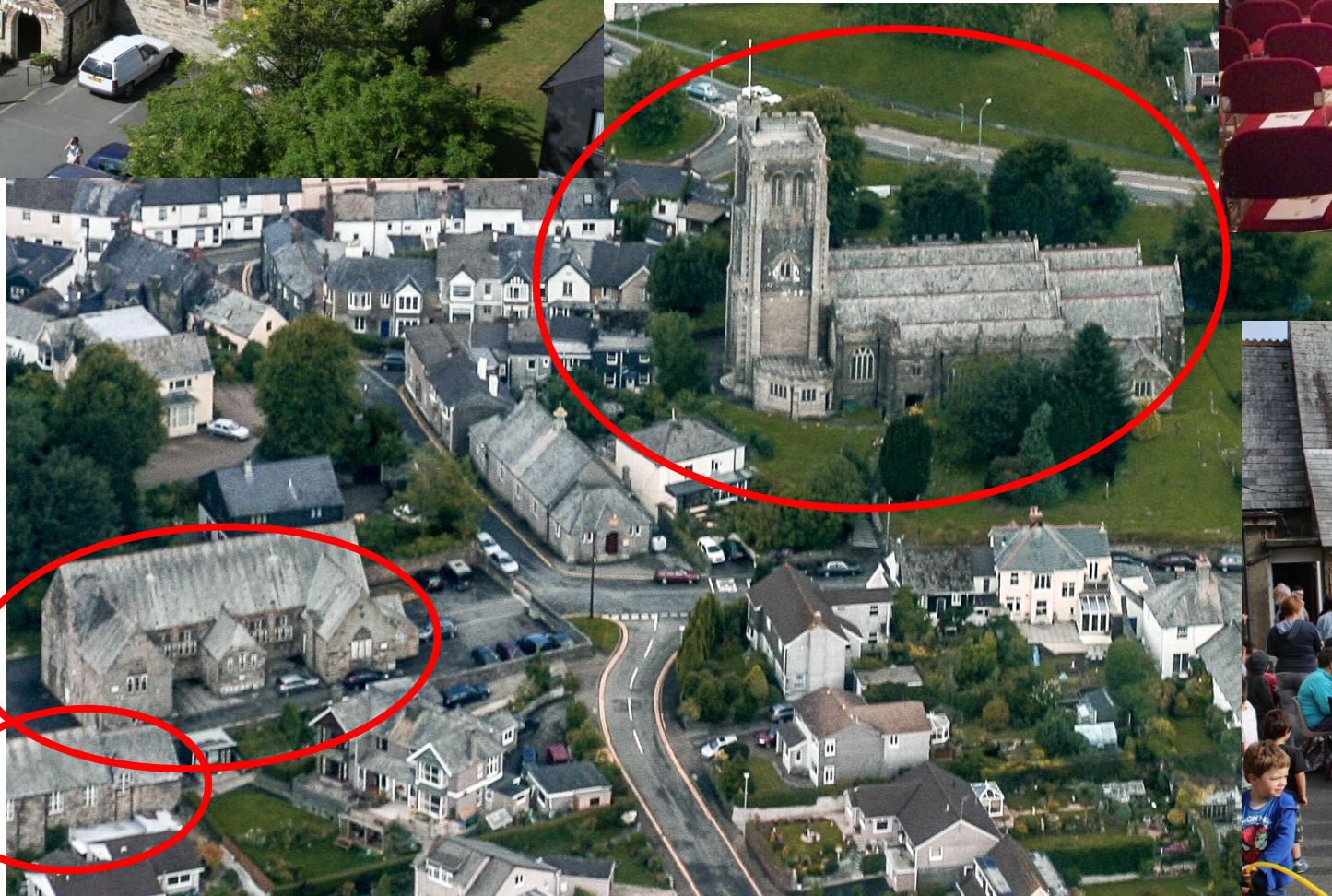


Liskeard Church and Church Centre

Energy Sustainability

Our buildings



2012: 15 kWh solar array



Generates ~ £12,000 kWh per annum
2022 total electricity usage ~ 13,600 kWh

Year	FIT
2022	£2,455
2021	£2,624
2020	£2,225
2019	£2,261
2018	£2,303
2017	£2,098
2016	£2,192
2015	£2,750
2014	£1,805
2013	£2,311

2018 Church Reordering



- We did all the quick wins, such as replacing the old lighting with energy efficient lighting.
- Signed up to renewable electricity supplier.

