

1-Instructions for applicants

Residential planning application submission checklist - energy (S6/7)

Central Lincolnshire Joint Strategic Planning Committee

Document Planning Application Submission Checklist: Policies S6 Design Principles for Efficiency Buildings, S7 Reducing Energy Consumption

Rev K - Final

Date 31/10/2022



Introduction

This checklist should be used for residential developments, or the residential elements of mixed-use schemes.

Non-residential planning applications should use the non-residential planning submission checklist.

To be read in conjunction with the Energy Efficiency Design Guide [link]

Guide to completing this checklist

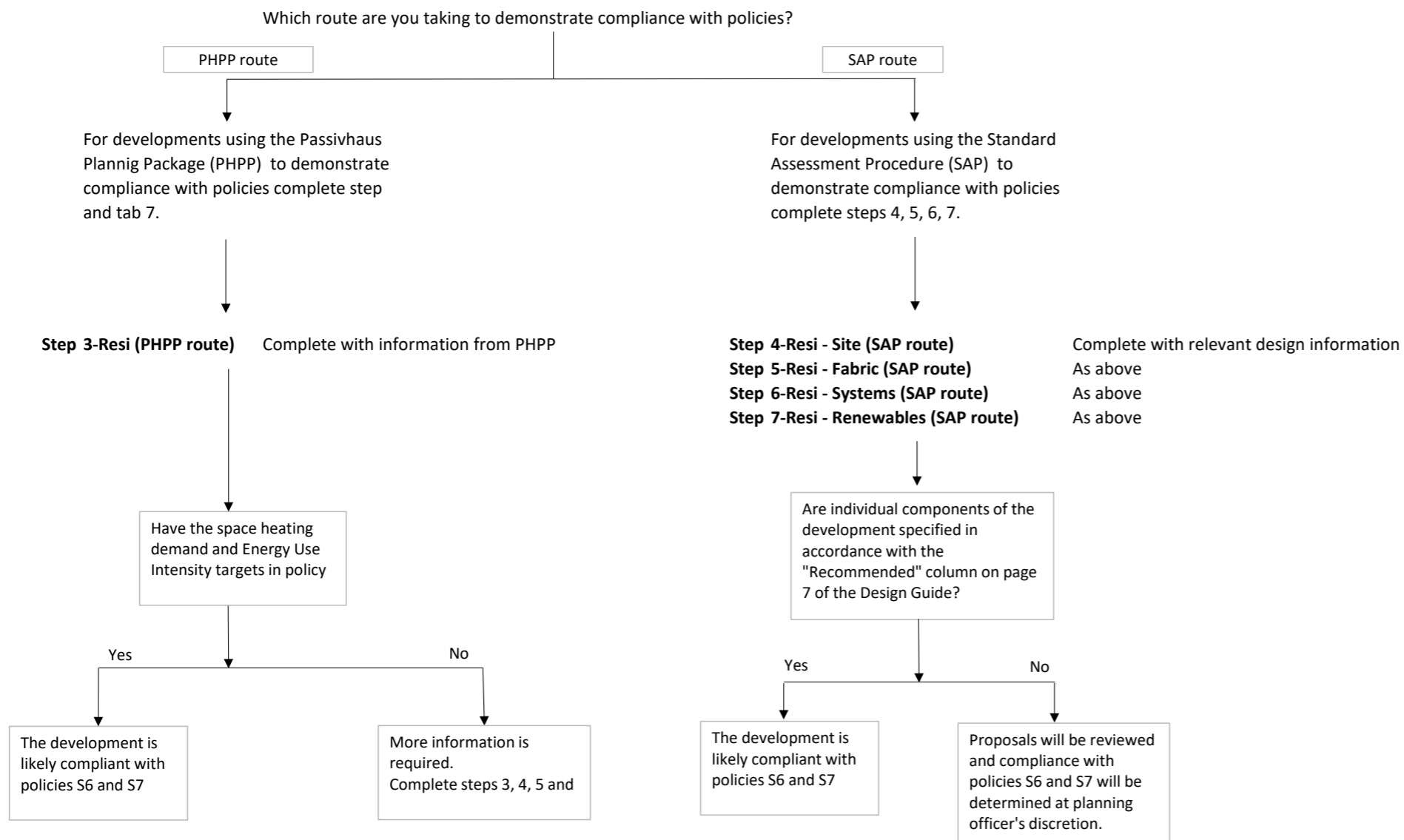
Tab

Step 1-Start here

Read this page carefully before completing this checklist.

