

# Solar Power: Becoming America's Energy

Research Findings Prepared by Global Strategy Group for Solar Energy Industries Association



# Methodology

## Registered Voters

Global Strategy Group conducted an online national survey of **750 registered voters and 480 opinion leaders** between August 27 and September 4, 2018.

This includes 130 qualified opinion leaders from the survey of registered voters as well as 350 additional interviews.

## Opinion Leaders

Opinion leaders include registered voters who attended college, are employed, and regularly consume media about government and public affairs.

# Summary Findings

- **Solar leads the way.** Large, bipartisan majorities want to see more investment in solar from their utilities and more action by the government to encourage solar, and solar proves more popular than fossil fuels, nuclear energy, and even wind power.
  - Meanwhile, a surprisingly solid majority of voters agree that they would vote against anti-solar politicians, and this includes a majority of independents and Republicans.
- **Opinion Leaders are even more enthusiastic.** On every metric in the survey, opinion leaders are even more supportive of solar than the general population. Among the general population support is highest with Democrats, men, younger voters and Hispanics.
- **Solar seen as clean, good for the environment and for the economy – but some hesitation on jobs.** Solar is overwhelmingly seen as being clean, and good for the environment and people’s health. A large and intense majority also believes it is good for the American economy writ large. However, while a majority also believes solar creates good jobs, there is here is more hesitation here.

# Summary Findings

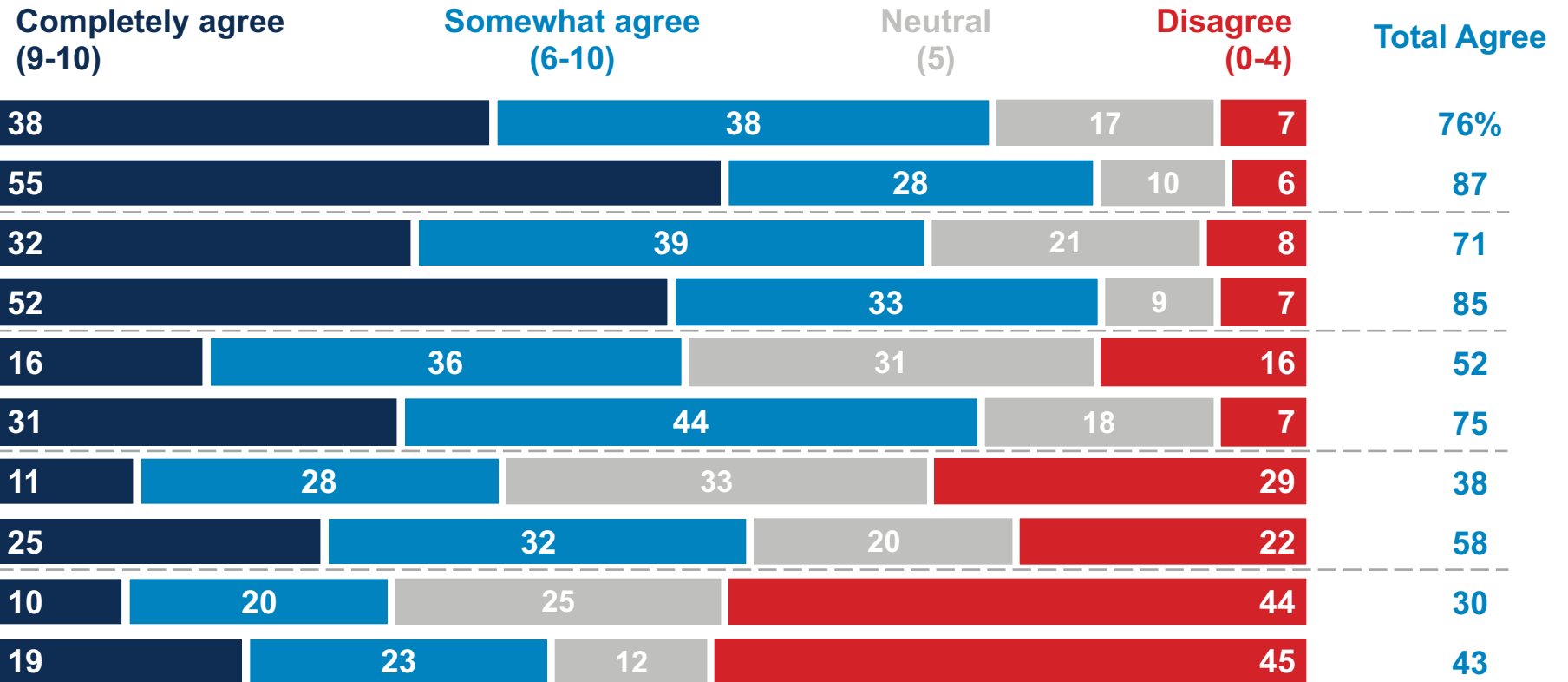
- **Costs are the biggest concern – but even that is minor, and easily addressed with education.** A small majority agrees that solar is affordable, but it scores weaker on this measure than any other tested. Opinions among all voters and opinion leaders show that sentiments on costs are mixed, with some people believing that solar is already cheap, and others that it remains expensive. Importantly, educational messages on solar costs falling fast are very strong and result in solid gains in the belief that solar is affordable.
- **On the other hand, feasibility not a real obstacle.** When asked the negative things that come to mind about solar, very few people mention a lack of feasibility as a problem. Moreover, about three-quarters of Americans – and even more opinion leaders – believe that solar with storage could meet a substantial portion of both our new and current demand.
- **Messaging is strong and boosts intensity of support for solar.** In truth, there is not a ton of room to increase support for solar since it already starts out so high, but our educational messaging is effective in boosting the intensity of support for solar.

