Heat-related disconnection moratoriums: Critical review and policy recommendations

E Source webinar

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E Source
POWERING WHAT'S NEXT

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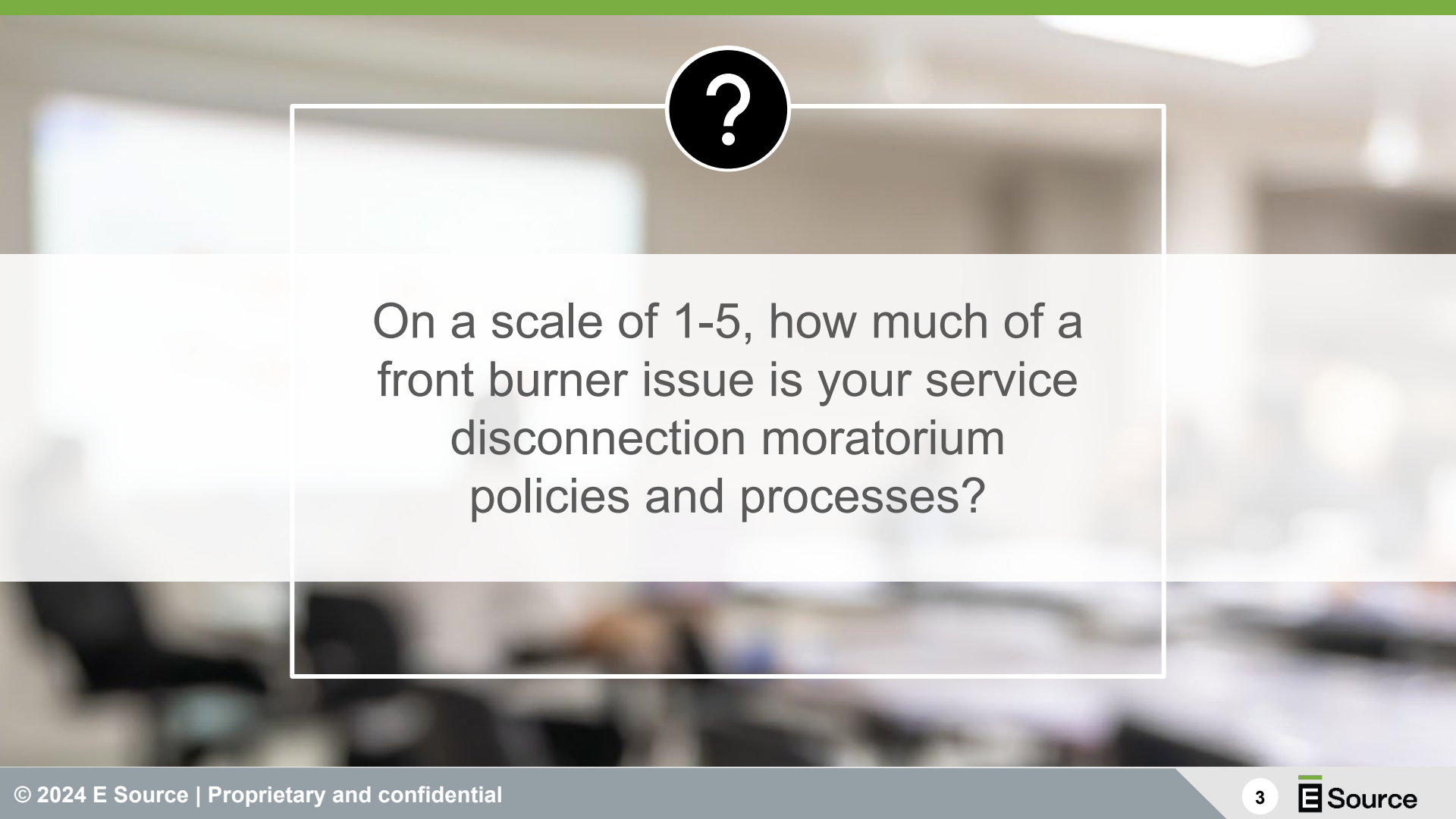
Background

In the summer of 2023, Phoenix hit 110 degrees on 54 days in 2023, setting a heat record. This presented a significant public safety issue. The local utility, SRP, sustained its heat-related, utility service disconnection moratorium policy for longer than ever before.

According to SRP's policy, customers continued to generate bills, which were due according to SRP's standard terms. SRP provided broad payment arrangements for customers. But customers and agency partners struggled to meet the inflationary challenges of paying off high summer bills.

