

THE GIPPSLAND PASSIVE HOUSE GUIDE

A practical guide for Gippsland families planning a new home.



THE PASSIVE
HOUSE WAY

A Note from Jakub:

Hello

When planning a new home, it is natural to focus first on finishes, materials and how the home will look and feel to touch.

But a home is more than its appearance. It becomes the environment your family lives in every day.

The way that environment is best considered early in design — through orientation, shading, window choices, insulation, airtightness and ventilation.

*I created **The Passive House Way** to help families understand these early decisions while they are still easy to discuss and improve. Many of them seem small during design, but together they shape the quality of life inside the home — and the footprint the home leaves on the world outside it.*

It starts by reducing the demand of the home itself, so comfort, healthy air, and long-term performance are considered from the beginning. At its best, it creates value beyond efficient appliances or add-on technology.

This guide is a starting point to help you know what to check before plans are locked in.



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The Passive House Way



FOR LIFE INSIDE

A better home is designed around the life that happens inside it.

*The window you can sit beside without feeling the chill.
Fresh, filtered air supplied gently, without needing to think about it.
The warm floors on a cold Gippsland morning.
Quiet bedrooms on busy nights.
A home that is stable through the seasons.*

This is where The Passive House approach becomes valuable.

It looks beyond finishes, appliances and single design features, and asks a deeper question:

How will this home actually feel to live in?

For Life Inside is the belief that a home should quietly support people inside it — through comfort, healthy air, low energy demand and decisions that have been considered before construction begins.

Image courtesy of the Australian Passive House Association ([Earth House](#))



THE DECISIONS THAT SHAPE LIFE INSIDE

Long before finishes are chosen or heating is installed.

It begins with the position of the home on the site.

The direction and size of the windows.

The way summer sun is controlled.

The continuity of insulation.

The airtightness layer.

The ventilation strategy.

The construction details that protect the design intent.

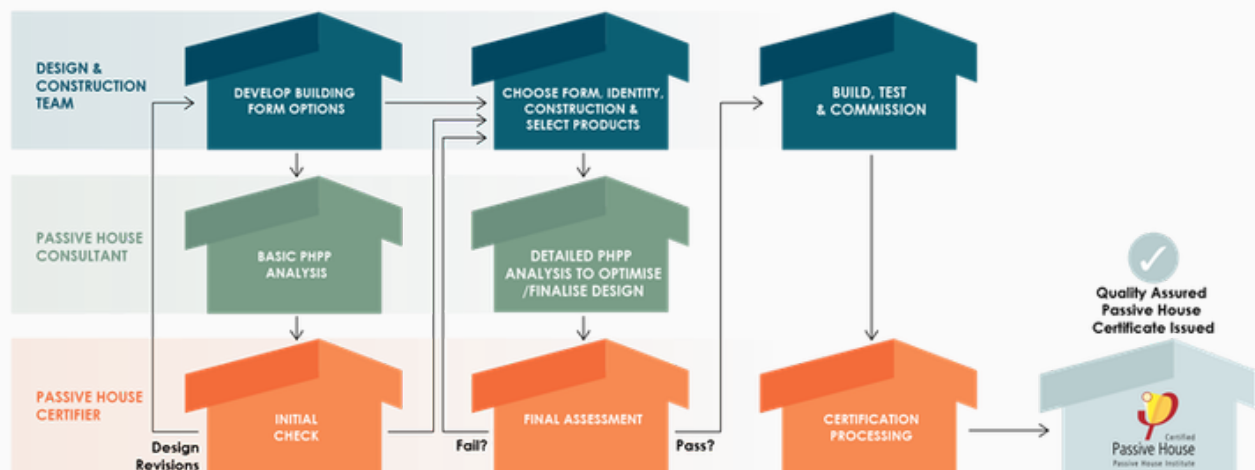
When these decisions are not checked together, the home may need heating, cooling or later adjustments to compensate for what could have been resolved earlier.

