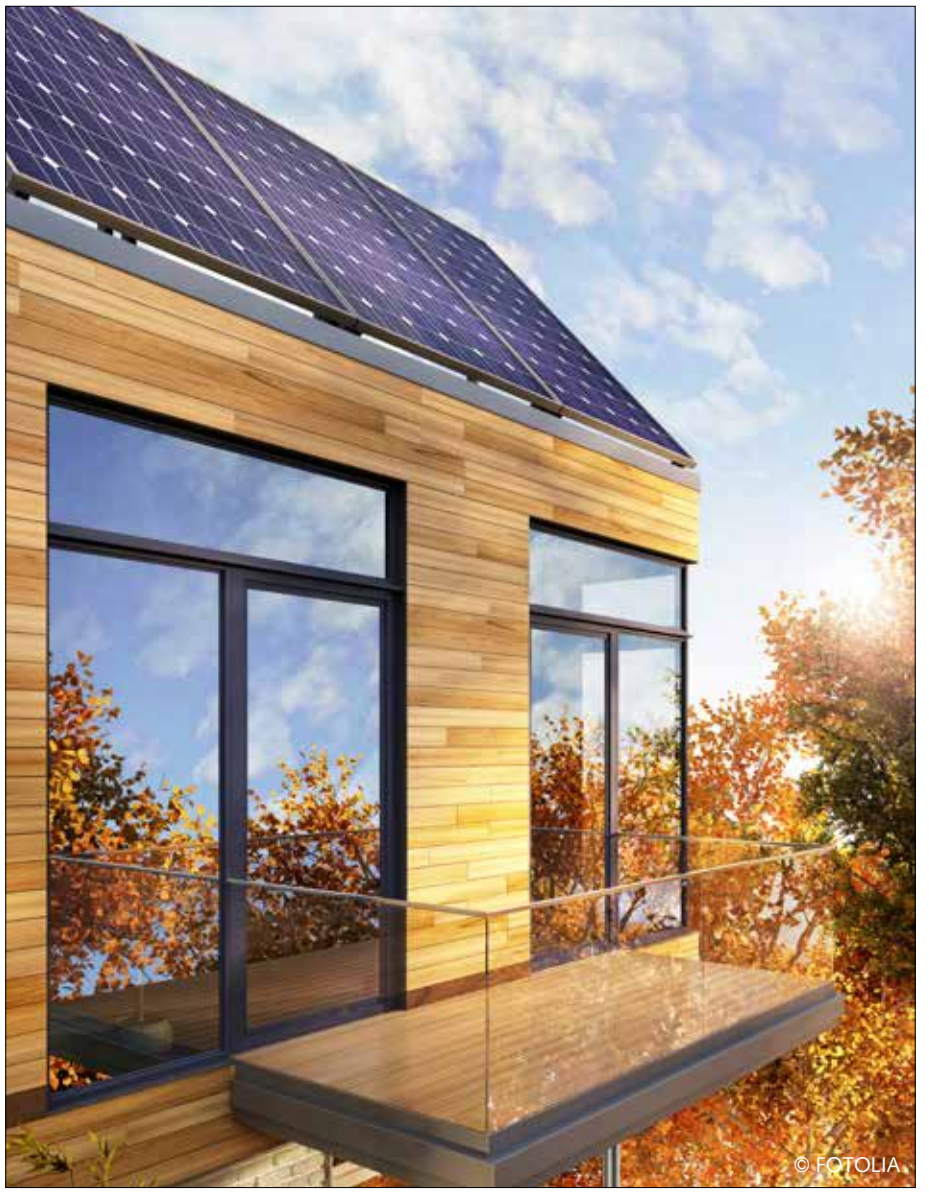
Should You Take the Solar Plunge?

By ANNA CHANG-YEN | Green Shoot Media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It all sounds so simple: install some solar panels on the roof and live "off the grid." Better yet, sell your excess power to the power companies and sit back while THEY pay YOU. The reality of solar energy is that it's a complicated decision for a homeowner to make, and while Forbes reports that costs have dropped 60 percent since 2011, the price tag still can be prohibitive. At the very least, you should do a good deal of research, as well as a detailed analysis of the costs, before taking the plunge.

