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Solar screens top honey-do list

An easy way to provide shade without blocking views

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Living Green

My next honey-do found me last weekend. While sitting at the breakfast table enjoying my second cup of coffee, I noticed that even though it was not quite 8 a.m., my chair seat was already getting a little sticky and a good sweat was starting on my upper lip. A few weeks earlier, the kitchen's east facing windows let in welcomed light and warmth to start the day, but now that same area felt like a heat-lamp warming tray at a fried chicken joint.

Exterior shading of a home's walls, windows and skylights in the summer is one the first and best ways to keep inside temps comfortable and save on the cooling bill. As I've discussed before, heat energy that never comes into the home does not have to be removed by expensive mechanical equipment. Interior blinds and shading work well for privacy and, to some extent, to prevent radiant heat loss in the winter.

In summer, interior shades are merely a road bump for the massive heat load penetrating window assemblies. The air at the space between the shade and the inside of the window quickly heats up (similar to a solar collector panel), and begins to rise and move creating a convective current. This heated air quickly moves up and away from the window and into the living space of your home – now your air conditioner has even more work to do. Exterior shading blocks this solar energy from ever contacting window glass or frames, and greatly reduces the radiant and convective heat load entering the home.

Effective exterior shading of west and east facing areas can be accomplished in many ways. Strategically placed trees and vegetation work great, but can take a few seasons for plantings to reach a size that will do the job. Arbors, patios and porches are often used to shade key exterior wall areas, but high installation costs can quickly come in to play.

With our beautiful mountain views, many Las Cruces homes are oriented facing east and west. This reduces the shading effect from patios and overhangs due to the low angle of the morning and afternoon sun.

Solar screens are an easy way to block the sun, keep excess heat out of the home and reduce monthly electric bills.

Exterior mounted solar screens are a great low-cost method of solving exterior window shading problems. Solar screens make a great do-it-yourself, honey-do project (I should know even more about it this weekend) – or you can use a local installer.

Solar screens come in many styles, types and colors. Mechanical retractable shades are hand or motor operated and can be raised or lowered quickly depending on daily or seasonal weather changes. Fixed solar screens look like and install similarly to typical insect screens. The key difference being that the solar screen material blocks up to 90 percent of the sun's energy.

In preparation for my project, I found there are some decisions to make. You can choose solar screen frames that match your existing window frames and house colors. The most commonly available are white, bronze and tan. The solar screen material itself is also available in a range of shades from white to tan and from charcoal to black. With these choices, you can either match the siding color of the home or choose to have a contrasting look – just keep in mind that the darker screen material (like charcoal or black) gives better visibility from inside to the exterior.

You can select from a range of shading coefficients – this is the percentage of solar heat gain that is transmitted to the interior through the glass and shading system to the interior. The lower the number, the less solar heat will enter your home and the lower your cooling bills will be.

Many of our local and big-box hardware stores carry solar screen material and frame assembly components. Call ahead to see if they have the colors and types you need for your project. There are dozens of online sources that can supply DIY information and solar screen kits. You can build your own or take measurements and have them shipped to you pre-assembled.

Local window, shade and awning and remodeling contractors provide complete design, assembly and installation of solar screens – in case you don't have room on your honey-do list this summer.

El Paso Electric Co. also recognizes the energy saving potential for exterior shading and offers a rebate for the installation of solar screens for its New Mexico service areas. The rebate is $1 per square foot of solar screen installed at east or west facing windows. You can see the details at www.epesaver.com.

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