VAIL VALLEY HOME

REAL ESTATE & MOUNTAIN LIFESTYLES | SEPTEMBER 2016

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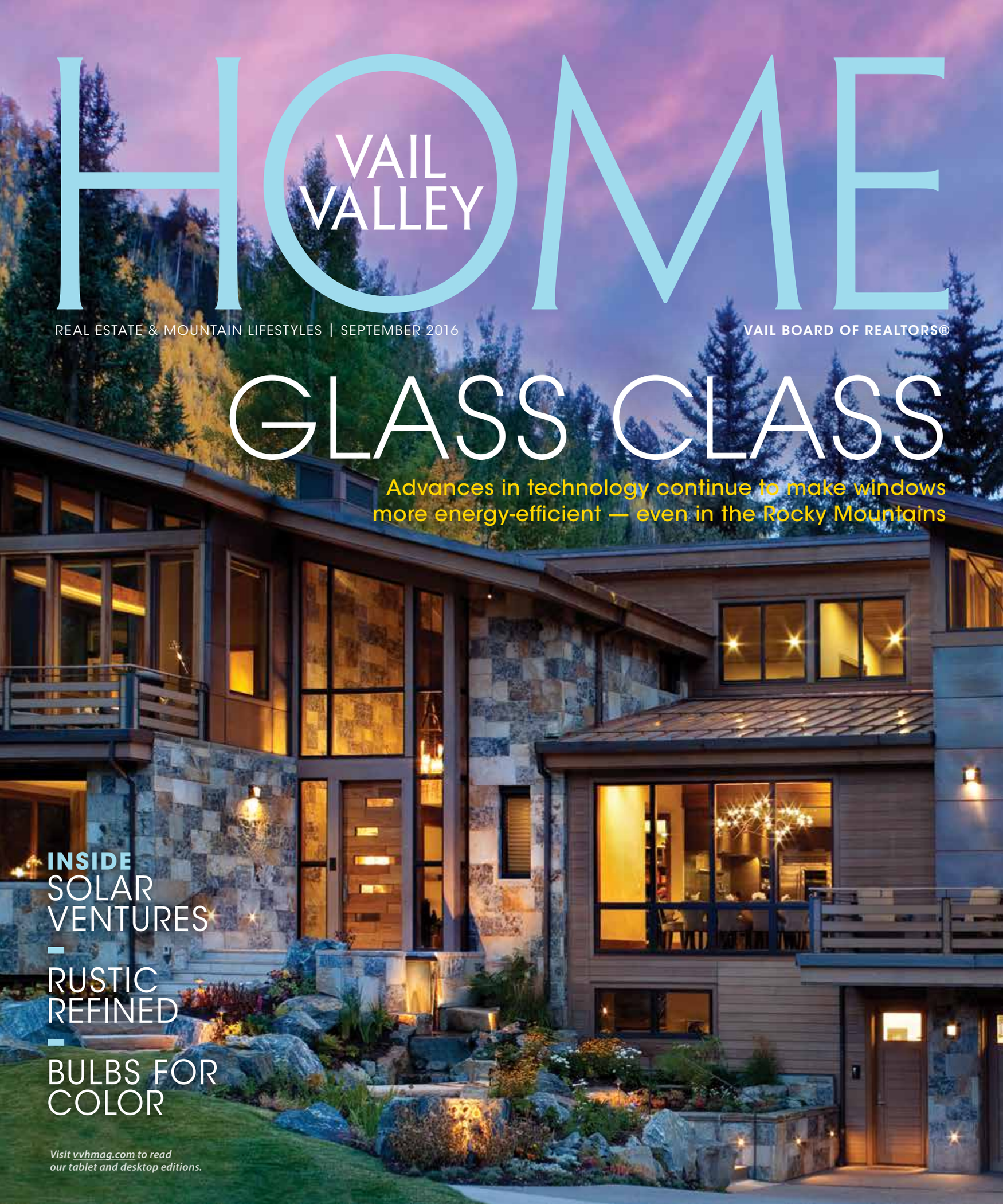
Advances in technology continue to make windows more energy-efficient — even in the Rocky Mountains



INSIDE

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BOOSTING YOUR SOLAR ELECTRIC

High Country homeowners have more reasons than ever to build their own solar arrays

BY STEPHEN LLOYD WOOD

Arrays of solar photovoltaic, or PV, panels are becoming more affordable than ever, providing homeowners in the Vail Valley a multitude of reasons to install them on or near their home.
PHOTO COURTESY ACTIVE ENERGIES, INC.