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Attitudes Towards Solar

# Overwhelming majorities of voters and opinion leaders want utility to use more solar – more than any other source

My electric utility should get more of its electricity from...





# Solar seen as clean, renewable and – by some – cheap

## Positive impressions of solar

### Registered Voters

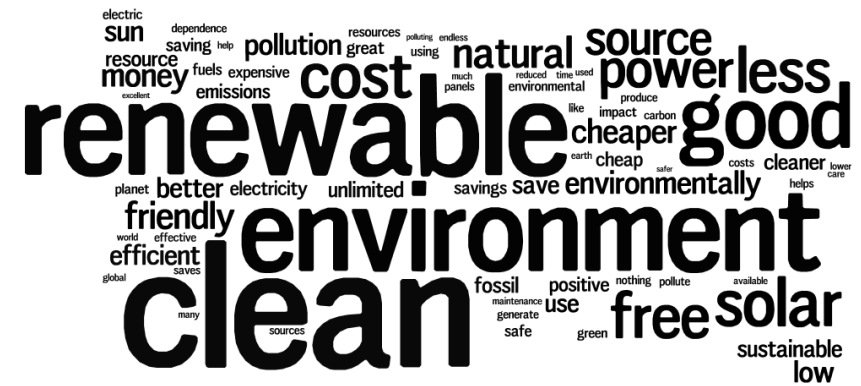


*Once installed, it should have no additional costs. The sun has come up every day so far.*

*Solar power is readily available. It would be better for the environment.*

*Saving [the] environment, Using what God gave us*

### Opinion Leaders



*A good source that is renewable...will always be there and it is clean.*

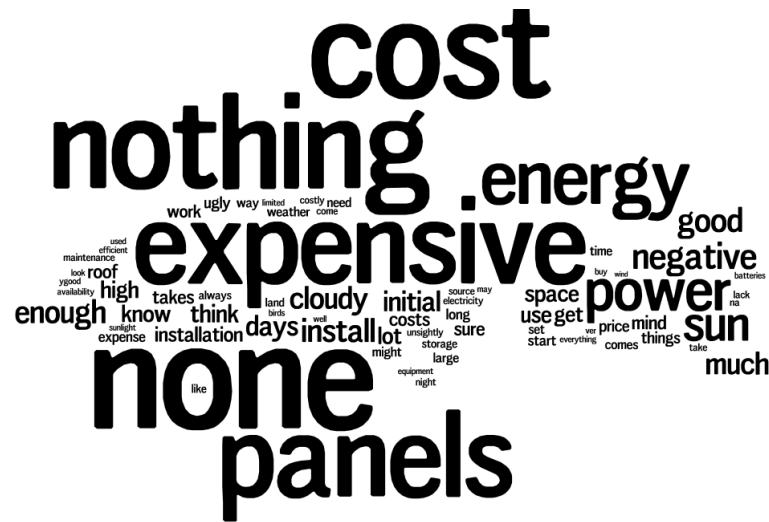
*It is a natural energy, it is not polluting, and it is much more powerful and efficient than traditional energy.*

