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Builder Tips for Successful Green Roofing

[Normal View](#)



Greening a home goes above and beyond just replacing windows and installing a programmable thermostat. Energy efficiency can be found in all facets of the home — from the foundation to the roof.

Here are a few tips that builders and remodelers can implement when doing roofing work to make the home greener and the home owner happier.

Recycle. The average roof is many thousands of pounds of material — the weight of several years' worth of household trash. No matter what roofing material is being removed, with rare exceptions, it can be recycled.

Perform an energy audit. Why not have an energy audit performed in conjunction with a re-roofing project? Since the time the house was built, this is probably the best chance to make significant energy improvements. When the roof is off, a contractor can work from the top down and improve the attic air barrier, seal around can lights and bath fans, make sure there isn't wind wash around soffit vents, and check the energy performance of the home generally. It's not uncommon to save double digit percentages on utilities after an improvement like this.

Ensure proper attic ventilation. Take this time to make sure the attic is working the way it should. Most attics are designed to maintain a temperature as close to the outdoor temperature as possible, with vented areas along the eaves feeding in air, which is then vented along the ridgeline of the roof. This acts to steadily move air through, which keeps things from heating up, and clears out any moist air from the living space that does make it through the into the attic through the air barrier. Especially with today's more cut-up rooflines, it can be challenging to provide adequate ventilation, particularly in designs with less ridgeline. In these situations, it can make sense to add an additional powered attic vent. Conversely, if the attic is conditioned space, detailing of the insulation in the attic is extremely important.

Install a solar-ready roof. Most residential solar installations go on the roof to keep them out of the way, get good sun exposure, and keep them close to utility connections. However, it is very common to find a plumbing vent running right through that perfect southern exposure. To prepare a roof, make sure there is no clutter running through the ideal southern exposures of the roof. You can also add additional leak barrier in the areas where penetrations for utility connections would go. It may also make sense to add



chases in the attic and into the home, or at least scope out appropriate places for them. And make sure to tack a drawing showing where you placed extra leak barrier and made other preparations to the attic wall so there's a record onsite.

Consider cool roofing. This roofing material preferentially reflects the infrared spectrum – the non-visible, heat-carrying portion of the light spectrum. This means the roof can be an attractive, medium or dark color to the human eye, but still reflect more heat away from the home than conventional roofing. In many parts of the country, for air-conditioned homes — and especially those with A/C ducts that run in the attic — cool roofing will save enough energy to justify the extra expense, and will help to reduce the urban heat island effect.

Make it a durable, efficient, properly detailed roofing system. The number one job of the roof is to keep the rest of the home dry. The individual elements alone will not do it and that's why the system is so important. A strong wood deck in good condition should be followed by a leak barrier, peel and stick self-healing waterproofing applied at critical areas, generally at least along the eaves, valleys, and rakes , a quality roofing underlayment, step and kickout flashing, and lastly the roofing material itself.

If you follow these six steps for your next re-roof project, you'll have gone a long way towards greening the home - reducing material impacts and improving energy efficiency.

For more information on energy-efficient roofing, visit NAHB's [Leading Supplier Council](#) member GAF at <http://www.gaf.com/>.

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