



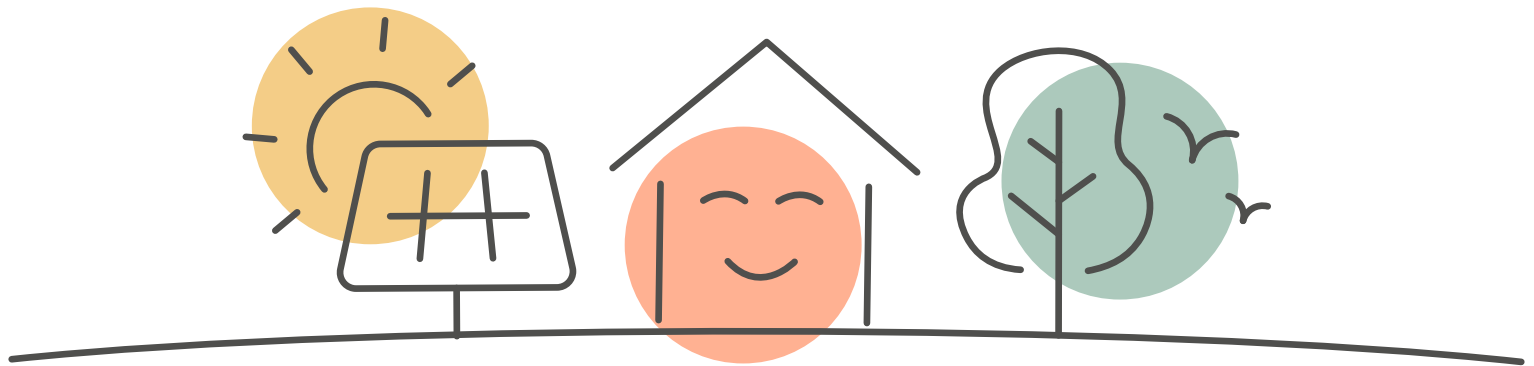
AN OPPORTUNITY TO BUILD BETTER

Zero Energy Home Guide



WOLFWORKS

BUILD A HOME THAT IS COMFORTABLE, HEALTHY, DURABLE AND ENERGY SECURE



If you are planning to build a new home you have an unprecedented opportunity to create a haven that is the most comfortable, healthy, durable, and energy secure you have ever lived. Not only that, you'll be harvesting the sun to produce all the energy you and your home require.

Your new home will be designed and crafted to fit your life. It will be a home of lasting beauty that performs exceptionally while delighting the senses.

Wolfworks is a team of architects and builders collaborating as one to provide you with the information you need, plus the guidance, you're missing to achieve that result.