Passive House thinking takes a different approach.

It goes beyond minimum compliance by taking a fabric-first approach: reducing demand through the home itself before relying on larger heating, cooling or dehumidification systems. Passive House buildings achieve superior performance by prioritising uninterrupted insulation and airtightness to meet strict, measured criteria.

This does not mean every home must look a certain way.

It means the important decisions are considered early enough to shape the design, protect the budget and support the way your family will live inside the home.



GIPPSLAND CONDITIONS MATTER

Gippsland homes need to respond to real local conditions.

A home in this region has to do more than look good. It needs to respond to cold mornings, damp winters, warm summer afternoons, changing winds, outdoor air quality events and rising expectations around energy use.

These conditions are not problems to fear but design inputs.

Cold mornings

Will the home stay comfortable overnight without constant heating?

Air leaking

Is the home protected from draughts and uncontrolled air movement?

Winter dampness

Has moisture been considered before it increases condensation or mould risk?

Smoke and outdoor air quality

Can fresh air be filtered and supplied intentionally when opening windows is not ideal?

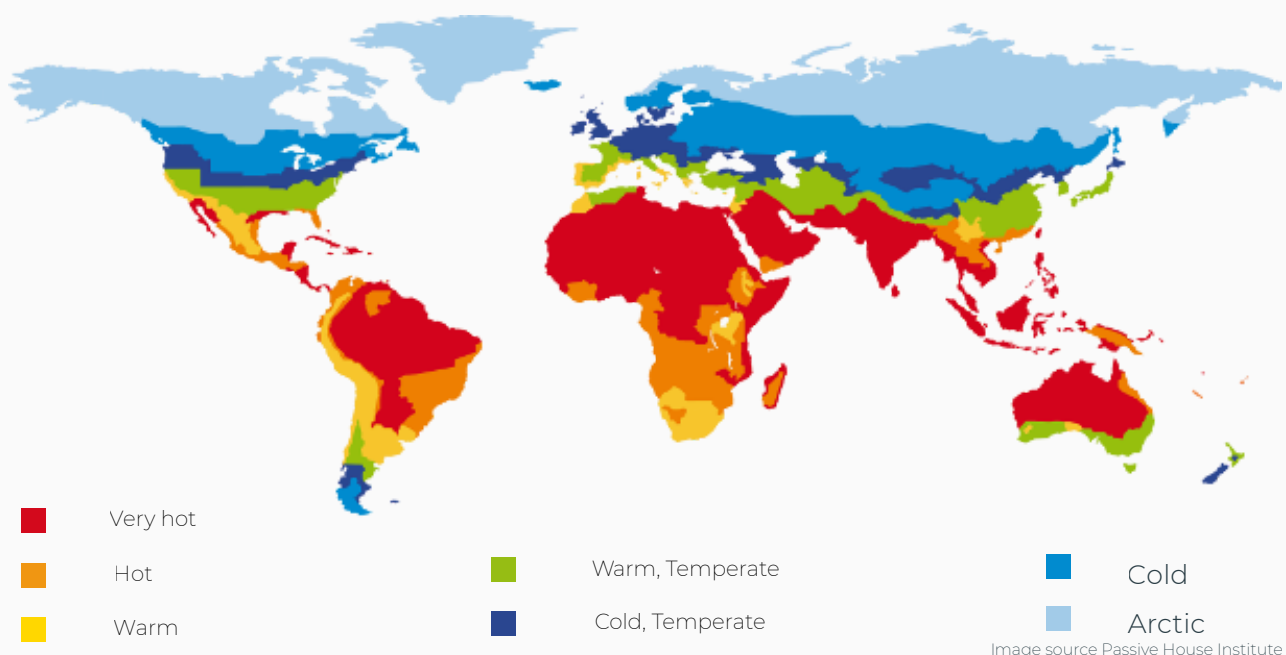
Summer heat

Are window size, orientation and shading working together?

