Southeast Power Engineering

Marlow Development Proposal

Method Statement for Construction

Special care will be taken by SEPEL's professional and river works experienced team lead by [redacted] to ensure a high level of safety to the general public and construction team, as well as, to the marine life in and around the construction site. Furthermore, minimal disruption to local businesses, residents and the areas' many visitors is insured by the efficient design of the civil engineering works necessary to support the hydropower scheme.

During the construction process it will not be necessary to close the Lock cut, Thames Path National Trial or any roadway, although a restriction to access will be necessary in the part of the weir pool and upstream weir side around the turbine civil engineering construction site.

Riverside Bank Preparation

Once access to the site has been restricted to ensure public safety on both land and water, pilings will be installed on and around the weir overspill. After excavation a concrete base will be poured forming a channel and support area for the turbines and turbine houses, as well as a compensatory flow channel.

This channel will form the basis of a concrete weir by-pass, enabling turbine installation and increasing the flow capacity of Marlow Weir. Additionally, this area will be used for a Larinier fish pass to enhance the migration and movement of fish though the area.

A structure of appropriate design, size and material will be constructed ahead of the turbines to house the turbine gearboxes, generators and controls. New sluice gates will be installed.

Turbine Installation

Southeast Power Engineering

Two, 4.5 metre wide by 4.5 metre high by 10 metre long turbines weighing approximately 40,000 kilograms each will be craned into place in pieces from a water based crane.

Max Turbine Flow (m3/s) = 10 cumecs per turbine
Max Power (kW) = 335kW

Cabling and Commissioning

Power cables between the turbines and the customers/grid connection will be run either under the river or over the weir to the grid connection point

Once final PLC programming, sensor installation /calibration and construction decommissioning are complete, the turbines will undergo a 4 week commissioning period where the PLC and turbines will be fine turned to ensure Operating Agreement compliance and best output.