

Version 1.0



Energy Statement

Adur Local Plan 2017 | SPD - Sustainable Energy | Part L 2021

37 Albion Street
Southwick
Hove
BN42 4DN

Prepared By
Energy Digest

Prepared For
PR Homes Direct Ltd

This report has been prepared by Energy Digest using SAP 10.20 and assessed against Approved Document L Volume 1 and the Adur Local Plan energy policies.

Contents

1.0 Executive Summary

- 1.1 Purpose of the Statement
- 1.2 Development Overview
- 1.3 Key Performance Results
- 1.4 Compliance Summary

2.0 Development Introduction

- 2.1 Scope of Assessment
- 2.2 Site Location & Context
- 2.3 Proposed Development Summary
- 2.4 Building Fabric Overview

3.0 Planning Policy Context

- 3.1 National Policy Context
- 3.2 Adur Local Plan and Shoreham Harbour JAAP
- 3.3 Sustainable Energy SPD
- 3.4 Policy Compliance Summary

4.0 Assessment Methodology

- 4.1 Compliance Route
- 4.2 SAP Model Scope and Inputs
- 4.3 Regulated and Unregulated Energy Uses
- 4.4 Assumptions and Limitations

5.0 Site Smart and Fabric First – Be Lean

- 5.1 Site Layout, Form & Massing
- 5.2 Fabric Performance Specification
- 5.3 Thermal Bridging Strategy
- 5.4 Passive Design Measures

6.0 Sustainable Systems – Be Clean

- 6.1 Heating & Hot Water Supply
- 6.2 Ventilation Strategy
- 6.3 Overheating Considerations
- 6.4 Controls & Building Management

7.0 Green Generation – Be Green

- 7.1 Technologies Considered
- 7.2 Feasibility Review
- 7.3 Selected Strategy
- 7.4 Estimated Renewable Contribution

8.0 Results

- 8.1 Baseline and Be Lean / Be Clean Performance
- 8.2 Predicted Energy Demand
- 8.3 Renewable Energy Balance
- 8.4 Performance Compliance Summary

9.0 Conclusion & Next Steps

- 9.1 Summary of Performance
- 9.2 Planning Compliance Overview
- 9.3 Next Steps & As-Built Monitoring Requirements
- 9.4 Schedule of Supporting Reports

Audit Sheet.

Rev.	Date	Description of Change	Prepared	Reviewed	Authorised
01	15/05/2026	First Issue for Planning Submission	JC	IA	JC

This document has been prepared only and solely for the purposes expressly defined herein. We owe no duty of care to any third parties in respect of its content. Therefore, unless expressly agreed by us in signed writing, we hereby exclude all liability to third parties, including liability for negligence, save only for liabilities that cannot be so excluded by operation of applicable law.

1.0 Executive Summary

1.1 Purpose of the Statement

This Energy Statement has been prepared on behalf of PR Homes Direct Ltd to support a planning application for the proposed residential development at 37 Albion Street, Southwick.

The purpose of this Statement is to demonstrate how the proposal responds to the energy and climate-change requirements of the Adur Local Plan, specifically Policy 18: Sustainable Design and Policy 19: Decentralised Energy, Stand-alone Energy Schemes and Renewable Energy. The assessment also has regard to the Shoreham Harbour JAAP and the Sustainable Energy SPD 2024.

The Statement reports the expected operational energy performance of the proposed development, including regulated and unregulated energy uses, baseline energy demand, measures to reduce demand, low-carbon systems and estimated on-site renewable energy generation. It also identifies the assumptions, supporting evidence and post-construction actions required to carry the proposed energy strategy through detailed design, construction and as-built verification.

Intended use:

- For the Local Planning Authority, this Statement provides a clear summary of how the proposal addresses Policies 18 and 19 and identifies the evidence relied upon at planning stage.
- For the design and construction team, it records the committed energy strategy, performance targets and follow-on actions to be maintained through technical design, SAP compliance, construction and handover.