*Save the environment. Save money. Help clean the air.*

# Many struggle to find negatives with solar, but some do identify cost or expense

## Negative impressions of solar

### Registered Voters



*Too expensive, it doesn't work at nighttime*

*Elec. company charges people more when they use solar*

### Opinion Leaders



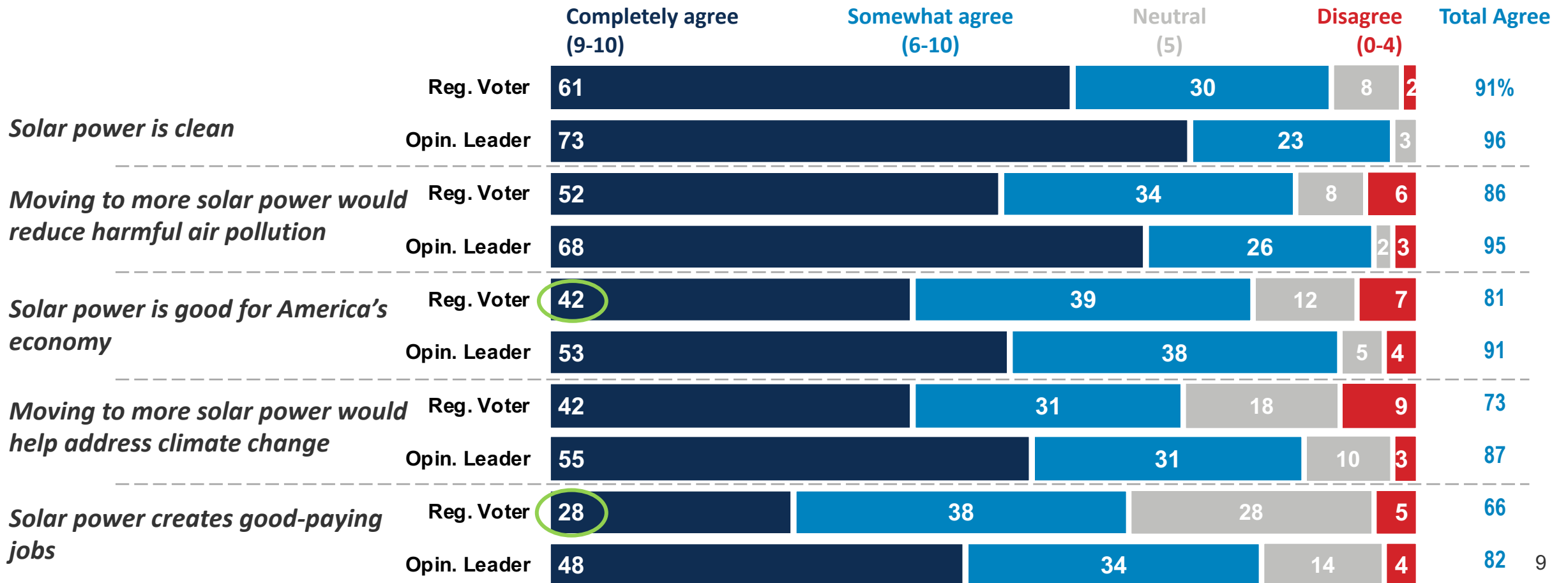
*The solar panels are expensive, and contain a lot of toxic chemicals.*

*Still expensive relatively speaking. Still need secondary storage in some cases, like batteries.*



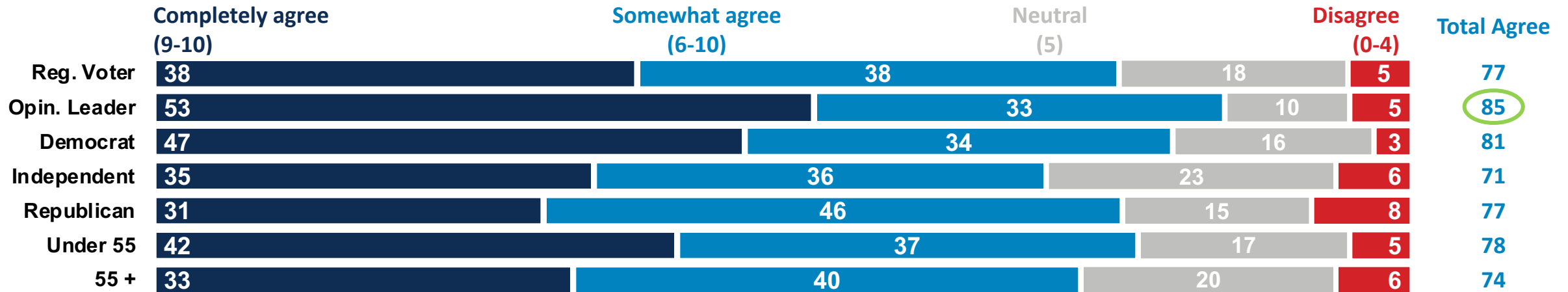
# Overwhelming view that solar is clean and good for air. More intense belief that it is generally good for economy than it will create good jobs

## Perceptions and expectations towards solar power

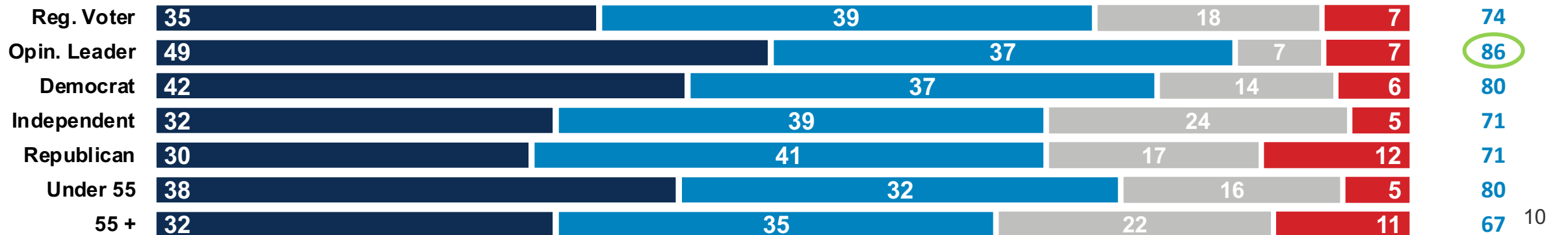


# Majorities agree that solar with storage can meet new needs as well as replace old, outdated fossil fuel power plants

Solar power paired with battery storage could realistically be used for a substantial portion of our new electricity needs, instead of building more fossil fuel or nuclear power plants

