

# U.S. Homeowners on Clean Energy: A National Survey

2014 Poll Results  
& Clean Energy Growth Trends

A clean energy briefing for the C-Suite

---



This report brought to you by  
**SolarCity** and **Clean Edge**  
in collaboration with **NASDAQ**

---

**NASDAQ OMX**<sup>®</sup>

# Contents

<b>Executive Summary</b> .....	<b>01</b>
<b>Survey Results</b> .....	<b>04</b>
Homeowners Want Energy Options .....	05
Support for Renewables is Strong .....	09
Homeowners Weigh Environmental Impacts .....	10
Clean Energy Purchases Becoming Mainstream .....	13
<b>Clean Energy Adoption and Growth</b> .....	<b>16</b>
LEDs .....	17
Electric and Hybrid Vehicles .....	18
Green Buildings.....	20
Clean Energy Generation and Solar PV Installations .....	21
<b>About &amp; Disclaimer</b> .....	<b>23</b>
SolarCity .....	23
Clean Edge.....	23
Zogby Analytics .....	24
<b>Appendix: A - Survey Results</b> .....	<b>25</b>

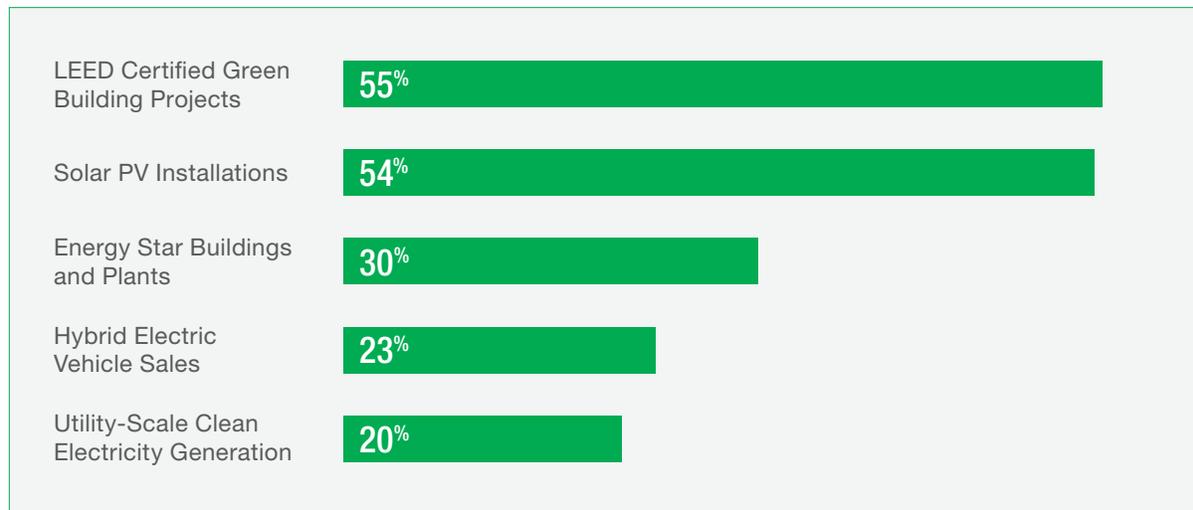
## Executive Summary

Over the past decade, clean-energy products and services—including solar PV, utility-scale renewables, hybrid electric vehicles, and green buildings—have all experienced double-digit compound annual growth rates (CAGRs) more akin to smartphones and the Internet than that of the usually staid energy and transportation sectors. It's a distributed revolution, with significant adoption of clean-energy technologies across broad demographic groups.

To better understand this rapidly expanding market, and the consumers behind it, SolarCity and Clean Edge commissioned a survey of U.S. homeowners by polling firm Zogby Analytics. While a number of previous surveys have looked at overall green consumer trends, this is the first study focused on U.S. homeowners and their choices and attitudes towards a wide range of clean-energy technologies. Respondents were randomly selected to answer questions about renewables, energy efficiency, clean transportation, energy storage, and other related topics. The purpose of the survey was to learn what homeowners know and think about clean-energy products and services, electric utilities, third-party energy service providers, and consumer choice.

All interviews were completed in January 2014. The margin of error for the survey is +/- 2.7 percentage points.

### 10-Year Compound Annual Growth Rates (CAGRs)



Source: Electric Drive Transportation Association, USGBC, IREC, EIA, and Energy Star with Clean Edge analysis

## Key highlights from the 2014 U.S. Homeowners on Clean Energy Survey include:

### Homeowners Want Energy Options

- While homeowners generally view their utilities favorably, a majority of homeowners (69%) say they want more choices when it comes to their energy and electricity supply.
- Reflecting this desire for choice, three out of four respondents believe that utilities should not be able to block individual residential customers from installing distributed solar power, energy storage, and other onsite systems. Such sentiments were strongest among respondents that identified themselves as Republicans, Conservatives, the middle-aged (55-69), and elderly (70+), at 80%, 83%, 89%, and 94%, respectively.
- A solid majority of homeowners (73%) say they would welcome an inexpensive and reliable form of energy provided by someone other than their current utility.
- 62% of American homeowners say that they want solar power for their homes.
- Four in ten Americans say they have recently experienced power outages with their current utility and that motivates them to get backup power; 50% of homeowners are interested in backup power for their homes.

### Support for Renewables is Strong and Widespread

- A solid majority of homeowners nationally (88%) believe that renewable energy is important to America's future.
- Support is high among all major political affiliations, with respondents that identified themselves as Republicans, Democrats, and Independents coming in at 87%, 93%, and 83%, respectively.

### Homeowners Weigh Environmental Impact, but Economics Rule

- Homeowners say they care about the environmental impact of their car, home, and other major purchases. More than two-thirds of all homeowners (70%) consider or investigate the environmental impact/sustainability of big-ticket items when making purchasing decisions.
- Such environmental considerations are increasing. Nationwide, more than half of homeowners said they were more likely to make such considerations today than three years ago.

- While homeowners say they care about the environment, economics drive most purchasing decisions. Respondents cite zero up-front costs and ongoing cost savings as the top two reasons for considering a solar power installation. For backup energy storage systems, cost tops the list of key factors influencing purchasing decisions.

## **Clean-Energy Purchases are Becoming Mainstream, but Perceived Price Barriers Persist**

- The most popular planned clean-energy purchase in the next year are light emitting diode (LED) light bulbs (31%). The LED revolution is taking hold much more rapidly than many had expected, showing that lower prices for LEDs (around \$10 a bulb), coupled with mid- to long-term savings, are attracting consumers. After LEDs, the next most common planned clean-energy purchases for homeowners in the next year are smart thermostats (11%), double- or triple-pane windows (10%), hybrid cars (9%), and Energy Star-rated hot water heaters (9%).
- Electric vehicles could be poised for growth similar to hybrid vehicles over the past decade. Among homeowners, 7% stated that an Electric Vehicle (EV) would be among their next clean-energy purchases.
- Perceived price barriers have kept some homeowners from adopting clean-energy products. Less than half of all homeowners nationally (45%) believe that solar power is more affordable today than it was three years ago—even though during the past several years prices for solar panels dropped by more than half. As noted above, homeowners state that low up-front costs, and savings over time, would drive increased adoption of solar power and other clean-energy purchases.

In the following report, SolarCity and Clean Edge delve into these findings, analyzing the inaugural homeowners' survey. The report also includes a look at the high growth of clean-energy technologies over the past 10 years and a discussion of recent consumer adoption trends.

SolarCity and Clean Edge plan to release the homeowner survey annually, with the next report scheduled for early 2015.

The 2014 report is available for free download at [www.cleaneedge.com/reports](http://www.cleaneedge.com/reports) and [www.solarcity.com/insideenergy](http://www.solarcity.com/insideenergy)

# Survey Results

## Survey Overview and Methodology

SolarCity and Clean Edge, in the first research study of its kind, embarked on a survey of U.S. homeowners to better understand consumers' clean-energy actions, perceptions, and attitudes. The polling firm Zogby Analytics was commissioned to conduct an online survey of 1,418 homeowners across the U.S. The survey's purpose was to ascertain knowledge of and attitudes toward clean-energy products and services, as well as general attitudes about electric utilities and third-party energy service providers. Thousands of U.S. adults were invited by Zogby Analytics to participate in this interactive survey. The field of participants was narrowed down to only include homeowners. Invitations were password-coded and secure so respondents could only access the survey one time. The margin of error for the survey is +/- 2.7 percentage points. All interviews were completed between January 7 and January 13, 2014.

