



# CONSUMER POWER REPORT

2022



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# INTRODUCTION

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**In its inaugural annual report on consumer behavior and attitudes toward power usage and outages, Goal Zero's study shines a light on how Americans are increasingly concerned about power outages, options for backup power, and the need for clean alternative power solutions.**

Goal Zero conducted this research using an online survey prepared by Method Research and distributed by Dynata among n=2,000 adults (age 26+) in the United States, with n=1,500 nationally representative according to census targets on geography and household income, with an additional n=500 augment sample among California residents. Data was collected from June 27 to July 12, 2022.



# THE STATE OF THE POWER CONSUMER

# HOW OFTEN DO AMERICANS THINK ABOUT ELECTRICITY?



**69%**

WHEN THEY NEED TO PAY  
THE ELECTRIC BILL

**43%**

WHEN USING HIGH-DEMAND  
APPLIANCES LIKE THE AC

**42%**

WHEN THE POWER  
GOES OUT

**30%**

DURING NATURAL  
DISASTERS / WEATHER



**Americans think about their electricity and power usage most when the bill comes or when they're turning on high-demand appliances like the AC:**

Paying the electric bill (69%) is the number one time Americans think about their electricity consumption and power usage.

Outside of that, they think about it when they're using high-demand appliances such as AC units (43%), when the power goes out (42%), and during natural disasters or weather forecasts/warnings (30%).

Q1a. At what moment(s) in time do you think about your electricity consumption and power usage? (Base: Total Respondents)



## CONSUMERS AREN'T FAMILIAR WITH THEIR POWER CONSUMPTION

# 43%

Of Americans don't know how much power they use.

# 22%

Don't know which devices and appliances in their home use the most power.

Q5. For each of the following statements, please fill in the blank with the answer choice that best reflects you. (Base: Total Respondents)

## 1 IN 3 AMERICANS DON'T KNOW HOW TO PREPARE FOR AN OUTAGE

# 31%

Of Americans are concerned about the possibility of power outages in their home, but don't know what to do about it or how to prepare.

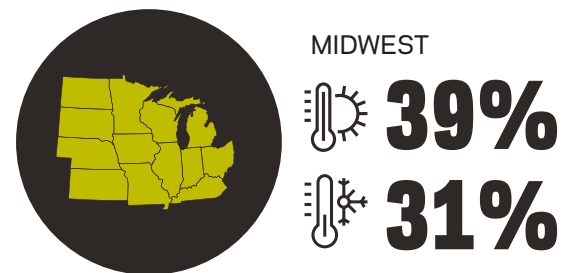
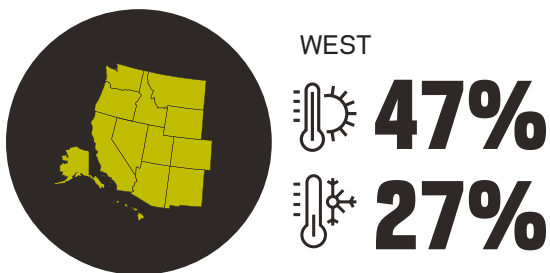
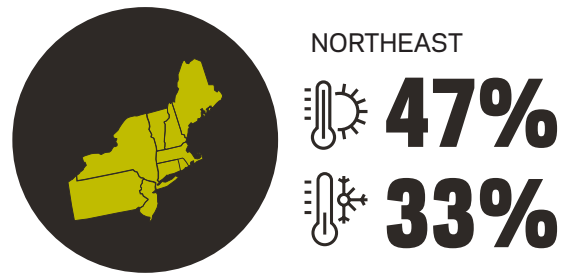
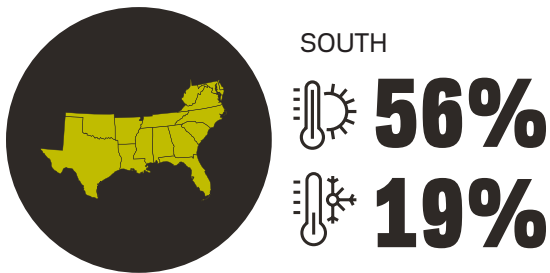
Q23. For each of the following statements, please indicate how much you agree or disagree that the statement describes you. (Base: Total Respondents)

# SUMMERTIME IS WHEN POWER IS TOP OF MIND

Americans think about their electricity and power usage more in the summertime than other times of year — with winter coming in at a distant second (26%).