Energy cost pressure

Can the home reduce demand before relying on larger systems to compensate?

Passive House modelling uses climate data matched to the home's location, helping the design respond to local temperatures, solar conditions and seasonal patterns.



EVERY PASSIVE HOUSE IS UNIQUE

It is a way of designing for performance.

A Passive House can look modern, traditional, rural or refined. What changes is not the appearance first, but the way the home is designed, checked and expected to perform.

Detailed physics-based modelling calculates how climate, orientation, windows, insulation, airtightness and ventilation work together. Many inputs can be tested before construction, allowing comfort, moisture risk and energy demand to be predicted and improved — not assumed.

Thermal insulation

Helps the home hold warmth in winter and resist unwanted heat in summer.

Fresh-air ventilation

Supplies filtered outdoor air in a controlled and consistent way.

Airtightness

Reduces draughts and uncontrolled air movement through gaps and cracks.

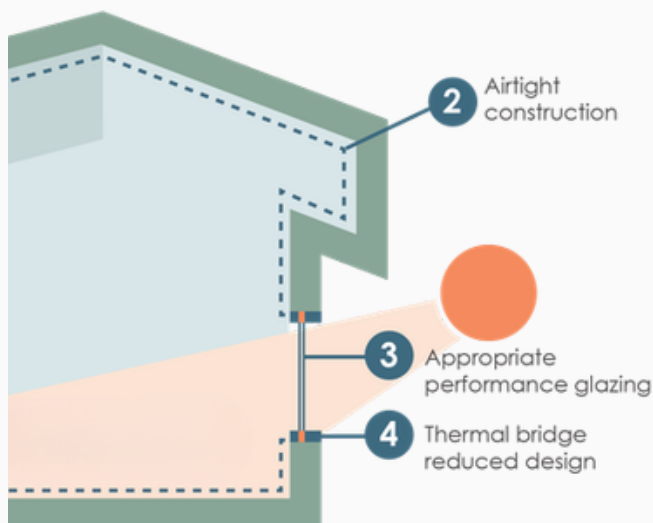
Thermal insulation

1

Adequate ventilation strategy

5

AUSTRALIAN PASSIVHAUS ASSOCIATION | Five Passivhaus Principles



High-performance windows

Improve comfort near glass and reduce unwanted heat loss or heat gain.

Thermal bridge reduction

Reduces weak points where heat, cold or moisture problems can concentrate.

The biggest value is not in one product or one detail.

It is in the way these decisions work together.

Certification can provide independent proof that a home meets the Passive House standard. But even without certification, the Passive House approach can guide better decisions from the beginning.

THE FOUR OUTCOMES OF A BETTER HOME

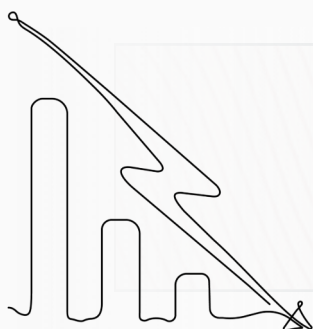


Consistent Comfort

A home that feels stable through changing seasons, with fewer cold spots, draughts and rooms that need constant adjustment.

Healthy Air

Fresh air supplied intentionally, with better control over moisture, condensation risk, common indoor pollutants and indoor air quality.

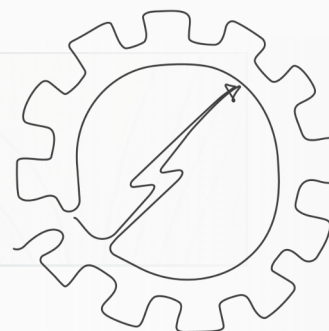


Lower Demand, More Freedom

Less demand. Less dependence.
A home that needs less energy to stay comfortable can cost less to run and make solar, batteries and future energy systems more effective if you choose to add them.

Long-Term Living

A home designed to support family life for decades — through durability, adaptability, lower running demand and comfort that does not depend on constant correction.