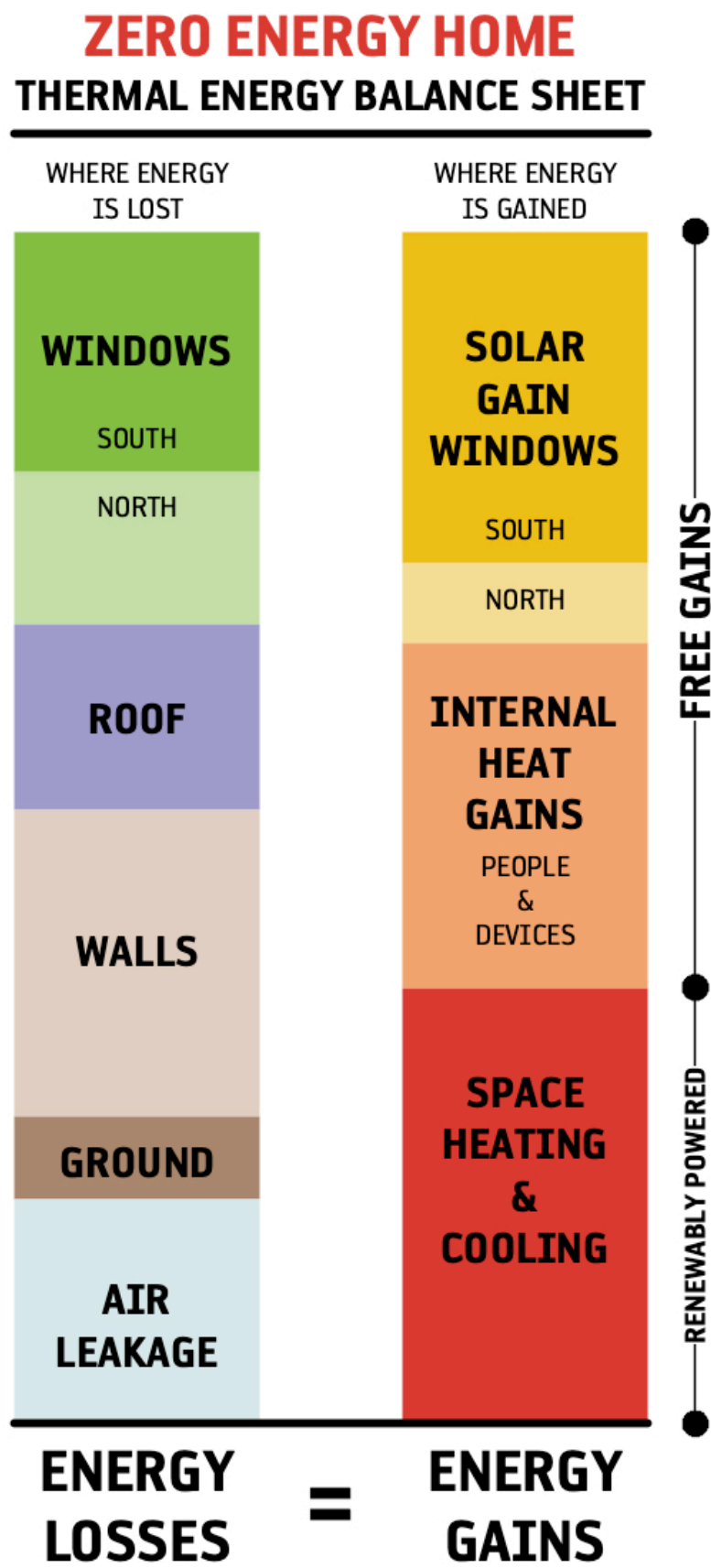
A two-story house with dark blue horizontal siding and white trim. The roof is covered with dark solar panels. There are several multi-paned windows on both floors. In the foreground, there is a garden area with wooden planters and a stone retaining wall. The background shows lush green trees under a blue sky with light clouds.

Net Zero: What it is & Why it Matters

When we build, we have the chance to make the important decisions that will bake in the size of a home's energy load. We begin by recognizing that energy is precious, and treat it that way.