Warmer regions tend to think about their electricity usage in the summer months, while cooler regions think about it in the winter:



Q1b. Please rank the following seasons or times of year from when you think about your electricity and power usage the most to the least. (Base: Total Respondents)

# FACT CHECKING POWER MYTHS

## MYTH

**24%** of Americans think that if the power goes out you can still use Wi-Fi.

## FACT

Wi-Fi routers require power to be able to provide a connection to the Internet.

## MYTH

**33%** of Americans think that gas generators are the only way of getting backup power if there's an outage.

## FACT

Other options include standby natural gas generators, installed solar with battery storage, as well as solar generators and power stations.

## MYTH

**57%** of Americans know that traditional electricity provided by utilities is generated by burning fossil fuels.

## FACT

True!

## MYTH

**39%** of Americans think that home solar panels without battery backup/storage will still provide power in an outage.

## FACT

Solar by itself will not power a home. The solar needs to be connected to a battery storage system that is tied into the home's circuit panel to deliver power.

Q4. For each of the following statements, please indicate if you think it's a TRUE statement or a FALSE statement. (Base: Total Respondents)



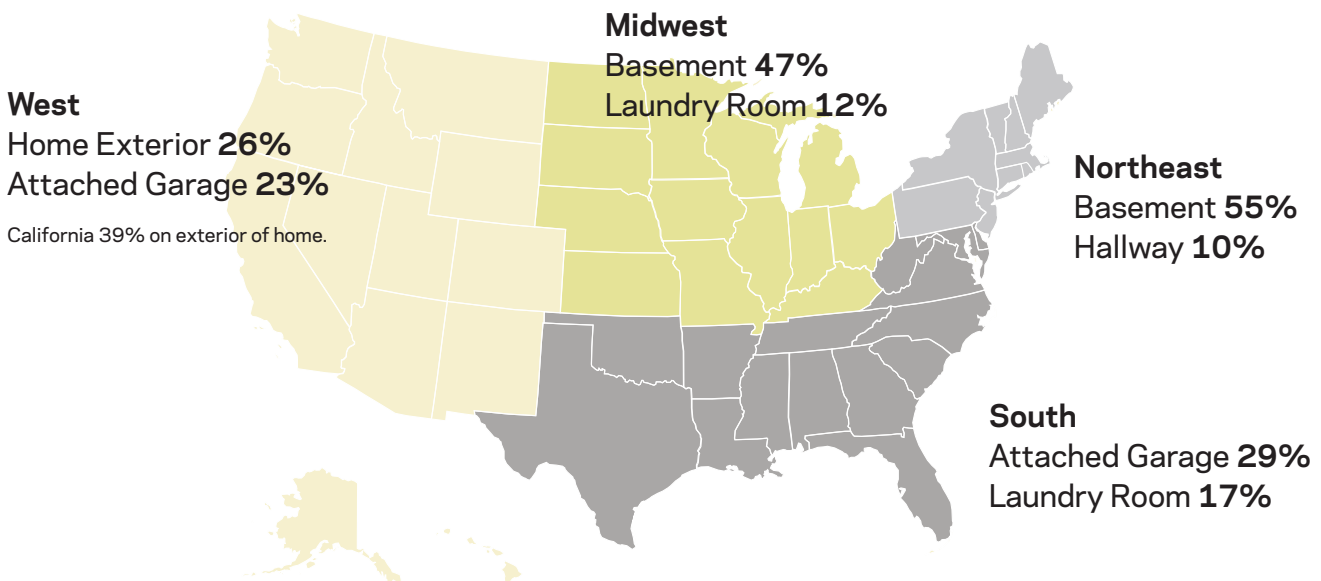
# DO YOU KNOW WHERE YOUR CIRCUIT PANEL IS?



Across the country, circuit panels, aka breaker boxes, can be all over the house, literally.



