



Lights Out for Energy Star? It Could Happen ...

BY TREY BARRINEAU

March 2016. During a televised debate with other Republican presidential hopefuls in Detroit, then-candidate Donald Trump vows to dismantle the Environmental Protection Agency (EPA).

"We're going to get rid of it in almost every form," he said. "We're going to have little tidbits left, but we're going to take a tremendous amount out."

May 2017. Newly elected President Trump releases his first comprehensive budget plan. The highlight? A massive 31-percent reduction in funding for the EPA, from \$8.2 billion in 2017 to \$5.6 billion in 2018.

One little tidbit that isn't left—the agency's popular, voluntary Energy Star program, which rates the efficiency of thousands of products, from air conditioners to dryers to doors and windows.

The administration's budget completely defunds the program for 2018, though the EPA says it will explore options for the transfer of Energy Star and other climate protection partnership programs to "non-governmental entities."

While there's a good chance that many of Trump's proposed cuts won't make it past Congress this year, the possible loss of Energy Star has generated intense interest in the fenestration industry, and with good reason. More than 300 door and window companies are partners in the program, and Energy Star-rated windows represent about 80 percent of the U.S. market, according to the EPA.

Recently, several industry companies, including Andersen, Plastpro, ProVia, Steves & Sons, Velux America, Vitro, ViWinTech Windows & Doors and others, joined about 1,000 other businesses across many sectors to sign a letter urging Congress and the White House to preserve Energy Star.

"While we may not agree with every aspect of the Energy Star program, we believe that it does a great job in supporting the American consumer," said Phil Wengerd, vice president of market strategies for ProVia. "The key is that there has to be some known criteria that everyone is working toward—a plumb line, if you will. Consumer education must be the top priority—making sure that when I buy something, I know what I'm getting."

Sen. Jeanne Shaheen (D-N.H.), who has teamed with Sen. Rob Portman (R-Ohio) to introduce energy-efficiency legislation in recent years, suggested that many of the Trump administration's proposed reductions to the EPA would face strong opposition across the political spectrum.

That includes cutting Energy Star.

"The fact is there is bipartisan support for programs like Energy Star," she said during the EE Global Forum in Washington, D.C., in May. "We understand that these programs bring benefits to the American people."

Shaheen added that energy efficiency is now widely accepted.

"Despite what may happen at the federal level, what we have seen at the state and municipal level and from the private sector is that the effort to support energy efficiency will continue," she said. "There is a revolution in how we think about and use energy, and it will not be derailed."

Despite that, there are those in the industry who question the usefulness of a government program that many say is flawed.

"In the early days of Energy Star, when it was still a marketing program of the Department of Energy, there was some perceived value to having it," said Bob Maynes, director of marketing and international sales with Mathews Brothers

Delving Into Energy Star's Costs

The EPA never responded to DWM's request for specific annual budget figures for Energy Star's windows, doors and skylights program. (The total budget for all of Energy Star in 2017 is \$66 million.)

Assisting the windows, doors and skylights program doesn't seem to be terribly expensive, though. For example, a search of federal procurement databases shows that in 2015, ICF Inc. was awarded a one-year contract of \$212,589 for "support services for Energy Star windows, doors & skylights products."

However, promoting the entire Energy Star program appears to carry a relatively hefty price tag.

In 2016, the EPA sought to award a one-year contract for \$14 million to market Energy Star. That's about a quarter of the total budget for the program.

Company. "But eventually, it became so incredibly easy to achieve the designation, it evolved into just another sticker on the window, instead of a differentiator. To me, the solution is, ultimately, a single code-enforcement body run by the industry, incorporating both structural and thermal performance, and reporting those numbers on the window label."

The Upside

According to former EPA official Daniel Fiorino, the Energy Star program was designed to be a more collaborative and transparent alternative to top-down, one-size-fits-all government directives.

"I do see Energy Star as a model for other kinds of public-private programs," he said. "I would not call it a partnership exactly but a kind of third-party certification program in which government plays a central role. There are private ones as well. An example is the Forest Stewardship Council."

Maria T. Vargas, director of the Department of Energy's Better Buildings Challenge, said the voluntary nature of Energy Star means stakeholders work together to achieve efficiency goals.

"I think voluntary programs are an important part of solving the problem of energy efficiency," said Vargas, who also was the brand manager for the Energy Star program for almost 20 years. "When you have a voluntary program, you know the problem you're trying to solve."

Carolyn Snyder, director of EPA's Climate Protection Partnership Division, which includes Energy Star, said the public-private nature of voluntary efficiency programs makes them especially receptive to what's happening in the marketplace.

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Myron Ebell

"I Think You Should Pay For It and Run It"

A search of the American Presidency Project website at the University of California, Santa Barbara, shows that Donald Trump never mentioned Energy Star in any speeches, press releases or other documents from the date he announced his candidacy (June 15, 2015) to his election in November 2016. His campaign website didn't mention it either, and the GOP's platform was silent on the program as well.