Site Name	37 Albion Street
Site Address	37 Albion Street, Southwick, Brighton, West Sussex, BN42 4DN
Local Planning Authority	Adur District Council
Dwelling Type	Flats
Attachment Style	Purpose-built apartment block
Total GIA (m ²)	2,130.20
Compliance Route	SAP 10.20 / Part L 2021
Primary Heating Strategy	Air-source heat pump
Ventilation Strategy	Mechanical ventilation with heat recovery
Renewable Technologies	Roof-mounted photovoltaic panels
Date Of Issue	15/05/2026
Prepared For	PR Homes Direct Ltd
Prepared By	Energy Digest

1.2 Development Overview

The proposal comprises up to 32 flats at 37 Albion Street, Southwick, with a total gross internal area of 2,130.20 m².

The energy strategy has been developed in accordance with the Adur Sustainable Energy SPD and follows the energy hierarchy: Be Lean, Be Clean and Be Green. The proposed strategy includes an efficient thermal envelope, mechanical ventilation with heat recovery, fossil-fuel-free space heating and hot water via air-source heat pumps, and roof-mounted photovoltaic panels.

Compliance is being demonstrated using SAP 10.20 / Part L 2021, with energy demand, carbon emissions and on-site renewable contribution reported within this Statement.

1.3 Key Performance Results

To demonstrate alignment with Adur Policy 19 and the Sustainable Energy SPD, design-stage results are:

- To demonstrate alignment with Adur Policy 19 and the Sustainable Energy SPD, design-stage results are:
- Baseline regulated energy demand: 32.26 kWh/m²/yr, prior to on-site renewable generation.
- Predicted total energy demand: 67.26 kWh/m²/yr, including regulated and unregulated uses where available.
- Minimum renewable / low-carbon contribution: At least 10% of predicted energy requirements.
- On-site renewable generation: 7.98 kWh/m²/yr from roof-mounted photovoltaic panels.

1.4 Compliance Summary

Policy 19 Summary

Stage	Description	Result	
Be Lean	Energy demand reduced through fabric-first design	4.59 kgCO ₂ /m ² /yr DER before PV	YES
Be Clean	Fossil-fuel-free heat via air-source heat pumps	ASHP Strategy	YES
Be Green	Minimum 10% renewable / low-carbon contribution	11.87%	YES

The design-stage assessment indicates that the proposed development responds positively to Adur Local Plan Policies 18 and 19. Energy demand is reduced through a fabric-first specification, efficient services and mechanical ventilation with heat recovery. Fossil-fuel-free heating and hot water are proposed via air-source heat pumps.

For Policy 19, the proposed roof-mounted photovoltaic array is expected to contribute towards the minimum 10% renewable / low-carbon energy requirement. The final PV specification, array layout and generation estimate should be confirmed prior to construction and retained through the as-built SAP assessment.

2.0 Development Introduction

2.1 Scope of Assessment

This Energy Statement assesses the expected operational energy use and energy performance of the proposed residential development at 37 Albion Street, Southwick.

The assessment has been prepared to demonstrate how the proposal responds to Adur Local Plan Policies 18 and 19, the Shoreham Harbour JAAP and the Sustainable Energy SPD 2024. It reports regulated and unregulated energy use where available, baseline energy demand, energy efficiency measures, proposed low-carbon systems and estimated on-site renewable energy generation.

The assessment is supported by the current drawings, SAP information, specification information and energy strategy available at the time of writing. Where details remain subject to confirmation, assumptions are stated within this Statement and should be reviewed prior to construction and as part of the as-built SAP assessment.

2.2 Site Location and Context

The site is located at 37 Albion Street, Southwick, within Adur District Council's administrative area. The proposal is for up to 32 flats and associated site works.

The site is located within the Built Up Area Boundary and the Shoreham Harbour Regeneration Area, within Character Area 6 – Harbour Mouth. The existing site comprises a car service, repair and maintenance premises, and the proposal would redevelop the site for residential use.

At this stage, no site-specific constraints have been identified that would materially prevent the use of a fabric-first approach, fossil-fuel-free heating or roof-mounted photovoltaic generation. The final roof arrangement, orientation and photovoltaic layout should be coordinated with the architectural drawings to maximise renewable generation as far as practicable.

2.3 Proposed Development Summary

The proposed development comprises up to 32 flats with a total gross internal area of 2,130.20 m². The energy concept follows a clear route from demand reduction to low-carbon supply. The development will incorporate an improved thermal envelope, controlled thermal bridging, mechanical ventilation with heat recovery, fossil-fuel-free space heating and hot water via air-source heat pumps, and roof-mounted photovoltaic panels.