These outcomes are not created by one product or one final decision. They are shaped by the early choices that determine how the home will behave in daily life.

THE FOUR AREAS TO CHECK

There are four areas to check before plans move too far forward.

Comfort, healthy air, energy independence and long-term living are shaped by how the main parts of the home work together.

Before a new home moves too far into documentation, pricing or construction, it is worth pausing to look at four areas where early decisions have the greatest impact.

Site, Sun + Seasonal Comfort

How the home responds to orientation, winter sun, summer heat, wind, shade, views and the way your family will use the spaces through the year.

Windows + Envelope

How the windows, walls, roof, floor, insulation and airtightness layer work together to separate outdoor conditions from life inside.

Fresh Air + Moisture

How the home will bring in fresh air, manage moisture from daily life, and reduce reliance on leaks or open windows for ventilation.

Energy + Future Readiness

How reducing the home's energy demand can support lower running costs, greater resilience and lasting value.

These four areas do not need to be perfect at the beginning. But they should be considered early and influence the design.

These areas are also where specialist guidance can help — by modelling, reviewing and documenting how the home is likely to perform before key decisions become fixed.

EVERY HOME CREATES AN INDOOR CLIMATE

Site, Sun + Seasonal Comfort

Every home is already responding to the sun, shade and changing seasons.

The question is whether it is doing so intentionally.

How a home sits on its site begins shaping comfort before insulation, windows or heating systems are selected. In Gippsland, winter sun can bring valuable warmth and light, while poorly controlled summer sun can make the same room difficult to use. Trees, slope and neighbouring buildings also influence comfort.

What should be reviewed

- Where the main living spaces and bedrooms sit in relation to the sun
- Where winter sunlight can enter the home
- How summer sun, particularly from the west, will be controlled
- How trees, slope, wind and neighbouring buildings affect exposure

How I help check this

I review the site, orientation, sun path, shading, exposure and early layout to understand how the home is likely to behave through winter and summer.

Where useful, this can be supported by early modelling so comfort and overheating risks are discussed before the design becomes fixed.

Common gap

The home is arranged around views, appearance or the floor plan first, while its response to winter and summer is checked later.

Question to ask

How does this design capture useful winter sun while staying comfortable through summer?

Life inside

Morning sun can gently warm the kitchen where the family gathers. Later in the year, well-considered shading can keep that same room calm and usable through a hot summer afternoon.

A home that responds well to its site needs less correction and feels more settled through the seasons.

A HOME WORKS AS ONE SYSTEM

Windows + Envelope

A home is not protected by its best product.

It is protected by the continuity between all of them.

The windows, walls, roof, floor, insulation and airtightness layer form the protective boundary between outdoor conditions and life inside. This is often called the building envelope.

When this boundary is designed as one connected system, it helps the home maintain more stable temperatures through cold mornings, strong winds and warm summer afternoons. It also reduces draughts, protects the building structure and makes the areas near windows more comfortable.

A high-performance window may still feel cold if it is poorly installed. Insulation may be generous through the walls but interrupted at the slab, roof or structural junctions. An airtightness strategy may look clear until pipes, cables and other services begin passing through it.

What should be reviewed

- Window performance, placement and installation details
- A clear airtightness layer that can be followed around the whole home
- Carefully considered junctions at windows, slab edges and roof connections
- A planned approach for services passing through the envelope

How I help check this

I assess how windows, insulation, airtightness and junctions work together as one envelope.

This includes reviewing assumptions, identifying weak points, checking continuity and helping the design team understand where details need to be resolved.

Common gap

Good products are selected individually, but the connections between them are not clearly designed, documented or checked.

Question to ask

Can the insulation and airtightness layers be followed continuously around the entire home without break?

Life inside

On a cold Gippsland morning, you can sit beside the window without feeling a stream of cold air or needing to move further into the room.

FRESH AIR SHOULD ARRIVE BY DESIGN

Fresh Air + Moisture

A home can feel warm and still not feel fresh.