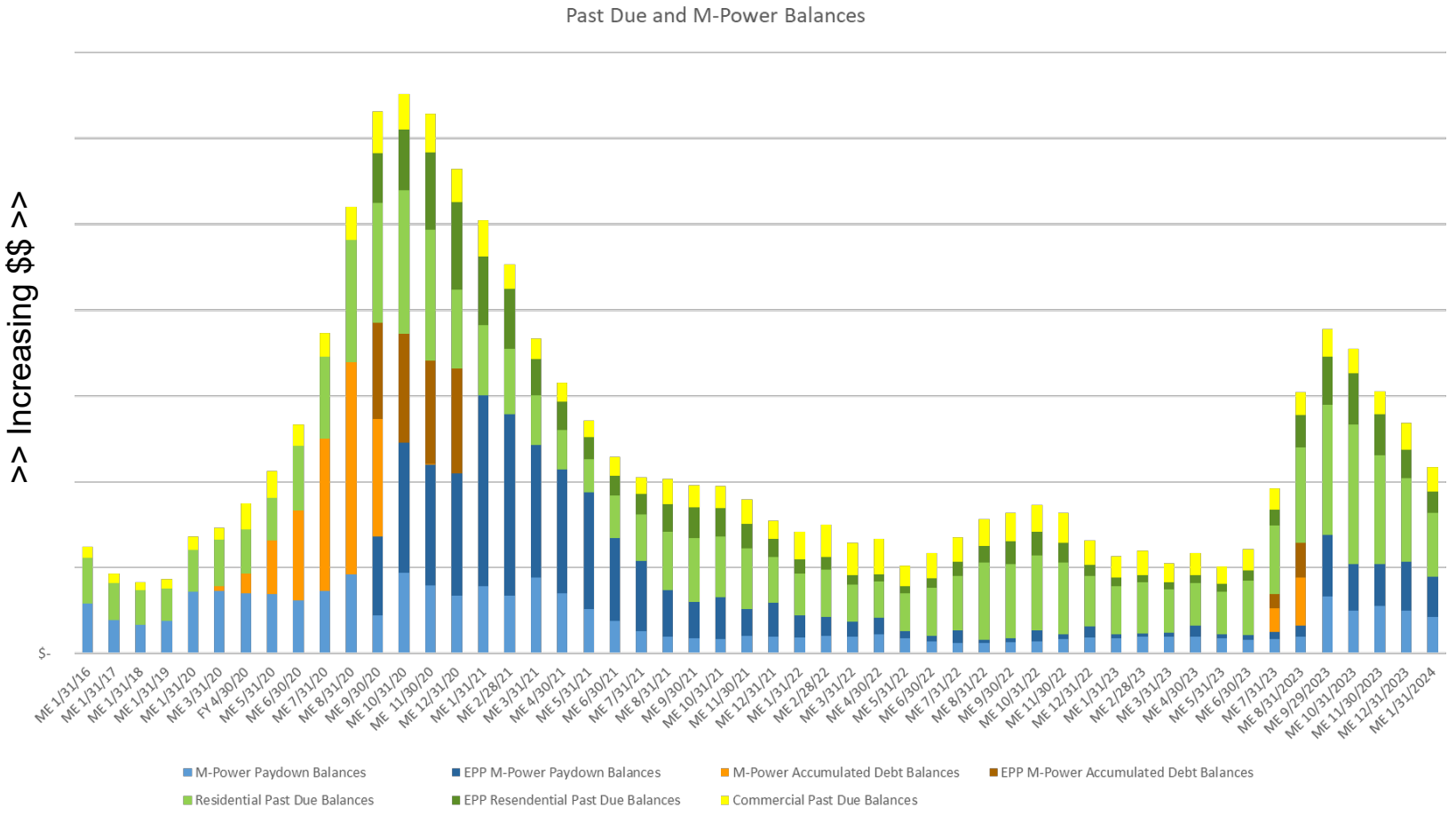
To prepare for similar (or even more extreme) heat events in the future, SRP partnered with E Source to review its moratorium policy and practices and determine if the utility needed to update its approach permanently.

This was a complex process which involved stakeholder interviews and customer surveys. It also required financial, operational, and workforce impacts analyses. We'll discuss this process and provide an overview of the policy SRP plans to adopt.



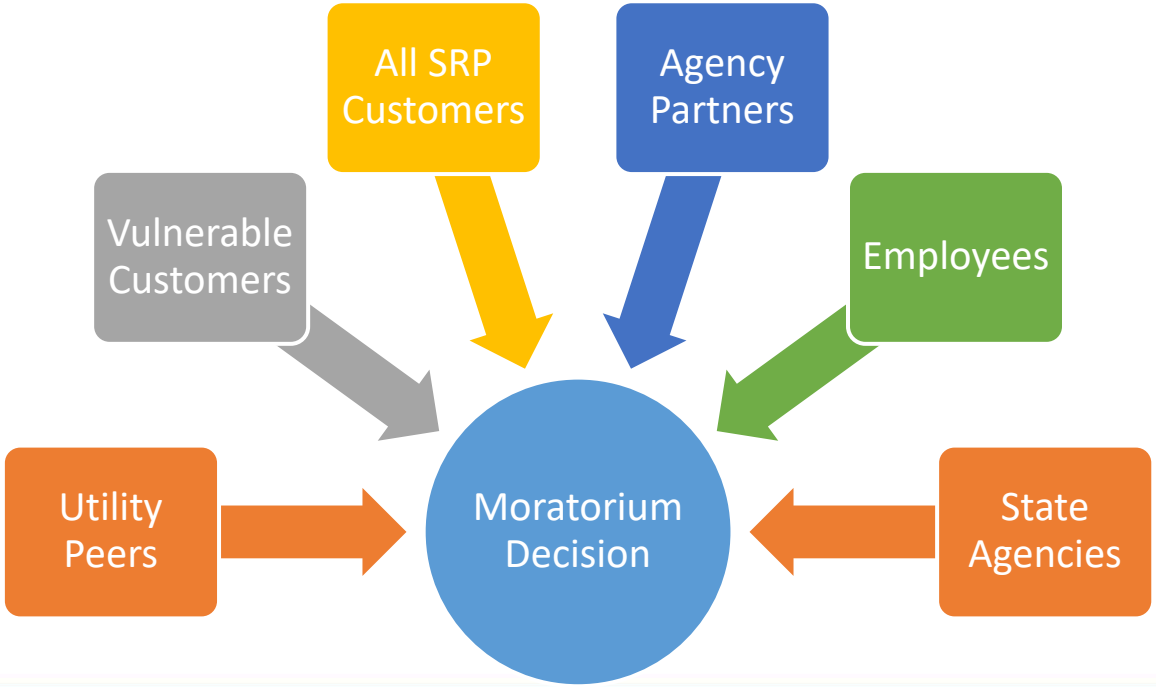
On a scale of 1-5, how much of a front burner issue is your service disconnection moratorium policies and processes?