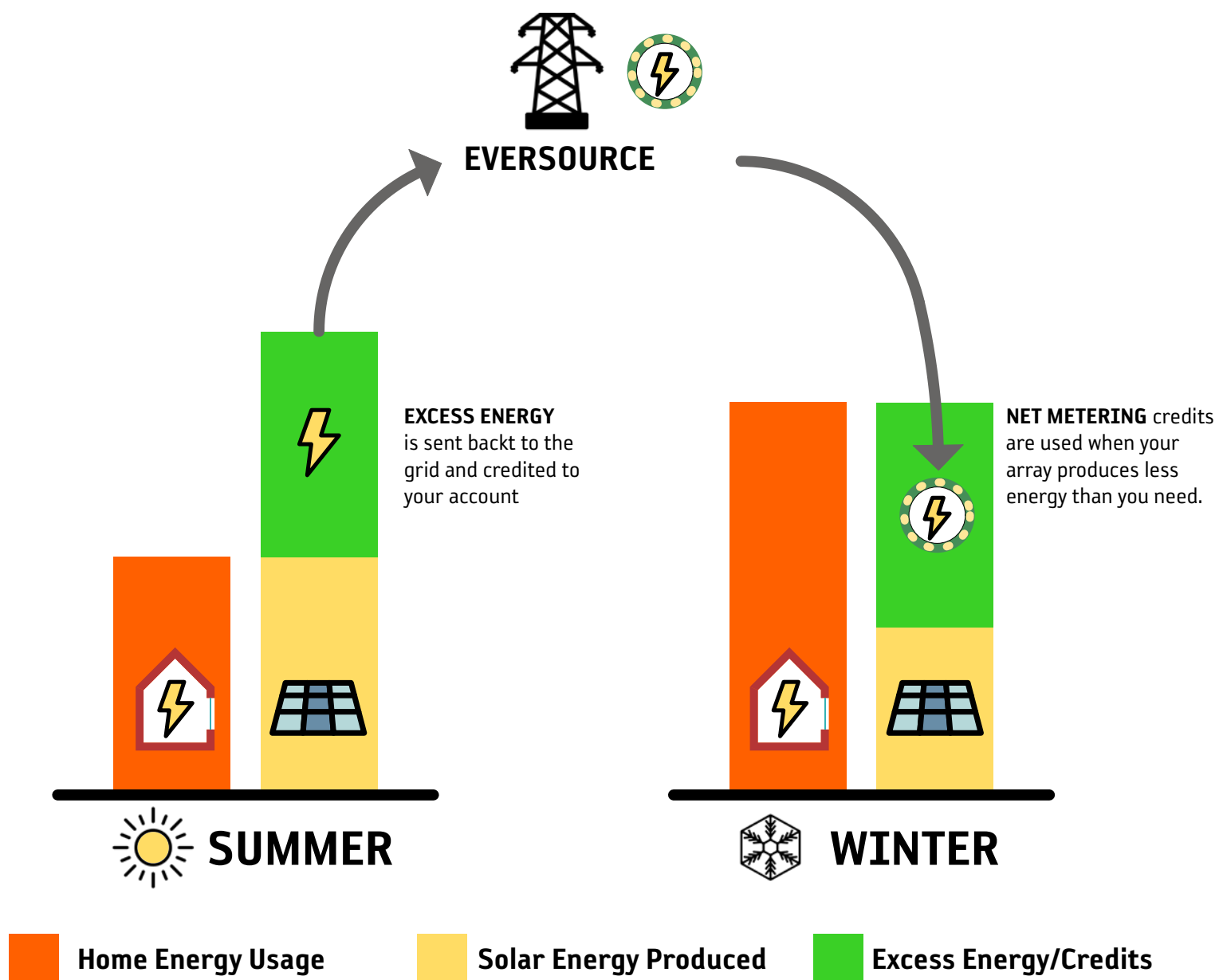
We can design and construct the home to work like a thermos to retain energy. We're miserly. We also design with sun sense, harvesting free solar energy with rooftop solar panels and strategically placed high performance windows.

REDUCE THEN PRODUCE
EVERYTHING IN BALANCE



Every home maintains an energy balance sheet. We must supply all the energy the home uses and loses on a given day. The losses must be be matched by gains. You can strategically minimize those losses by building differently, and maximizing free gains by harvesting the sun. You end up with a winning equation. By reducing your load we can produce the energy you need from the sun.

Net Zero means generating as much energy as you use



An annual energy cost of zero requires some banking. We use the most energy in the winter when days are short and the sun is lower in the sky. We produce the most energy in the summer when the days are long and the sun is high. We feed the summer excess to our Eversource "savings account" and draw against it over those cold winter months. We size our solar harvesting system to maintain that annual balance. This is the "net" in Net Zero.

Energy Security

By baking in, thus locking down, an annual energy cost of zero you are insulated from the turbulence of an unpredictable and uncertain energy market. Your energy cost remains at zero next year, next decade, and even next century.

We call this energy security.

Do you think the next owners will value that?

