

Houses of 2020 will be all about energy

April 26 2010, By Wendy Koch

The American house of 2020 will likely be smaller, smarter, more urban and efficient.

It might not look like a space-age Jetsons set, but just as iPhones and Google have revolutionized personal computing, technology will boost home IQ.

More houses will have energy meters that track power usage and program appliances to run when electric rates are lowest.

Houses also will waste less energy because they'll have better insulation and windows.

The [house](#) of the future will be built significantly "tighter," says Nate Kredich of the U.S. Green Building Council.

Builders already are including basic features such as programmable thermostats, found a January survey by the National Association of Home Builders. "It's not rocket science, but it helps control [energy](#) costs," says NAHB's Stephen Mellmen. "Affordability is driving these decisions."

Perhaps the most obvious change will be home size. Of builders surveyed, 96 percent said they plan to build smaller. The trend began with upscale buyers before the recession and has intensified, says Kermit Baker of Harvard University's Joint Center for Housing Studies.

A new single-family U.S. house averaged 2,373 square feet last year, down from 2,507 in 2007, according to Census Bureau data.

Production builders such as Pulte are reducing the average size of their new models and offering more eco-features such as solar panels. KB Homes is now offering pre-wiring for electric vehicle charging stations.

A decade ago, Kredich says, low VOC (volatile organic compound) house paints were pricey, but costs have come down.

"We can expect to see the same phenomenon in categories such as photovoltaic (solar) technology, where costs to date have been largely prohibitive," he says.

Alex Wilson, executive editor of BuildingGreen, a Vermont-based company that publishes books and an online newsletter, expects lower prices and improved performance to make solar water heaters and rooftop panels "very common" by 2020, used in at least 30 percent of new houses. Other changes he sees:

- **SMART GROWTH.** More houses and apartments will be built in areas close to public transit, walkways and bike paths.

The Environmental Protection Agency says house-building permits more than doubled since 2000 in the downtowns and close-in suburbs of 26 of the nation's largest metro areas.

- **LED LIGHTING.** This will gain market share but is still costlier than compact fluorescent.

- **DUCTLESS HEATING.** Geothermal heat pumps will be replaced by lower-cost, ductless "mini-split" air-source heat pumps, predicts Wilson. He says ductless technology is improving, and while most manufacturers

are now Japanese, more U.S. firms will move into the market.

- **EFFICIENT WINDOWS.** Triple-glazed, low-emissive windows will become common, accounting for up to a third of sales in colder climates. It also will become common to "tune" windows, Wilson says, by using different glass on a home's south side than on its east or west.

(c) 2010, USA Today.

Distributed by McClatchy-Tribune Information Services.

Citation: Houses of 2020 will be all about energy (2010, April 26) retrieved 27 April 2024 from <https://phys.org/news/2010-04-houses-energy.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.