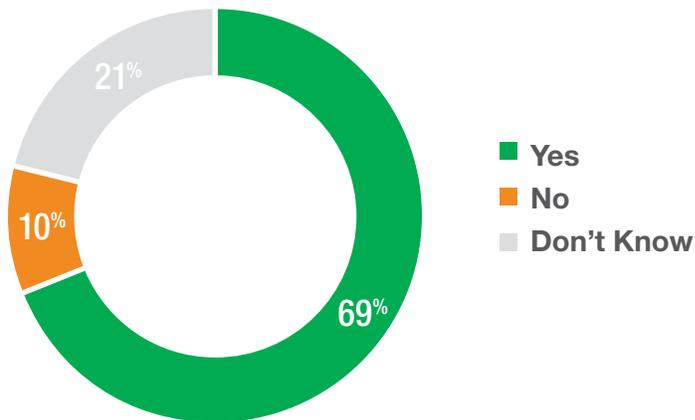
## Key Findings

Following are the top findings of the survey, with supporting tables. To access the full survey questionnaire and responses, see Appendix A on page 25.

## Homeowners Want Energy Options

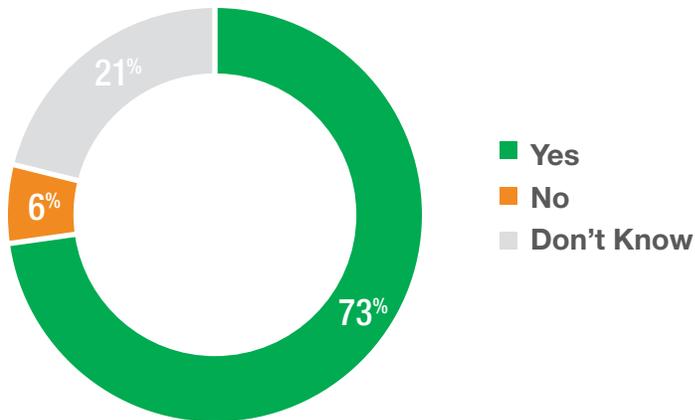
While homeowners report general satisfaction with their utilities, they want more choice and are open to getting their energy from someone other than their utility. More specifically, the survey found that while three-quarters of homeowners are very satisfied (13%), satisfied (30%), or somewhat satisfied (34%) with their electric utility, a strong majority of homeowners (69%) say they want more choice in their energy and electricity supply.

### Would you like more choices when it comes to accessing and purchasing electricity for your home?



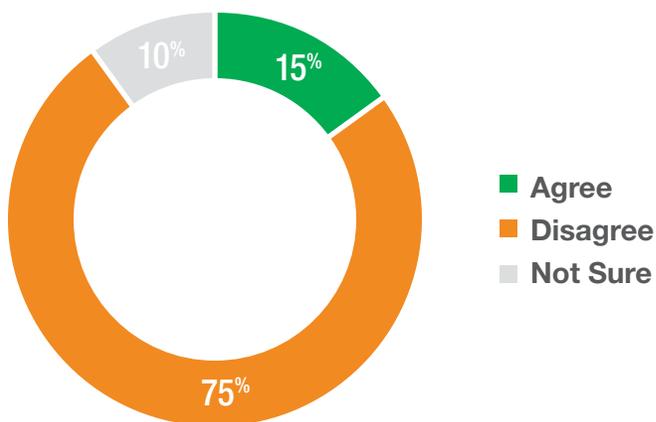
For example, a solid majority of homeowners (73%) say they would welcome an inexpensive and reliable form of energy provided by someone other than their current utility. So while consumers generally seem to have a solid relationship with their utilities, it's not necessarily an unbreakable bond—consumers are willing to consider third parties to meet their energy needs.

**If you could receive reliable, low-cost clean energy from a provider other than your current utility, would that be desirable?**



Reflecting this desire for choice, three out of four respondents also believe that utilities should not be able to block individual residential customers from installing distributed solar power, energy storage, and other onsite systems. This belief is strongest among respondents who identified themselves as Republicans, Conservatives, the middle-aged (55–69), and elderly (70+), at 80%, 83%, 89%, and 94%, respectively.

**Please indicate if you agree or disagree with the following statement: Utilities should be able to block residential customers from installing solar power, energy storage, and other onsite systems.**



Energy providers should take note of the strongly-held beliefs by some homeowners in these groups: many of the same free-market consumers who want the choice to not have a smart meter also want to protect their right to install their own distributed energy and storage systems. Consider the Green Tea Coalition, a Georgia alliance of Tea Party Republicans and Sierra Club environmentalists that supports solar energy against the monopoly power of traditional utilities in one of the most conservative states.

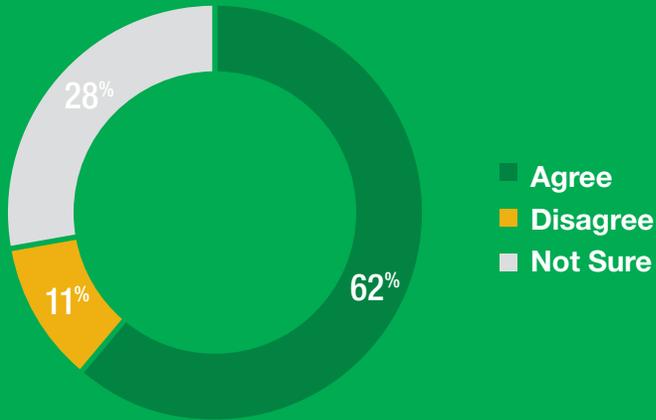
Further reflecting homeowners' desire for electricity options, 62% of American homeowners say that they want solar power, and half say they are interested in backup power for their homes. The top two reasons cited for backup power: homeowners have either experienced power outages before (44%) or want to be prepared for one in the future (37%).

---

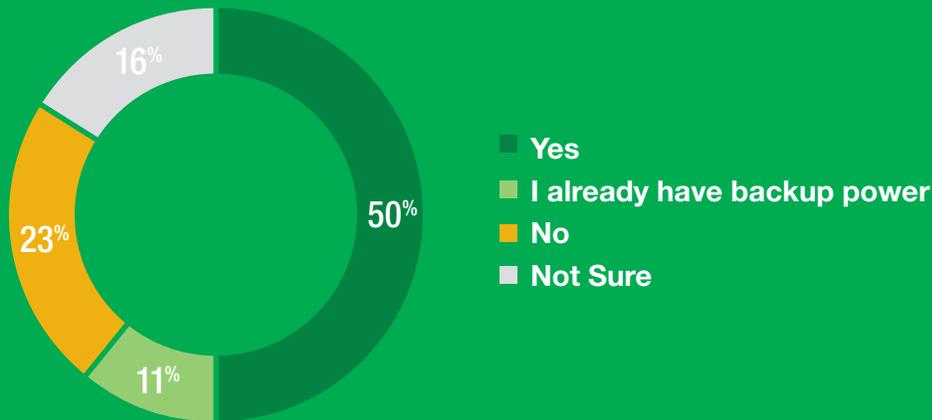
**62%** of American homeowners say that they want solar power, and half say they are interested in backup power for their homes

---

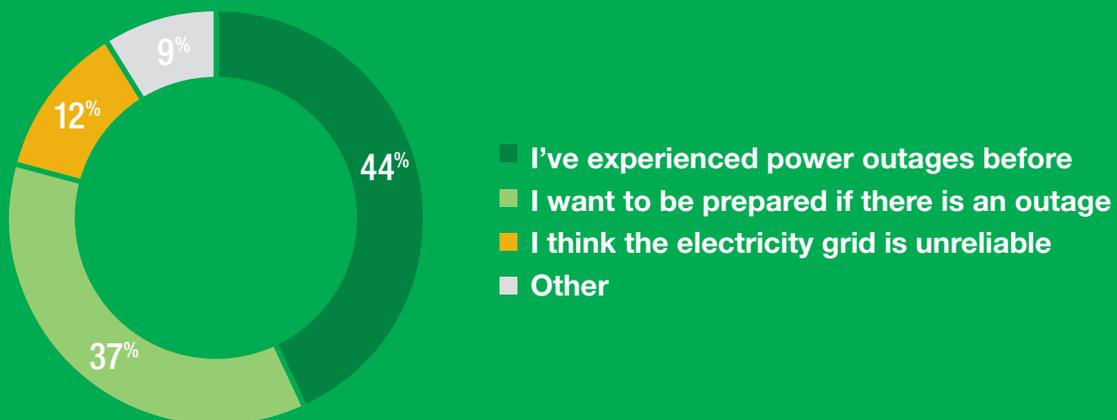
Indicate if you agree or disagree with the following statement: I would like to use solar in my home?