Most common circuit panel locations by region:



Q2. Which of the following best describes where your main electrical panel/breaker box/circuit box is located in your current residence? (Base: Total Respondents)

# THE IMPACT OF POWER OUTAGES

# MAJORITY OF AMERICANS WORRIED ABOUT OUTAGES

**84%**

of Americans are concerned about power outages\*

**26%**

feel vulnerable and unsafe.\*\*



The top concerns for Americans when the power goes:

**70%**

UNABLE TO COOK FOOD OR FOOD SPOILING\*\*\*

**65%**

MIGHT GET TOO HOT OR TOO COLD\*\*\*

**31%**

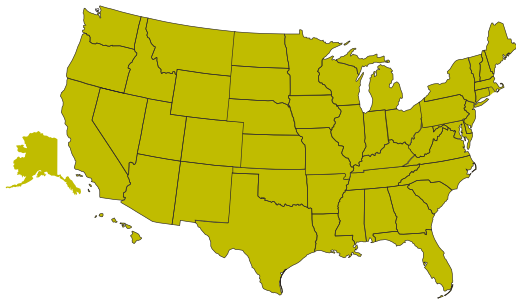
NO LONGER HAVING HOT WATER\*\*\*

\*Q10. How concerned are you about power reliability and the prospect of a power outage affecting you/your family? (Base: Total Respondents)

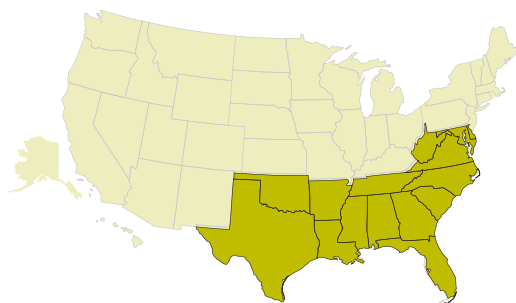
\*\*Q16. Which of the following reactions do you tend to have when the power goes out at your residence? (Base: Total Respondents)

\*\*\*Q15. Which of the following are a major concern for you when the power goes out at your residence?

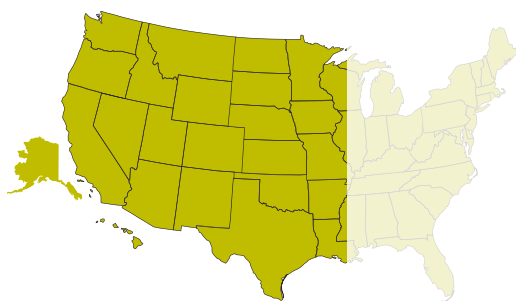
# INCREASING POWER OUTAGES HAVE EMOTIONAL AND FINANCIAL COST



Americans face power outages on average twice a year, with **26%** of Americans saying they've experienced three or more in the last twelve months.\*



32% of Americans living in the South say they've experienced three or more power outages in the last twelve months, compared to 22% in each of the other census regions.



Two-thirds (65%) of Americans say that when the power goes out at their residence, it's disruptive to their daily life.\*\*



**-\$109.91**

In food costs alone, Americans have lost **\$109.91** on average in the last twelve months due to power outages.\*\*\*



One in four (27%) of Americans say that in the last twelve months, a power outage has disrupted their ability to work normally for their job — among those, they were unable to work for 9 hours and 36 minutes, on average.\*\*\*\*

\*Q6. How often has the power at your residence gone out over the past 12 months? (Base: Total Respondents)

\*\*Q9. When the power goes out at your residence, how disruptive is it to your daily life? (Base: Total Respondents)