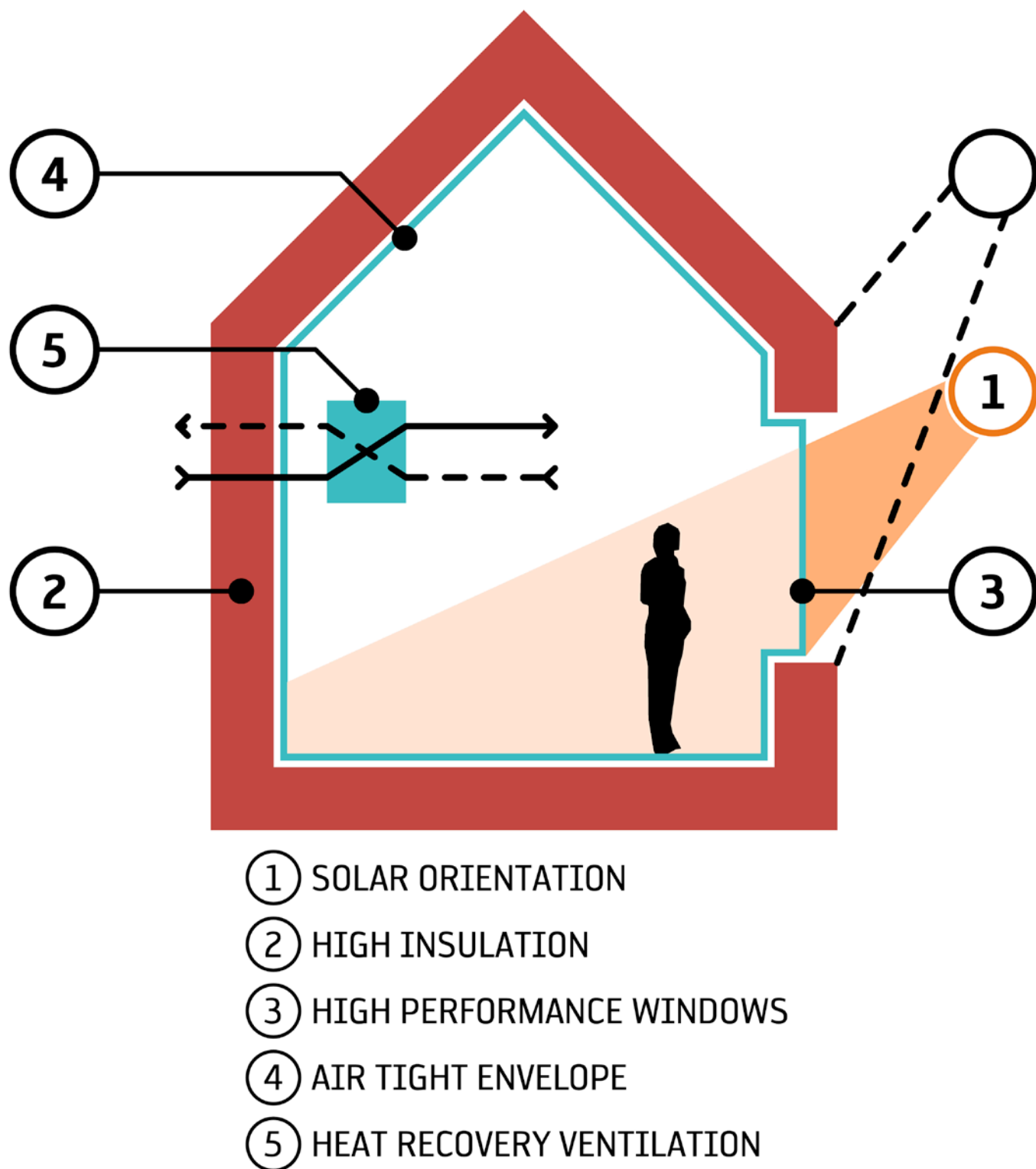


ZERO ENERGY HOME BASICS

This is the art and science
of high performance
building.

It relies on the integrated
performance of designers,
builders, building
materials and technology.

These essential features and techniques of high performance building must be designed for so each is built and thus baked in.



+ Orienting a building toward the “free energy” we receive from the sun

+ A “right sized” building with enough but not more space than you need.

+ Building a shell that retains heat like a thermos (we call this the building envelope)