Project overview



Source: SRP

Decision Factors



Project objectives

- Understand the affects of the current moratorium policy on SRP, its employees, agency partners, and customers.
- Determine if SRP's current moratorium approach is the best solution for stakeholders, especially income-qualified customers and frontline communities.
- Identify other weather-related moratorium approaches and tactical strategies for consideration and recommendation.

SRP used these findings to revise its moratorium approach while balancing the priorities of these stakeholders.

Project timeline

- Scope project
- Identify stakeholders and develop interview questions

- Begin industry scan research
- Develop SRP customer survey questions

- Conduct stakeholder interviews
- Identify, review, and transfer SRP customer data

- Field customer survey
- Append customer data to survey results

- Analyze research findings
- Deliver project

Key findings, recommendations, and considerations

Moratorium policy scenarios

Scenario	Description	Customer protections	Adverse customer impacts	Utility/agency operational impacts	Utility financial impacts
No or limited moratorium	No or limited moratorium; find alternative ways to manage heat impacts	Limited customer disconnection protections	Limited adverse impacts to customer arrears and disconnections	Most predictable and easiest to administer	Limited arrears
National Weather Service (NWS) heat advisory (SRP status quo)	NWS heat advisory–triggered moratoriums, which, due to summer 2023 heat wave, resulted in an unbroken, two-month moratorium	Some customer disconnection protections	Fewer adverse impacts to customer arrears and disconnections	Least predictable and most difficult to administer	Fewer arrears
Short with fixed date	Fixed, short seasonal date range based on weather modeling with NWS heat advisory–triggered moratoriums in shoulder months	More customer disconnection protections	Moderate adverse impacts to customer arrears and disconnections	Moderately predictable and less difficult to administer	Moderate arrears
Long with fixed date	Fixed, long seasonal date range; five months (June–October) plus an additional two-plus fall months for required notifications prior to disconnections	Most customer disconnection protections	Highest adverse impacts to customer arrears and disconnections	Most predictable but still difficult to administer	Highest arrears

E Source recommendations: Policy

- Avoid a long, fixed-date moratorium
  - No longer than two or three months or $500 in energy bills. The debt is too large to pay off past this point.
- Implement a short, fixed-date moratorium based on historic and future weather modeling
  - Between two and three months (potentially July through August) for all residential customers.
  - Avoids the operational challenges of the current, NWS heat advisory–triggered moratorium approach
- Flank with a one- to two-month shoulder season, NWS heat advisory–triggered moratorium
  - Disconnection protections are only for income-qualified and other vulnerable customers.
  - **OR** opt-in disconnection protections (disconnections occur unless a customer contacts the utility).
- Define metrics for success and track them through time
  - Help keep customers healthy and out of debt.
  - Understand what success look like for different customer groups, stakeholders, and the utility.
  - Adapt policies and practices to our changing climate and political conditions.
  - Continuously reevaluate moratorium approach based on metrics and performance.

E Source recommendations: Practices

- Deploy payment and engagement structures that get some customer “skin in the game.”
  - Incentivize customers to pay throughout the moratorium.
  - Postpay and prepay customer options include bill credits, relief programs, and education/behavior.
- Conduct proactive customer communication and outreach about moratoriums, payment plans, and options.
  - Use segmented customer data to send personalized communications about amount owed and the minimum the customer needs to pay to stay in good standing.
  - Target marketing to vulnerable customers in advance of moratorium.
- Introduce “hard stops” for contact center teams.
  - Provide clear guidance on payment exceptions to contact center representatives to keep customers from “rep shopping.”
- Integrate and promote bill payment arrangements and assistance with extreme heat impact mitigation and overall bill affordability offerings.
  - Provide energy efficiency measures, HVAC upgrades, indoor/outdoor cooling measures, and education to support vulnerable customers who were enrolled in a payment plan last year or are still carrying debt.

The dimensions of the moratorium

- Heat events may be longer and hotter in the future, so either:
  - Heat moratoriums aren't going away
  - **OR** we'll have to find radical new ways to manage a heat event
- Challenges of managing a heat event:
  - Balancing public health and safety implications
  - **WITH** the reality that some customers will get into debt—affecting many stakeholders

Be sure to consider:

- There are other stakeholders; the moratorium policy is highly visible to regulators, politicians, the press, etc.
- The public will compare anything a utility does to peer utilities.
- Any utility policy will have varying operational impacts.

The utility customer debt cliff

Customers go from hopeful to helpless after **2 to 3 months of nonpayment or $500 in debt**. It's extremely difficult for customers to recover past this threshold.

