

Energy & Sustainability Statement

Produced by: ArchiTechnology.Design and C.B.Wright Associates Ltd

49 Pier Road, Northfleet, Gravesend DA11 9NB

Existing performance (baseline)

The existing property is a solid-walled Victorian townhouse with an existing Energy Performance Certificate of **EPC F** (see attached EPC).

Objective

The aim of this statement is to set out proportionate, cost-effective and conservation-sensitive measures to improve the energy performance of the property and to achieve an EPC rating of at least C (or demonstrate equivalent reductions in operational carbon), consistent with Gravesham Borough Council's climate objectives (Policy CS18) and the need to conserve the Lansdowne Conservation Area.

Measures proposed

All measures are selected to balance energy improvement with the building's conservation constraints (retaining the Pier Road elevation and principal features).

1. Fabric improvements (first priority)

- **Internal solid-wall insulation (ISWI)** to selected non-principal walls where appropriate (vapour-permeable materials and details to suit historic fabric);
- **Loft/roof insulation** to current best practice levels where accessible;
- **Floor insulation** where feasible (particularly at basement/ground floor interfaces);
- **Draught-proofing** of doors, sashes and service penetrations; **improvement of window detailing** by repair of existing timber sashes and installation of discreet secondary glazing where necessary to improve U-values while preserving external appearance.

2. Heating, hot water & controls

- Replace existing inefficient plant with high efficiency options: either **condensing gas boiler** (A rated) with modern controls or, where feasible and practical on rear elevations, an **air source heat pump** (ASHP) sized to the building's heat demand;
- **Insulated hot water cylinder** (where applicable) and improved pipework insulation;
- Install **programmable heating controls**, smart thermostats and **thermostatic radiator valves (TRVs)** for zonal control.

3. Ventilation

- Provide appropriate ventilation to maintain internal air quality and avoid condensation (mechanical extract for kitchens/bathrooms). Where airtightness improves significantly, consider implementing **mechanical ventilation with heat recovery (MVHR)** if compatible with the building and space constraints.

4. Low energy measures & services

- **LED lighting** throughout; low-flow taps and efficient sanitary fittings; energy-efficient appliances where supplied as part of HMO fit-out.

5. Renewable energy

- **Photovoltaic (PV) panels:** investigate discreet installation on rear/less-visible roof slopes or flat rear extension (if acceptable under Article 4 / Conservation Area constraints). Any PV will be sited to avoid visual harm to the Pier Road elevation; external renewables will be pursued only where they do not conflict with Conservation Area objectives.

6. Materials & approach

- All interventions to use **breathable, compatible materials** for solid wall/old fabric works. External visible alterations will be minimised and undertaken as like-for-like repairs or via express consent where Article 4 removes permitted development rights.

Delivery, verification and safeguarding

- A **SAP (Standard Assessment Procedure)** assessment will be prepared to model the predicted uplift from the combined measures and to confirm likely EPC improvement. A final (as-built) SAP and post-works EPC will be provided on completion.
- Where works affect the Conservation Area (windows, external insulation, PV, etc.) final details and samples will be submitted for approval (and secured by condition if required).
- The Management Plan will include tenant guidance on energy use (heating controls, hot water use etc), which will help to reduce operational consumption.

Expected outcome

Taken together, the above fabric, services and control improvements are expected to deliver a **significant uplift** in energy performance and to meet the project objective of achieving **EPC C (or equivalent carbon reduction)**. Exact uplift will be confirmed by SAP modelling and the post-completion EPC.

Policy compliance

The package of measures is consistent with the objectives of **Policy CS18 (Climate Change)** and the Council's wider energy and sustainability expectations, whilst respecting the Lansdowne Conservation Area and Article 4 constraints.

Next steps

- Final SAP to be produced prior to works and to inform detailed specification;
- Post-completion SAP and EPC submitted to the Local Planning Authority;
- Any external works affecting the appearance of the Conservation Area (windows/PV/external insulation) to be agreed with the Conservation Officer and secured by condition if required.

Energy performance certificate (EPC)

49 Pier Road
Northfleet
GRAVESEND
DA11 9NB

Energy rating

F

Valid until:

26 January 2035

Certificate
number:

0320-2333-4490-2125-0681

Property type

Mid-terrace house

Total floor area

194 square metres

Rules on letting this property

! You may not be able to let this property

This property has an energy rating of F. It cannot be let, unless an exemption has been registered. You can read [guidance for landlords on the regulations and exemptions \(https://www.gov.uk/guidance/domestic-private-rented-property-minimum-energy-efficiency-standard-landlord-guidance\)](https://www.gov.uk/guidance/domestic-private-rented-property-minimum-energy-efficiency-standard-landlord-guidance).