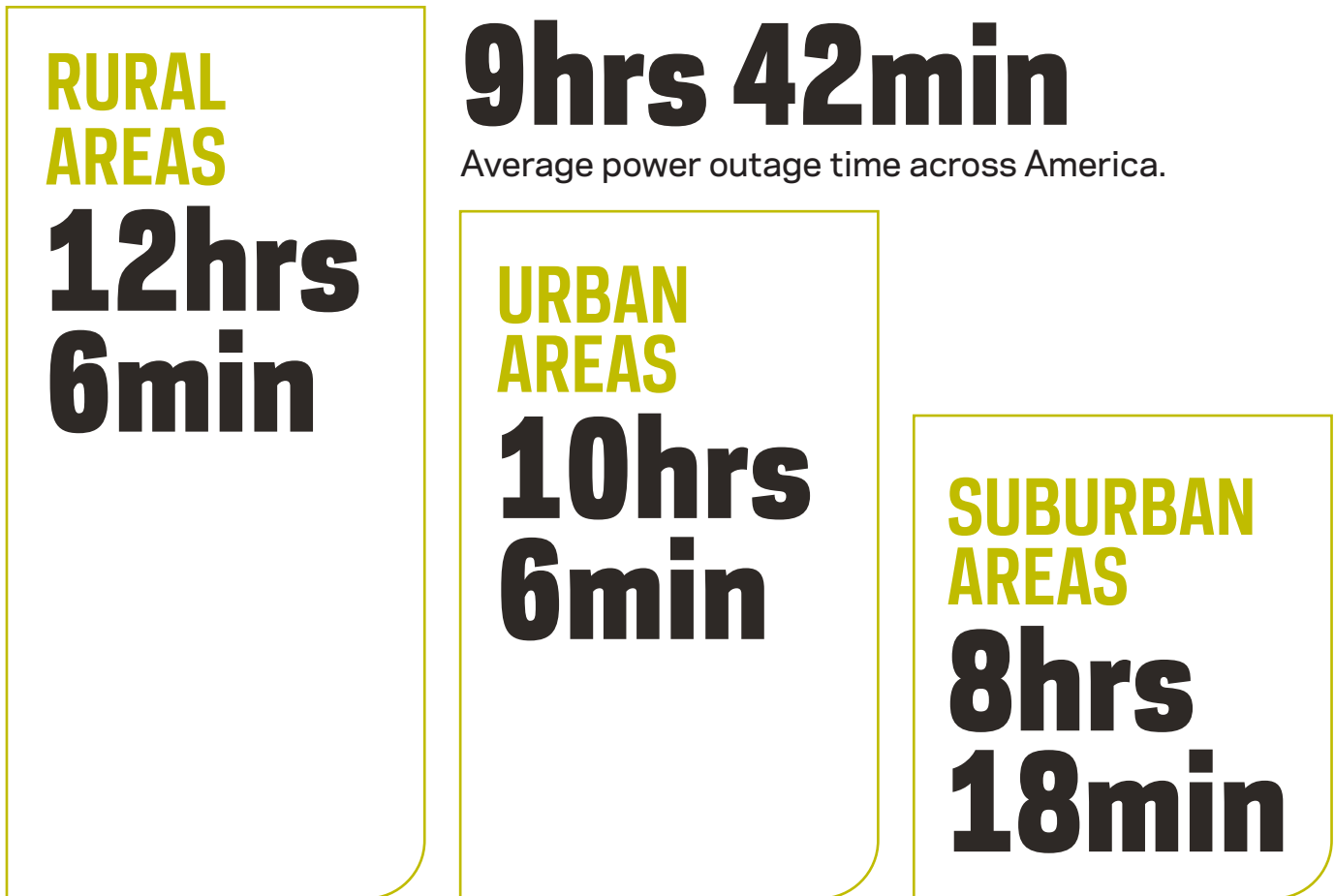
\*\*\*Q12. In the past 12 months, how much food have you lost because of power outages? (Base: Total Respondents)

\*\*\*\*Q13b. Over the past 12 months, how much time in total have you spent unable to work for your job because the power was out?

Base: Those who had work disrupted by power outages)

# OUTAGES HIT RURAL AMERICA HARDEST

Average power outage time per territory



In the last year, Americans estimate their power has been off for a total of nine hours and 42 minutes, on average.

Rural Americans have had their power out the longest in the last twelve months, at 12 hours and 6 minutes on average, compared to urban (10 hours and 6 minutes), and suburban (8 hours and 18 minutes).

## WOMEN ARE IMPACTED MORE THAN MEN BY OUTAGES

**38%** of women say that when the power goes out at their residence, it's quite disruptive to their daily life, compared to **29%** of men.\*

Q7. In the last twelve months, how much time has your power been off for? (Base: Total Respondents)

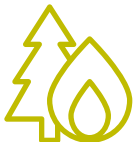
# WEATHER RESPONSIBLE FOR MOST POWER OUTAGES



Weather Responsible For **72%** Of Outages



For **19%** of Americans, it's natural disasters.  
**21%** of Americans say there's been an increase in natural disasters in their area.