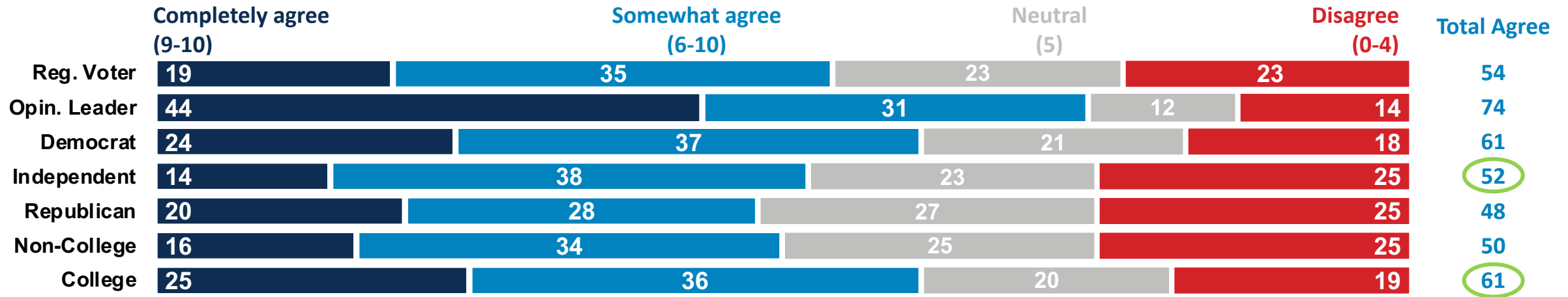


Solar power paired with battery storage could realistically replace a substantial portion of existing fossil fuel and nuclear power plants in this country

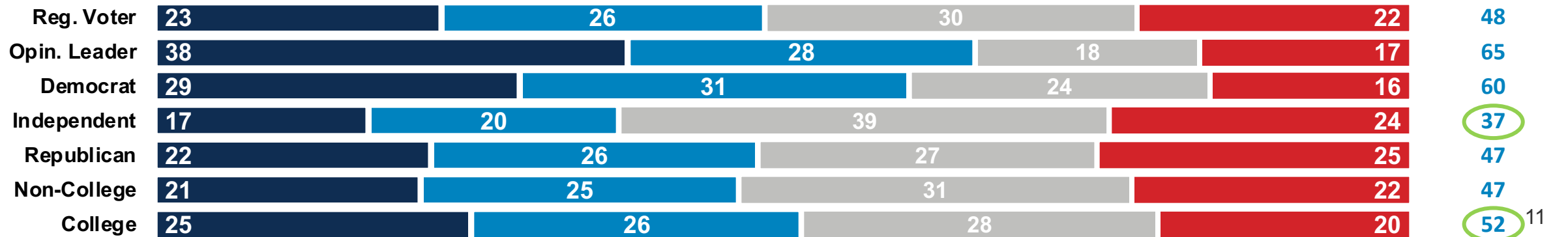


# Smaller majorities see solar as affordable, though independents and college-educated more uncertain when compared to coal