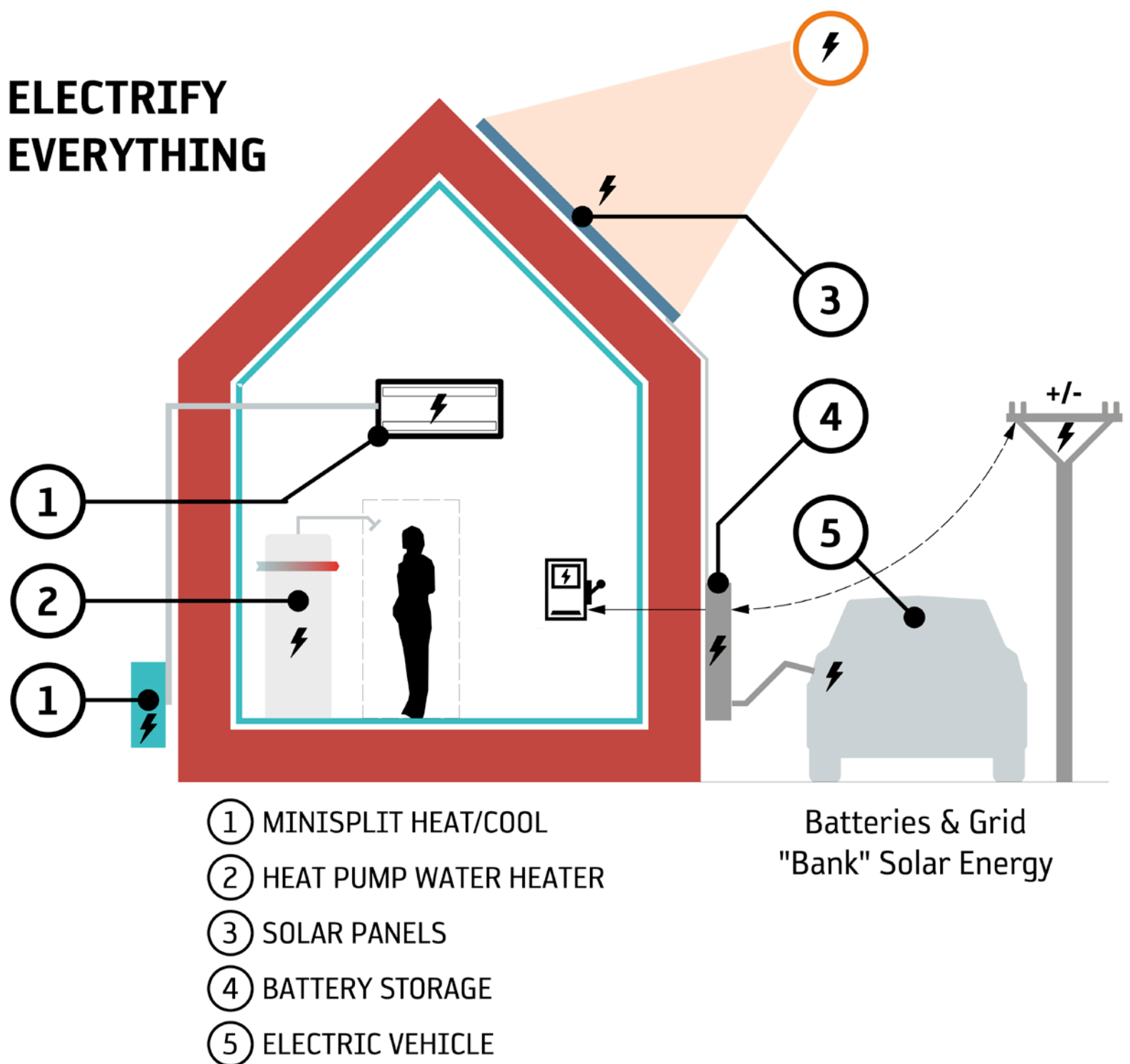
+ Making the building air tight – so we don’t leak energy .

+ Capturing free solar energy thru windows that preserve more energy than they lose.

+ Balanced heat recovery ventilation – the home’s “lungs” provide constant healthy fresh air

Live Better Electrically

Harvest and store clean solar energy



Homes powered by the sun use electricity to meet every need, clean renewable energy rather than polluting fossil fuels. As we make this necessary transformation in our energy economy we are also transitioning to electric vehicles and battery systems that can provide sustained backup power. These systems fit together perfectly with a Net Zero Home.

High Performance is Designed, then Built in



REDUCE • PRODUCE • STORE

- + Heat and cool with small and efficient heat pumps – they use the equivalent of a couple blow dryers
- + Energy efficient electric heat pump water heater
- + Choose energy efficient lighting, appliances, household equipment, and hot water
- + Satisfy all these needs with a rooftop solar array that provides all the energy we require on an annual basis
- + Solar energy is “banked” with Eversource as energy credits and debits are accounted for and equal “Net Zero” annually
- + Battery storage (our “piggybank”) charged by the sun is sized to serve selected building energy loads.
- + Electric Vehicle batteries can be integrated into our solar electric banking system.