This home on Beaver Dam Road in Vail is on the leading edge of solar technology, with an of photovoltaic panels on the roof and a residential battery system to store electricity.
PHOTO BY GIBEON PHOTOGRAPHY

Just a decade ago, spotting solar panels on the roof, or in the backyard, at a home here in the Vail Valley, especially a high-end, luxury residence, was a rare occurrence.

As energy prices were skyrocketing amid a volatile national economy, homeowners were unsure whether to invest in their own solar installations, most of them choosing to stick with traditional means for electricity, instead.

All that has changed.

Now, in a rising economy, and for other reasons, prices for residential solar packages have dropped considerably, making financing such opportunities a reasonable proposition for many homeowners looking to jump onto the "green," energy-efficient bandwagon.

'THIS IS PROVEN'

"Everything solar is more prevalent than it was 10 years ago. We're past early adopters. This isn't new technology and we're looking for people to test it out. This is proven," says Jason Weingast, vice-president of Active Energies, a pair of energy-consulting and solar-installation companies, based in Minturn. "Technology is making the equipment costs much cheaper. We haven't seen a major improvement in the solar panel itself. What has changed significantly is the technology to make the panels."

Celebrating their 10th anniversary in business this year, Weingast and his partner, Active Energies President Megan Gilman, have ridden the solar wave well, designing and installing solar-centric systems — mainly photovoltaic, or PV, arrays — at more than 200 homes in the Vail Valley alone.

To local and national acclaim, Weingast and Gilman, with the help of a small but dedicated staff, are now using their various Leadership in Energy and Environmental Design, or LEED, certifications to branch out internationally, as well, now consulting on projects in nine countries.

STUDIES CONCUR

Reasons most homeowners here in the High Country are "going solar" more and more, Weingast and Gilman say, range from simply saving money on their electricity bills to increasing their home's market value, to selling more quickly ... and more.

As reported by CostOfSolar.com, studies by the U.S. Department of Energy's Lawrence Berkley Laboratory, and others, concur:

- In many areas of the U.S., solar energy can potentially pay a 200-percent return on investment — far exceeding all other common home improvements, like remodeled bathrooms, and even other financial vehicles, such as a five-year CD, a 30-year treasury bond or even the S&P 500 stock index.
- The average solar homeowner