Utilities we interviewed agreed that longer moratorium periods increase customers' debt, including going into the next season. In effect, this compounds debt from year to year:

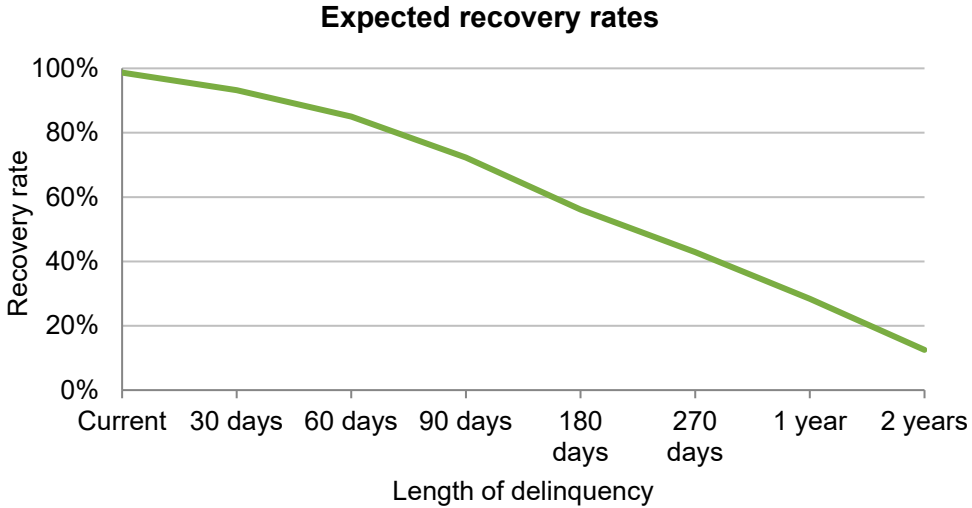
> "Longer moratoriums create behavior and get people in trouble (arrearages and disconnects). We had this experience in COVID. If a moratorium is long, it becomes noise, and they don't pay attention. Their bill gets so high, there's no path forward. It's hard to recover." –*California utility*

COVID-19 moratorium lesson learned:

> "There is a growing consensus among state PUCs [public utility commissions], the private utility sector, and key advocates that the blanket moratoria policies enacted early on in the pandemic response could have been more strategically implemented … Customers and utilities alike were unprepared for the massive arrearage burden stemming from blanket moratoria policies prohibiting disconnections." –*National Association of Regulatory Utility Commissioners, Electric Utility Disconnections (PDF), Congressional Research Service, 2023*

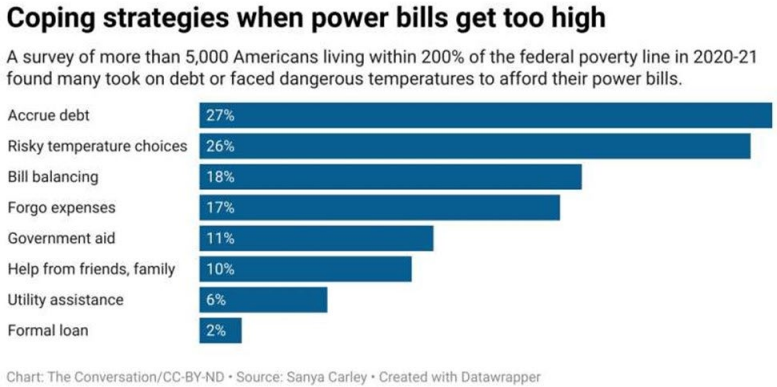
The debt cliff

- Collections activity in the energy industry is typically one-size-fits-all.
  - Bill messages, reminders, calls, and disconnect notices stimulate customers to action to avoid disconnection.
    - Increasing the number of notices and calls is believed to improve the collections rate.
- Collections probability decreases over time.
  - By the time a receivable is 90 days delinquent, you have a 72.3% probability of being repaid.
- Collections effectiveness is risk-based
  - Some customers self-serve. But some never do.