Step 2-Summary

Complete with a summary of the development proposals.



2-Summary of proposals

To be completed by all developments



General development information

Q1 Development category
Q2 Number of units

	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9	Plot 10
Q3 Gross Internal Area (GIA), m2	221.69									
Q4 Projected Footprint Area, m2	131									

Compliance route

Q5 Are you using the SAP or PHPP route to demonstrate compliance with policies S6, S7 and S8? complete questions below and then go to tab 4

Executive Summary

Q6 This Energy Efficiency Checklist is in support of a House Holder Application for the erection of a new two storey dwelling in Potterhanworth.

Exceptional basis clauses

Q7 Does your proposal fall under Exceptional Basis clause 1, 2 or 3 of policy S7

Q8 If you have answered yes to the above please justify in the space below and complete Tabs 3 (if applicable) 4, 5, 6 and 7.



Checklist for RESIDENTIAL development applications.

This checklist is for applications that have used the Standard Assessment Procedure (SAP) methodology for calculating energy and CO2 emissions. Applicants that have used PassivHaus Planning Package (PHPP) completed by a certified PassivHaus Designer can use the simplified checklist.

This checklist covers Policies S6 and S7 for residential development. For non-residential development please use checklist [insert link]

Policy S6: Design Principles for Efficient Buildings

S6.1 Orientation and form of buildings

Q19 How has orientation and the incidence of sun and shading influenced the design of the site and the building/s?
 The building orientation and form were informed by the balance between various site constraints and natural climate factors in order to develop an efficient design that responds to its context and maximises natural resources. The proposals aim to maximise solar gains and natural light into the plan through the building orientation and amount and sizing of openings. Most of the habitable rooms have been positioned to the south to maximise their solar gains.

Q20 How has the potential for overheating been minimised through design?
 The windows to the south, where it is more likely to overheat, will be installed using solar control glazing. This limits the amount of heat the glass absorbs from the sun, preventing overheating inside the dwelling.
 These narrative responses can be supplemented with design evidence.

Q21 Please complete the below for each unit (or a sample of 5 units for proposals with more than 5 units).

Form factor		Orientation		Glazing to solid wall ratio (%)	Explain how the balance between solar gain and solar shading has been managed.
Houses/low-rise flats.	Flats four or more storeys				
2.4		Façade 1	North	25	The north façade has large portions of glazing to the inhabitable rooms to allow for more natural light penetration into t
		Façade 2	East	10	The east façade has fewer openings to avoid overlooking into neighbours plot.
		Façade 3	West	19	The west façade has limited openings to avoid overlooking into neighbours plot.
		Façade 4	South	41	The south façade has large portions of glazing to allow for more natural light penetration into the internal spaces and m

Form factor		Orientation		Glazing to solid wall ratio (%)	Explain how the balance between solar gain and solar shading has been managed.
Houses/low-rise flats.	Flats four or more storeys				
		Façade 1			
		Façade 2			
		Façade 3			
		Façade 4			

Form factor		Orientation		Glazing to solid wall ratio (%)	Explain how the balance between solar gain and solar shading has been managed.
Houses/low-rise flats.	Flats four or more storeys				
		Façade 1			
		Façade 2			
		Façade 3			
		Façade 4			

Form factor		Orientation		Glazing to solid wall ratio (%)	Explain how the balance between solar gain and solar shading has been managed.
Houses/low-rise flats.	Flats four or more storeys				
		Façade 1			
		Façade 2			
		Façade 3			
		Façade 4			

Form factor		Orientation		Glazing to solid wall ratio (%)	Explain how the balance between solar gain and solar shading has been managed.
Houses/low-rise flats.	Flats four or more storeys				
		Façade 1			
		Façade 2			
		Façade 3			
		Façade 4			