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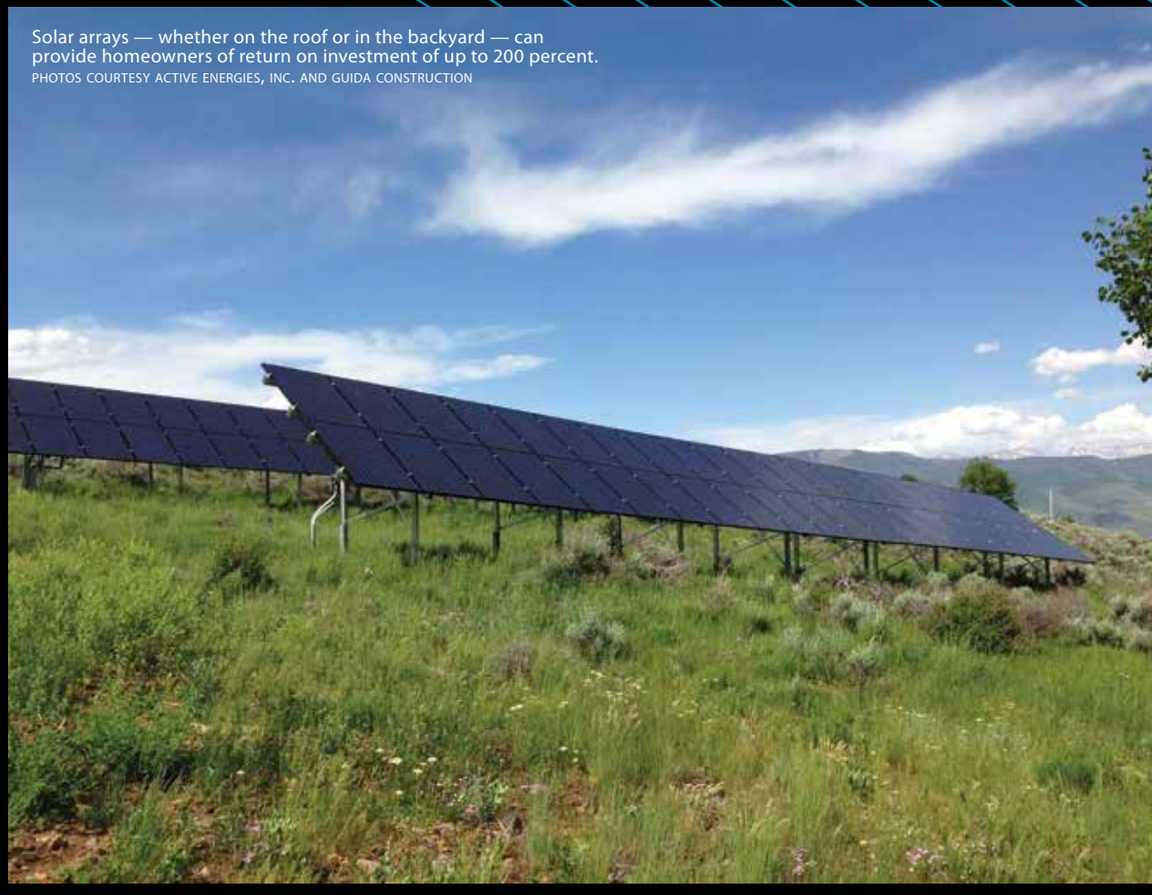

Solar arrays — whether on the roof or in the backyard — can provide homeowners of return on investment of up to 200 percent.
PHOTOS COURTESY ACTIVE ENERGIES, INC. AND GUIDA CONSTRUCTION

nationwide will save about $20,000 in electrical costs alone over 20 years, or about a thousand dollars a month long-term.

• The average increase in resale value is $5,911 for each kilowatt (kW) of solar installed, or $29,555 for a medium-sized home with a 5kW system.

• Homes with solar installations sell 20 percent faster than properties without them.

'A SMART DECISION'

Then, of course, there are the philosophical, even moral, issues: climate change; using less energy, in general; and reducing our dependence on and pollution from burning fossil fuels.

"I wish I could say it's a moral thing for more people; fact is, just about everybody wants the money," Weingast laughs before outlining a list of tax breaks, one-time rebates from electric utility companies, such as Holy Cross Energy and Xcel Energy, and other incentives local homeowners can use to reduce the costs of solar installation through "net metering" — actually earning money back from the local utility company by producing electricity, instead, and literally turning electric meters back the other way.

"They don't think so much that it's 'green' and great," Weingast says. "Most people do it to save or even earn money. It's really a smart decision."

This brand new, five-bedroom, five-bath mountain contemporary home on Lake Creek Road — designed with a 20-panel solar array on the roof — is on the market for $2.6 million.
PHOTO COURTESY LIV SOTHEBY'S INTERNATIONAL REALTY

'A NO-BRAINER'

Matt Bartok, an Active Energies client with a house in The Terrace neighborhood in Eagle, has all of those motivations. Using a one-time rebate from his local electric utility company, Holy Cross Energy, and a federal tax credit, he purchased and installed a 27-panel, 6.5kW array of photovoltaic solar panels on the roof of his garage for less than $8,000 — a system that otherwise, without those financial incentives, would have cost him $21,000, or more, he says.