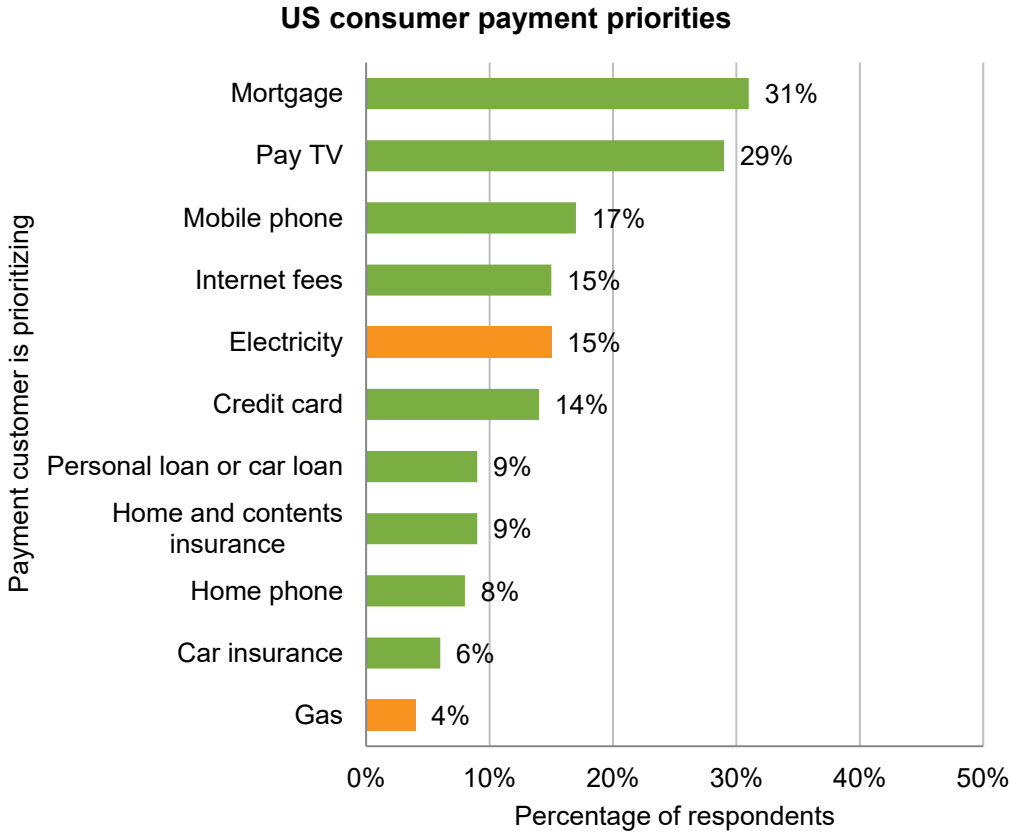


Age of debt	Current	30 days	60 days	90 days	180 days	270 days	1 year	2 years
Uncollectible percentage	1.3%	6.8%	15.0%	27.7%	43.9%	57.1%	71.6%	87.5%
Recovery percentage	98.7%	93.2%	85.0%	72.3%	56.1%	42.9%	28.4%	12.5%

Energy insecurity



Source: Amid Summer Heat, Millions at Risk of Electricity Shut-Offs, *U.S. News* (July 5, 2023)



© E Source (2015 data from DNB).

Effect of utility payment agreement on household budget

		Income			Race			Ethnicity	
	Total (n = 193)	Under $25,000 (n = 85) -A-	$25,000–$34,000 (n = 66) -B-	$35,000–$49,000 (n = 42) -C-	Caucasian (n = 113) -D-	African American (n = 53) -E-	Other (n = 21*) -F-	Hispanic (n = 31)	Not Hispanic (n = 160)
I had less money for other necessities (i.e., medicine, clothes, groceries)	44%	44%	44%	43%	51% E	28%	42%	41%	44%
I was able to pay off my utility debt with no issue	32%	38% C	33%	20%	31%	38%	29%	28%	34%
I was able to receive help from a community organization (i.e., a place of worship, non-profit, etc.)	18%	18%	20%	14%	16%	21%	20%	16%	18%
I took on more debt (i.e., credit card debt, auto loan debt, student loan debt, etc.)	18%	18%	23%	9%	19%	16%	10%	30%	15%
I had to pick up another job or work more hours to pay for everything	16%	18%	15%	12%	12%	17%	35%	21%	14%
I was able to pay off my utility debt due to a personal loan from a friend or family member	14%	15%	15%	13%	13%	15%	16%	18%	14%
Don't know	2%	5%	-	-	3%	2%	-	-	3%

© E Source (2024 Low Income Energy Issues Forum annual survey). **Base:** Respondents who entered into utility payment arrangement (n varies as shown). **Question H10:** What best describes what happened to your household budget when you were in a payment arrangement with your utility? **Note:** *Use caution with small sample size.

Customer survey findings

Customer survey overview

- Sample size: n = 1,459
- Margin of error of ± 2.6% at 95% confidence level
- 10-minute online survey, incentivized
- Fielded January–February 2024
- English and Spanish surveys
- Customer target groups
  - Prepay, income-qualified discount plan
  - Prepay, no discount plan
  - Traditional postpay, discount plan
  - Traditional postpay, no discount plan
- Oversampling of prepay and discount plan customer groups
- Applied postfieldwork weighting to the results to better match the overall proportions of customer groups

- Customer experience with billing and payment
- Customer needs in terms of assistance and support
- Customer perceptions of current policy or approach
- Customer expectations
- Customer perceptions of potential adjustments to current policy or approach
- Customer preferences for receiving information from the utility
- Demographics and household characteristics or firmographics
- Appended additional datapoints provided by SRP

Key takeaways

Billing and payment:

- Customers experience financial strain from electricity bills during summer, particularly those in prepay and income-qualified discount plan programs.
- Top support options:
  - A credit on your bill for using less electricity during specific times.
  - A relief program where the utility pays 10% of the bill for 3 months.
  - Electricity usage alerts or notifications.

Programs and offerings:

- Customers' experience with billing and payment programs is generally positive. But there's room for improvement in payment plans and bill extensions.
- Budget billing and income-qualified discount plans are the most popular
- Discounts and rebates are popular options for reducing monthly bills.