Comfort & Health baked in

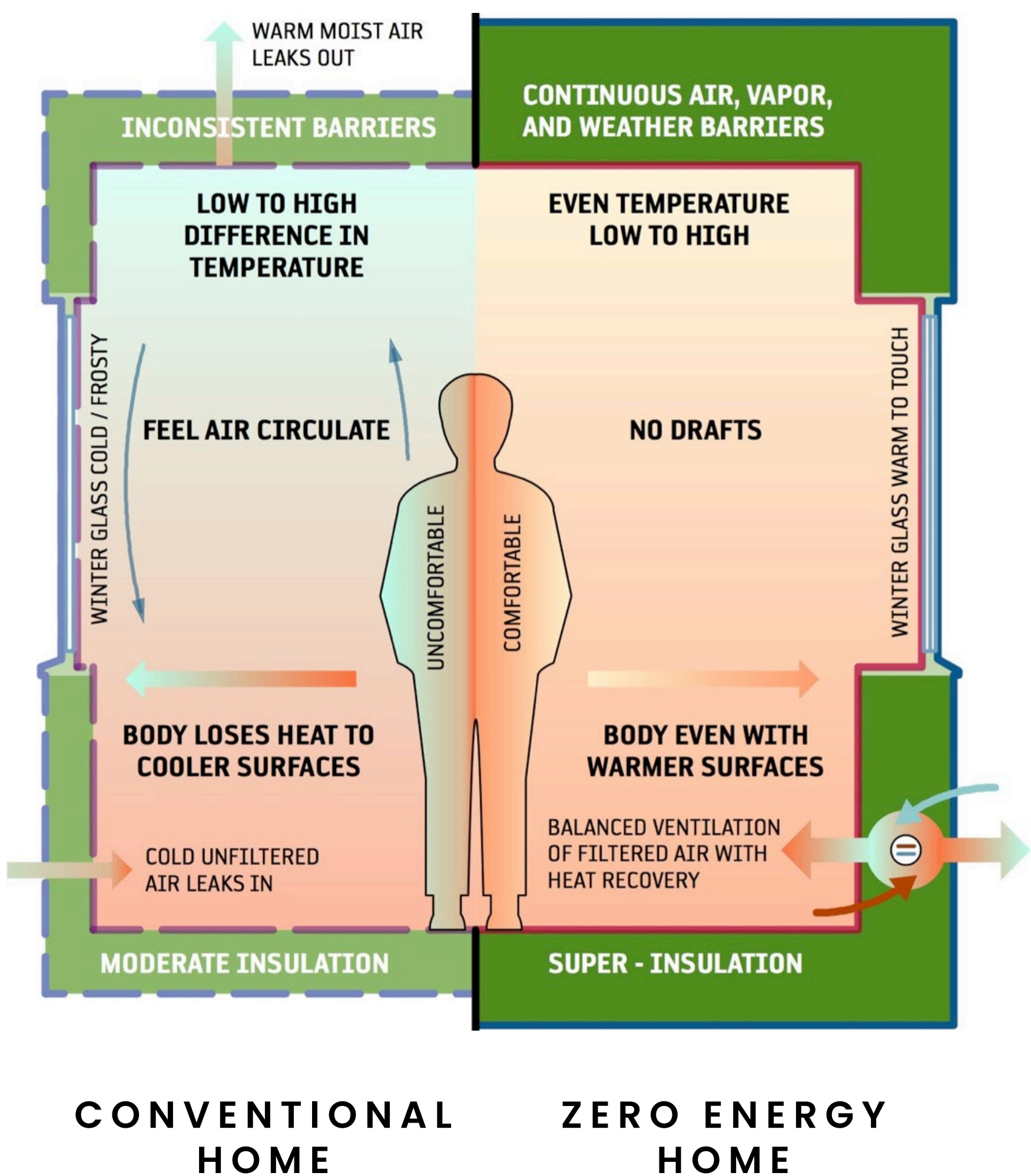
One of the most satisfying benefits of building differently is a quality we call "barefoot comfort." Temperatures are consistent in every room in the home. There are no drafts and the air is fresh and filtered.



Conventional homes (the ones most of us live in) have modest levels of insulation, randomly leak air, and can be seasonally uncomfortable, in part because there are drafts and our bodies lose energy to cold surfaces. High performance Net Zero homes bake in the features that assure they are consistently comfortable, healthy, durable, and energy secure. Once we know how to build better, why would we ever build the old way?