Fresh air and moisture are easy to overlook in early design because they are less visible than windows, finishes or room layout. But they become part of daily life very quickly — in bedrooms that feel stale overnight, bathrooms that stay damp, condensation on colder surfaces, or increased mould risk, or rooms that rely on open windows at times when opening them is not ideal.

Every family creates moisture and pollutants inside the home.

Cooking, bathing, laundry, furniture, finishes and simply breathing all affect indoor air. In Gippsland, this sits alongside damp winters, dust, pollen, smoke events and days when opening windows is not ideal.

What should be reviewed

- How fresh air reaches bedrooms and living areas
- How moisture is removed from bathrooms, laundry and kitchen areas
- Whether airtightness and ventilation have been considered together
- Space for ducts, equipment and future maintenance access
- Whether filtration is considered for dust, pollen, smoke and outdoor air quality events
- How CO₂, VOCs and everyday indoor pollutants will be diluted or removed over time

How I help check this

I review how fresh air, moisture, filtration and airtightness are being managed together. This may include checking ventilation strategy, duct routes, equipment space, maintenance access and whether the approach supports everyday family life.

Common gap

Ventilation is left to open windows, isolated exhaust fans and incidental air leakage, rather than being designed as part of the home's comfort, health and moisture strategy.

Question to ask

How will fresh air and moisture be managed when windows are closed?

Life inside

A well-considered ventilation strategy helps the home feel fresher, drier and more settled through everyday family life.

LESS DEMAND CREATES MORE FREEDOM

Energy + Future Readiness

A home that needs less energy gives you more choices.

Maintaining comfort and a more stable indoor climate depends less on large heating and cooling systems, while reducing exposure to future energy costs.

Efficient all-electric systems become easier to run.

Solar can cover a greater share of everyday use.

Battery storage becomes more useful because there is less demand to supply.

Heat recovery ventilation helps fresh, filtered air arrive with less energy loss, supporting comfort while reducing demand on heating and cooling systems.

Technology will continue to change. Low energy demand will remain valuable.

What should be reviewed

- Whether the design reduces heating and cooling demand before systems are selected
- An efficient all-electric approach to heating, hot water and cooking
- Roof orientation, space and electrical planning for solar, battery storage if desired
- How the home may respond to outages or higher energy prices
- Whether the design supports future upgrades without major reworking

How I help check this

I use energy modelling to analyse the home's heat losses, useful solar gains, shading, insulation levels, window performance, airtightness and ventilation heat recovery.

This helps test whether the design is reducing heating and cooling demand through the building fabric first — before relying on larger mechanical systems, solar or battery storage to compensate.

Common gap

Energy performance is often treated as technology to add, rather than something designed into the home through a high-performing envelope and heat recovery ventilation.

Question to ask

How much energy will this home need before solar, batteries or other technology are added?

Life inside

A home with low energy demand gives your family more control. It can stay comfortable with smaller systems, make better use of solar energy and remain less exposed to future energy-price changes.

SMALL DECISIONS RARELY STAY SMALL

Most comfort and performance problems do not begin with one obvious mistake.

They begin with ordinary decisions — made at different times, by different people, for different reasons — but never checked together.

A larger window captures the view	But summer heat is not tested	The living area becomes difficult to keep comfortable on hot afternoons.
Insulation is specified	But the junctions are left unresolved	Cold surfaces and moisture risk remain where the protective layer is interrupted.
Airtightness is expected	But the layer and responsibilities are not defined	Gaps are discovered during the finishing stage of construction, when they are harder to reach and resolve.
The floor plan is finalised	Before services is considered	Ducts, services and equipment access must later compete with the airtight layer and architecture.

None of these decisions are unusual.

The problem is that the home will behave as one connected system—even when the project decisions are made separately.

WHAT CONFIDENCE LOOKS LIKE

At the beginning of a project, not every detail needs to be finalised. But the important intentions, performance targets and assumptions need to be documented, coordinated and checked as the design develops.