Are you interested in backup power for your home for use during electricity outages?



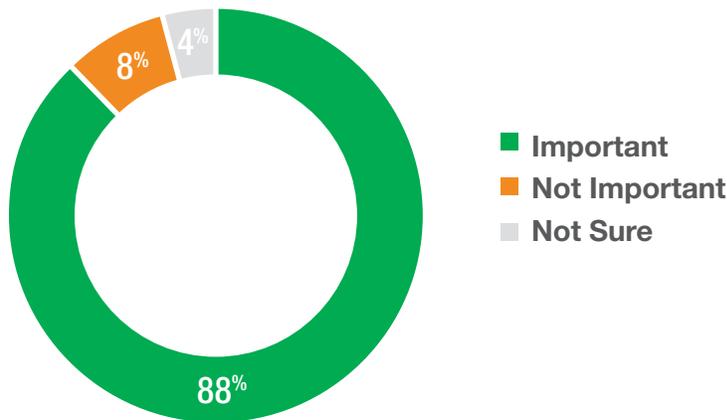
Why are you interested in Backup Power?



## Support for Renewables is Strong and Widespread

Americans of all stripes overwhelmingly support renewable energy. Not only do a strong majority of homeowners nationally (88%) believe that renewable energy is very or somewhat important to America's future, but that support is pretty evenly split among respondents' political affiliations, with Republicans, Democrats, and Independents coming in at 87%, 93%, and 83%, respectively.

### How important is renewable energy to America's energy future?

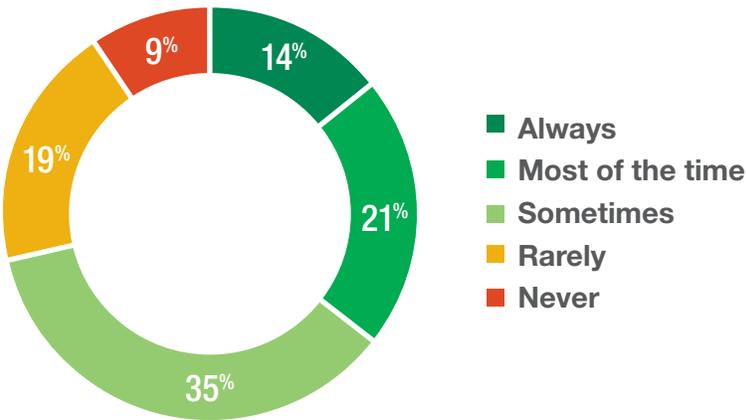


No matter their age or race, region of the country, or other characteristics, Americans across the board—city-dwellers and suburbanites, professionals and part-timers, high- and low-income—all agree that renewable energy is important to the country's future.

# Homeowners Weigh Environmental Impacts, but Economics Rule

Homeowners say they consider environmental impact and sustainability when it comes to the impact of their car, home, and other major purchases. Seven out of 10 homeowners say they consider or investigate those factors at least sometimes when making big-ticket purchasing decisions.

## How often do you consider or investigate the environment impact/sustainability of big-ticket items (cars, homes, etc.) when making purchasing decisions?



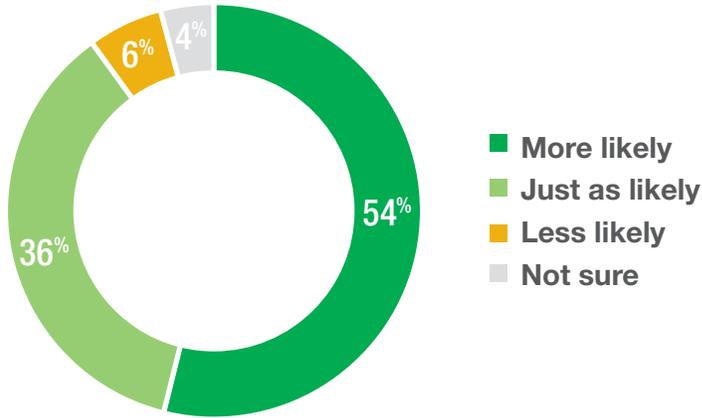
Those environmental considerations are increasing. Nationwide, more than half of homeowners (54%) say they are more likely to make such considerations today than they were three years ago.

---

**88%** of homeowners believe that renewable energy is important to America's future

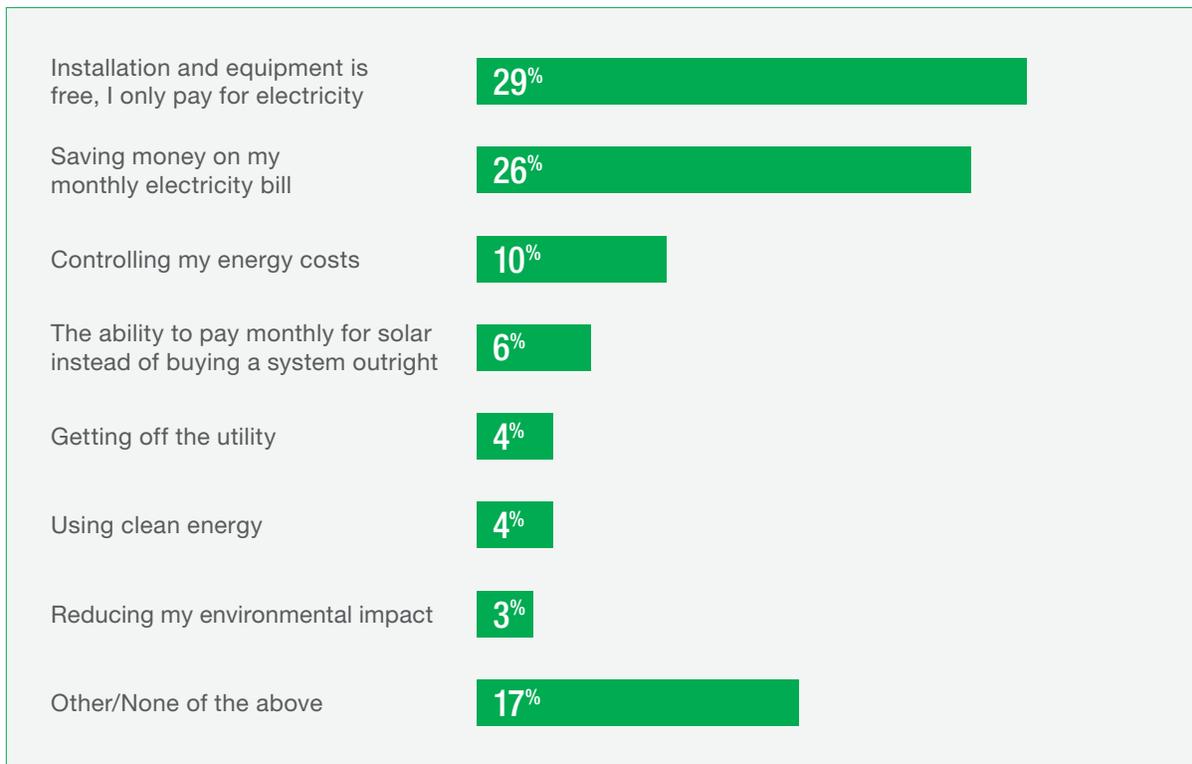
---

### Are you more or less likely to consider environmental impact today (either of the product or the company that makes it) than you were 3 years ago?



