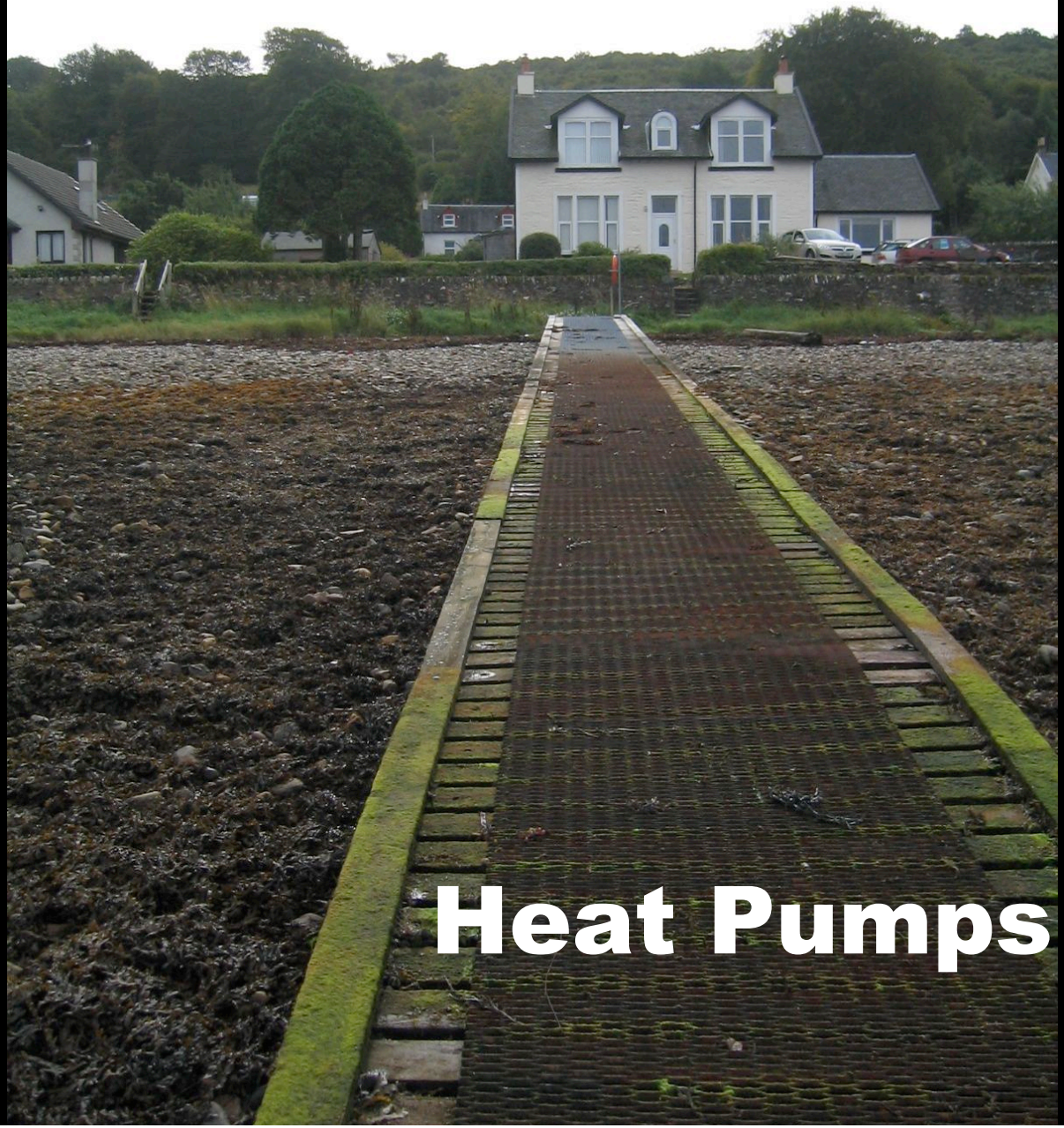
Case Study:



Heat Pumps

The Proposition

'Seacliffe', Strachur

- 1830's building
- Replace existing heating & hot water system.
- Electric wall mounted radiators & immersion heater.
- £3,000 to heat the house over a winter.

