

# CASE STUDY

## STANK BURN, SCOTLAND



### KEY STATISTICS

**Customer:** Callander Community Hydro Ltd

**Net Head:** 146 m

**Flow:** 348 litres/sec

**Turbine type:** Gilkes Twin Jet Pelton

**Power (kW):** 443 kW

**Dia:** 650mm

**Date of Commissioning:** October 2014

**Speed:** 750rpm

### Scope of Supply:

650mm Twin Jet Pelton, fitted with hydraulic actuators.

Synchronous Generator.

Main inlet valve.

Hydraulic control module.

Turbine control and switchgear panel, complete with remote monitoring facility and head level sensors.

Control and power cabling within turbine powerhouse.

Installation & commissioning of Gilkes supplied equipment.

Servicing of Gilkes equipment for 2 years.

The Stank Burn hydro scheme is located in the Loch Lomond and The Trossachs National Park, just north of Callander. The project is situated on the Stank burn on Forestry Commission Scotland land that has been leased to Callander Community Hydro Ltd, the company set up by the community trust to develop the hydro scheme.

The scheme was devised and developed by the community trust and after negotiating the permissioning and planning process, the scheme started construction in late 2013.

As a conventional run of river hydro scheme, there is no dam or water storage, just a low height intake weir. This feeds a buried HDPE pressure pipe that runs down the hill to a timber clad powerhouse.

### CONTACT

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# GILKES

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Inside the powerhouse is a Gilkes Twin Jet Pelton turbine complete with generator, weight to close main inlet valve, hydraulic power pack, and a Gilkes Control system. Gilkes provided a seamless Installation (mechanical and electrical) and commissioning package in order to effectively provide the customer with a turnkey package within the powerhouse. Thus reducing interface risks within the project and helping to provide surety to the investors.

Gilkes also provided full training to community volunteers and are providing on-going support and maintenance to ensure that the maximum generation is achieved from the scheme.

Connected directly into the national grid, the scheme generator enough power to offset over 300 homes



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