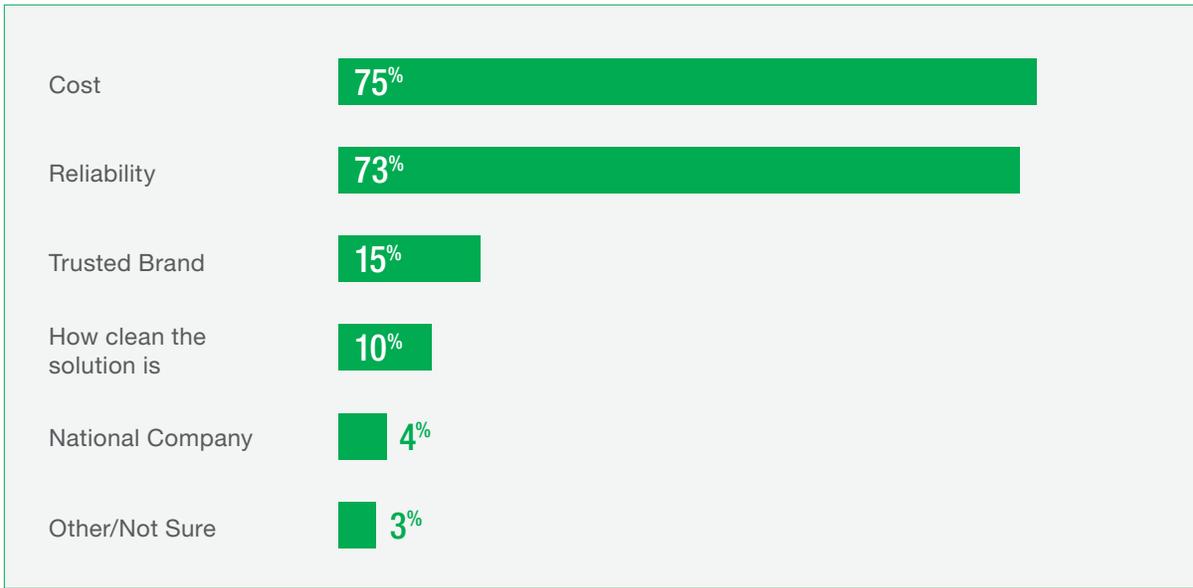
While homeowners say they care about the environment, economics drive most purchasing decisions. Respondents cite zero up-front costs, saving money, and controlling energy costs, as the top three reasons for considering solar power.

### What is the primary factor most likely to convince you to install solar power?



Similarly, homeowners say cost is the top factor they would consider when purchasing a backup power system—three-quarters of respondents name cost, while only 10% of homeowners say they would consider how clean the solution is.

**What are the two key factors you would consider when purchasing a backup power system (or switching your backup power)? (Choose two)**



---

**75%** of homeowners say cost is the most important factor when considering backup power for their home

---

## Clean-Energy Purchases are Becoming Mainstream, but Perceived Price Barriers Persist

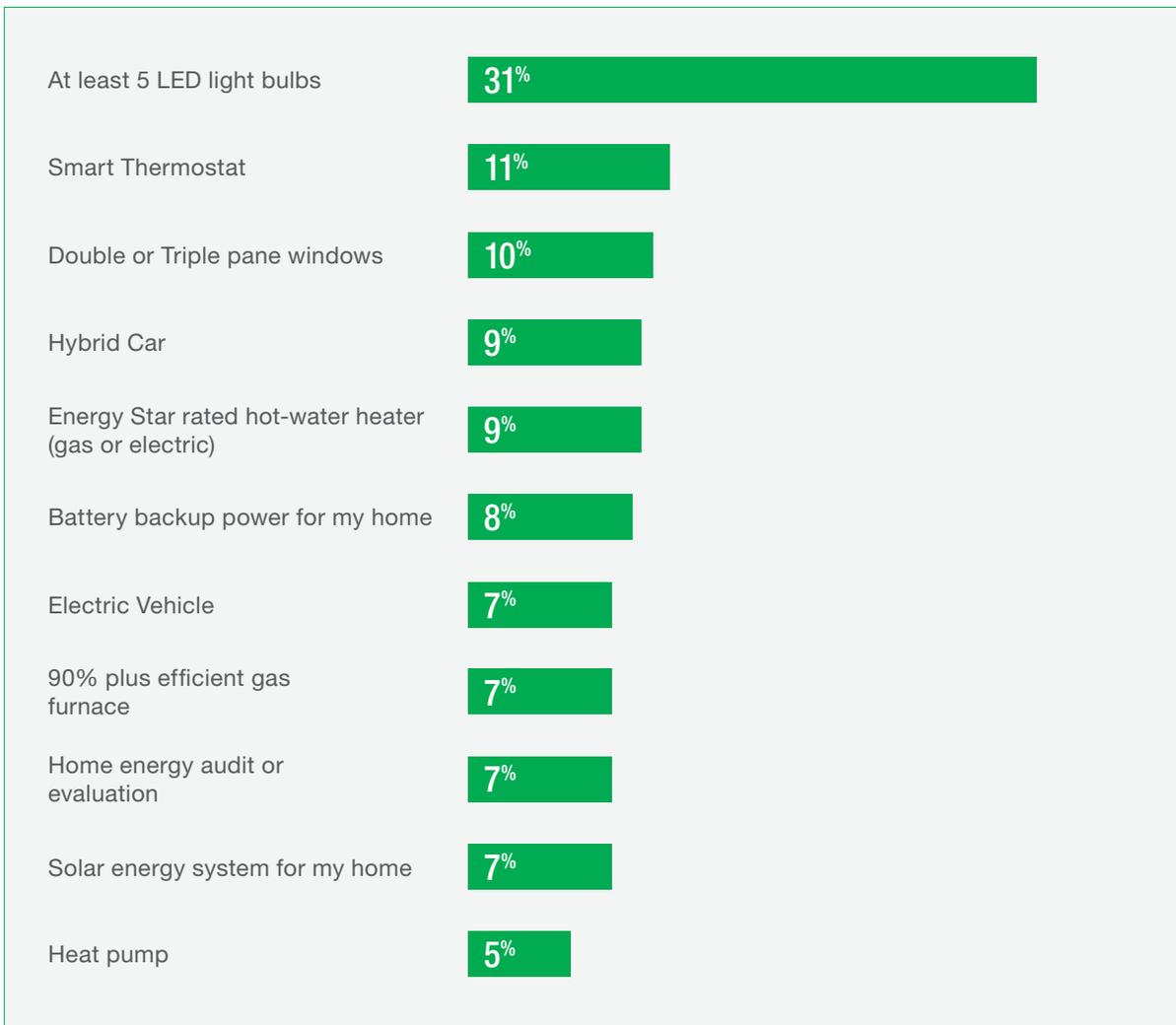
Homeowners increasingly know about the sustainability of what they buy and the companies they buy from, but, as noted above, they are choosing clean-energy products and services first and foremost as practical money-savers. They're not just buying goods that are good for the environment, but for the budget. And while Tesla EVs may get more press, energy-sipping light bulbs and smart thermostats are beginning to make significant inroads into the mass market as well.

### | Top Five Past Purchases

- #1. LED Light Bulbs**
- #2. Energy Star Rated Hot Water Heater (Gas/Electric)**
- #3. Double or Triple Pane Windows**
- #4. Smart Thermostat**
- #5. 90% Plus Efficient Gas Furnace**

The most popular planned clean-energy purchase in the next year is LED light bulbs. Nearly a third (31%) of all homeowners say they will buy LED light bulbs in the next year. This switch is perhaps happening faster than many had expected thanks to lower prices (less than \$10 for 60-watt equivalents—down from \$30 or more for early models) and the bulbs' mid- to long-term savings. After LEDs, the next planned clean-energy purchases for homeowners in the next year are smart thermostats (11%), double- or triple-pane windows (10%), hybrid cars (9%), and Energy Star-rated hot water heaters (9%).

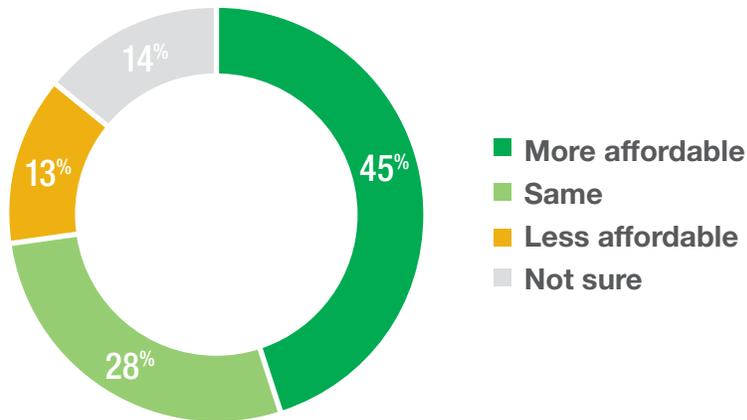
### Which, if any, clean-energy purchases are you likely to make in the next year? (Choose all that apply)



According to the survey, electric vehicles could be on track for growth similar to hybrid vehicles over the past decade. Among homeowners, 7% stated that an EV would be among their next most likely clean-energy purchases.