KNOW THE TERMINOLOGY

Unless you've got a Ph.D. in electrical engineering, you'll first need an education, complete with a new vocabulary. Should you opt for a roof-mounted grid-tied polycrystalline silicon system or a stand-alone photovoltaic setup?

While an installer will probably be glad to provide a lot of pamphlets and information on its website, seek out objective sources of information. Visit the Department of Energy's "Solar Technology Basics" page (http://1.usa.gov/295XXqj) or the National Renewable Energy Laboratory's "Solar Energy Basics" page (http://1.usa.gov/2978DXh). There you will learn about the different types of systems in plain English with easy-to-understand illustrations.

GET OUT YOUR CHECKBOOK

It's no secret that solar will put a dent in your budget — at least at first. The largest expenses of solar power are the panels and labor to install them, an inverter to turn the energy the panels collect into usable power in your home, and metering equipment to keep track of it all. Add in various supplies and the costs can reach $20,000 to $35,000.

The lifespan of many photovoltaic systems is 25 years, or 300 months, so multiply your average monthly electric bill by 300 to find out how much you stand to save after making the initial investment.

Federal and state tax incentives also can help lessen the burden. Homeowners and businesses that install solar systems can get a 30 percent federal solar Investment Tax Credit through the end of 2016.

Your state also may offer tax incentives. To find out which programs are available in your state, visit North Carolina State University's Clean Energy Technology Center website, where you can search its database of incentive programs by state (www.dsireusa.org.) An installer also probably will be more than willing to provide information about incentives for which you may qualify. Be sure to do your homework and double check all the information for yourself.

TO TIE OR NOT TO TIE?

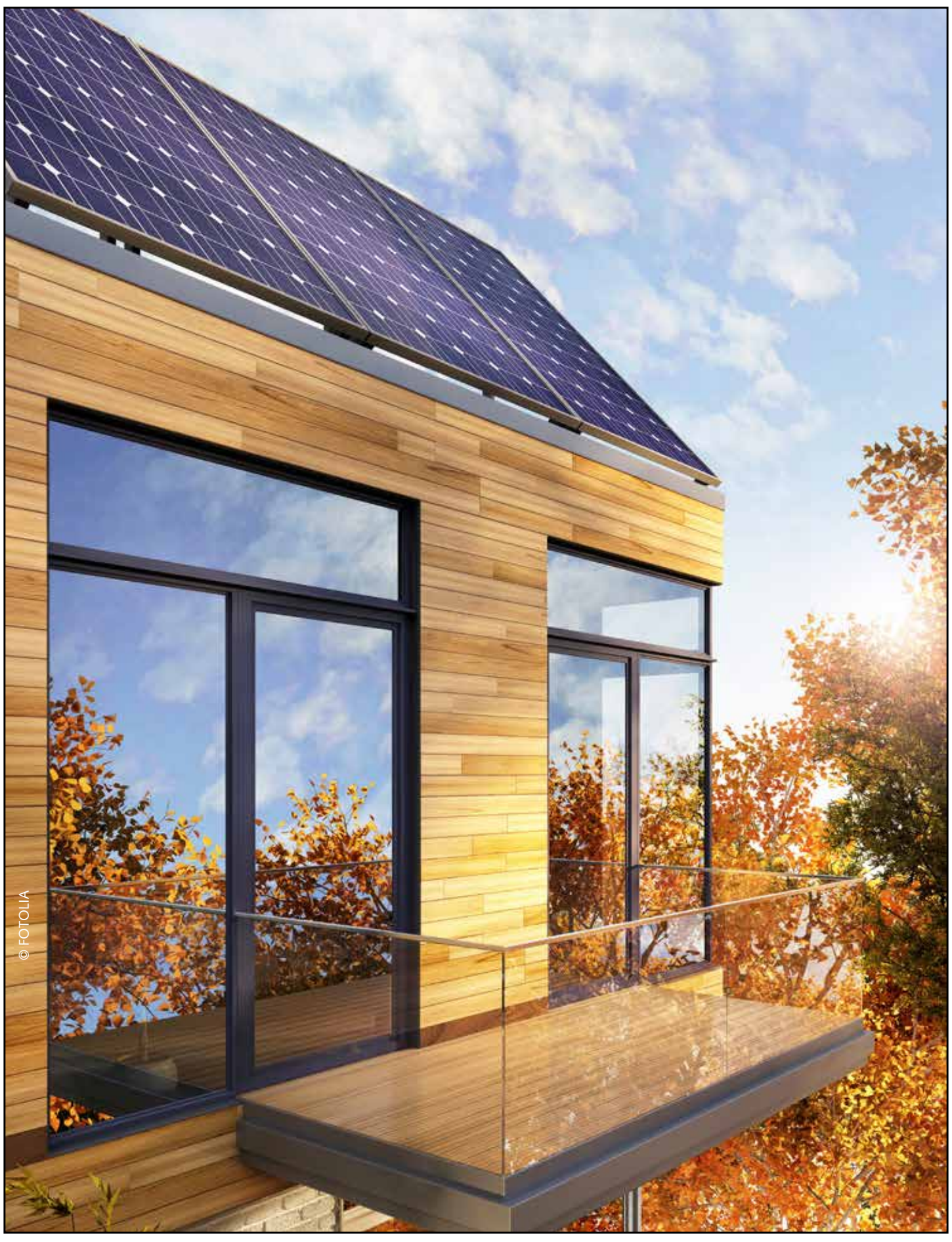
A big decision to make when going solar is whether or not to remain tied to the grid. If you cut ties with your power company completely, you'll need a battery system to store solar energy for use when the sun isn't shining. Remaining tied to the grid allows you to use your own power when you're able to, but to fall back on traditional energy from the power companies when needed. You also might be able to sell any excess electricity you produce to the power company, offsetting your own costs.