In California, weather (**41%**) tied with planned maintenance (**41%**) for top causes of power outages, followed by a high demand overwhelming the grid (**35%**).\*\*\*



\*Q9. When the power goes out at your residence, how disruptive is it to your daily life? (Base: Total Respondents)

\*\* Q7. In the last twelve months, how much time has your power been off for? (Base: Total Respondents)

\*\*\* Q8. What usually causes power outages to your residence? (Base: Total Respondents)

\*\*\*Q8. What usually causes power outages to your residence? (Base: Californians, n=500)

# POWER OUTAGES DURING EXTREME WEATHER CAN BE DANGEROUS



During a 66-hour power outage during sub-freezing weather, we barely slept, getting up frequently to keep water simmering on the stove to keep the house pipes from freezing.



During Hurricane Sandy, our power was out for days. We had to live in the darkness, showering in cold water, etc. for a few days.

During the winter storm of 2020 we had no power for 5 days, lost all food and the pipes burst.

Asthma Attack that lead to hospitalization because my nebulizer wouldn't work.

We had to stay at a hotel because my husband uses a CPAP and oxygen concentrator to sleep.

I had to go to the hospital due to the lack of an oxygen machine working and running out of oxygen tanks.



We lost power for a week and we lost our food and the bathrooms and water where shut off.

# AMERICA IS READY FOR BACKUP POWER



# MAJORITY OF AMERICANS WANT BACKUP POWER

**61%**

of Americans say that they wish they had a reliable source of backup power at their residence.

Key motivators for having residential backup power:

**32%**

SO THEY DON'T HAVE TO DEAL WITH THE INCONVENIENCE OF A POWER OUTAGE

**23%**

VULNERABLE HEALTH OF SOMEONE IN THE HOUSEHOLD

**21%**

INCREASE IN NATURAL DISASTERS IN THE AREA

Q23. For each of the following statements, please indicate how much you agree or disagree that the statement describes you. (Base: Total Respondents)

## BUT, ONLY 15% OF AMERICANS HAVE A HOME BACKUP SOLUTION

The most commonly owned backup power solutions are:

**25%**

Portable gas generators

**10%**

Standby generators/genset

**5%**

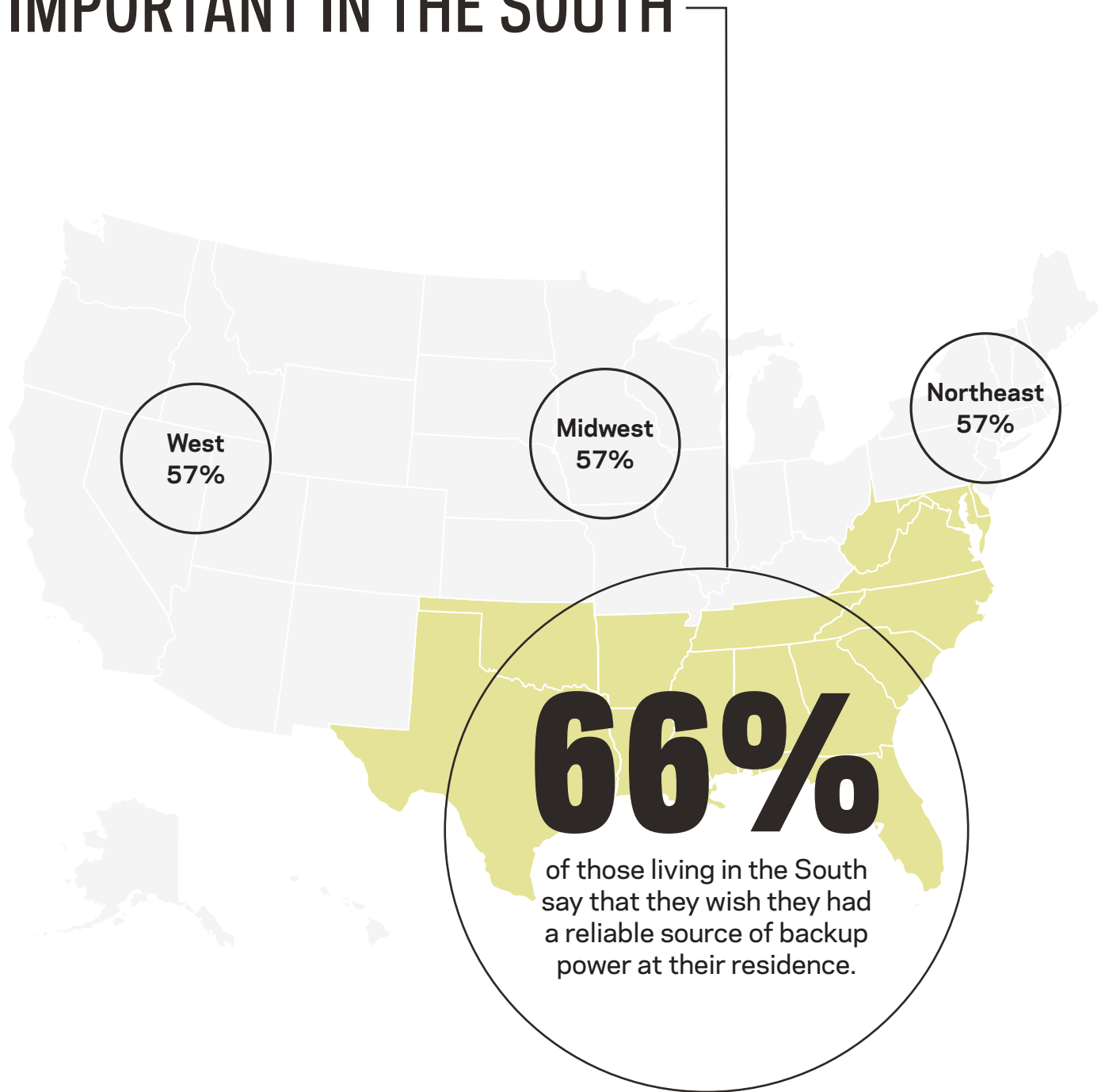
Solar generators

**5%**

Solar & installed storage

Q19. When the power goes out at your residence for more than just a few minutes, how do you deal with it? (Base: Total Respondents)

# HOME BACKUP POWER IS MOST IMPORTANT IN THE SOUTH



Q23. For each of the following statements, please indicate how much you agree or disagree that the statement describes you. (Base: Total Respondents)

# CLEAN BACKUP POWER IS A PRIORITY

**51%**

of Americans would be interested in a backup power source if it meant they could reduce their reliance on fossil fuels and be more sustainable.

**61%**

would be willing to pay extra for a sustainable backup power solution that doesn't rely on fossil fuels — **40% extra, on average.**

**78%**

of Americans consider solar generators "green" and **38% consider portable gas generators "dirty".**



**Clean**

adjective \klēn\  
**free from dirt or pollution**

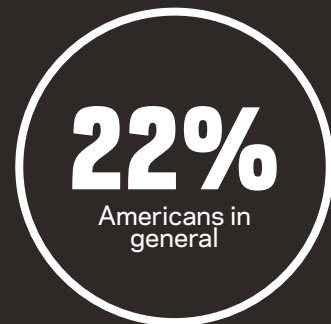
**"changed to clean clothes"**  
**"clean solar energy"**

[www.merriam-webster.com](http://www.merriam-webster.com)

Q24. If you could purchase a backup power solution that didn't rely on fossil fuels to operate, how much more would you be willing to pay for the sustainable solution? (Base: Total Respondents)

# GENERATIONS THINK ABOUT GENERATORS DIFFERENTLY

Based on generations, here's the breakdown of who feels gas generators should no longer be manufactured.



**33%**

Millennials



**23%**

Gen X



**19%**

77+



**16%**

Baby Boomers

Q23. For each of the following statements, please indicate how much you agree or disagree that the statement describes you.  
(Base: Total Respondents)



For questions and comments regarding the Goal Zero  
2022 Consumer Power Report Survey please contact  
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