The Options both £15/16,000

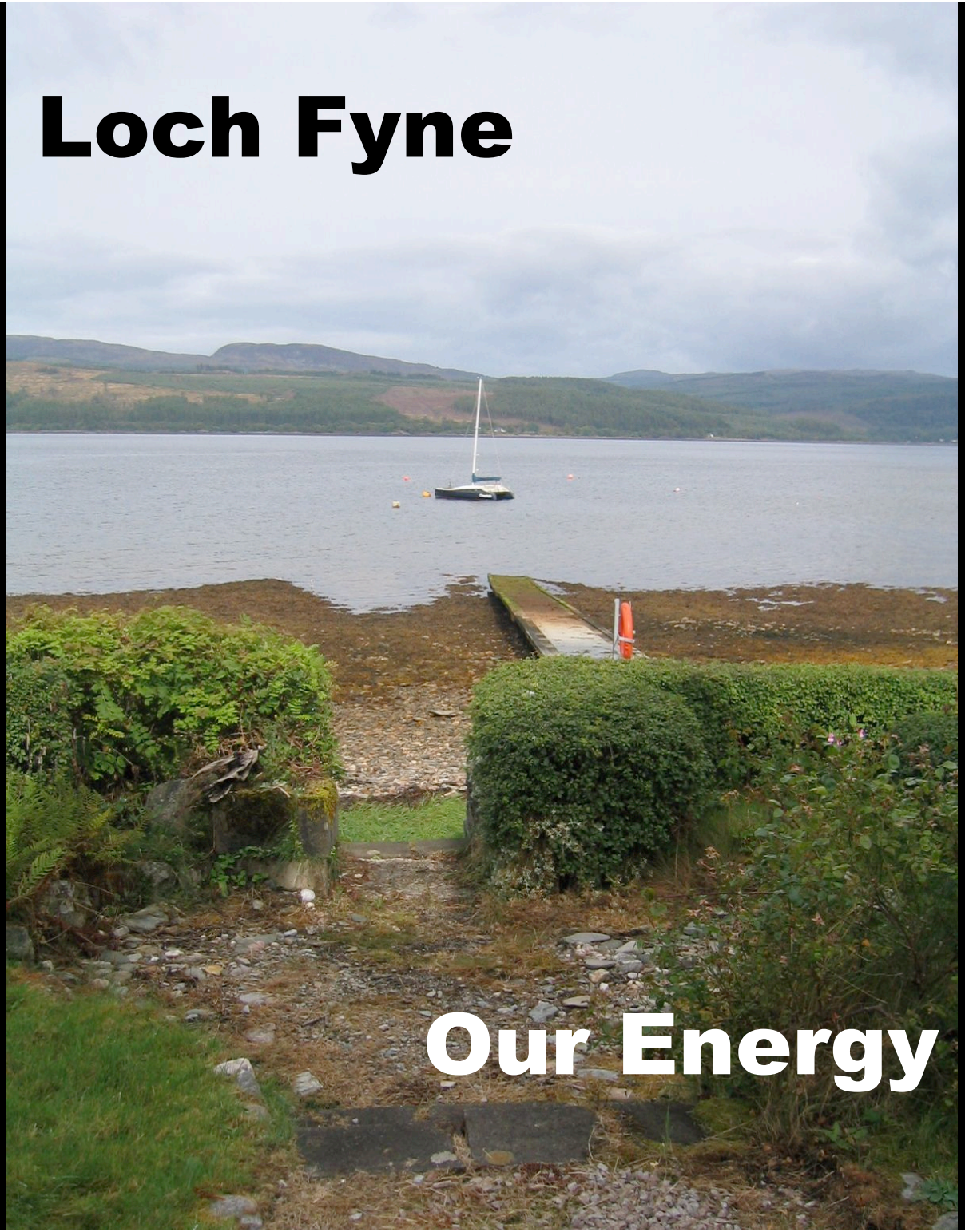
Oil/Gas

- Boiler with radiators
- Still ugly & ineffective.
- Annual fuel £££
- Replacement parts ££
- High Carbon Footprint
- 96% Efficient

Heat Pump

- Heat pump with underfloor heating & some radiators.
- With SCHRI Grant
- Invisible & effective.
- Annual electricity £
- Replacement parts £
- Low Carbon Footprin

