

## Boiler Replacement - Addendum

**Campus:** Stornoway. **Status:** Need identified; preliminaries not completed.

**Value:** £96,000. Estimated value pre-scoping

**Summary:** Backlog condition surveys note that the oil boiler system at our Stornoway campus is ageing. The system requires a high level of maintenance and is energy inefficient. A system replacement will enable reductions in energy use costs, will be more energy efficient (enabling net-zero transition), will enable zoning of the building (currently unavailable) and will reduce the maintenance burden. These works are pre-scoping and so the replacement may take the form of an efficient modern boiler system or perhaps an industrial air source heat pump (ASHP). Additional funding may be available to support this project through the Scottish Green Public Sector Estate Decarbonisation Scheme (GPSEDS).

### Further Information as Requested.

Oil fired boilers are a pair of Ideal Viscount G.T., (assumed to be 500kW each) commissioned circa 1996/7.

Pumps are NU-Way NOL 50-28

Condition Reports (2017), conducted by Theobald and Gould, notes that both boilers, their associated shunt pumps and twin head system have exceeded their economic life expectancy and are showing signs of degradation. The recommendation from this report (2017) was to consider replacement of the system within 2 years.

Building Energy Audit (2024), conducted by Hardies, made a high-level estimate of the energy use and carbon emissions savings associated with replacing the boilers with an industrial ASHP (Diakin REYA10A7Y1B). Detailed feasibility studies would be required prior to replacement to ascertain accurate estimates.

	Current System	Replacement	Reduction
Energy Use	626,985 kWh.yr	393,370 kWh.yr	37%
CO2 emissions	171,985 kg.CO2.yr	90,867 kg.CO2.yr	47%

Feedback from estate manager is that the current system requires a high level of regular maintenance to keep running. One boiler is currently under repair, and he has low confidence of the system remaining reliable in future years. The maintenance burden has generally increased year-on-year. The facilities management arrangement in Stornoway is mixed with both in-house technical operatives who provide boiler maintenance and servicing and externally contracted suppliers for those works outside the capabilities of our team.

In 2023/24:

- the externally contracted works, derived from six call outs, were £4,858.96 + VAT.
- the internal assigned work is estimated at 20 man-days, estates team operative.