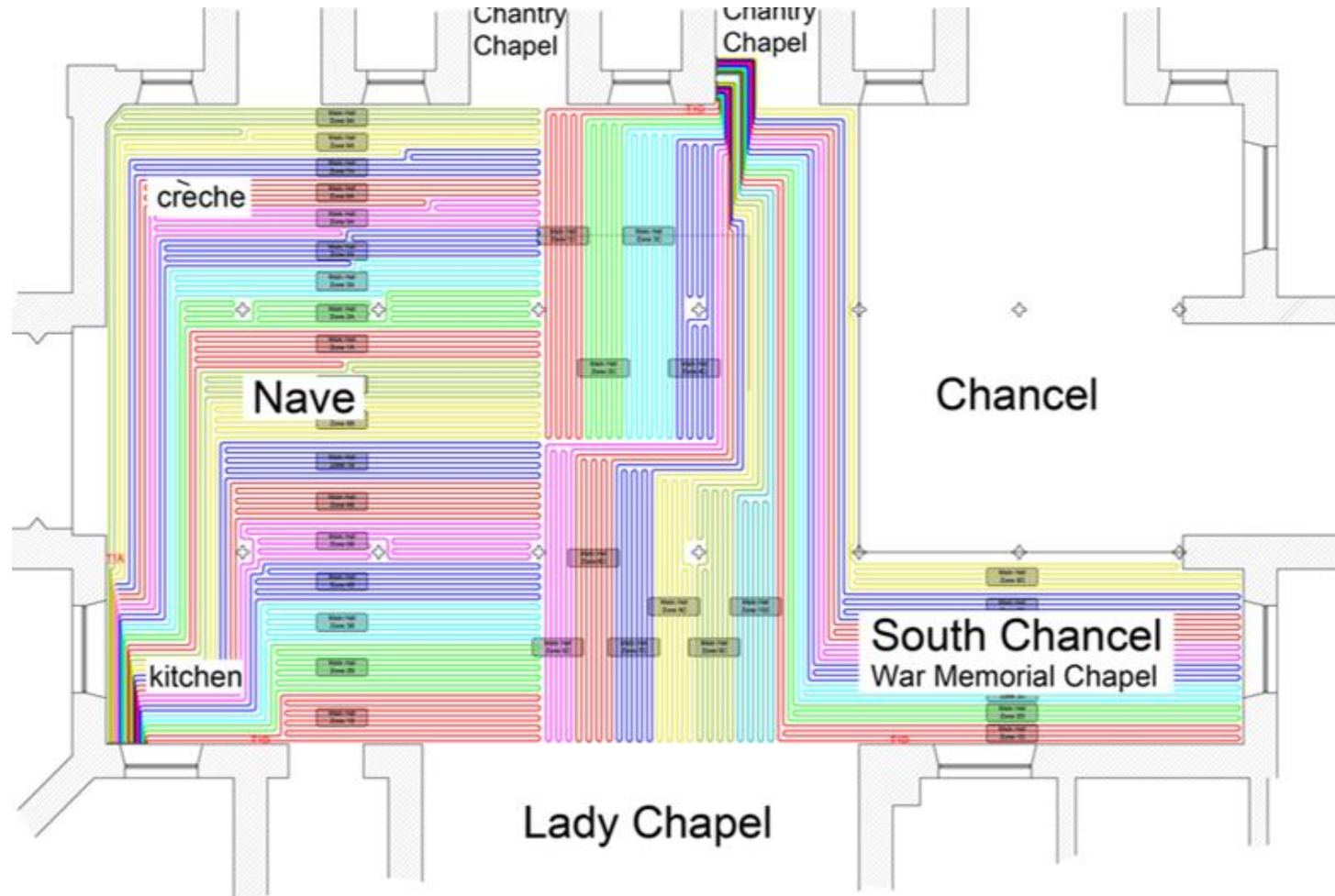
2018 Church Reordering



Underfloor heating system

Primary heat-source is a 46kw gas-fired high-efficiency boiler.