"You start making, like on my system, a monthly loan payment of about $50, with no money down, and start saving about $80 a month on the electricity bill. It's a no-brainer. My electric bill last month was $7. I just don't understand why more people don't do it," says Bartok, adding he's looking forward to when that loan is paid off and he's even more net-positive on electricity. "But, I'm really concerned about climate change, too. I wanted to do something to help make a difference. If I'm going to produce electricity off my roof, that means the utilities can burn a bit less coal.

"I think coal's bad news. If you can get Active Energies to come over and throw some panels on your roof, then why not?" Bartok adds. "The monetary part for me was just a bonus; but, it does makes me happy every time I turn on the air conditioner."

'I'LL ALWAYS GO SOLAR'

Amanda Precourt, a homeowner in the Lake Creek Valley, south of Edwards, is another huge fan of residential solar installations, having designed her home with "full solar" capabilities, or solar PV panels for both electricity and hot water.

Very active in the "spec home" business, building and selling "one about every year," she says, Precourt recently completed a brand new, five-bedroom, five-bath, 4,684-square-foot, "eco-friendly," mountain-contemporary residence with a 20-panel solar PV array on the roof, looking southeast from Lake Creek Road.

The home currently is on the market for

Minturn-based Active Energies has installed solar PV arrays on more than 200 homes in the Vail Valley since they opened for business in 2006.
PHOTO COURTESY LIV SOTHEBY'S INTERNATIONAL REALTY

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>
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$2.6 million, brokered by Corey Lamothe of LIV Sotheby's International Realty.

"Personally, I'll always go solar. I just feel like it's the wave of the future. It doesn't necessarily give you all the electricity you need, but it certainly does augment having to pay through the grid for electricity and hot water, giving owners a bit of a cost break in their utilities," Precourt says. "I try to stick to my word, too. When I built my own home, I said I'll always build 'green,' and I continue to do that."

'AS RESPONSIBLE AS POSSIBLE'

OK, but how 'bout the owner of a vast, brand new, traditional, log-cabin-style, single-family residence up on Daybreak Ridge, above Bachelor Gulch, who approved a 3.2kW solar PV array installed on two sections of the roof inked in the home's overall design?

Project Manager Tom Solawetz of Beck Building Company, who oversaw construction, says the array "doesn't come close to addressing the total energy needs of the home," which includes a heated driveway to melt winter snow, as well as an outdoor spa.

But the owner, Solawetz says, "wants to utilize as much renewable energy" and "be as responsible as possible."

An important consideration, Solawetz adds, are local building codes and covenants that sometimes can combine to reject solar panels on or next to a home, especially in relatively conservative neighborhoods like Bachelor Gulch.

"Design review boards want an opportunity to view the aesthetic impact," Solawetz says. "On this home, you can't see the panels except from one small piece of road up there. It's not really exposed, so they have no issue with it, so it was pretty easy to get through the DRB."

There are advantages to having such solar installations included in the original design of a home, Solawetz adds, over retrofitting an existing structure.

"Active Energies is really good at hiding all the wiring. Instead of trying to go through the home, they'll sneak it around the outside," Solawetz says. "The trick is getting it tied into the main panel, the net metering and all. There can be various levels of remodel to accommodate that."

'IT'S A WHY-NOT?'

Last but not least, the owner of a complete, teardown-to-future-iconic Vail home on Beaver Dam Road — with other motivations, too, including the addition of vast windows looking out to panoramic views over Gore Creek — told his architects he wanted solar PV panels on the home's main, south-facing roof. He also installed a residential system of batteries to store additional electricity, in case of a major power failure.

"This is the first and only project we've done, in our history, completely via text messaging," jokes Adam Harrison, an architect with Shepherd Resources Architects. "A very extensive renovation, it was sort of dual-purpose. ... He's proud people can drive by and see somebody made an attempt to save energy.

"Ten years ago, I'd say we were doing maybe 10 percent of our homes with solar; now it's probably two thirds, or more," Harrison adds. "If you have good solar gain on your property, it's a why-not?"

Homeowners enjoy a variety of benefits from installing solar PV panels, including saving money on their electricity bills and increasing their home's market value.