However, both real and perceived price barriers have kept some homeowners from adopting clean-energy products. Less than half of all homeowners nationally (45%), for example, believe that solar power is more affordable today than it was three years ago—even though during the past several years solar panel prices dropped by more than half. As noted above, homeowners state that low up-front costs, and savings over time, would drive increased adoption of solar power and other clean-energy purchases.

**From your perspective, has solar energy become more or less affordable over the last three years?**



Despite some homeowners' confusion over the actual price of solar, consumer trends over the past decade show strong growth in clean-energy adoption—and not just for small-ticket items. Hybrids, EVs, sustainable new housing and retrofits, clean electricity generation, and solar PV have all seen double-digit growth, and point to a market primed for still more widespread adoption, given the right economic offer, customer service, and consumer education.

---

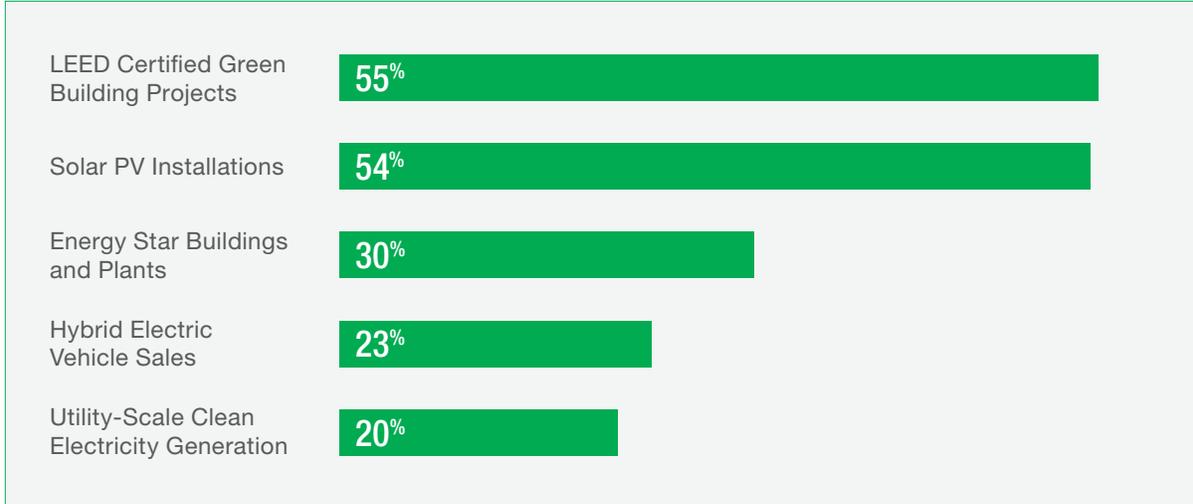
**31%** of homeowners say they will buy LED light bulbs within the next year

---

# U.S. Clean Energy Adoption and Growth

Over the past decade, clean-energy consumer adoption has been on the ascent. Across the nation, U.S. homeowners are shifting to clean-energy products and services, ranging from solar PV systems and LED light bulbs to electric vehicles (EVs) and green home construction. Between 2003 and 2012, for example, utility-scale renewables, hybrid electric vehicles, LEED-certified green buildings, Energy Star buildings, and solar PV installations all experienced double-digit compound annual growth rates (CAGRs) more akin to the smart phone and Internet sectors than that of the usually staid energy and transportation sectors. And it's a distributed revolution: over the past decade, clean-energy technologies have made significant inroads with a wide range of consumers, transcending geographic and demographic boundaries.

## 10-Year Compound Annual Growth Rates (CAGRs)



Source: Electric Drive Transportation Association, USGBC, IREC, EIA, and Energy Star with Clean Edge analysis

EVs and LED light bulbs are also on a rapid increase trajectory. Both of these sectors only have a few years of relevant data, and are growing from a nearly non-existent base, but their numbers are impressive nonetheless, with EVs showing a 435% CAGR over three years, according to the Electric Drive Transportation Association with Clean Edge analysis, and LEDs expanding 166% annually over four years, according to the U.S. DOE with Clean Edge analysis.

Next is a closer look at the rapid rise in clean-energy adoption rates, what's driving this activity, and how the near-to mid- term might be shaping up.

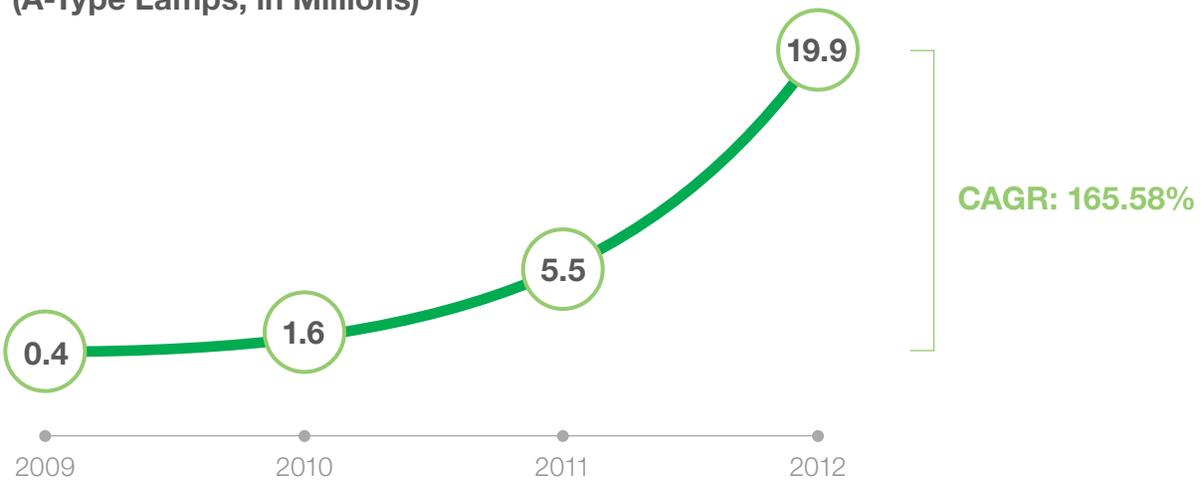
## A Bright Future for LEDs

The recent phase-out of the most power-hungry incandescent light bulbs (the iconic bulb invented by Thomas Edison) has coincided with the growth of far more efficient, less electricity-intensive compact fluorescents (CFLs), LED bulbs, and next-generation incandescents (often using halogen lighting technology).

While consumers have a wide range of new lighting options, LEDs in particular seem poised for significant growth. The quality of LED lighting is much closer to that of warm incandescents, rather than that of cool CFLs (Popular Mechanics). Clean Edge believes that the advent of low-cost (\$10 or less) and long-lasting (about 25 times longer than traditional incandescents according to a U.S. Department of Energy study) LED bulbs is likely to drive mass adoption. As outlined in our survey, LEDs rank at the top of likely clean-energy purchases by homeowners overall.

According to the U.S. Department of Energy, installations of a-type (the most common standard bulb) LED lamps reached 20 million in 2012, up from zero in 2009. That's a combined annual growth rate of 166%. While such a high growth rate isn't sustainable, we expect to see double-digit CAGRs for some time to come, as low-cost, high-lumens LEDs hit the shelves of mainstream retailers such as Home Depot, Walmart, and Walgreens.