## Solar power is affordable

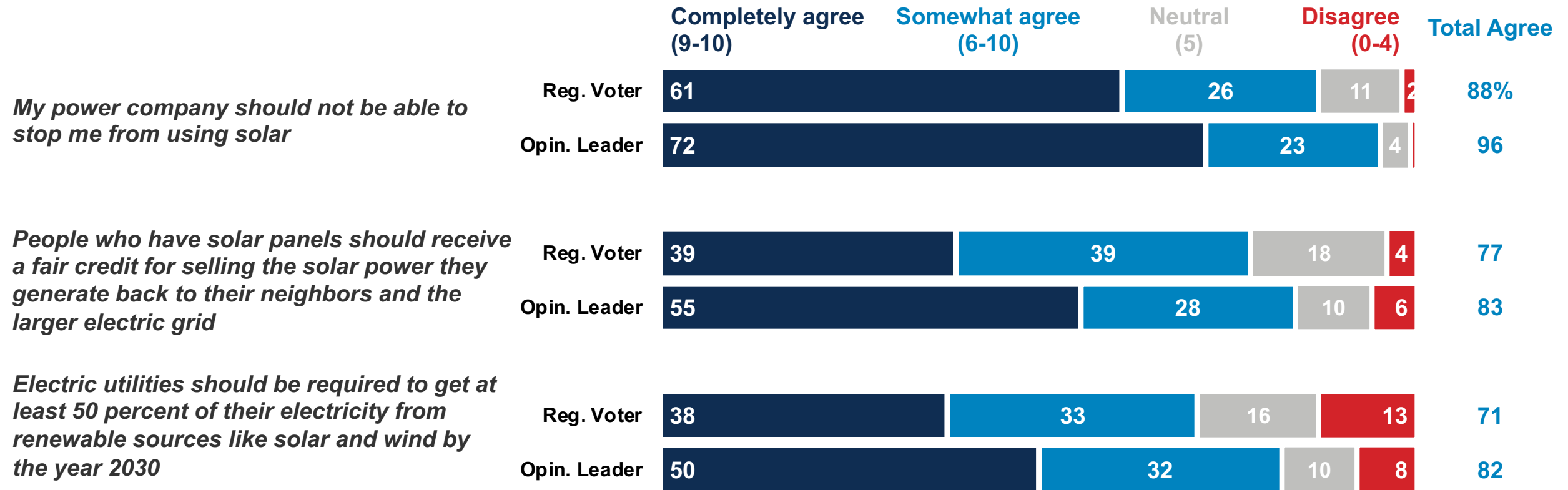


## Solar power is just as affordable as coal



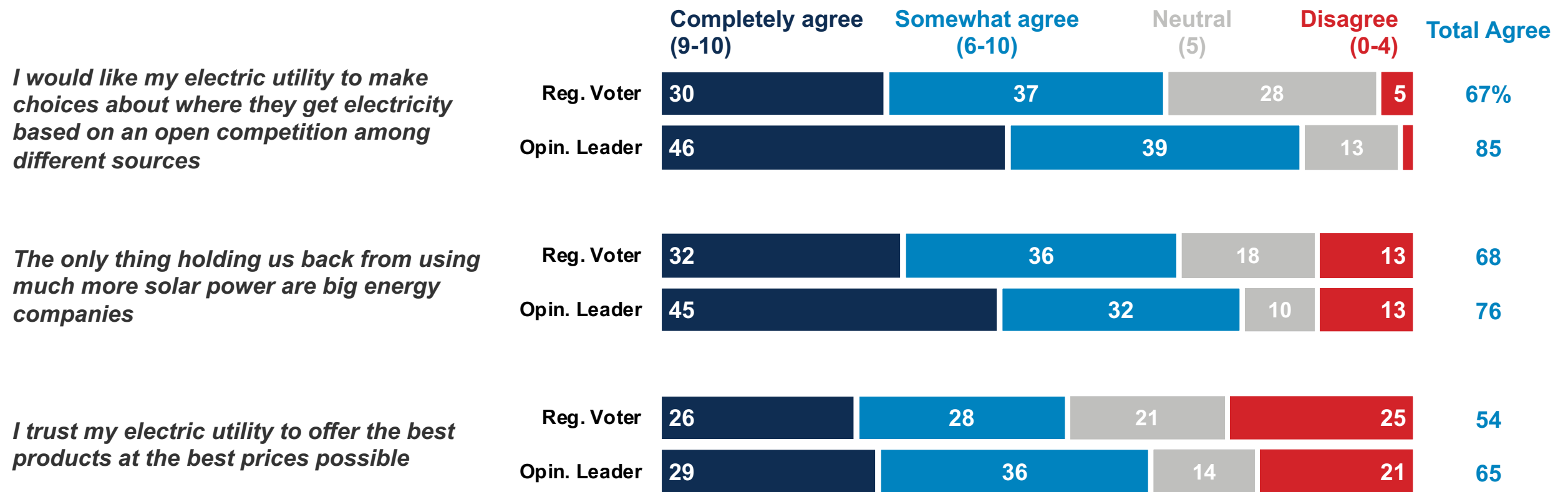
# Large majorities back net metering, 50% by 2030 RPS. Even larger majority agrees utilities should not be able to block solar