OTHER CONSIDERATIONS

As you can see from the costs involved, you'll only reap the full benefits of solar panels if you plan to stay in your home for the long haul. If you know you'll be moving at some point in the future, you might want to think twice about solar. While a solar system is likely to make your home more attractive to buyers, you probably won't recover all your expenses when it comes time to sell.

If you don't have a south-facing roof where the panels can be installed, you'll need to have them installed on specially built supports or on the ground, increasing costs. If your location is less than prime for catching rays, you won't get as much bang for your buck. The NREL's National Solar Radiation Database (https://nsrdb.nrel.gov/nsrdb-viewer) provides information about an area's suitability for solar.

As you can see, a solar system is no small investment. If you're willing to wait years to recover the costs, it might be a good choice for you. As solar equipment continues to become more affordable, it will make sense for more homeowners, but for now, venturing boldly into the future of energy is an endeavor that must be a carefully undertaken.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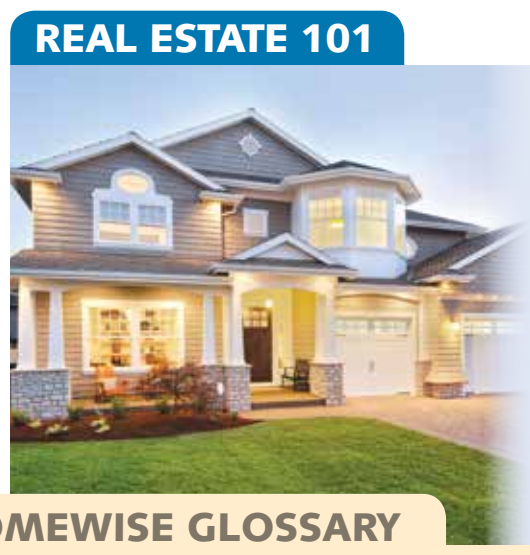
REAL ESTATE 101



On Buyers' Minds

In a 2015 survey of home buyers, the National Association of Realtors found that while only 2 percent of buyers were concerned about a home having solar panels, 36 percent said heating and cooling costs were a "very important" factor in their purchasing decision.

HOMEWISE GLOSSARY

Energy audit: Any process that identifies and specifies the energy and cost savings likely to be realized through the purchase and installation of particular energy efficiency measures or renewable energy measures.

Special energy system: any addition, alteration, or improvement to an existing or new structure that is designed to utilize wind, geothermal or solar energy to produce energy to support the habitability of the structure.

SOURCE: U.S. Department of Housing and Urban Development