### Annual LED Installations: United States (A-Type Lamps, in Millions)

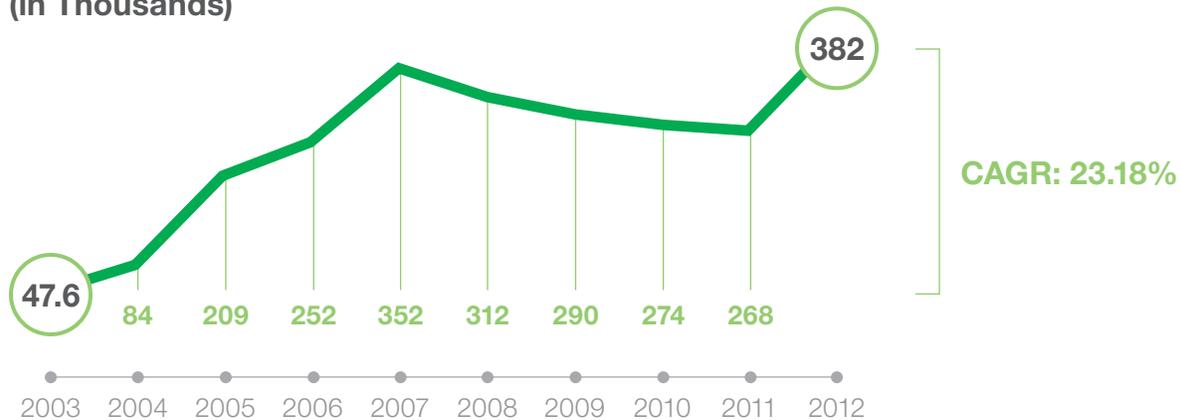


Source: U.S. DOE with Clean Edge analysis

## Electric Vehicles Follow High-Growth Path Forged by Hybrids

Annual sales growth of hybrid electric vehicles (HEVs) and all-electric vehicles (EVs) has far outpaced that of the overall auto market. The CAGR for hybrid electric vehicles for the ten-year period from 2003 to 2012 was 23.18%, with annual sales rising from 50,000 to nearly 400,000 vehicles during that period, according to the Electric Drive Transportation Association. At the same time, the number of hybrid models available expanded from two to more than 50.

### Hybrid Electric Vehicle Sales: United States (in Thousands)



Source: Electric Drive Transportation Association with Clean Edge analysis

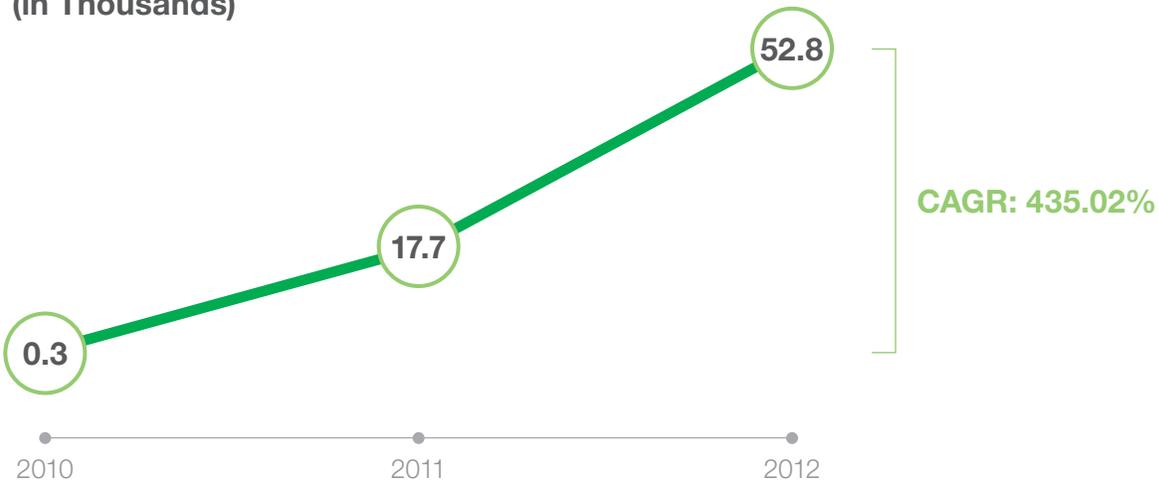
The first-generation Toyota Prius was priced at around \$20,000, and sold as a practical, reliable, family sedan (for moving people, kids, and pets). In 2014, consumers have a plethora of price and performance options: the 2014 210-hp Jetta hybrid has a list MSRP of \$15,500; while the 2014 hybrid Porsche 918 goes for \$845,000 and features a 4.6L V8 engine.

Toyota still dominates hybrid sales. Six of the top 10 best-selling hybrids of 2013 were Toyotas, according to Edmunds.com. More than three million Prius models have sold worldwide as of 2013 (Toyota). Consumer demand for hybrids continues to rise even as overall car sales have been relatively flat. Hybrid sales as a percentage of total car sales in the U.S. rose from 0.3% in 2003 to 3.2% in 2013 (Electric Drive Transportation Association).

Commercially available all-electric drive vehicles experienced a 435% CAGR from 2010 to 2012. Reviews have generally been excellent, with Consumer Reports rating Tesla's Model S the safest car of any type on the market. It's also been noted as the best-selling automobile in affluent ZIP codes. EVs beat out traditional gas-powered vehicles for a growing number of consumers in a variety of ways: sustainability and environmental factors (zero carbon emissions from the vehicles), safety, styling, and high-tech features (Tesla pushes firmware updates to its vehicles online). Cost of ownership is likely to be a bigger part of the story going forward, with rising gas prices and the total upfront EV costs coming down.

Although sales of all-electric vehicles are still only a small percentage of the overall auto market (less than 1%, according to the Electric Drive Transportation Association), the rise of the Tesla Model S, the Chevrolet Volt, and the Nissan Leaf suggest that the category's sales growth will continue to greatly outpace that of the overall market over the next several years. Judging by sales for their first few years, EVs could see the same type of growth curve experienced by hybrids over the past decade.

### Electric Vehicle Sales: United States (in Thousands)



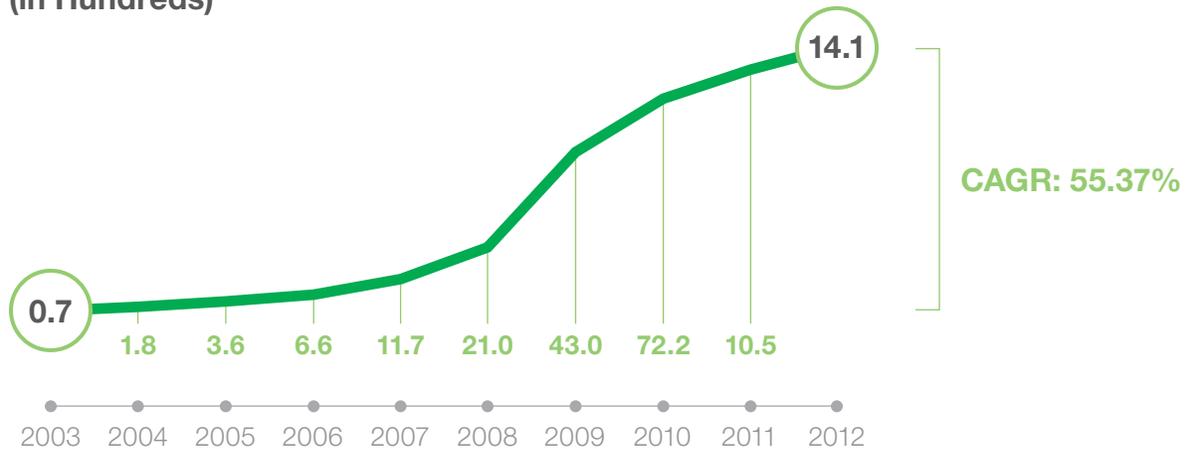
Source: Electric Drive Transportation Association with Clean Edge analysis

### Green Buildings Go Mainstream

Consumer demand for sustainability is especially apparent when it comes to homes and construction. The recession kneecapped the housing industry, which saw annual new housing starts plummet from 1.3 million in 2006 to about 350,000 in 2009 (National Association of Home Builders). That represented an 80% drop from 2006 levels, at the height of the housing boom. Although those numbers rebounded and reached 650,000 in 2013, that's still only 44% of 2003 levels, which the industry considered a "normal" year.

In stark contrast to the recent volatility in overall housing construction, LEED-certified and Energy Star-rated projects both saw double-digit CAGRs during the recession, and for the 10-year period that ended in 2012. The number of new LEED-certified projects per year in the U.S. grew from basically nil in 2003 to more than 3,500 in 2012—a CAGR of 55.37%.