## Role of utilities and individuals in solar power



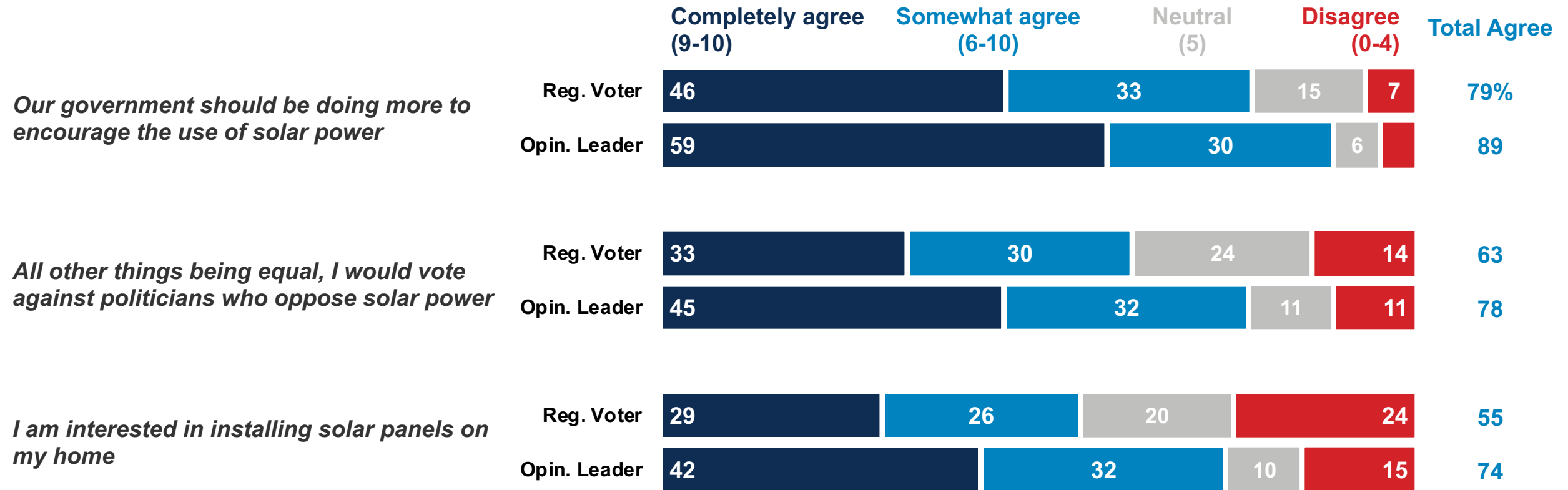
# Two-thirds agree that big energy companies are discouraging more solar. Voters split on trust in utilities though opinion leaders have more

## Attitudes towards market for energy, utilities, and big energy companies



# Overwhelming belief government should be doing more to encourage solar, and majority says they would vote against anti-solar candidates

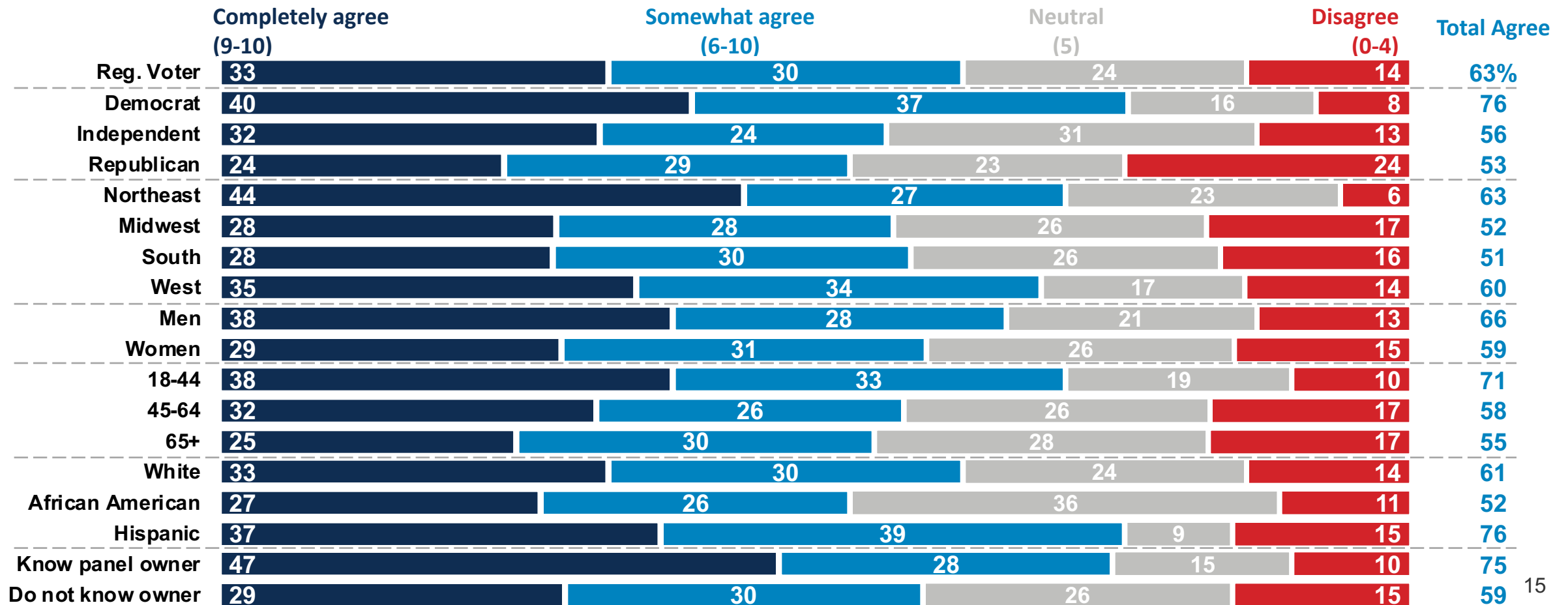
## Role of government in regulating solar and interest in personal use





# A majority of Republicans would vote against anti-solar candidates. Intensity stronger with men, younger, Hispanics and with those that know a solar panel owner