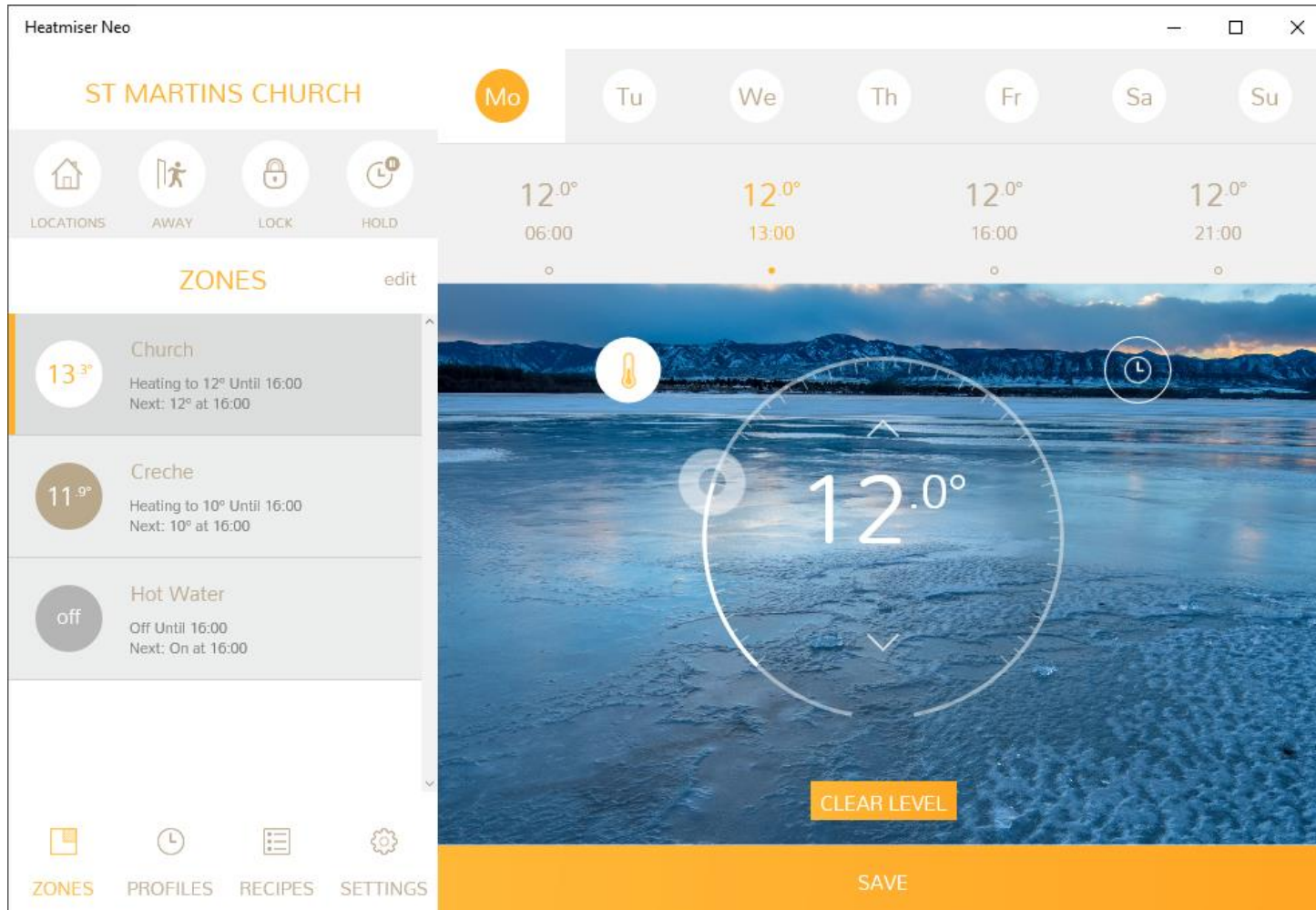
Secondary heat-source is a well-insulated, large thermal tank which has 2 x 6kw 3-phase immersion elements. This uses the solar yield from the 15kWh PV system to create a “thermal battery”, storing heat to be used when required.