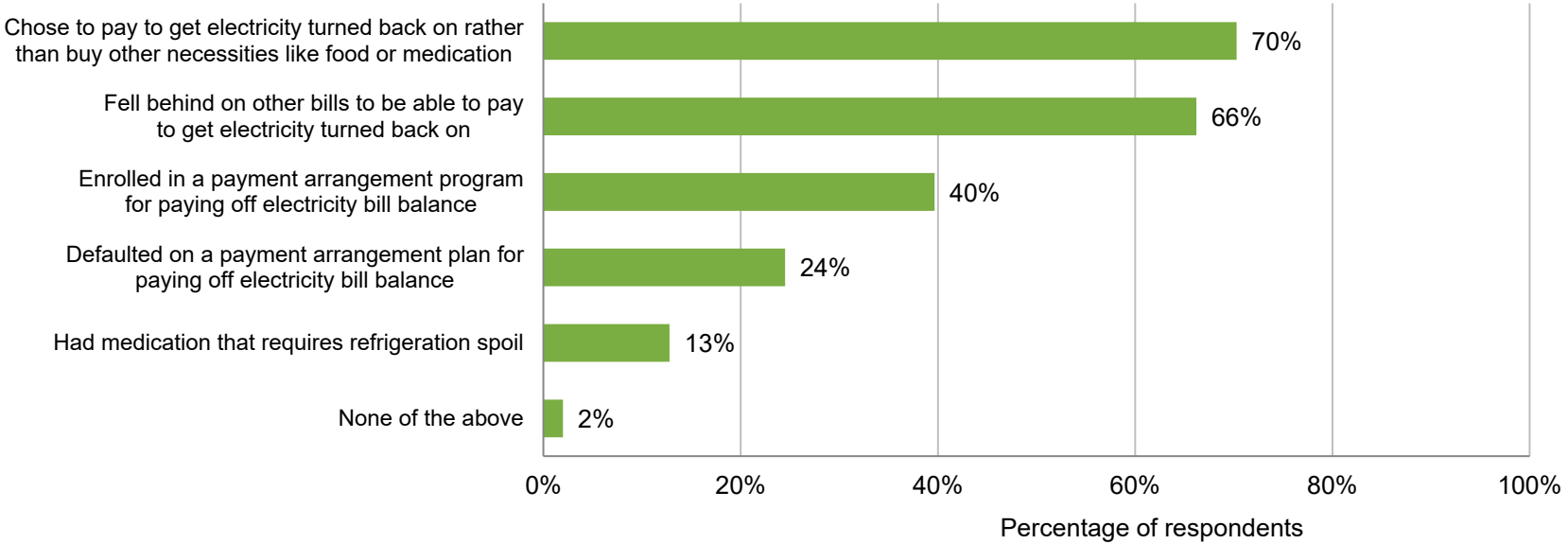
Key takeaways

Moratorium perceptions and behaviors:

- Without any description, customers weren't familiar with SRP's weather-related moratorium policy. Once given a description, perceptions were generally positive.
- More than half of respondents believe the moratorium allows customers to focus on other priorities. Fewer than half think it leads to unmanageable debt.
- Most respondents—especially income-qualified discount plan customers—prefer a predictable, summer-based moratorium during specific set months.
- Thirty-one percent of respondents kept their homes at uncomfortable temperatures to reduce energy costs. 16% sacrificed other expenses to pay for electricity. 5% had service disconnected for nonpayment.
- A majority of those disconnected after a moratorium ended said they chose to pay to get electricity back on rather than buying necessities or paying other bills.

Health and financial impacts of disconnection after weather-related moratorium

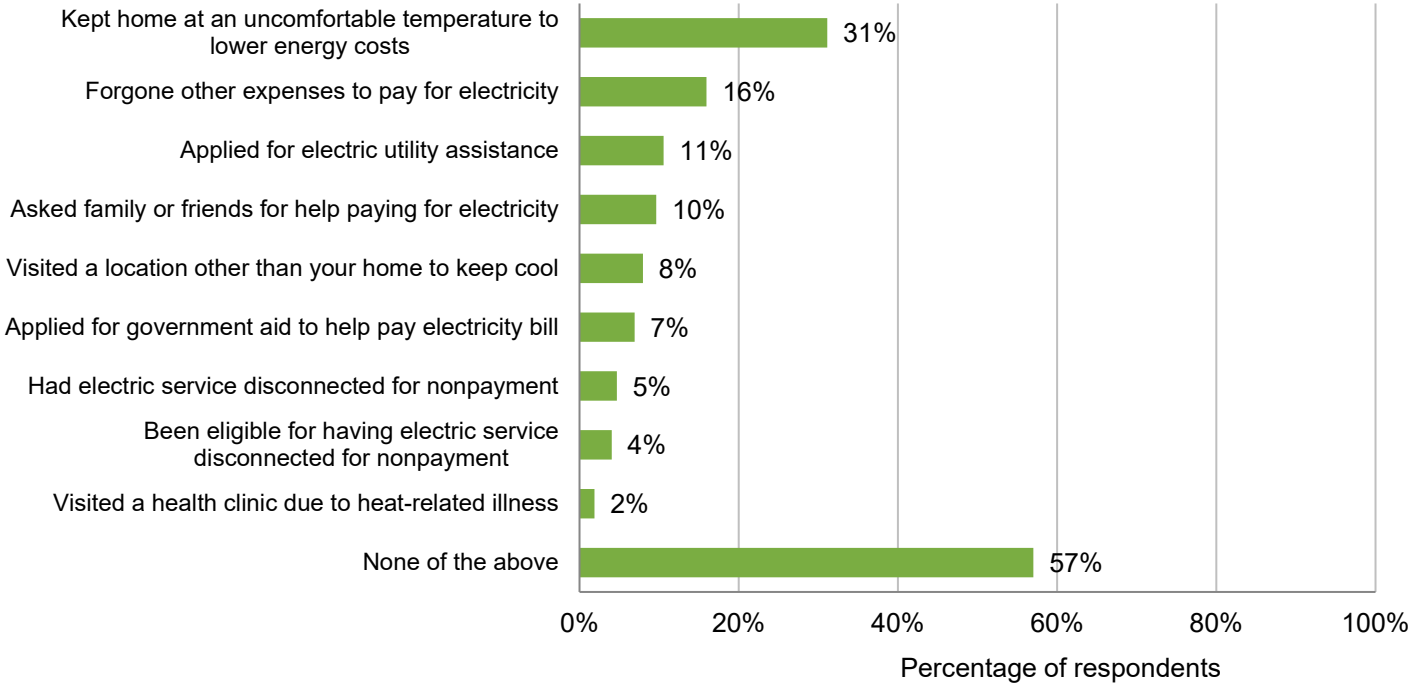
What we heard from customers: Those disconnected for nonpayment in past 12 months after a weather-related moratorium



© E Source (SRP Moratorium Customer Experience Survey). **Base:** Customers who reported having electric service disconnected in the past 12 months for nonpayment after a weather-related moratorium ended (n = 45). **Question 5_10:** Which of the following, if any, did you experience after having electricity disconnected? Select all that apply. **Note:** Use caution with small sample size.