The design-stage energy assessment indicates that the proposed development can respond positively to Adur Policy 19 and the Sustainable Energy SPD, subject to the final specification being retained through technical design and construction.

2.4 Building Fabric Overview

The building fabric specification has been developed to reduce heat loss and limit operational energy demand before heating systems and renewable technologies are considered.

The current design targets are:

- Masonry Wall: 0.19 W/m²·K
- Flat Roof: 0.14 W/m²·K
- Ground Floor: 0.12 W/m²·K.
- Windows: 1.20 W/m²·K.
- Doors: 1.20 W/m²·K
- Roof Lights: 1.40 W/m²·K
- Airtightness: 3.00 m³/h·m² @50 Pa (design target)
- Thermal bridging: Recognised Construction Details (RCDs)

3.0 Planning Policy Context

3.1 National Policy Context

National energy performance requirements for new dwellings are principally controlled through the Building Regulations, with Approved Document L Volume 1 setting the conservation of fuel and power requirements for new homes.

This Energy Statement is prepared for planning purposes and therefore considers the proposal against the relevant Adur Local Plan, Shoreham Harbour JAAP and Sustainable Energy SPD requirements in addition to Building Regulations compliance. The SAP assessment provides the technical basis for reporting the proposed development’s operational energy performance, including energy demand, carbon emissions and renewable energy generation.

3.2 Adur Local Plan and Shoreham Harbour JAAP

The Adur Local Plan was adopted in December 2017 and includes policies addressing sustainable design, decentralised energy and renewable energy generation. For this proposal, Policy 18: Sustainable Design and Policy 19: Decentralised Energy, Stand-alone Energy Schemes and Renewable Energy are the principal Local Plan policies relevant to this Statement.

The site is also located within the Shoreham Harbour Regeneration Area, where the Shoreham Harbour JAAP is relevant. Policy SH1 seeks climate change, energy and sustainable building measures within new development.

3.3 Sustainable Energy SPD

The Adur Sustainable Energy SPD 2024 provides guidance on how applicants should demonstrate compliance with Policy 19 and relevant Shoreham Harbour energy requirements. It structures the Energy Statement around the energy hierarchy: Be Lean, Be Clean and Be Green.

This Statement follows that approach so that the planning assessment clearly demonstrates how the proposed development reduces demand first, before addressing efficient low-carbon systems and on-site renewable energy generation.

3.4 Policy Compliance Summary

Policy requirement	Response
Policy 18 Sustainable Design	Fabric and overheating measures reviewed
Policy 19 Energy Assessment	Energy Statement provided
Policy 19 Heat Networks	Feasibility reviewed in Section 6
Policy 19 Renewable Energy	Minimum 10% contribution assessed
JAAP Policy SH1	Sustainable energy measures addressed
Be Lean	Reported in Section 5
Be Clean	Reported in Section 6
Be Green	Reported in Section 7

4.0 Assessment Methodology

4.1 Compliance Route

The proposal is assessed using SAP 10.20 / Part L 2021. SAP has been used to calculate the design-stage regulated energy performance of the proposed flats, including space heating, hot water, lighting, pumps, fans and any cooling demand where applicable.

The Adur policy assessment also requires the Statement to report energy demand, carbon emissions and the contribution from on-site renewable or low-carbon energy technologies. The assessment therefore considers the proposal against Policy 19 and the Sustainable Energy SPD 2024.

Results are reported as annual energy demand, carbon emissions and renewable / low-carbon contribution.

4.2 SAP Model Scope and Inputs

The design-stage SAP assessment has been prepared using the current architectural drawings, dwelling geometry, fabric specification, ventilation strategy, heating and hot water system assumptions, and proposed photovoltaic provision.

The SAP model reflects the proposed 32 flats at 37 Albion Street, with a gross internal area of 2,130.20 m². The assessment is based on the information available at planning stage and should be updated if the layout, fabric specification, heating system, ventilation strategy or renewable energy design changes during technical design.

Final compliance should be confirmed through the as-built SAP assessment and supporting construction evidence.

4.3 Regulated and Unregulated Energy Uses

Energy demand is separated into regulated and unregulated uses.