Form factor		Orientation		Glazing to solid wall ratio (%)	Explain how the balance between solar gain and solar shading has been managed.
Houses/low-rise flats.	Flats four or more storeys				
		Façade 1			
		Façade 2			
		Façade 3			
		Façade 4			

Form factor		Orientation		Glazing to solid wall ratio (%)	Explain how the balance between solar gain and solar shading has been managed.
Houses/low-rise flats.	Flats four or more storeys				
		Façade 1			
		Façade 2			
		Façade 3			
		Façade 4			

Form factor		Orientation		Glazing to solid wall ratio (%)	Explain how the balance between solar gain and solar shading has been managed.
Houses/low-rise flats.	Flats four or more storeys				
		Façade 1			
		Façade 2			
		Façade 3			

		Façade 4			
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Unit 9		Orientation	Glazing to solid wall ratio (%)	Explain how the balance between solar gain and solar shading has been managed.
Form factor				
Houses/low-rise flats.	Flats four or more storeys			
		Façade 1		
		Façade 2		
		Façade 3		
		Façade 4		

Unit 10		Orientation	Glazing to solid wall ratio (%)	Explain how the balance between solar gain and solar shading has been managed.
Form factor				
Houses/low-rise flats.	Flats four or more storeys			
		Façade 1		
		Façade 2		
		Façade 3		
		Façade 4		

Documentation required

Please confirm the following documentation has been provided as a minimum:
Plans and elevations of all building types

Yes

Site plan with building types and orientation marked

Yes



Key	
ASHP <45	Air Source Heat Pump, flow temp <45°C
ASHP >45	Air Source Heat Pump, >45°C
GSHP >45	Ground Source Heat Pump, >45°C
GSHP <45	Ground Source Heat Pump, <45°C
DE	Direct electric systems
GB	Gas boiler
Other	Other

Please add additional plots to the right where applicable

Policy S6: Design Principles for Efficient Buildings	Plot	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9	Plot 10
S6.4 Heat supply											
Q27 Will units be served by individual, communal or district heating systems?	Individual										
Q28 What systems will provide space heating and hot water in the building/s?	ASHP <45										
Q29 Dwelling primary energy, kWhPE/m2											

Documentation required

Site plans and/or plot drawings showing location of heating systems

 Yes



Policy S6: Design Principles for Efficient Buildings

S6.5 Renewable energy

Q30 Please complete the table below for **renewable energy** provision:

Q31 Which technology/technologies will be installed on the site?
 PV panels, electric car charging point

Q32 Total installed capacity on-site, kWp

Q33 Site wide annual renewable energy generation, kWh/yr

Q34 What program or calculation methodology has been used to calculate the above renewable energy outputs?

Q35 Complete the below as applicable.

Please add additional plots to the right where applicable

Solar photovoltaics	
Renewable energy generation intensity, kWh/m2/yr*	
PV panel efficiency rating, W	
Surface area of roof, m2	130
Area of PV panel, m2	13.6
No. storeys to building	2

Communal	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9	Plot 10

Indicators (for officer use)

Annual generation per m2 building footprint, kWh/m2{f.p.}*	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
% of surface area of roof covered by PV	10%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Communal	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9	Plot 10

Wind turbine	
Number of turbines	
Capacity of individual turbine	
Annual generation, kWh/m2	

Communal	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9	Plot 10

Solar thermal	
Installed capacity	
% annual hot water demand met	

Communal	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9	Plot 10

Other	
Installed capacity	

Communal	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8	Plot 9	Plot 10

* /m2 = per m2 GIA
 /m2{f.p.} = per m2 building footprint

Documentation required - Please confirm the following documentation has been provided as a minimum:

Plans and elevations of all building types	Yes
Site plan with building types and orientation marked	Yes
Roof plans with indicative PV layouts	Yes
Site plan with location of renewable energy technologies	Yes
SAP / PHPP outputs	Yes
Renewable energy generation calculations	Yes