Environomics

Rethinking finance strategies for green products could increase accessibility and lower costs.

BY LISA HOLTON

SINCE JIMMY CARTER strapped the first solar panels onto the roof of the White House in 1979, the national conversation on green technology has been a winding tale of altruism, populism, cynicism, and whatever "ism" works best with the words, "This costs *what*?"

At that time, when the average American home could be bought for $60,000, using solar power to heat the White House pool alone cost $30,000.

Thirty-three years later, the expectation is that going green *still* requires a pile of cash. Greywater filtration systems that take your leftover sink, laundry, and dishwasher water and filter it for reuse in your garden range in price from $1,000 to $10,000. A fully loaded Nissan Leaf, the least-expensive all-electric sedan on the market, comes in around $30,000—even after a $7,500 federal tax credit. And wind power? Let's just say it's probably going to take a village to even start making those numbers work. ➤➤

Green House
Plug in to this new approach to EV financing.

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But what if a creative business model could increase adoption of big-ticket, eco-friendly products?

Steve Bishop, global lead of environmental impact at innovation consultancy Ideo, thinks the first step in creating this future is for all product and service companies to "stop thinking about the green consumer as a small niche"—customers have a web of needs and wants that are simply more complex. Selling sustainability, Bishop says, isn't just about believing in green or saving money. It's about discovering what the customer really needs out of the transaction. Environmental benefits and long-term cost savings are indisputable in the case of big-ticket green tech; it's the up-front expense that's the obstacle. "We have to ask how we connect people with all of their goals in buying a product or service," Bishop says.

That kind of thinking is hard at work in the fast-growing solar industry, and its method of lowering up-front costs could help quicken adoption of electric cars and other forward-thinking green technologies, like geothermal heat pumps and home wind turbines.

First things first: The gear isn't cheap. Let's say you decide to pay out of pocket for a home solar power system. You don't think to call your tax guy, so you have no idea about federal, state, and local incentives that might knock 30 percent or more off the bill. Without the tax breaks, experts say the tab would run $30,000 to $40,000 for a system that's completely yours forever. That's a big expense, even if it means virtually eliminating your electric bill.

But today's leading solar companies aren't hammering up their panels and driving away. Instead, the industry has found a way to provide all the benefits of its technology without the often insurmountable expense of purchasing the gear. Much like modern satellite-dish plans, solar providers now install their equipment for little or no up-front cost. In exchange, customers sign a contract that outlines what they'll pay for the electricity generated by the panels. That makes it possible to move to solar without the pricey outlay, while still enjoying a 25- to 50-percent savings on your electric bill.

Sunrun, a San Francisco–based solar installer, operates in 10 states, and its new ad campaign sums up what's driving consumers to go green. An earnest-sounding voiceover introduces viewers to Scott, "the first on his block to call up Sunrun, who helped him switch over to solar for no money down. But that wasn't even the best part..." Scott interjects: "Yes, it was!" The

back-and-forth continues, but Scott stands firm. "Getting started for nothing down was the best part."

John Elder, president of Heat, the agency that designed the campaign for Sunrun, says it's time to drive home the message of affordability over eco-friendliness. "There are a lot of solar companies in the Bay Area, and it's been tough to break out," Elder says. "But if someone told you that you could put zero money down on a solar system and then immediately cut 20 percent off your monthly electric bill, why wouldn't you? That's the point we're at in this industry. And right now, saving money is the message that people are hearing." Once the ads aired, Sunrun offices saw customer inquiries jump as much as 200 percent.

This notion—that consumers are more likely to choose green technology if they don't perceive it to be more expensive than its traditional competitors—could be applied to all things green, even making the Nissan Leaf as affordable as a Honda Civic.

One key to driving consumer adoption might lie in eliminating the obstacle of sticker shock.

Take the fully loaded Leaf, which costs $37,250. Slice the $7,500 federal Electric Car Tax Credit off the top and that puts the price of the car around $29,750. But there's that pesky top-of-the-line, gas-powered Honda Civic Coupe, which costs around $25,000 to drive off the lot, no tax credits or gas-savings calculations required. How might electric-vehicle makers bridge the price gap?

Some industry followers put the Leaf's potential gas savings at around $10,800 over 100,000 miles. That would lower the long-term cost of the car to a far more competitive and enticing $18,950. But who wants to wait seven years—about how long it would take to rack up that 100,000 miles—to pat themselves on the back for scoring a bargain? A solution: Just like the solar industry taps into consumers' habit of paying a monthly electric bill, automakers could lower the up-front cost of their EVs by knocking, say, $10,000 off the car if the customer agrees to a low per-mile fee, one that, when combined with the cost to charge the vehicle at home, still offers a monthly savings over the outlay for a typical gas-fueled vehicle.

And as battery and charging technologies continue to improve, the benefit of switching to electric will increase, allowing for even greater up-front savings. But could drivers

stomach the thought of paying a per-mile fee to drive their new car? They already do. Consumers have grown accustomed to paying the true cost of gas–guzzling autos over time in the form of monthly fuel bills. In 2011, the average household spent $368 per month on gasoline—almost $4,500 per year.

This model doesn't suit just electric cars or solar panels; it can be applied to any other planet-saving, bill-zapping gizmos with high upfront costs that are keeping potential customers away. Whether you're looking to install a geothermal pump to heat or cool a home, or a residential wind turbine to generate power, one key to driving consumer adoption might lie in eliminating the obstacle of sticker shock.

That's a lesson the auto industry learned nearly a century ago, and it's one that Christopher Blansett, a J.P. Morgan senior research analyst who specializes in the alternative energy sector, says the electric-vehicle industry could put to use to jump-start sales of EVs. All it needs to do is go back to the 1920s. "Back then, if you wanted a Ford, you had to pay cash. GM changed everything by making it possible [with the creation of General Motors Acceptance Corporation in 1919] to finance a car, after which mass ownership really took off."

Those figuring out how to convert America's fleet of automobiles to Earth-friendly technologies face some tough hurdles, and electric-car technology has a long way to go— like addressing the problem of how *short* a distance these lab-experiments–on-wheels currently go. But as with every journey, getting off the starting line is the hardest part, and the starter pistol in our race to sustainability just might be an old-fashioned new deal.

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