- Space heating
- Domestic hot water
- Fixed lighting
- Pumps and fans
- Space cooling, where applicable

Unregulated energy uses are not fully captured by SAP and relate to occupant-controlled energy demands, such as appliances, plug-in equipment and cooking. These loads have been estimated separately using the project energy calculation schedule and included within the total energy demand figure reported for Policy 19 where available.

4.4 Assumptions and Limitations

The assessment is based on design-stage information and should be treated as a design-stage energy assessment. Where product selections, construction details or final system specifications are not yet fixed, reasonable assumptions have been applied and should be confirmed before construction.

The key assumptions include the proposed fabric U-values, airtightness target, thermal bridging approach, mechanical ventilation with heat recovery, air-source heat pump specification and photovoltaic generation estimate.

Any material change to the development design, heating system, ventilation strategy, fabric specification or PV layout may affect the reported results and should trigger an update to the SAP model and Energy Statement calculations.

5.0 Site Smart and Fabric First – Be Lean

5.1 Site Layout, Form & Massing

The proposal comprises a purpose-built apartment block. The Be Lean assessment has therefore focused on the relationship between the building layout, six-storey form, exposed heat-loss area and roof arrangement for photovoltaic generation.

The apartment form provides a comparatively efficient heat-loss profile, with multiple dwellings sharing party walls, floors and ceilings. Energy demand is further reduced through the proposed fabric specification, controlled airtightness, thermal-bridge control, mechanical ventilation with heat recovery and roof-mounted photovoltaic generation.

Site Layout, Form and Massing Summary

Development Type	Residential flats
Gross internal area	2,130.20 m ²
Storeys	Six
Attachment style	Apartment block
Building form	Purpose-built flatted development
Roof arrangement	Flat roof / roof-mounted PV

5.2 Fabric Performance Specification

A fabric-first specification is proposed to reduce space-heating demand before heating systems and renewable technologies are considered. The selected fabric values form the basis of the design-stage SAP assessment and support the development’s response to the Be Lean stage of the energy hierarchy.

The proposed specification includes improved U-values, controlled airtightness and a defined thermal-bridging approach. These measures reduce conductive and infiltration heat losses and provide the foundation for the air-source heat pump and photovoltaic strategy described later in this Statement.

Proposed Fabric Specification

Element	Design-stage Proposal	Notes
External walls	0.19 W/m2.K	Lightweight blockwork
Ground floor	0.12 W/m2.K	Slab on ground
Plane roof	0.14 W/m2.K	Warm deck flat roof
Windows	1.20 W/m2.K	Double glazed
Doors	1.20 W/m2.K	Double glazed
Roof lights	1.40 W/m2.K	Double glazed
Airtightness	3.00 m ³ /h·m ² @ 50 Pa	
Thermal bridging	RCDs	Recognised construction details

5.3 Thermal Bridging Strategy

Thermal bridging will be addressed through Recognised Construction Details, or equivalent approved project-specific details where applicable. This approach is intended to reduce heat loss at junctions between fabric elements, including wall-to-floor, wall-to-roof, corners, lintels, jambs, sills and openings.

The thermal-bridging strategy supports the fabric-first approach by limiting heat losses that are not fully represented by elemental U-values alone. It also helps reduce condensation and mould risk at vulnerable junctions by improving surface temperature performance.

At design stage, the SAP assessment should reflect the proposed junction treatment using the most appropriate available thermal-bridging input. Final details should be coordinated with the construction drawings and confirmed before works commence on site.

Thermal Bridging Junctions

Junction	Construction Detail
Window lintel	RCD or equivalent approved detail
Windowsill	RCD or equivalent approved detail
Window jamb	RCD or equivalent approved detail
Floor between flats	RCD or equivalent approved detail
Party Wall	RCD or equivalent approved detail
Corner	RCD or equivalent approved detail
Inverted corner	RCD or equivalent approved detail
Flat Roof	RCD or equivalent approved detail

5.4 Passive Design Measures

Passive design measures have been considered as part of the Be Lean strategy. For the proposed apartment block, the principal considerations are daylight, solar gain, summer comfort, heat-loss control and the coordination of the roof form with photovoltaic generation.

The development’s energy strategy seeks to reduce demand through a well-insulated and airtight envelope, appropriate glazing performance, mechanical ventilation with heat recovery and efficient building form. These measures are intended to limit winter heat loss while maintaining appropriate daylight and ventilation for occupants.

