

Three-Cycle New-Home Performance-Gap Worksheet

Use this worksheet after move-in when billed utility use appears higher than an energy model, rating, estimate, or builder expectation. It is a homeowner record for deciding the next handoff. It is not an official inspection, energy audit, calibrated model, meter test, code document, warranty interpretation, or proof of a construction defect.

1. Identify the home and decision

Field	Entry
Service address	
Move-in date	
Utility or fuel	Electricity / natural gas / propane / other:
Account and meter identifiers, if shown	
Model or rating document and version	
Current decision	Monitor / utility review / installer review / builder-warranty notice / independent assessment
Warranty or notice deadline and jurisdiction	

2. Record each billing cycle exactly as shown

Field	Cycle 1	Cycle 2	Cycle 3
Utility start date			
Utility end date			
Days billed			
Read type: actual / estimated / other			
Physical use and unit			
Variable energy charge			
Fixed, delivery, demand, tax, credit, or adjustment lines			
Total bill			
Utility case number or correction			

Keep the full bills with this sheet. Do not replace the original with a manually edited total.

Safety boundary: what this worksheet cannot diagnose

This remote bill-and-model comparison cannot diagnose indoor-air contamination or combustion products, including carbon monoxide, mold, radon, or particulates. It cannot identify or remediate those conditions. If a carbon-monoxide or smoke alarm sounds, anyone has acute symptoms, or there is an immediate combustion or air-quality concern, leave the area and contact the appropriate emergency service or utility from a safe location; do not re-enter until an emergency responder or qualified professional says it is safe. For a suspected mold, radon, particulate, or other indoor-air issue without an immediate emergency, stop using this worksheet as a diagnostic, avoid disturbing the suspected source, and arrange qualified testing through the actual state or local jurisdiction or its public-health guidance.

3. Record context for the same dates

Context	Cycle 1	Cycle 2	Cycle 3
People sleeping in home			
Vacancy or partial-occupancy dates			
Work-from-home or guest changes			
Thermostat heating setpoint and schedule			
Thermostat cooling setpoint and schedule			
Fan, ventilation, humidity, or boost mode			
Portable heater, dehumidifier, EV, workshop, freezer, or other unusual load			
Heat-pump backup/auxiliary indicator or other visible mode			
Water-heater mode or known hot-water change			
Filter reminder, error code, outage, or service visit			
Heating degree days			
Cooling degree days			
Weather or access notes			

Only record equipment observations that are visible from a safe, accessible location. Do not open electrical panels, gas appliances, refrigerant circuits, meters, or confined spaces.

Do not test, open, release, or alter pressurized gas, refrigerant, hydronic, plumbing, or duct systems. Do not attempt remote pressure diagnosis from a bill, photograph, sound, or runtime graph, including static-pressure, blower-door, combustion, venting, refrigerant-charge, hydronic-pressure, plumbing-pressure, or duct-pressure conclusions. Use a qualified professional who follows the licensing, permitting, safety, and other requirements of the actual state or local jurisdiction for those systems and measurements.

4. Match the model

Model field	Model record
Modeled period	
Modeled fuel and unit	
Modeled use for Cycle 1	
Modeled use for Cycle 2	
Modeled use for Cycle 3	
Weather location or file	
Occupancy and schedule	
Thermostat assumptions	
Equipment and control assumptions	
Included and excluded loads	
Site energy, source energy, cost, rating, or other metric	
Person who supplied or explained the model	

If a model value is annual, do not copy it into a monthly row. Ask the modeler for a matching period or mark the comparison "not comparable."

5. Calculate the screening gap

Use the utility's stated billed days and keep the units consistent.

daily use = billed use ÷ billed days

absolute gap = actual use - modeled use

percentage gap = (actual use - modeled use) ÷ modeled use x 100

Calculation	Cycle 1	Cycle 2	Cycle 3	Three-cycle total
Actual use				
Modeled use				
Absolute gap				
Percentage gap				

Label every result "screening gap." The result does not prove a defect. If the home uses more than one fuel, calculate each fuel separately before considering a Btu comparison. Preserve the utility's own gas conversion and tariff lines.

6. Select the next handoff

Evidence pattern	Send to	Ask for	Record the response
Dollar total is high but physical use is ordinary	Utility	Account, read, tariff, adjustment, and meter verification	Case number, written explanation, correction
Physical use is high but dates, weather, occupancy, or model basis differ	Builder, rater, or modeler	Matching-period comparison and input review	Changed inputs, output, and limits
High use persists and one equipment mode dominates	Equipment installer	Scope-specific testing and control-sequence explanation	Measurements, codes, work order, follow-up
High use persists across comparable cycles	Builder or warranty administrator	Written notice and defined building/system investigation	Notice proof, scope, responsible person, deadline
Records or responses remain incomplete or disputed	Independent energy professional	Defined audit, diagnostic, or model-calibration scope	Raw data, report, limits, next handoff

7. Handoff record

Item	Entry
Recipient and organization	
Date sent and delivery proof	
Exact question asked	
Documents attached	
Safety or access limits stated	
Response received	
What was verified	
What remains unknown	
Next action and owner	
Next review date	

Source and scope note

DOE explains: <https://www.energy.gov/cmei/buildings/about-building-energy-modeling> that building-energy models use building, equipment, control, occupancy, schedule, and weather inputs. EPA's Yardstick: <https://www.energystar.gov/campaign/home-energy-yardstick/how-it-works> uses actual bills with weather, size, and occupant context but says it does not replace a professional audit. NOAA's National Weather Service guidance: https://www.weather.gov/key/climate_heat_cool explains degree days and warns that billing periods may not match calendar months. EIA defines kWh and therm units: <https://www.eia.gov/energyexplained/units-and-calculators/index.php>. FTC advises checking the actual new-home warranty: <https://consumer.ftc.gov/articles/warranties-new-homes> and making claims in writing while keeping records. Use these source links and the actual utility tariff, model, manuals, certification documents, contract, warranty, state, and local rules for the home.