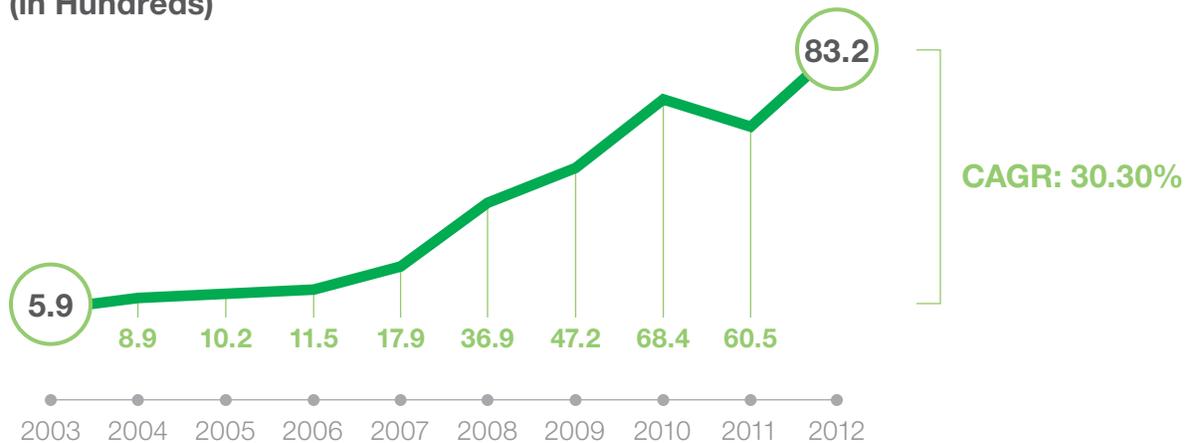
## LEED Certified Projects in the United States (in Hundreds)



Source: USGBC data with Clean Edge analysis

Similarly, the number of new Energy Star buildings and plants in the U.S. constructed annually grew from about 500 in 2003 to more than 8,000 in 2012, for a CAGR of 30.30%. The number of new Energy Star buildings and plants did drop by about 1,000 from 2010 to 2011, but recovered in 2012.

## Energy Star Buildings and Plants: United States (in Hundreds)



Source: Energy Star with Clean Edge analysis

Green homes, including LEED-certified, Energy Star-certified, and those with other improvements in energy, water, and materials efficiency, comprised 23% of the overall residential construction market in 2013 and are expected to grow to between 26% and 33% of the market by 2016, according to McGraw-Hill.

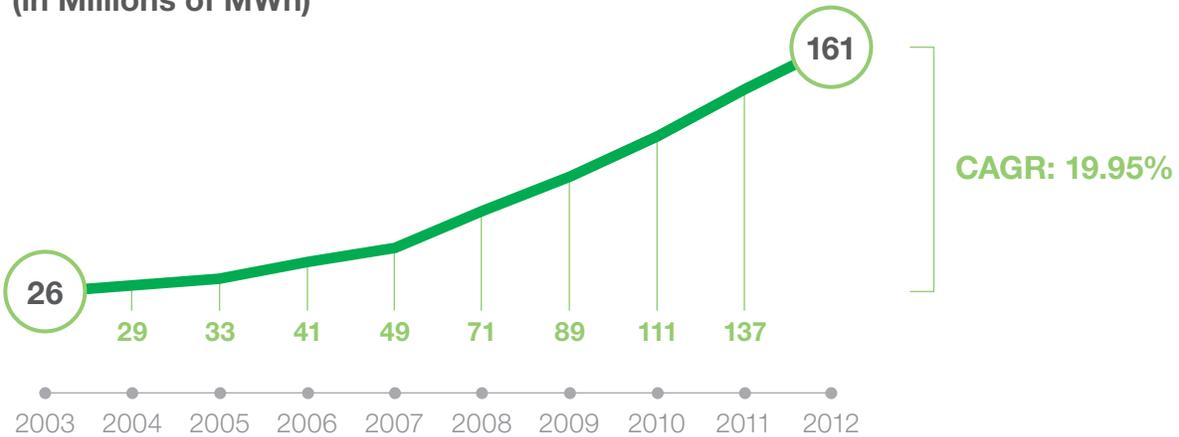
The draw is obvious: green construction saves money in the long run. The U.S. Green Building Council has noted that on a simple average (not weighted by size), LEED projects show an average energy-use intensity (EUI) approximately 30% lower than the national median source EUI.

At a time when the overall housing industry has struggled, the boom in LEED certifications and Energy Star ratings shows ongoing consumer and business demand for sustainable building practices—and the efficiency savings they can bring.

### Clean Electricity Generation and Solar PV Installations

Electricity generation from renewable power sources (solar PV, solar thermal, wind, and geothermal) at the utility scale (installations of 1 MW and higher) had a combined annual growth rate of nearly 20% during the ten-year period ended in 2012.

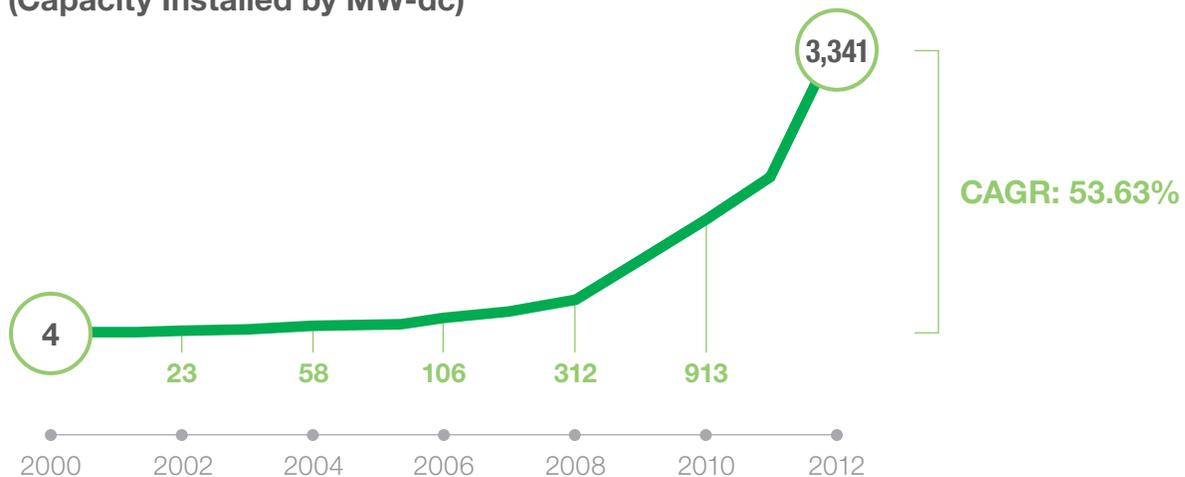
#### Utility Scale Clean Electricity Generation: United States (in Millions of MWh)



Source: EIA with Clean Edge analysis. Clean electricity sources include wind, solar PV and thermal, and geothermal. EIA electricity generation data is gathered from monthly surveys of power plants with peak capacity of at least 1MW, meaning sub-1MW solar installations do not count towards generation totals.

Solar PV in particular has seen significant growth over the past decade, with annual grid-connected installations jumping from near zero in 2004 to almost 3.5 GW in 2012 alone, for a CAGR of 53.63%. 2013's final numbers are projected to come in even higher, at around 4.2 GW, and residential customers are playing a significant role. In the first three quarters of 2013 alone, residential installations were up 49% year-over-year, according to Greentech Media. The same study noted that residential solar PV experienced the most rapid growth of any sector in the U.S. PV market for 2013.

### Annual Grid-Connected Solar PV Installations: United States (Capacity Installed by MW-dc)



Source: IREC with Clean Edge analysis

Differences in incentives, electricity costs, and programs make for a wide range of savings for solar households in different states. Yet the savings are real: a 2011 Clean Power Research study estimated that the average household would save at least \$10,000 over 20 years by going solar versus traditional utility-supplied power. In five states, the savings would reach more than \$40,000 over 20 years.

What will the future look like? Increasingly, the U.S. electricity market is being built off of renewables, efficiency, and natural gas. Renewables, for example, accounted for more than a third (37%) of new electricity generating capacity added in the U.S. in 2013—three times as much as by coal and nuclear combined, according to the Federal Energy Regulatory Commission. The prior year, in 2012, renewables accounted for approximately 49% of new capacity.