The final window arrangement, roof orientation and shading conditions should be reviewed against the architectural drawings and Part O assessment to confirm that solar gain, overheating risk and PV generation have been appropriately balanced.

Design Proposals

Passive design measure	Response
Building form	Six-storey apartment block with shared internal party elements
Glazing specification	Low-E glazing; g-value to be confirmed by SAP / Part O
Ventilation	Mechanical ventilation with heat recovery
Solar gain	To be reviewed through glazing layout and Part O assessment
Roof design	Roof-mounted PV to be coordinated with final roof plan

6.0 Sustainable Systems – Be Clean

6.1 Heating and Hot Water Supply

The proposed development will be served by fossil-fuel-free electric heating and hot water systems. Space heating and domestic hot water are proposed to be provided by air-source heat pumps, supporting the Be Clean stage of the energy hierarchy.

The system specification has been selected to reduce delivered energy demand and support the development’s response to Adur Policy 19. Final product selection, flow temperatures, controls and commissioning settings should be confirmed prior to construction and reflected in the as-built SAP assessment.

Heating and Hot Water

Item	Proposed Specification
System type	Air-source heat pumps
Winter efficiency	256.46
Summer efficiency	176.60
Heat distribution	Radiators or Underfloor
Hot water generation	Indirect hot water cylinder (150L)
Cylinder heat loss	1.60
Control strategy	Time & temperature zone control

Given the scale, location and nature of the proposal, no practical existing heat network connection has been identified. An on-site air-source heat pump strategy is therefore considered the appropriate fossil-fuel-free heat supply for the development.

6.2 Ventilation Strategy

The development is proposed to use mechanical ventilation with heat recovery. This approach supports energy efficiency by recovering heat from extracted air while providing controlled background ventilation to the flats.

The ventilation design should be coordinated with the airtightness target, Part F requirements and the overheating review under Part O. Final MVHR specifications, efficiencies and flow rates should be confirmed at technical design stage and included within the as-built SAP assessment.

Ventilation

Item	Proposed Specification
Ventilation type	Mechanical ventilation with heat recovery
Background ventilation	MVHR supply and extract system
Local extract	Via MVHR system
Specific fan power	0.90 W/(l/s)
Heat recovery	88% HR efficiency
Cooling ventilation role	To be reviewed through Part O
Control strategy	Occupant-controls

6.3 Overheating Considerations

No active comfort cooling is proposed. Summer comfort will be managed through passive measures, including glazing specification, ventilation strategy, openable windows where provided and the coordination of solar gain through the final window arrangement.

The overheating position should be reviewed through the Building Regulations Part O assessment at technical design stage. Where any overheating risk is identified, priority should be given to passive measures such as glazing optimisation, ventilation strategy, external shading or internal layout adjustments before considering active cooling.

Overheating Mitigation Measures

Item	Proposed Specification
Active comfort cooling	Not proposed potential summer bypass for MCHR
Cooling system type	None
Passive measures	Low-E glazing, Shading,
Solar gain control	To be reviewed through final glazing layout and Part O
Night-purge ventilation	None
Further assessment	Part O overheating review at technical design stage

6.4 Controls and Building Management

The proposed controls strategy is intended to ensure that heating, hot water, ventilation and lighting operate efficiently and remain straightforward for occupants to use. Space heating will be controlled through time and temperature zoning, with local occupant control provided where appropriate.

The final controls specification should be confirmed with the selected air-source heat pump, hot water system, MVHR units and lighting design. Clear handover information should be provided to future occupants to support efficient operation of the flats.

Controls and Management

Item	Proposed Specification
Heating controls	Time and temperature zone control
Weather compensation	Proposed, subject to final heat pump specification
Local occupant controls	Yes
Hot water controls	Cylinder thermostat and time control
Ventilation controls	MVHR controls
Lighting controls	Manual switching; automatic controls not proposed
Occupant handover	User guidance to be provided at completion

The proposed systems provide fossil-fuel-free heat and efficient ventilation, supporting the Be Clean stage of the energy hierarchy and the requirements of Adur Policy 19.

7.0 Green Generation – Be Green

7.1 Technologies Considered

The objective is to provide on-site renewable or low-carbon energy generation to meet the minimum 10% contribution required by Adur Policy 19 and the Sustainable Energy SPD 2024.