So whose idea was it to send Energy Star packing?

We'll probably never know for sure, but a lot of evidence points to Myron Ebell, who leads the Center for Energy and Environment at the libertarian Competitive Enterprise Institute.

After the election, Ebell headed up Trump's transition team for the EPA. When DWM asked him in April if it was his idea to axe Energy Star, he said "transition work is confidential." But he then added: "I can say that it is public knowledge that the agency transition teams were primarily charged with developing plans to implement the president's campaign commitments. Defunding Energy Star was not a campaign commitment."

Ebell told DWM that he thinks privatizing Energy Star is a small step on the path toward getting the government's financial house back in order.

"Our view is that Energy Star is good insofar as it's voluntary and not so good that taxpayer dollars are used to run it," he said in an e-mail. "One of the reasons that the federal government is so disastrously in debt is that hundreds of special interests have been able to commandeer tax dollars for programs that benefit them. If your industry and others that participate in Energy Star think it's a good program, then I think you should pay for it and run it. There are good examples in other industries of programs (that were started before everyone decided that Congress could be persuaded to pay for every good idea) that are self-funded and administered by the industries involved. The lumber grading standards are a good example and do for lumber what Energy Star does for energy efficiency. They were self-funded, and as far as I know, still are self-funded."

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“We make sure the tools and programs meet the needs of the market,” she said. “It’s important to continue to evolve with the marketplace.”

Many door and window companies are on the same page. They see a government-run Energy Star as a collaborative, impartial body that sets uniform standards that are clear to both manufacturers and consumers. That’s why so many take part in it, trumpeting their participation in advertising and marketing materials.

“From my perspective, Energy Star has really challenged our industry—and many other industries—to become better and more energy efficient,” said Tyson Schwartz, Soft-Lite’s executive vice president and chief sales and marketing officer. “Energy Star is almost like a seal of approval. Consumers look for Energy Star on most electronics and appliances. The logo and brand is recognized internationally.”


That seal-of-approval aspect is a big part of its appeal to the industry.

“By having a third-party organization that is verifying the accuracy of the reports and testing methods, it gives the consumer confidence that they can trust the numbers they are seeing,” said Brian K. Zimmerman, the owner of Zen Windows Carolina in Charlotte, N.C. “If you remember back to the days before Energy Star certified windows, you had many companies using center-of-glass U-value numbers to make their windows look superior to others, as opposed to overall window U-values.”

The other important function of Energy Star is to push the industry to advance its technology, said Schwartz.

“It has challenged us to become better and strive for more energy-efficient products,” he said.

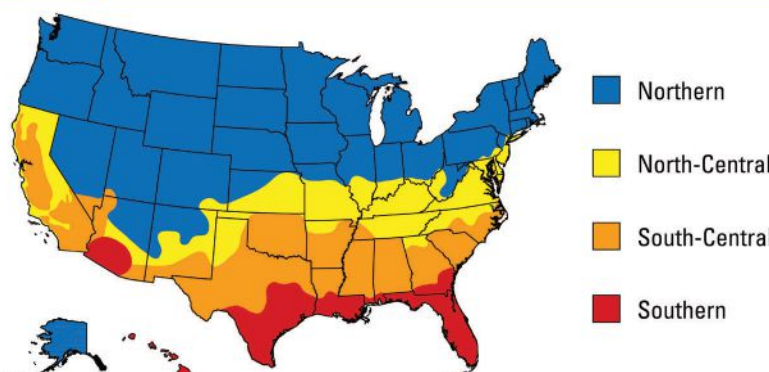
Of course, reducing energy bills was a key reason the Energy Star program was founded in 1992 (the windows program began in 1997). Because of that, organizations that support energy efficiency and reducing green-



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CLIMATE ZONE MAP



Energy Star Energy Efficiency Requirements for Windows		
Climate Zone	U-Factor	SHGC
Northern	≤ 0.27	Any
North-Central	≤ 0.30	≤ 0.40
South-Central	≤ 0.30	≤ 0.25
Southern	≤ 0.40	≤ 0.25

Energy Star Requirement Test Method Reference	
U-Factor	NFRC 100
SHGC	NFRC 200
Air Leakage	ASTM E283 in accordance with NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440-11

Source: Environmental Protection Agency

house gases are backing Energy Star’s survival in a big way.

“We strongly support the Energy Star program,” said Lowell Ungar, senior policy adviser at the American Council for an Energy-Efficient Economy (ACEEE). “This is a voluntary government program that works—indeed, it’s the leading voluntary energy-efficiency program in the world. Bottom line: it helps consumers save money.”

According to Ungar, consumers who bought Energy Star products and participated in its programs saved \$34 billion in 2015, and a cumulative total of \$430 billion through 2015.