The issues

- The church is like a medieval barn.
- As a grade II* listed building there is a limit to what we can do.
- Apart from underneath the underfloor heating, there is no insulation at all, and single glazed stained glass windows.
- New energy pricing means that for the same energy usage our energy costs would increase from £10,000 per annum to £34,000.
- It can take several days to increase the temperature to our preferred setting of 18 degrees.

Remote control over the heating



We can remotely adjust the temperature, with two zones, four time / temperature settings per day, for each day of the week.

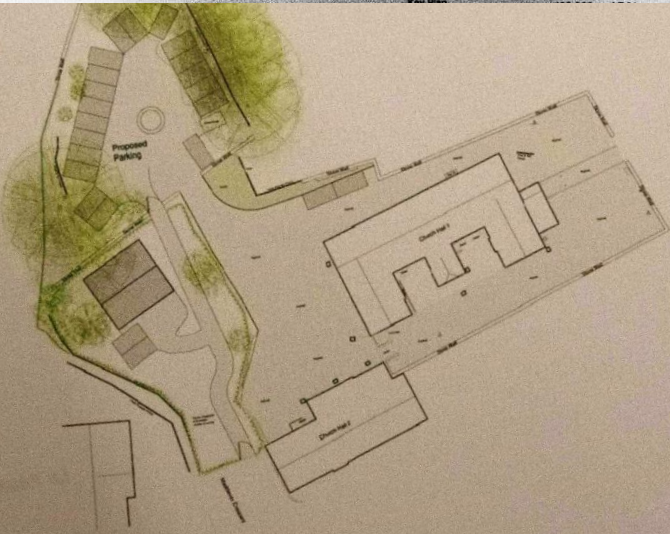
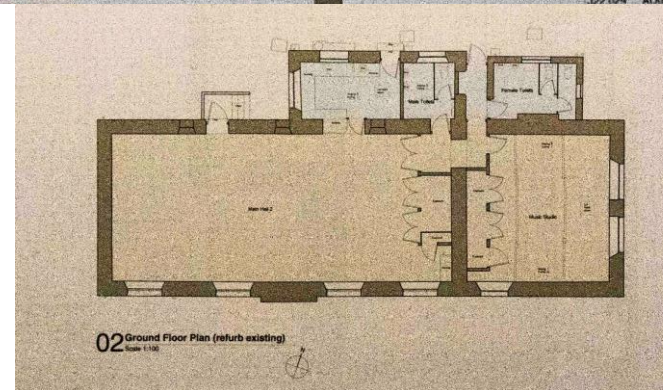
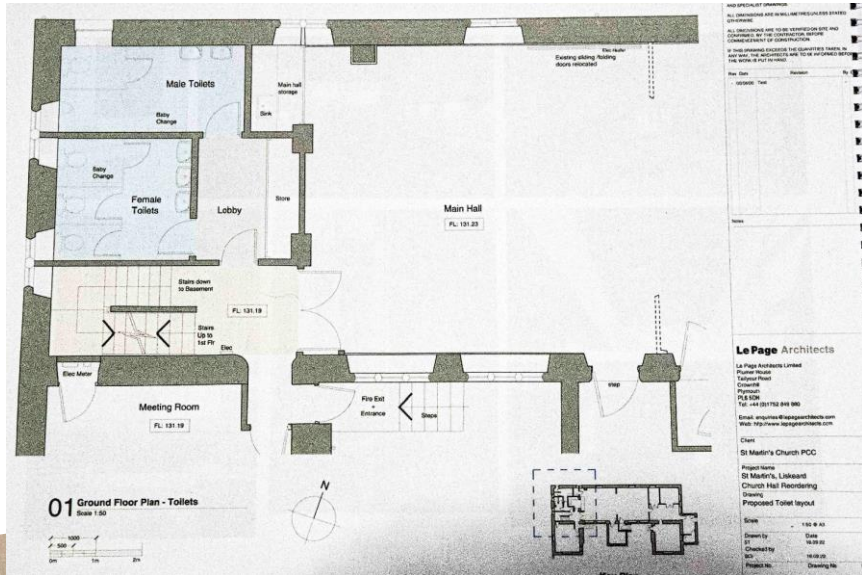
Church Hall Complex