Designed to be Different

The features that assure the house is consistently comfortable, healthy, durable, and energy secure apply the fundamental principles of building science to assure that performance is baked in to work as a system.



Designing Impact

**Guided by the understanding that
what we build has consequences**



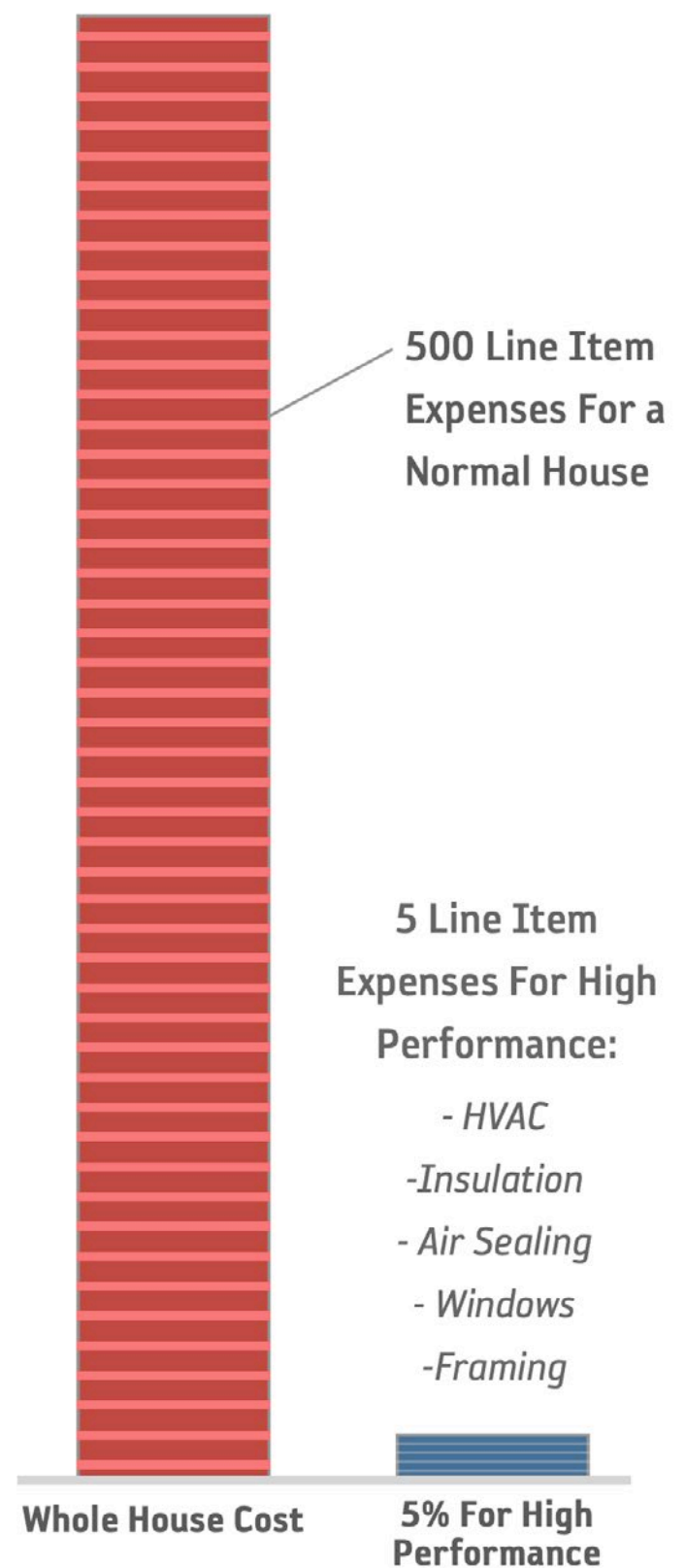
Graceful and inviting spaces matter. And how our homes perform matters, not just to us, but to the world of which each home is a part. We expect to be conscious of the impact beyond its walls, to its yard, its neighborhood and town, and our shared planet; and from soil to sky. We try to remember that what and how we build has consequences. We try to understand and be guided by how that matters.

What's Possible at What Cost?

In every project we are always asking this essential question. Design shows what we intend to build. Budgets link that to cost. To build a high performance home we invest in air sealing, more insulation, and better windows. There is some additional framing, but also a much smaller and simpler mechanical system. Of the approximately 500 items every home includes, we make an additional investment in five of them adding approximately 5% to the total cost.