“It is a remarkably successful brand recognized by almost 90 percent of Americans,” he said. “And it helps businesses market better products. We don’t see why anyone would want to take that away.”

Steven Schultz, the corporate ener-

gy manager with 3M, said Energy Star has benefits for companies that go beyond energy-efficiency initiatives.

“The ability to network, meet people, share problems and share successes really helped,” he said. “And the recognition we received with Energy Star was certainly fantastic.”

The National Fenestration Rating Council (NFRC), which plays a major role in Energy Star by providing the U-factor and solar heat gain coefficient ratings for doors, windows and skylights, also hopes it survives.

“As a government-backed program, Energy Star has significant credibility with U.S. consumers,” said NFRC CEO Deb Callahan. “It helps them make sound decisions when purchasing windows, doors and skylights intended to reduce their energy bills, and we encourage its ongoing operation.”

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The Downside

While many door and window companies say they love the little blue label, the industry's relationship with Energy Star hasn't always been positive. For example, testing and verification have long been issues.

In 2012, the agency launched a testing program for fenestration products that's administered by the NFRC. The goal was to test 10 percent of Energy Star product lines each year.

However, Doug Anderson, the project manager for Energy Star's windows, doors and skylights program, told an industry gathering in February that NFRC is testing just 5 percent of product lines in 2017. And at an earlier meeting, he noted inconsistencies within the verification program.

"We have found issues of concern, and we have found failures," Anderson said during a December 2014 stakeholders meeting in Washington, D.C.

Members of the industry said those problems damage Energy Star's credibility.

"There have been labeling inconsistencies that cause you to question the program," said Steve Strawn, the product compliance manager at Jeld-Wen, during that meeting.

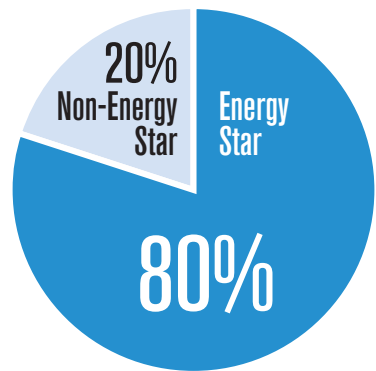
Maynes points out specific problems with the current Energy Star Version 6.0 specification, which took effect on January 1, 2015 in the U.S. except in the Northern Zone, where the criteria for windows went into effect on January 1, 2016.

"What did the EPA do here? They eschewed responsibility and simply pointed to one value (U-factor of 0.27 or better) or two values (a sliding scale of U-factor and solar heat gain coefficient) from the array of NFRC testing we all perform, and used those as its pass/fail criteria for whether or not the window passed (for the North and North/Central climate zones)," he said. "In reality, it's the single criterion that the market looks at: the U-factor. All we have to do is achieve a 0.27 U-factor, and we're in."

And while many window manufac-

Big Market Share

Energy Star windows made up about 80 percent of the U.S. market in 2010.



Source: EPA

turers found that they could lower the U-factor to achieve Energy Star certification by placing additional low-E on the fourth or room-side surface of a window, they missed an important—and potentially costly—side effect.

"The fact that it also lowers the condensation resistance factor was lost on them," Maynes said. "So, this spring and summer and fall, a whole lot of windows with fourth-surface low-E glazing are going to be installed in the Northeast, and next fall, a whole lot of window dealers', distributors' and window manufacturers' phones are going to be ringing off the hook with people complaining about the incredibly massive amounts of condensation that will be with them all winter long, which will lead to sheet-rock damage and mold growth. And what comes shortly after that? Class-action lawsuits."

Steps to Improve

To its credit, the EPA is trying to fix problems like this. For example, in January the agency began work on a new methodology for analyzing NFRC's Certified Product Directory (CPD), the massive database of windows, doors, skylights and other products that have been approved by the organization. The analysis could be used in future Energy Star specification revisions.

In a statement, the EPA said it's proposing the new approach to better

understand all the window technologies that manufacturers have certified and which combinations can achieve certain performance levels.

"EPA is working to improve how they calculate which windows and doors are available to consumers, and this should help," said Ray Garries, vice president of engineering and innovation at MI Windows and Doors and a blogger for DWM. "The NFRC CPD has millions of products listed, but a large percentage are not available for consumers to buy. These unavailable listed options are mostly glazing combinations that the system requires, but the manufacturers may not sell for a variety of reasons."

The change could be hugely beneficial to manufacturers. By working in the database and selecting combinations that match existing products, window makers could see how they stack up against the best and worst for that combination. It could also save the time and expense of testing different configurations, and it could turn up the lowest-cost combinations that hit efficiency targets.

Specification Vexation

Another issue that bothers manufacturers is the additional costs that arise from changes to the specification that some feel come too fast.