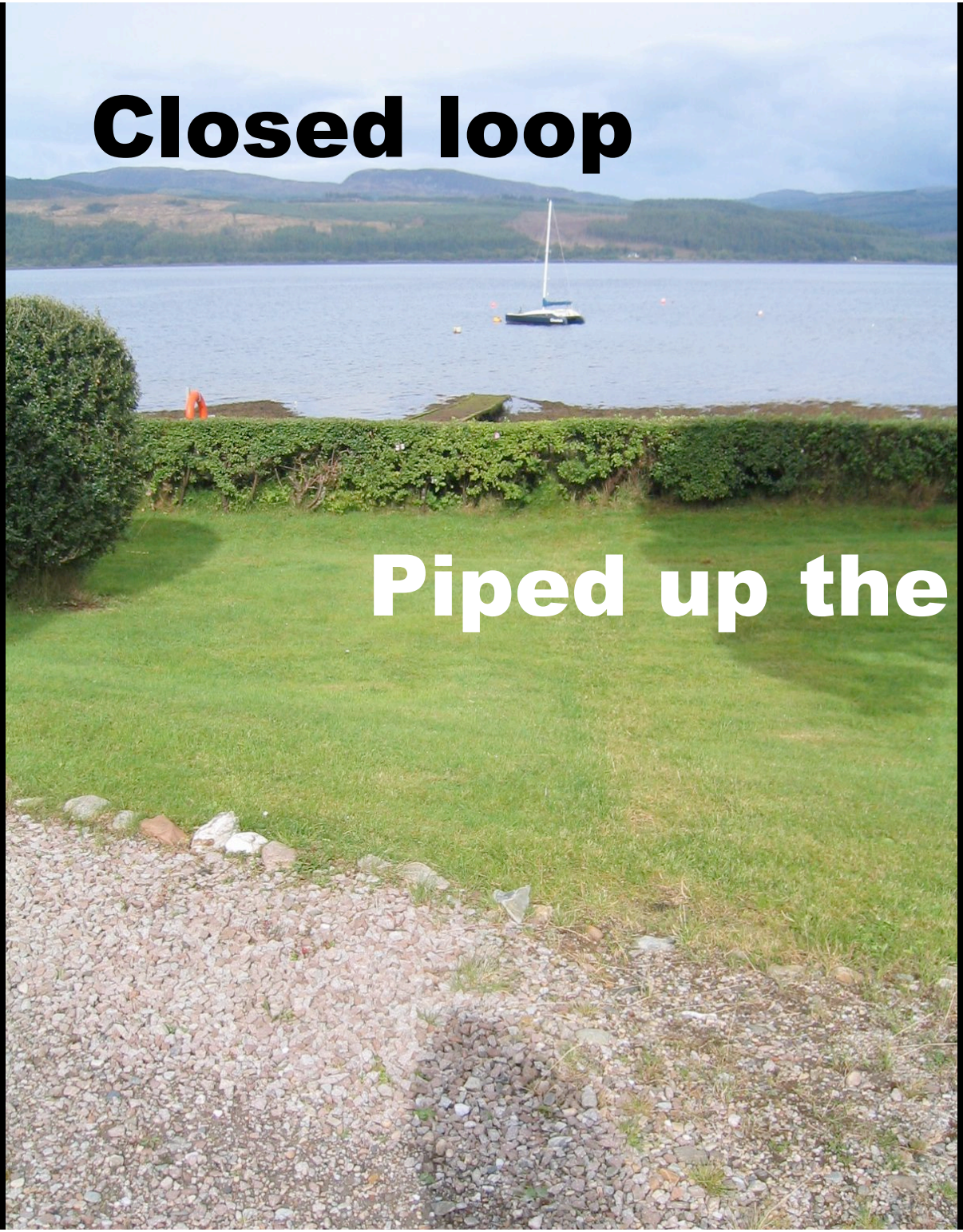
Loch Fyne



Our Energy Source

8 x 100m coils of 32mm diameter pipe

Flow & Return 63mm diameter


Closed loop
Piped up the garden

Under the drive

And into the house

4.75kw in

19kw out

'Waterfurnace' heat exchanger

Underfloor heating tank

Underfloor heating manifold

Hot water tank

Nice dry, warm, house and hot water

Almost 400% efficient

Paperwork

Building Control & Plannin

Crown Estates

Clyde Harbour Board

National Hydrographic Society

Fisheries Protection

SEPA

Electricity Board

SCHRI

Efficiency Comparison

Air Sourced 450% (now) freeze unfreeze process.

Land Sourced 500% Can freeze and gaps in conductivity.

Water Sourced 550% Steady source temperatur and excellent conductivity

4 x more efficient than gas

Reflections

Air to Air: An easier option

No Permissions

Community Scale Coils

Refrigerant Developments

www.ecorenevationnetwork.or

Renewable Energy Scotland Lt

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