

**RESOURCE**

How RetrofitROI Builds an Answer

Every engine on this site follows the same underlying discipline: a transparent, editable calculation built from your own inputs, using a named methodology, with clearly stated boundaries on what it does and does not claim to know. This resource lays out that discipline directly, using a handful of engines as examples of how it applies in practice.

Deterministic math, never a black box

The [whole-home electrification payback engine](#) runs the exact same simple-payback and comparison formulas documented in the methodology registry that every other engine uses. Nothing is estimated by an opaque model; every number traces back to a formula you can inspect on the [methodology page](#).

Editable defaults, not hidden assumptions

The [rooftop solar payback engine](#) ships with reasonable planning defaults for every input, each labeled with its source, but nothing is locked. If you know your actual installed cost or rate differs from the default, changing it changes the answer immediately, with no separate "advanced mode" required.

Rate structures modeled honestly, not approximated away

The [time-of-use versus flat rate engine](#) models the actual billing structure it is comparing rather than collapsing everything into a single blended rate, since a real time-of-use or demand-charge bill does not behave like a flat-rate approximation.

Total-cost comparisons, not sticker-price comparisons

The battery versus generator total cost engine compares two options on upfront cost plus ongoing cost over your ownership horizon, the same total-cost discipline applied throughout the site rather than comparing only the initial purchase price.

Comparisons that respect what a fuel or equipment choice actually changes

The heat-pump versus standard electric water heater engine isolates the specific equipment-type comparison it claims to answer, rather than bundling in unrelated factors like financing or incentives that belong in a separate, more targeted engine.

What this method deliberately will not do

It will not size equipment, determine code compliance, verify incentive eligibility, or replace a contractor's quote or a professional energy audit. Every engine's claim boundary states this explicitly, because a purchase-economics tool that quietly overstepped into sizing or compliance territory would be making claims it cannot actually stand behind.