Health and financial experiences

What we heard from customers



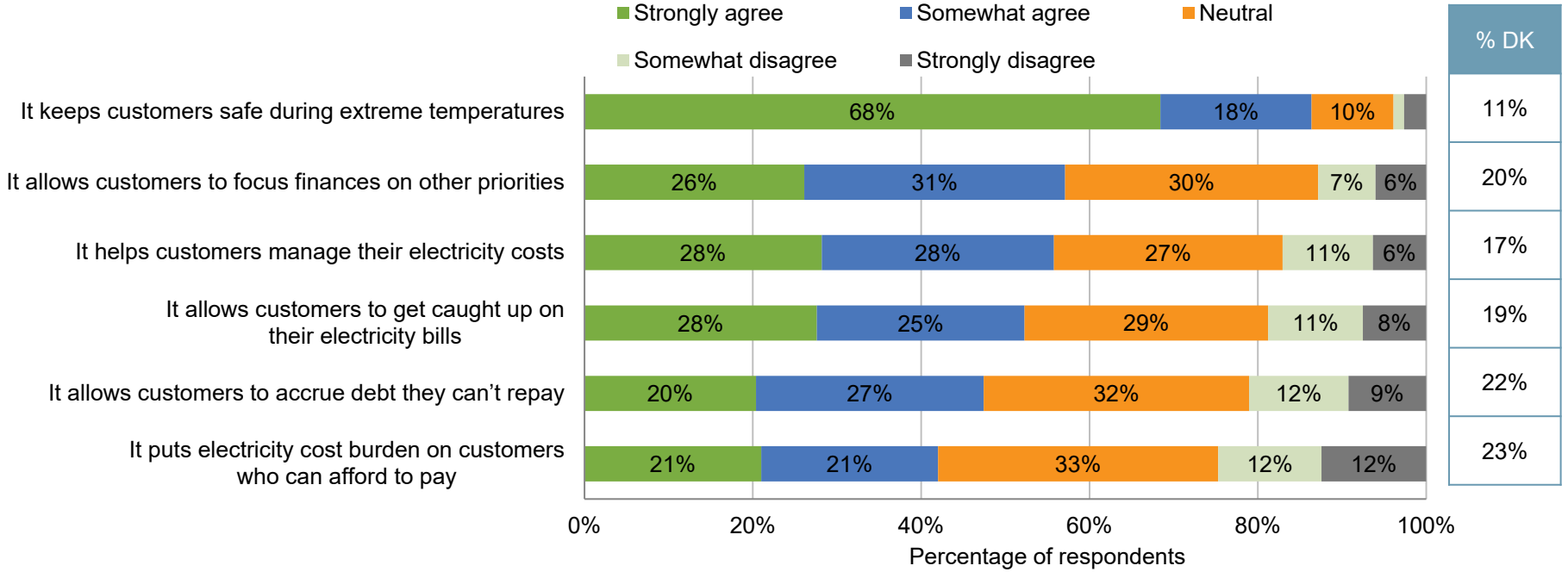
© E Source (SRP Moratorium Customer Experience Survey). **Base:** n = 1,459. **Question 5_8:** In the past 12 months, has your household experienced any of the following situations? Select all that apply.

Key insight

Income-qualified discount plan customers and those making less than $50,000 per year were more likely to have experienced health- and financial-related issues in the past year than higher-income customers.

Perceptions of moratorium impacts

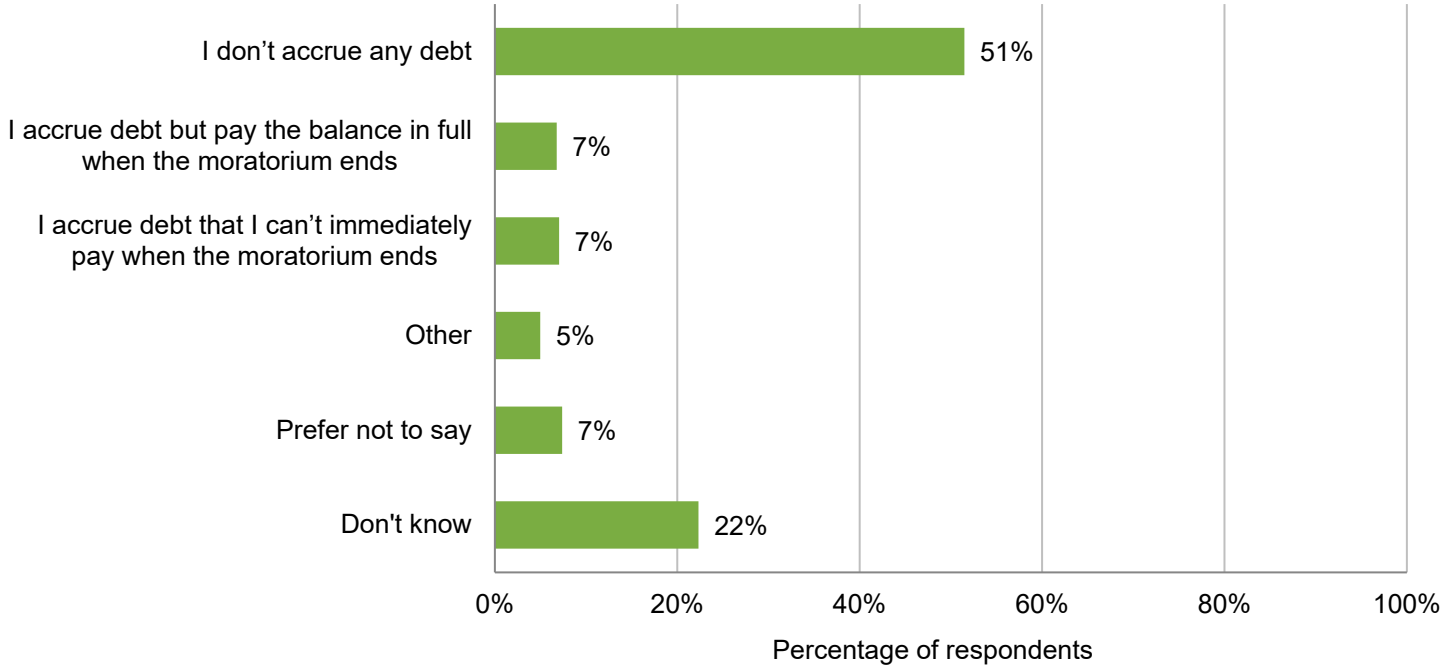
What we heard from customers: Those with an opinion



