

POWER BRIDGE

A light in sight integrated structure that generates energy and collects water for the site in 3 different ways:



Water collector and storage through Fog-harvesting vertical meshes: these meshes travel all the way through the bridge walls, with no need of operation, just some occasionally brushing to remove particles. Water evaporates, desalinates, and condenses in droplets that slide down the wall meshes into a container below the bridge floor.

Collects 12L/day-m2 Bridge 1: 12,480L/day-1,040m2 Bridge 2: 7,800L/day-650m2 **TOTAL= 20,280L/day-1690m2 of mesh** 7.4 millions L annually



Solar panels: PV panels are installed on the gallery cafe rooftop and the skylight panels at the mountain art space, so that the solar energy captured can power the ArtBridge area: mountain art spaces, gallery cafe, public lighting. Generates: Tra Mountain skylight panels: 30 MWh annually Gallery cafe rooftop panels: 42 MWh annually

In addition, left mountain art space is a green wall-rooftop which increases building insulation and regulates internal temperature for different kinds of events happening inside.









Wind power produced by sailfish like sail segments across the bridge's width: these sails are perpendicularly connected to the stereotomy "rails" structure of the mountains art space, they move thanks to pistons in their masts bottoms, forced by the wind coming from the sea at an average speed of 18.33 km/h, generating hydraulic pressure captured inside the structure and later converted into electricity for use in St. Kilda's site and avoiding the use of wind blades protecting local birds.





Wind Energy output= 65 MW annually