The following renewable and low-carbon technologies have been considered for practical delivery on this site:

- Solar photovoltaics
- Solar thermal
- Air-source heat pump
- Ground-source heat pump
- Small-scale wind
- Other technology where relevant

7.2 Feasibility Review

A feasibility review has been undertaken to identify which renewable and low-carbon technologies are suitable for the proposed apartment block. The review considers the scale of the development, roof form, available plant space, heating and hot water demand, ventilation strategy, likely maintenance requirements and planning practicality.

For this proposal, roof-mounted photovoltaic panels and air-source heat pumps are considered the most appropriate technologies. PV provides direct on-site renewable electricity generation, while the air-source heat pumps provide fossil-fuel-free heating and hot water.

Other technologies, including solar thermal, ground-source heat pumps and small-scale wind, are not proposed due to reduced practicality, limited additional benefit or site-specific constraints when compared with the selected strategy.

Renewable and Low-Carbon Technology Feasibility

Technology	Feasible	Reason
Solar photovoltaics	Yes	Suitable roof-mounted renewable electricity generation
Solar thermal	No	Limited benefit compared with PV and heat-pump hot water
Air-source heat pump	Yes	Fossil-fuel-free heating and hot water supply
Ground-source heat pump	No	Disproportionate groundworks and limited practicality for this constrained urban site
Small-scale wind	No	Limited viability due to turbulence, scale and planning constraints

7.3 Selected Strategy

The selected strategy combines air-source heat pumps with roof-mounted photovoltaic panels. The air-source heat pumps provide fossil-fuel-free space heating and hot water, while the photovoltaic array contributes to the development’s predicted energy requirements.

The design-stage renewable generation estimate is reported in Section 7.4 and tested against the minimum 10% renewable / low-carbon contribution in Section 8.3. The final PV layout, orientation, pitch, shading and installed capacity should be confirmed through technical design and retained within the as-built SAP assessment.

7.4 Estimated Renewable Contribution

The estimated renewable contribution from the proposed photovoltaic array is based on the design-stage SAP assessment and current roof layout assumptions. The generation estimate should be reviewed once the final PV specification, roof pitch, orientation and shading assumptions are confirmed.

At design stage, the proposed PV array is expected to generate 17,000.00 kWh/yr, compared with the development’s predicted energy requirement of 143,263.37 kWh/yr. This represents a renewable / low-carbon contribution of 11.87 %, exceeding the minimum 10% requirement of Adur Policy 19 and the Sustainable Energy SPD 2024.

Photovoltaic Panel Data

Parameter	Specification
Panel size (mm)	2000x1200
Panel efficiency (%)	23
Panel peak power (kWp)	0.5
Number of panels installed	40
Total installed capacity (kWp)	20.00
Panel orientation	Horizontal
Installation angle / roof pitch	Horizontal
Estimated shading factor	None or Little

Renewable Contribution Summary

Component	Value
Total Installed PV Capacity (kWp)	20.00 kWp
Estimated Annual Generation	7.98 kWh/m ² /yr
Predicted energy requirement	67.26 kWh/m ² /yr
Minimum 10% requirement	6.73 kWh/m ² /yr
Renewable / low-carbon contribution	11.87%
Policy 19 compliance	Meets Requirement

The figures represent estimated annual renewable electricity generation from the proposed roof-mounted photovoltaic array. Final module and inverter selections should align with the capacity and generation assumptions reported here.

8.0 Results

8.1 Baseline and Be Lean / Be Clean Performance

The design-stage SAP assessment has been used to establish the Part L notional target and the development's performance before photovoltaic generation is applied. The TER represents the Part L target emission rate, while the DER before PV reflects the proposed Be Lean and Be Clean measures, including the fabric specification, MVHR and air-source heat pumps.

Metric	Value
TER	12.66 kgCO ₂ /m ² /yr
DER before PV	4.59 kgCO ₂ /m ² /yr
Compliance position	Meets Requirement

8.2 Predicted Energy Demand

Predicted energy demand has been assessed using the SAP outputs and project energy calculation schedule. This includes regulated energy uses and unregulated energy uses where available, to establish the predicted energy requirement for the Adur Policy 19 calculation.