A clear project brief

What comfort, fresh air, energy use and long-term performance should mean for this home.



A site + seasonal strategy

How orientation, sun, shade, wind and landscape are influencing the design.



A coordinated specification

Proposed windows, insulation, airtightness and ventilation - clear enough to review.



A continuous envelope sketch

How the roof, walls, floor, windows and doors form one protective layer.



A clear airtightness strategy

The airtightness layer, key junctions and responsibility for protecting it are identified before construction.



A performance review

Modelling or analysis that tests the design while meaningful options remain open.



A record of decisions

What has been agreed, why it matters, who is responsible, and what still needs to be resolved.

It is how good intentions become visible, testable and easier to protect. It gives the homeowner, designer and builder something clear to review, coordinate and carry forward.

Important decisions should exist somewhere other than memory.

SIX QUESTIONS BEFORE PLANS MOVE FORWARD

You do not need every technical answer.

But the important questions should no longer be invisible.

1. Has the home been considered for both winter and summer comfort?

Not only how much sun enters, but when it enters, where it falls and how the spaces will change through the seasons.

2. Are the windows and envelope being designed as one connected system?

Windows, insulation, airtightness and junctions should work together—not as separate specifications.

3. Is there a whole-home plan for fresh air, moisture and filtration?

The approach should account for bedrooms, wet areas, cooking, humidity, outdoor air quality and times when windows remain closed.

4. Has the design reduced energy demand before systems are selected?

Heating, cooling, solar and batteries work best when the home first requires less energy to remain comfortable.

5. Are the intended outcomes written down and supported by review?

Comfort, air quality and performance expectations should be visible—and checked through modelling, drawings or another clear process.

6. Is responsibility clear as the project moves toward construction?

Someone should be responsible for carrying important assumptions and decisions through documentation, pricing and the build.

An unclear answer does not mean the project is wrong.

It simply shows where another conversation or review may still improve the design.

The purpose is not to delay the project.
It is to protect it while change is still possible.

WHEN GUIDANCE ADDS VALUE

Guidance is most valuable while important decisions are still flexible—before assumptions become drawings, specifications and construction costs.

The site and concept are still forming

Orientation, room placement, glazing and shading can still respond to the climate and the way the family intends to live.

Key systems are about to be selected

Windows, insulation, ventilation, heating and cooling influence one another. Reviewing them together can prevent one decision from creating problems elsewhere.

Documentation and pricing are about to begin

This is an important point to confirm assumptions, responsibilities and unresolved details before they become embedded in quotes and contracts.

The project team needs a shared performance direction

A capable designer and builder may still benefit from someone holding the whole-home performance picture.

The role is not to take over the design. It is to clarify what matters, test the direction and help the project team move forward with fewer unresolved assumptions.

What my role adds

Your designer and builder shape and deliver the home.
My role is to hold the whole-home performance picture — using modelling, analysis, review and verification to check whether comfort, fresh air, moisture control and low energy demand are being protected as the design develops.
The goal is not to take over the project. It is to help the team make better decisions earlier.

Early guidance does not add complexity.
It helps prevent it.

A CONSIDERED FIRST STEP

Every project reaches a point where important decisions become harder to change. Before that happens, it can be useful to pause, understand what the design is trying to achieve and identify which questions still need an answer.

A Clarity Call is a short introductory conversation to understand where your project is now, what you want the home to achieve and whether specialist Passive House guidance would add value.

Clarify what matters most

The comfort, fresh air, energy and long-term performance outcomes you want the home to support.

Identify the next sensible step

Whether early review, modelling, Passive House guidance or a more structured pathway would add meaningful value.

Every project benefits from a clear performance brief, considered design decisions and a process that protects those decisions through construction.

BOOK A CLARITY CALL
A clearer direction begins
with one good conversation.

Scan QR code or visit:
thepassivehouseway.com