"Obviously as the EPA raises the bar on performance in order to achieve the Energy Star rating, it requires manufacturers to pour more and more money into the window to achieve smaller and smaller improvements," said Maynes. "It's a business decision: do we want to inventory specific profiles, specific types of glass, specific glazing systems, specific anything, in order to address this niche?"

Maynes' company, Mathews Brothers, is the type of smaller manufacturer that might be especially sensitive to fluctuations in production costs, but even major players in the industry have expressed concern.

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“We all know the movie ‘Field of Dreams’—‘Build it and they will come,’” said Jim Krahn, the former manager of codes and regulatory affairs at Marvin Windows, during a 2014 Energy Star meeting at EPA headquarters in Washington, D.C. “We can’t do it in six months. We can’t do it in a year. We need time. If you don’t give us time, we have to rush, and it increases costs tremendously.”

Payback periods—the time it takes for a consumer to recoup the cost of a replacement door or window—are another point of contention between the industry and Energy Star.

In August 2014, a round-up of comments to the final draft criteria for the Energy Star Version 6.0 specification indicated many concerns about payback periods. Several commenters said that payback within the lifetime of the product is not reasonable or acceptable to consumers. One commenter also estimated that the proposed U-factor maximum in the Northern Zone will lead to payback periods of 21 years, which is double the time calculated by EPA.

The Privatization Option

If Energy Star were to cease being a government program—admittedly a big if—who would run it, and how?

The program’s \$66 million budget covers certifications for a huge range of products—household appliances, electronic equipment, office equipment, HVAC products, lighting and many building products in addition to doors and windows. Would the program be transferred in one piece or broken up by industry?

If it’s parceled out by industry, three associations could be candidates to take over the windows program, either singularly or together.

NFRC would obviously be the front-runner since its thermal ratings form the core of the Energy Star label. Additionally, the American Architectural Manufacturers Association (AAMA) develops standards, ratings and test procedures for

air leakage, water leakage and structural strength. Both NFRC and AAMA already have consumer-friendly sections on their websites, and certification labels from both organizations appear on millions of fenestration products. The Window and Door Manufacturers Association (WDMA) also does similar work, though not on as large a scale.

However, AAMA president and CEO Rich Walker said his organization doesn’t want to run Energy Star.

“Given the current uncertainty and scope of the undertaking, AAMA is not interested at this time,” he said. “We are very interested, however, in continuing our current level of participation in development of future performance standards.”

Tom Herron, the senior director for business development and marketing with NFRC, said his organization is in a wait-and-see stance.

“This is a fluid situation that is still unfolding, so it is important that none of us speculate in these early stages,” he said. “We need to be sure any decisions we make are based on facts, not assumptions. NFRC values the Energy Star program and sees it as an enormous benefit for directing consumers to more energy-efficient products.”

WDMA president and CEO Michael O’Brien isn’t sure Energy Star will be going away.

“That’s a big hypothetical, especially since the administration budget as submitted to Congress has very little chance of passage,” he said. “That being said, I believe the industry has seen the benefits of the Energy Star program, even though there are still programmatic issues which we continue to work through with EPA.”

One thing seems certain: Any non-profit entity taking over Energy Star’s windows, doors and skylights program would probably face some big financial challenges.

“The window industry would have to decide if they had the funds to support an Energy Star windows program, including a potential increase in lia-

bility insurance,” said Steve Nadel, executive director of the American Council for an Energy-Efficient Economy (ACEEE). “Second, I would think the three window organizations would need to work together. Third, there’s a question whether consumers would trust a label from the window industry as much as they trust an independent label from EPA.”

What’s Next?

Whatever happens in the future, Maynes says almost anything would be better than the current situation.

“Let’s look at the three entities that influence window performance: AAMA, NFRC and the EPA (Energy Star),” he said. “The first two are extremely well run, are materials neutral, are broad-based, are extremely respected. Oh, and both are private. Granted, they’re not flashy like Energy Star, and the NFRC website is the most complex one to navigate, but they get the job done. Why is NFRC able to survive without government intervention, and Energy Star is not? Does not the EPA, in fact, take the lazy way out and merely refer back to the most basic of NFRC testing for achieving the designation? What value does the program add, except a label?”

On the other hand, Wengerd said privatization could continue the good work started by federal agencies.

“We believe the U.S. DOE and EPA have done an excellent job building this program,” he said. “If it were to be privatized, we believe it could work. For example, one of ProVia’s other product lines is vinyl siding. In the siding industry we have Vinyl Siding Institute (VSI) certification, where all manufacturers agree to abide by the VSI standards. VSI is not a government program, but it works well. In the same way, we think that if industry groups come together to agree upon the standards of testing, Energy Star—or another program—could do well.” ■

Trey Barrineau is the editor of DWM magazine.



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