



# Builder and Homeowner: Building Efficient and Resilient Homes Quick Reference Guide

## Check for Utility, State, and Federal Rebates

Recently passed legislature has made it more cost effective to build energy efficient homes. Click on the blue links for details.

- [Inflation Act](#): Benefits to be released in the next year.
- [CO Codes Bill](#): Up to \$11 million to support clean air investments for communities with a focus on incentives for lower income households.
- [Xcel Energy](#): Home rebates for HVAC equipment, insulation, smart features, EV chargers and more!

### Build Resilient

- Tight air-sealing in exterior building envelope to reduce wildfire smoke infiltration
- Install balanced ventilation (ERV/HRV)
- Use high R-value insulation for opaque assemblies and low U-value window assemblies to retain the indoor temperature
- Plan for on-site solar with battery storage to reduce grid dependency

### Design for [Passive Solar Heating and Cooling](#)

- Orient the windows to allow for solar gain
- Design walls or floors to retain heat as a thermal mass for natural thermal conditioning
- Distribution mechanism to move heat throughout house
- Thermal Control strategies including overhangs, blinds, or differential thermostat

### Heat Pumps for Space Conditioning and Water Heating

- Cold climate heat pump market availability is increasing
- Less maintenance and higher safety
- Heat pumps can provide cooling and replace the air conditioning unit
- Consider indoor and outdoor spacing requirements for a heat pump installation
- Ensure proper system sizing to maximize efficiency

### Build Solar Ready Roofs

- Less cost to add infrastructure and wiring upfront than to add PV infrastructure later
- Optimize roof pitch direction for best solar exposure
- Ensure the additional roof load is documented on the plan set
- Consider surrounding buildings and trees that could impact shading
- Minimize and group together the rooftop equipment

### Ensure Electrical Panel has Room for Expansion

As additional electric loads may be needed over the life of the home from:

- Electric vehicle charging
- Heat pumps
- Solar panels

### Build Smart

- Install grid integrated HVAC systems and appliances to be controlled and monitored for consumption
- Reduce energy waste and operating costs by signing up for your local utility demand use program

### Install Low-Flow Fixtures to Save Water

- [EPA WaterSense](#) recommended fixtures

### Install Efficient Appliances

- [Energy Star](#) energy efficient products or even the [Energy Star Most Efficient](#) list

### Utilize [Greywater](#) from

- Bathroom and laundry-room sinks
- Bathtubs/showers
- Laundry machines

### Use the [Colorado Codes Helpline](#)

Submit your questions on building codes, reach codes, how the building codes interact, or how to comply and an expert will reply in 2 days!

## Visit the [Code Adoption Toolkit](#) for additional free resources!

Webinar recordings, significant code change summaries, cost impacts, troubleshooting guides, and more!