Metric	Value
Regulated energy demand	32.26 kWh/m ² /yr
Unregulated energy demand	35.00 kWh/m ² /yr
Total predicted energy requirement	67.26 kWh/m ² /yr
Minimum 10% Requirement	6.73 kWh/m ² /yr

8.3 Renewable Energy Balance

The proposed roof-mounted photovoltaic array is estimated to generate 7.98 kWh/m²/yr at design stage. This is compared with the development's predicted energy requirement of 67.26 kWh/m²/yr to confirm the renewable / low-carbon energy contribution required by Adur Policy 19.

The proposed renewable contribution is 11.87%, which exceeds the minimum 10% requirement. The final PV specification, array layout, orientation, pitch and shading assumptions should be confirmed through technical design and retained within the as-built SAP assessment.

Metric	Value
Installed PV capacity	20.00 kWp
Estimated PV generation	7.98 kWh/m ² /yr
Policy 19 compliance	Meets Requirement

8.4 Performance compliance Summary

This subsection provides a consolidated summary of the development’s design-stage performance against Adur Policy 19 and the Sustainable Energy SPD 2024. The results reflect the proposed fabric-first specification, fossil-fuel-free heat supply via air-source heat pumps, MVHR and roof-mounted photovoltaic generation.

Overall Performance Summary

Metric	Value	Compliance
DER before PV	4.59 kgCO ₂ /m ² /yr	
DER with PV	3.96 kgCO ₂ /m ² /yr	YES

Summary Statement

The proposal comprises an all-electric apartment development designed to respond to Adur Local Plan Policies 18 and 19, the Shoreham Harbour JAAP and the Sustainable Energy SPD 2024. The development incorporates a fabric-first specification, controlled thermal bridging, MVHR, fossil-fuel-free heating and hot water via air-source heat pumps, and roof-mounted photovoltaic generation.

At design stage, the development achieves a DER before PV of 4.59 kgCO₂/m²/yr and a final DER with PV of 3.96 kgCO₂/m²/yr. The proposed photovoltaic array is estimated to generate 17,000 kWh/yr, representing 11.87% of the predicted energy requirement. These results indicate compliance with the minimum 10% renewable / low-carbon energy requirement, subject to final design confirmation.

9.0 Conclusion & Next Steps

9.1 Summary of Performance

The proposal comprises up to 32 all-electric flats designed to respond to Adur Local Plan Policies 18 and 19, the Shoreham Harbour JAAP and the Sustainable Energy SPD 2024. The design follows a fabric-first approach, with fossil-fuel-free heating and hot water provided by air-source heat pumps and on-site renewable electricity generation provided by roof-mounted photovoltaic panels.

The design-stage assessment indicates that the development responds positively to the energy hierarchy and achieves the minimum 10% renewable / low-carbon energy contribution required by Adur Policy 19, subject to the final specification being retained through technical design and confirmed through the as-built SAP assessment.

9.2 Planning Compliance Overview

- **Policy 18 – Sustainable Design:** Addressed through fabric specification, overheating review and efficient building services.
- **Policy 19 – Energy assessment:** Energy demand, emissions and renewable contribution reported in this Statement.
- **Policy 19 – Heat networks:** No practical existing heat network connection has been identified.
- **Policy 19 – Renewable energy:** The proposed PV array provides 11.87% renewable / low-carbon contribution.
- **JAAP Policy SH1:** Sustainable energy measures have been incorporated into the proposed development

9.3 Next Steps and As-Built Monitoring Requirements

- **Final SAP assessment:** Update the SAP model if the development layout, fabric specification, heating system, ventilation strategy or PV design changes during technical design.
- **As-built evidence:** Provide the as-built SAP report, EPC, airtightness test result and evidence that installed systems match the specification reported in this Statement.
- **PV confirmation:** Confirm the final PV capacity, module specification, inverter arrangement, orientation, pitch and shading assumptions.
- **Occupant handover:** Provide clear user guidance covering heat-pump controls, hot water operation, ventilation use and PV operation.
- **Post-construction review:** Retain commissioning records and relevant product data to support discharge of any planning condition relating to energy performance.

9.4 Schedule of Supporting Reports

The following documents support or will accompany this Energy Statement.

- As-designed SAP reports
- Draft EPC Certificates
- U-Value Report
- Thermal Bridging Calculations
- Part G Water Calculations