I would vote against politicians who oppose solar power



# Messaging results in gains in intensity of support for solar, solid movement in believing it is affordable, feasible

## Change in attitudes after reading pro-solar messaging among registered voters

	Total agree			Completely Agree		
	Initial	Post-messaging	Shift	Initial	Post-message	Shift
<i>Solar power is good for America's economy</i>	81	84	+3	43	47	+4
<i>Solar power is affordable</i>	56	61	+5	21	27	+6
<i>Solar power is just as affordable as coal</i>	49	55	+6	24	24	-
<i>Solar power paired with battery storage could realistically be used for a substantial portion of our new electricity needs, instead of building more fossil fuel or nuclear power plants</i>	77	81	+4	40	44	+4
<i>Solar power paired with battery storage could realistically replace a substantial portion of existing fossil fuel and nuclear power plants in this country</i>	75	79	+4	36	41	+5
<i>My electric utility should get more of its electricity from solar power</i>	76	80	+4	39	47	+8
<i>Our government should be doing more to encourage the use of solar power</i>	80	81	+1	46	48	+2
<i>All other things being equal, I would vote against politicians who oppose solar power</i>	64	65	+1	34	37	+3
<i>I am interested in installing solar panels on my home</i>	57	61	+4	30	33	+3

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Messaging about Solar

# Health, Costs, Economy are strongest scoring messages overall and with swing. Climate appeals to leaders, but not swing

## Messaging

Reg Vot	Opinion Leaders <i>Mean Score (Out of 0-10 Scale)</i>	Swing	
7.5	8.1	7.3	<b>HEALTH:</b> Transitioning from solar will save 60,000 lives
7.4	8.1	7.2	<b>ECONOMY-JOBS:</b> Employs 250,000 Americans
7.4	7.9	7.2	<b>COSTS-VOLATILE:</b> Solar is cheaper and more reliable
7.3	8.0	7.3	<b>COSTS-STANFORD:</b> Solar prices dropped by 80%
7.3	7.7	7.1	<b>CONTROL/CHOICE:</b> Choose how and when get power
7.3	7.9	7.2	<b>FREEDOM:</b> Finally freedom to choose source
7.3	8.0	7.0	<b>STORAGE 1:</b> New tech reducing need for fossil/nuclear
7.3	7.9	7.0	<b>STORAGE 2:</b> New tech will lead to 100% renewable
7.2	8.0	7.1	<b>LEGACY:</b> Don't leave a damaged planet for next gen
7.2	7.8	7.0	<b>ECONOMY-GROWTH:</b> \$2 trillion market for solar
7.2	7.8	7.0	<b>BIG COMPANIES:</b> Amazon, Apple, Target all use solar
7.1	8.0	6.8	<b>CLIMATE:</b> Decrease carbon and reverse damage

\*Full message text available in appendix



# In forced-choice question, pollution and health again rises to the top with saving money a solid second. Leaders don't care for choice argument

## Messaging – Lower Rank Is Better

Reg Vot	Opinion Leaders	Swing	
<i>Mean Ranking (Out of 1-6 ranking exercise, with 1 highest rating)</i>			
2.8	2.9	2.7	Solar power will reduce toxic pollution, make Americans healthier and save lives
3.3	3.4	3.3	The cost of solar power is falling rapidly, and experts say more solar will save American families money
3.5	3.4	3.5	Solar power will help us leave a better world for our children and grandchildren
3.7	3.6	3.9	Solar power will spur innovation, grow our economy and create high-paying jobs that can't be outsourced
3.7	4.0	3.6	Solar power gives consumers more choice about where they get their power
4.0	3.8	4.1	Solar power is the modern, innovative path forward for American energy



# Highlighting exercise shows power of naming pollutants and simple, straightforward numbers in discussing cost, jobs, health

## Highlighting Exercise – Registered Voters

Legend:   
Least Selected      Most Selected

We need to invest in solar power to **save money, spur innovation, create jobs and improve the health** of our families. Solar power can help us meet many of the challenges that our country faces today, and by taking action now we can help ensure a better future for generations to come.

The solar industry has **added more than 150,000 jobs** in the past six years and now employs more than 250,000 Americans - already twice as many as all the jobs related to coal – and that's just the start. The industry has the potential to add millions of more jobs in the coming years – high-paying jobs for all kinds of Americans that can't be shipped overseas.

The **price of solar power has dropped by 80%** in the past decade, making it cheaper than coal in many parts of the country, and it's still falling. Economists predict the cost of solar power will decline another 40% in the next few years and Stanford University researchers say moving to renewable energy like solar would end up saving the average family hundreds of dollars a year in electricity and health care costs.

By transitioning to clean energy like solar we will sharply **reduce the carbon, sulfur, and mercury pollution** that come from burning fossil fuels. Doctors and scientists say this will **save 60,000 American lives** every year and dramatically reduce the rates of heart disease, asthma attacks, respiratory diseases, and even cancer.

Like so many world-changing technologies, solar was born from American ingenuity and enterprise, and America should be the leader in this technology. Yet, because of a lack of support from our politicians, we're now falling behind other countries like China, which now has 43% of the world's jobs in wind and solar. If we fail to act, these other countries will corner the \$2 trillion global renewable energy market.