Church Hall Complex

- Upper hall – Grade II listed
 - Three levels – main level, youth club basement, two rooms upstairs
 - Many of the same issues – minimal insulation, single glaze windows, plus original 160 year old roof leaks and damp getting in.
- Lower hall – unlisted
 - ... but the same issues

Future hopes for the Church Centre



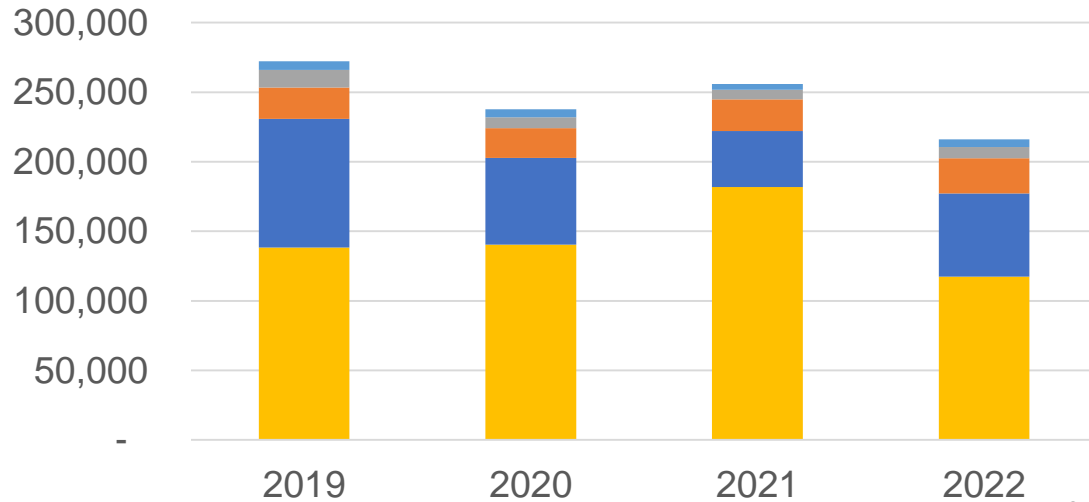
Future hopes for the Church Centre

All subject to faculty approval and financing (!)

- Replace / relay original 160 year old roof. Add roof insulation and solar panels, sort out guttering.
- Make the building watertight – stop damp.
- Add internal wall insulation & secondary double glazing.
- Replace gas boiler with air source heat pumps.
- Upgrade all toilets and kitchens
- High speed wi-fi throughout the buildings
- Add extra meeting / office spaces – mezzanine floor

Energy Footprint

Energy usage (kWh)

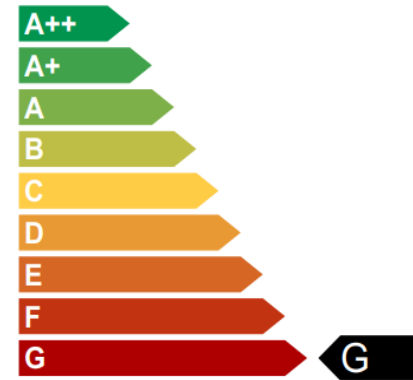


- Church gas (kWh)
- Upper hall gas (kWh)
- Lower hall gas (kWh)
- Halls electricity (kWh)
- Church electricity (kWh)

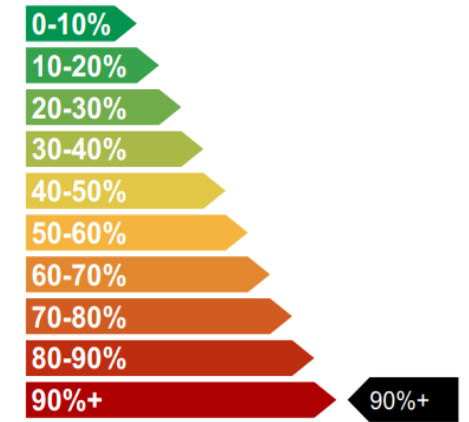
Lockdown Adjusted Energy Efficiency

The figures below have been adjusted for the periods of lockdown in 2020 to allow for a sensible comparison to data from previous years