The PV system, subsidized with rebates and tax incentives, requires an investment of \$10–20K – though there are also lease options. Battery storage and integration with electric vehicles are other investment options.

What you are buying with these up front investments is a predictable energy operating budget of zero! That level of performance is now embedded in the building for as long as it lasts.





Collaboration & Communication

None of this happens without the skilled tradespeople who show up to assemble the parts. None of that happens without an experienced project manager who knows how they go together. While much is familiar there are important differences between conventional and high-performance building and consequently there are additional details to attend to.

As Wolfworks project manager Janet Downey explains, “I’m the one working with all the subs to be sure it all gets done correctly. Some of this is new to them so I end up doing a lot of educating. Once I get it to click for them they get pretty excited about what we are able to do and the part they play. It’s not anything they can’t do or understand, but it does require them to pay attention to details they really weren’t thinking about before, especially related to insulation and air tightness.”

We integrate design with construction to create value. We engage building intelligence and experience while we are designing, and the architect is always available to clarify details and strategize together with those building once construction begins.



**“After you work with
Wolfworks your
expectations become
bigger. You never see a
house in the same way
again. Our house looks
exactly like what we
imagined, but it works
better than we knew it
could.”**

— Doug & Dina

Let's Get Started



WOLFWORKS

The journey begins with a readiness to act.

When you're ready, we've designed a process of feasibility and orientation that applies our Better Home guidance to your journey to that better home. Our Project Snapshot is designed to provide you the information you need and the guidance you are missing to move forward with confidence.



PROJECT SNAPSHOT



We've cleared your path

Your Project Snapshot provides you with the clarity you're seeking to confidently begin designing, and eventually building your better home. In this meeting you will:

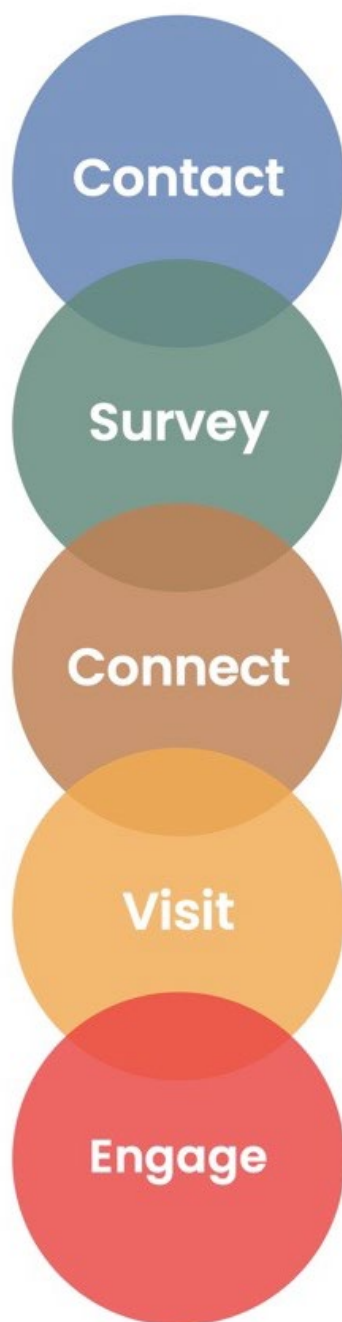
- Establish an “eyes wide open” understanding of the budget framework for designing and building your project
- Gain insights that bring the project opportunities and challenges into focus
- Receive an orientation to how design is integrated with construction to clear your path to a great home
- Have a roadmap and itinerary to lead your way
- Receive your Project Snapshot report, providing the information you need and the guidance you're missing to gain the confidence to begin designing

Contact

jen@homesthatfit.com

or call 860-676-9238

5 STEPS THAT MOVE YOU FORWARD



Once you contact us our guidance begins

You'll introduce us to the project you're considering

You'll connect with the design team via zoom, or phone if you prefer

We'll meet to provide project feasibility and orientation and present your Project Snapshot Report

We'll invite you to an online hub just for your project to continue to engage

**Let's work together to create
a **Better Home** for a **Better Life**
while reducing our impact for a
Better Planet**



Design & Build Your Zero Energy Home



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