheme (K2-Hydro) will be Australia's first Pumped Hydro project in over 40 years and will have the capacity to generate 250MW for up to approximately 8 hours. It repurposes the Kidston Gold Mine which finally closed in 2001. Design and construction commenced in April 2021 with tunnelling commencing in December that year with the 1500m long drill and blast main access tunnel. After several years of development, the owner Genex, awarded an EPC Contract to the McConnel Dowell and John Holland Joint Venture (MDJH-JV) in March 2021 with site work starting in May 2021 and tunnelling work in December 2021. A joint venture of GHD and Mott MacDonald was engaged through the ECI and delivery phase to design the overall facility, including all tunnels and caverns, dam, powerhouse and transformer hall, hydraulics, power waterways, FLS and ventilation, balance of plant and local infrastructure. This presentation will describe the overall design, design of the tunnels and tunnel construction to date.

Tunnelling works consist of 2.85km of tunnels, 1km of shafts and over 70,000 cubic meters of cavern excavations. This will be the first of 2 presentations providing tunnel details for this important project.

### Speaker Bios:

Brendan has 30 years of experience on a wide range of tunnelling and heavy civil engineering projects as contractor and designer, working in UK, Singapore, Canada and for the last 14 years, Australia, arriving in 2008 as Engineering Manager for the TBM Tunnels on Airport Link with John Holland. Brendan has now been with GHD for 10 yrs, working on all phases of tunnel project delivery and most recently on the detailed design for D&C projects such as a 7.3km water transfer scheme in Philippines, Metro West in Sydney, and as the Engineering Delivery Manager for the design JV on Kidston.