Properties can be let if they have an energy rating from A to E. You could make changes to [improve this property's energy rating](#).

Energy rating and score

This property's energy rating is F. It has the potential to be B.

[See how to improve this property's energy efficiency.](#)

Score	Energy rating	Current	Potential
92+	A		
81-91	B		87 B
69-80	C		
55-68	D		
39-54	E		
21-38	F	25 F	
1-20	G		

The graph shows this property's current and potential energy rating.

Properties get a rating from A (best) to G (worst) and a score. The better the rating and score, the lower your energy bills are likely to be.

For properties in England and Wales:

the average energy rating is D
the average energy score is 60

Breakdown of property's energy performance

Features in this property

Features get a rating from very good to very poor, based on how energy efficient they are. Ratings are not based on how well features work or their condition.

Assumed ratings are based on the property's age and type. They are used for features the assessor could not inspect.

Feature	Description	Rating
Wall	Solid brick, as built, no insulation (assumed)	Very poor
Roof	Pitched, 75 mm loft insulation	Average
Window	Single glazed	Very poor
Main heating	Portable electric heaters assumed for most rooms	Very poor
Main heating control	No thermostatic control of room temperature	Poor
Hot water	Gas multipoint	Average
Lighting	Low energy lighting in 83% of fixed outlets	Very good
Floor	Solid, no insulation (assumed)	N/A
Secondary heating	Room heaters, mains gas	N/A

Primary energy use

The primary energy use for this property per year is 355 kilowatt hours per square metre (kWh/m²).

How this affects your energy bills

An average household would need to spend **£5,104 per year on heating, hot water and lighting** in this property. These costs usually make up the majority of your energy bills.

You could **save £4,037 per year** if you complete the suggested steps for improving this property's energy rating.

This is **based on average costs in 2025** when this EPC was created. People living at the property may use different amounts of energy for heating, hot water and lighting.

Heating this property

Estimated energy needed in this property is:

- 21,583 kWh per year for heating
 - 1,744 kWh per year for hot water
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Impact on the environment

This property's environmental impact rating is F. It has the potential to be B.

Properties get a rating from A (best) to G (worst) on how much carbon dioxide (CO₂) they produce each year.

Carbon emissions

An average household produces 6 tonnes of CO₂

This property produces 12.0 tonnes of CO₂

This property's potential production 2.3 tonnes of CO₂

You could improve this property's CO₂ emissions by making the suggested changes. This will help to protect the environment.

These ratings are based on assumptions about average occupancy and energy use. People living at the property may use different amounts of energy.

Steps you could take to save energy

Step	Typical installation cost	Typical yearly saving
1. Increase loft insulation to 270 mm	£100 - £350	£144
2. Internal wall insulation	£4,000 - £14,000	£1,304
3. Floor insulation (solid floor)	£4,000 - £6,000	£92
4. Draught proofing	£80 - £120	£246
5. Condensing boiler	£3,000 - £7,000	£2,065
6. Replace single glazed windows with low-E double glazed windows	£3,300 - £6,500	£187
7. Solar photovoltaic panels	£3,500 - £5,500	£454

Advice on making energy saving improvements

[Get detailed recommendations and cost estimates \(www.gov.uk/improve-energy-efficiency\)](http://www.gov.uk/improve-energy-efficiency)

Help paying for energy saving improvements

You may be eligible for help with the cost of improvements:

- Free energy saving improvements: [Home Upgrade Grant \(www.gov.uk/apply-home-upgrade-grant\)](http://www.gov.uk/apply-home-upgrade-grant)
- Insulation: [Great British Insulation Scheme \(www.gov.uk/apply-great-british-insulation-scheme\)](http://www.gov.uk/apply-great-british-insulation-scheme)
- Heat pumps and biomass boilers: [Boiler Upgrade Scheme \(www.gov.uk/apply-boiler-upgrade-scheme\)](http://www.gov.uk/apply-boiler-upgrade-scheme)
- Help from your energy supplier: [Energy Company Obligation \(www.gov.uk/energy-company-obligation\)](http://www.gov.uk/energy-company-obligation)

Who to contact about this certificate

Contacting the assessor

If you're unhappy about your property's energy assessment or certificate, you can complain to the assessor who created it.

Assessor's name	Alan King
Telephone	07342 843 183
Email	tudorroyalservices@yahoo.com

Contacting the accreditation scheme

If you're still unhappy after contacting the assessor, you should contact the assessor's accreditation scheme.

Accreditation scheme	Elmhurst Energy Systems Ltd
Assessor's ID	EES/026777
Telephone	01455 883 250
Email	enquiries@elmhurstenergy.co.uk

About this assessment

Assessor's declaration	No related party
Date of assessment	27 January 2025
Date of certificate	27 January 2025
Type of assessment	RdSAP
