



- LOCATION **Ranachan Farm, Strontian, Scotland**
- SYSTEM SIZE **50kWe**
- EXPECTED ANNUAL GENERATION **235,000kWh**

The Ranachan hydro scheme uses water from a fast-flowing, mainly rocky-bottom stretch of the Allt a Mhuilinn burn, a tributary of Loch Sunart in the Scottish Highlands, south of Fort William. The site was developed by a local landowner and organic farmer, Paolo Berardelli. The system was commissioned in March 2012.

The scheme consists of a new two-metre-high intake weir where water is collected from the burn. A plunge pool is situated in front of the weir to aid fish passage. An intake screen allows only the rated flow of the system to be abstracted and filters any silt.

A buried, pressurised HOPE pipe transports the water 600m, with a total fall, or head, of 53m to the turbine house. This is adjacent to the burn, where it was positioned for ease of access and proximity to the grid connection, as well as to minimise visual impact.

A Tepersec single-jet pelton turbine, ABB generator and SCS hydro pack control panel were selected for the power house. The system produces 50kWe at the turbine rated flow of 138l/s and is connected to the national grid via a 150kVA transformer.

Locogen provided design, consenting and construction supervision services for the scheme and were also responsible for the turnkey supply, installation and commissioning of the full M&E package.



*"I have used Locogen for the past two years to develop three micro hydro schemes in Lochaber. They are knowledgeable, helpful and pragmatic, and deliver within promised timescales."*

Paolo Berardelli, Owner

Locogen's team has several years' experience in the feasibility, design, consenting, installation, commissioning and operation of hydro power schemes. We have completed installations for a range of private and public sector clients, working on different types of terrain and with a wide variety of generating infrastructure. We also have a dedicated Asset Management Team which oversee the operation of existing hydro

systems. We analyse system performance, manage all maintenance requirements and take responsibility for operational contracts, regulatory compliance and financial reporting. A list of some of our projects is provided below. Please contact us if you would like further information.

## PROJECTS

Name	Size (kW)	Location	Role	Date
Broom Power Ltd	100	Ullapool	Procurement, construction PM	2016
Ben Mor	500	Highlands	Feasibility, consenting, procurement, construction PM	2016
Glencoe	50	Highlands	Feasibility	2015
Ardechive	100	Spean Bridge	Feasibility, consenting, procurement, construction PM	2015
Sunart Community	100	Strontian	Feasibility, consenting, procurement, construction PM	2015
Kinlochleven Community	100	Kinlochleven	Feasibility, consenting	2013-14
Millburn	45	Golspie	Feasibility, consenting, procurement, construction PM, M&E installation	2013
Glencrosh	84	Dumfries	Feasibility, consenting, procurement, construction PM	2013
Buccleuch Estates	20-500	SW Scotland (various sites)	Feasibility (screening study)	2013
Radyr Weir	390	Cardiff	Feasibility, consenting	2010-13
Ranachan	100	Fort William	Feasibility, consenting, procurement, construction PM, M&E installation	2012
Kintradwell	100	Brora	Feasibility, consenting, procurement	2012
Allt a Eachain	50	Strontian	Feasibility, consenting, procurement, construction PM, M&E installation	2012
Glenmuck	35	Ayrshire	Feasibility, consenting, procurement, construction PM, M&E installation	2011
Allt a Beithe	35	Fort William	Feasibility, consenting, procurement	2010
Scroggie	10	Dingwall	Feasibility, consenting, procurement, construction PM,	2010