Solar power will continue to work as long as the sun shines, creating **zero pollutants** and a near-infinite amount of energy. With solar we can finally stop wasting money and lives on treating dirty, poisoned air and start focusing on repairing the damage that oil and coal have caused. While solar won't solve everything, it will help us create a cleaner, safer world for the next generation.

# Thank You

## New York

215 Park Ave South  
15th Floor  
New York, NY 10003

## Washington, DC

1001 G Street NW  
6th Floor East  
Washington, DC 20001

## Hartford

185 Asylum St  
16th Floor  
Hartford, CT 06103

## Chicago

222 W. Ontario St.  
Suite 600  
Chicago, IL 60654

## Denver

1120 Lincoln Street  
Suite 905  
Denver, CO 80203

## Seattle

2608 2<sup>nd</sup> Ave  
#293  
Seattle, WA 98121

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Appendix

# Appendix A: Messages

Messages		
Registered Voters	Opinion Leaders	
<i>Mean Score (Out of 0-10 Scale)</i>		
7.54	8.08	<b>[HEALTH]</b> By transitioning to clean energy like solar we will sharply reduce the carbon, sulfur, and mercury pollution that come from burning fossil fuels. Doctors and scientists say this will save 60,000 American lives every year and dramatically reduce the rates of heart disease, asthma attacks, respiratory diseases, and even cancer.
7.38	8.05	<b>[ECONOMY-JOBS]</b> Today, the solar industry employs more than 250,000 Americans – 150,000 more than it did eight years ago and more than twice the number that work in the coal industry – and it is hiring thousands more every year. Moving to solar will accelerate this growth, adding high-paying jobs that can't be sent overseas in all parts of the country.
7.37	7.93	<b>[COSTS-VOLATILE]</b> American consumers have suffered from volatile oil and natural gas prices for decades as hostile countries and profit-hungry corporations have manipulated the economy to their own end. Solar offers a cheaper and more reliable source of energy that offers predictable energy costs.
7.34	8.01	<b>[COSTS-STANFORD]</b> Solar prices have dropped by 80% in the past decade and are still falling. Stanford University researchers say moving to renewable energy like solar would end up saving the average family hundreds of dollars a year in electricity and health care costs. As solar energy grows even cheaper each year, these savings will only increase.

# Appendix A: Messages

		Messages
Registered Voters	Opinion Leaders	
<i>Mean Score (Out of 0-10 Scale)</i>		
7.32	7.73	<b>[CONTROL/CHOICE]</b> Instead of depending on utility company monopolies, solar power allows the average consumer to choose how and where they get their energy. This is why over 1 million American homes have chosen to install solar panels, allowing them to produce and store their own energy and giving them control over a critical part of their lives.
7.32	7.98	<b>[STORAGE 1]</b> Thanks to rapid technological advancements, batteries can effectively and affordably store solar energy for use during times when the sun is not shining – both in people’s homes and for large-scale solar projects. By investing in these projects we can revolutionize electricity generation in this country and significantly reduce the need for fossil fuels or nuclear power.
7.27	7.94	<b>[STORAGE 2]</b> Thanks to rapid technological advancements, batteries can effectively and affordably store solar energy for use during times when the sun is not shining – both in people’s homes and for large-scale solar projects. By investing in these projects we can increase the widespread adoption of solar and make it a viable to eventually power 100% of our electric system with renewable power.
7.25	7.94	<b>[FREEDOM]</b> Solar energy gives the American consumer something we’ve never had before: freedom. We can buy our power from our neighbors, clean utility companies, or just make it ourselves. This is why over 1 million American homes have installed solar panels, giving them freedom from traditional utility companies.

# Appendix A: Messages

## Messages

Registered  
Voters

Opinion  
Leaders

Mean Score (Out of 0-10 Scale)

7.22

7.80

**[ECONOMY-GROWTH]** Just as computers and the Internet transformed our economy in the last few decades, our transition to renewable energy sources like solar will spur innovation, create good-paying jobs, and drive economic growth that benefits all Americans. Economists say that the renewable energy market could be worth \$2 trillion to America.

7.20

8.03

**[LEGACY]** We all care about the future for our children and grandchildren, but our current reliance on dirty energy sources is putting their future at risk. We have an obligation to do something about this now, so we don't leave them a planet that's damaged. By transitioning to clean solar energy, we can leave a better world to future generations.

7.18

7.80

**[BIG COMPANIES]** With solar prices steadily decreasing, some of the country's top brands – including Amazon, Apple, and Target – have installed hundreds of megawatts of solar energy. These companies are investing millions of dollars in a successful, reliable technology that is the future of American industry.

7.13

7.98

**[CLIMATE]** We see the effects of climate change every day in extreme droughts, wildfires, floods, storms and rising sea levels. Solar energy offers a safe way to dramatically and permanently decrease the amount of carbon pollution that is causing climate change, helping us reverse some of the damage we've caused and making the world a better place.