As the economic value proposition of clean-energy products and services continues to increase, greater adoption by homeowners and other consumer groups seems inevitable.

## About & Disclaimer



(NASDAQ: SCTY) provides clean energy. The company has disrupted the century-old energy industry by providing renewable electricity directly to homeowners, businesses and government organizations for less than they spend on utility bills. SolarCity gives customers the opportunity to control their energy costs to protect them from rising rates. The company offers solar power and energy-related products and services, and makes clean energy easy by taking care of everything from design and permitting to monitoring and maintenance. SolarCity currently serves 14 states and signs a new customer every three minutes. Visit the company online at [www.solarcity.com](http://www.solarcity.com) and follow the company on Facebook & Twitter.



Clean Edge, Inc., founded in 2000, is the world's first research and advisory firm devoted to the clean-tech sector. The firm delivers an unparalleled suite of clean-energy benchmarking services including stock indexes, utility and consumer surveys, and regional leadership tracking, providing companies, investors, NGOs, and governments with timely research, trending analysis, and actionable insights. Managing director Ron Pernick and senior editor Clint Wilder are coauthors of the widely acclaimed business books *The Clean-Tech Revolution* (HarperCollins, 2007) and *Clean-Tech Nation* (HarperCollins, 2012). To keep abreast of the latest clean-tech trends, or for more information on the company, visit [www.cleantech.com](http://www.cleantech.com).

## Zogby Analytics

For three decades, the Zogby companies have produced polls with an unparalleled record of accuracy and reliability. Zogby telephone and interactive surveys have generally been the most accurate in U.S. Presidential elections since 1996. Zogby Analytics is composed entirely of senior level executives from Zogby International, including renowned pollster John Zogby. Zogby Analytics conducts a wide variety of surveys internationally and nationally in industries, including banking, IT, medical devices, government agencies, colleges and universities, non-profits, automotive, insurance and NGOs. Learn more at [www.zogbyanalytics.com](http://www.zogbyanalytics.com).

**DISCLAIMER:** Information contained in this report is not intended to be investment advice or used as a guide to investing and no recommendation is intended to be made as to any particular company in this report.

## Appendix: A

### Survey questionnaire, including homeowner results

**Do you think that solar power today is more expensive or less expensive than the current retail rates provided by your electric utility?**

	More Expensive	Same	Less Expensive	Not Sure
Homeowners (%)	43	15	27	16

**From your perspective, has solar energy become more or less affordable over the last three years?**

	More affordable			Same	Less affordable			Not Sure
	Overall	Much more	Smwht. more		Overall	Much less	Smwht less	
Homeowners (%)	45	10	35	28	13	5	9	14

**Have you installed solar power for your home?\***

	Yes	No
Homeowners (%)	13	87

*\*Respondents viewed this question very broadly and included all types of solar power for their homes, ranging from small solar battery chargers to solar garden lanterns to solar thermal. This explains the large percentage of homeowners who say they had solar power.*

**What is the primary reason you haven't installed solar power yet? (Asked only of those who said they have not installed solar power in their home)**

	Homeowners (%)
Too expensive	50
I didn't know it was an option for me	14
I don't want to make a long-term commitment	7
I like my utility	7
I'm planning to move soon	6
I don't like the look of solar panels on my house	5
Solar companies are not trustworthy	2
I think energy costs will fall	1
Other	9

**What is the primary factor most likely to convince you to install solar power? (Asked only of those who said they have not installed solar power in their home)**

	Homeowners (%)
Installation and equipment is free, I only pay for electricity	29
Saving money on my monthly electricity bill	26
Controlling my energy costs	10
The ability to pay monthly for solar instead of buying a system outright	6
Getting off the utility	4
Using clean energy	4
Locking in a predictable energy rate for 20 years	3
Reducing my environmental impact	3
Other	2
None of the above	12

**How often do you consider or investigate the environmental impact/sustainability of big-ticket items (cars, homes, etc.) when making purchasing decisions?**

	Homeowners (%)
Always	14
Most of the time	21
Sometimes	35
Rarely	19
Never	9

**Are you more or less likely to consider environmental impact today (either of the product or the company that makes it) than you were 3 years ago?**

	More Likely			Same	Less Likely			Not Sure
	Overall	Much more	Smwht. more		Overall	Much less	Smwht less	
Homeowners (%)	<b>54</b>	20	34	36	<b>6</b>	3	3	4

**Which, if any, clean-energy products have you purchased in the last three years? (Check all that apply.)**

	Homeowners (%)
At least 5 LED light bulbs	50
Haven't made such a purchase	15
Smart thermostat	30
Double or triple pane windows	30
Hybrid car	10
Energy Star rated hot-water heater (gas or electric)	36
Battery backup power for my home	6
Electric vehicle	5
90% plus efficient gas furnace	17
Home energy audit or evaluation	10
Solar energy system for my home	5
Heat pump	10
Not sure	4

**Which, if any, clean-energy purchases are you likely to make in the next year? (Choose all that apply)**

	Homeowners (%)
At least 5 LED light bulbs	31
Haven't made such a purchase	15
Smart thermostat	11
Double or triple pane windows	10
Hybrid car	9
Energy Star rated hot-water heater (gas or electric)	9
Battery backup power for my home	8
Electric vehicle	7
90% plus efficient gas furnace	7
Home energy audit or evaluation	7
Solar energy system for my home	7
Heat pump	5
Not sure	24

**Are you interested in backup power for your home for use during electricity outages?**

	Homeowners (%)
Yes	50
No	23
I already have backup power	11
Not Sure	16

**Why are you interested in backup power? (Asked only of those who said they were interested in backup power for their home use during electricity outages.)**

	Homeowners (%)
I've experienced power outages before	44
I want to be prepared if there is an outage	37
I think the electricity grid is unreliable	12
I want to be off the grid	4
I want to get away from my utility	2
Other	1
Not sure	2

**What are the two key factors you would consider when purchasing a backup power system (or switching your backup power)? (Choose two) (Asked only of those who said they were interested in backup power for their home use during electricity outages.)**

	Homeowners (%)
Cost	75
Reliability	73
How clean the solution is	10
Trusted brand	15
National company	4
Other	<1
None of the above	2

### How important is renewable energy to America's energy future?

	Important			Not Important			Not Sure
	Overall	Very	Somewhat	Overall	Not that	Not at all	
Homeowners (%)	<b>88</b>	57	31	<b>8</b>	5	3	5

### Please indicate if you agree or disagree with the following statement: I would like to use solar in my home?

	Homeowners (%)
Agree	62
Disagree	11
Not Sure	28

### Are you satisfied overall with your electric utility company?

	Satisfied				Dissatisfied			Not Sure
	Overall	Very	Satisfied	Somewhat	Overall	Very	Smwht	
Homeowners (%)	<b>77</b>	13	30	34	<b>20</b>	7	14	3

**Do you feel like you have choice for your electricity supply, other than your utility?**

	Homeowners (%)
Yes, I have a full range of choices	12
Yes, I have some choices	25
No, my choices are limited	31
No, I don't have a choice at all	23
Not Sure	9

**Would you like more choices when it comes to accessing and purchasing electricity for your home?**

	Homeowners (%)
Yes	69
No	10
Not Sure	21

**Please indicate if you agree or disagree with the following statement: Utilities should be able to block residential customers from installing solar power, energy storage, and other onsite systems.**

	Homeowners (%)
Agree	15%
Disagree	75%
Not sure	10%

**If you could receive reliable, low-cost clean energy from a provider other than your current utility, would that be desirable?**

	Homeowners (%)
Yes	73
No	6
Not sure	21

**How aware are you that the electric utility industry is the largest air and water polluter in the country?**

	Aware			Not Aware			Not Sure
	Overall	Very	Somewhat	Overall	Not very	Not at all	
Homeowners (%)	48	17	31	45	25	19	7

**How aware are you that the utility industry uses nearly half of all water in the US in the creation of electricity—more than any other sector, including irrigation, manufacturing, or public water use?**

	Aware			Not Aware			Not Sure
	Overall	Very	Somewhat	Overall	Not very	Not at all	
Homeowners (%)	37	14	24	57	29	27	6