Emissions per m² rating

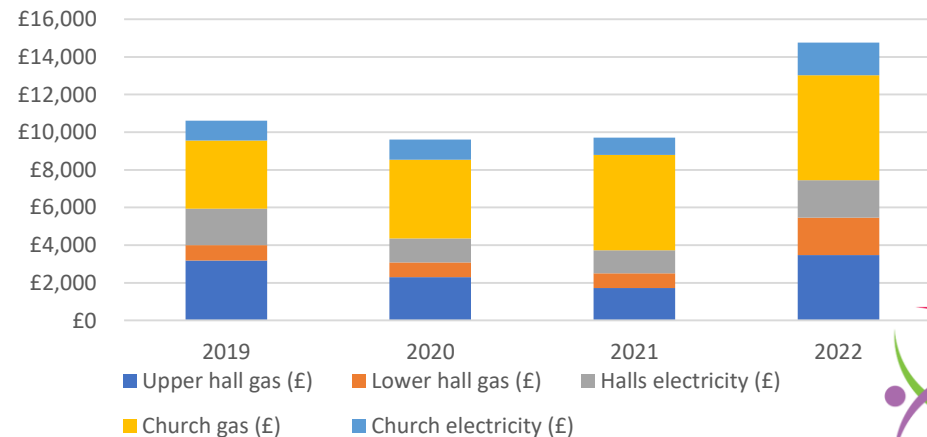


Net CO₂ Percentile



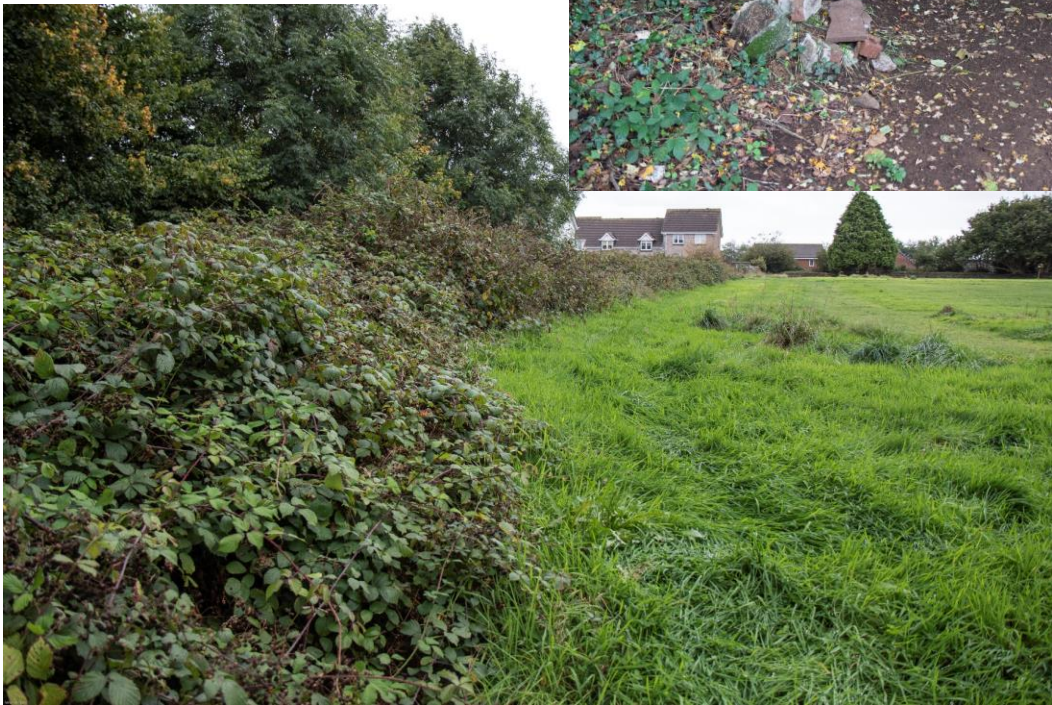
	This Year	Last Year
CO ₂ emissions per m ² ?	54.1	-
Emissions/m ² rating	G	None

Energy costs (£)



**ST MARTIN'S
CHURCH
LISKEARD**

Maudlin Field



Any questions?

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