

Attic Insulation Best Practices

The ultimate goal of performing a home performance retrofit project is to increase the safety, comfort, health, and energy efficiency of the home. To accomplish this goal, a Participating Contractor usually must teach a homeowner about how his or her home actually “performs” given its size, construction, layout, and equipment systems.

IMPORTANCE OF UPGRADING THE ATTIC FLOOR

One of the most perplexing aspects of home performance for a homeowner to understand is the role of insulation, including how insulation works both on its own and in conjunction with air sealing. The contractor should educate the client about why SMUD recommends that air sealing be completed as part of each home performance job. The contractor should explain why abiding by that recommendation may require the removal of improperly installed, dirty, wet, or contaminated insulation, and may require completing proper air sealing in the attic, especially on the attic floor.

When to remove or re-use the existing insulation

SMUD highly recommends that the Home Performance program Participating Contractor not re-use existing insulation as part of an energy upgrade. Instead, SMUD recommends that contractors remove existing attic insulation, decontaminate and air seal the attic, attempt to identify and seal entry points for rodents, and install new insulation. However, SMUD recognizes that many homes contain insulation that is relatively new (likely within four to five years of installation), largely effective, and uncontaminated. If that is the case, SMUD allows such insulation to be re-used and combined with new insulation to meet the HPP’s R-38 target.

Depending on the condition of the insulation and the amount of air sealing that needs to be conducted to meet SMUD air infiltration targets, it may be necessary to remove some or all existing insulation to access the attic floor, after which the insulation could be replaced or reinstalled and supplemented with new insulation to reach R-38. SMUD requires that existing insulation that is contaminated (e.g., wet, dirty, containing rodent detritus) be removed from the home and disposed of, the attic must be cleaned, and the new insulation installation must meet the HPP R-38 requirement.

SMUD’S HOME PERFORMANCE PROGRAM INSULATION REQUIREMENTS

When insulation is re-used, it should be specified in the project’s work scope, supported with pictures showing *all existing attic insulation areas* to help the program administrators confirm that the existing insulation is safe and uncontaminated. The purpose of this process is to avoid contractors having to return to a job to remove attic insulation if the program verifiers find the existing insulation contaminated and determine it should not have been re-used.

Ultimately, this will save contractors time and money by helping them do the work correctly from the beginning. However, if contaminated insulation has been re-used without reporting it to SMUD and the program administrators, a post-retrofit verifier will examine the project’s work scope and will likely move the attic insulation to determine whether existing insulation was re-used and whether the installation meets SMUD’s HPP insulation requirements.

As this determination may be subject to interpretation, the verifier will document his/her concerns about the insulation through photography. The verifier’s report will be reviewed by the program administrators and will be provided to the Participating Contractor with any required corrections as well as general and specific feedback.

While SMUD does not mandate that all existing attic insulation be removed as part of an HPP retrofit, SMUD believes that it is (1) in a Participating Contractor’s best interests to educate homeowners about both the benefits of insulation replacement and possible detriments associated with re-using existing insulation, and (2) in a homeowner’s best interests to replace existing less effective and/or contaminated insulation.

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