© E Source (SRP Moratorium Customer Experience Survey). **Base:** Customers who gave an opinion; n varies by statement. **Question 5_3:** How much do you agree or disagree with the following statements about SRP's weather-related disconnection moratorium policy? **Notes:** DK = don't know. DK responses were removed from the analysis in the chart; the percentage of all respondents (n = 1,459) who said "don't know" is shown to the right. We removed data labels less than 4%.

Moratorium payment behaviors

What we heard from customers



© E Source (SRP Moratorium Customer Experience Survey). **Base:** n = 1,459. **Question 5_5:** What best describes your typical payment action when in a weather-related disconnection moratorium?

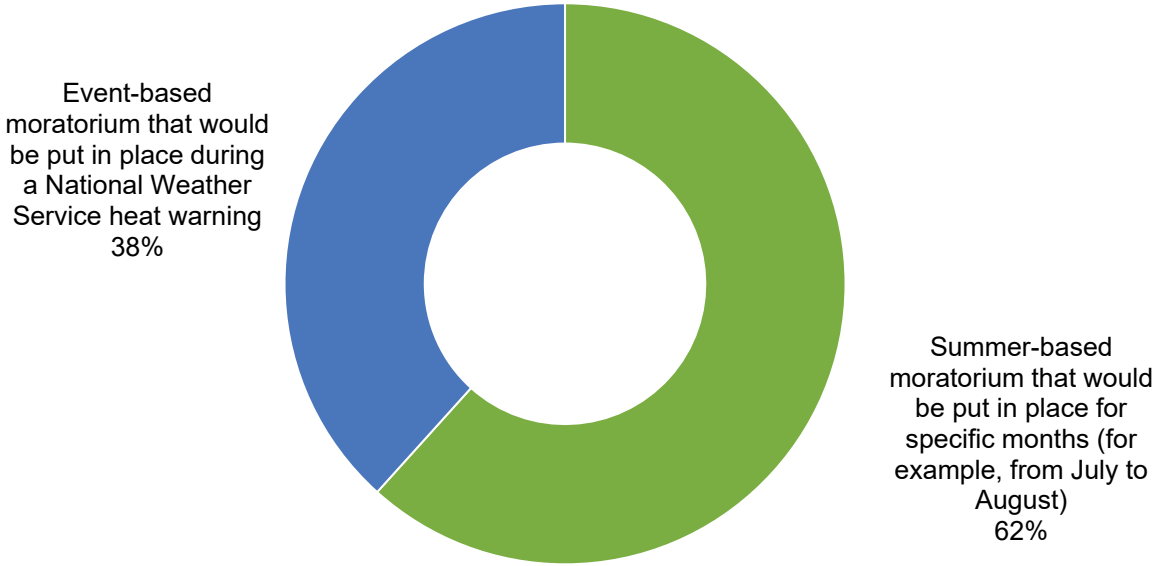
Key insight

Characteristics of those who accrue debt during a moratorium:

- Low-income customers
- Those with more than three people in the household
- Those with children in the home
- Renters
- Those with a preference for communications in Spanish
- Those receiving assistance

Moratorium length preference

What we heard from customers



© E Source (SRP Moratorium Customer Experience Survey). **Base:** n = 1,459. **Question 5_4:** If you could choose which type of moratorium policy SRP should use, which of the following policies would you most prefer?

Key insights

Income-qualified discount plan customers are more likely to prefer a summer-based moratorium than non-discount plan customers.

Low-income customers are more likely to prefer a summer-based moratorium than higher-income customers.

Those with three or more people in the household and those with children in the home are more likely to prefer a summer-based moratorium than other customers.

National low- and moderate-income customer survey findings on weather-related moratoriums

- **56%** of customers report high satisfaction if a utility instituted an extreme-weather moratorium for disconnection
- **16%** receive utility communications about moratoriums
- **39%** prefer shorter moratoriums versus **21%** that prefer longer moratoriums
- Action customers would take during moratorium:
  - 40% would pay their utility bill in full during a moratorium
  - 26% would pay depending on their income at the time
  - 15% would partially pay, given other essential needs
  - 6% would not pay

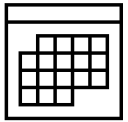
Source: E Source 2024 Low Income Energy Issues Forum Annual Meeting

Industry takeaways

Moratoriums across the US

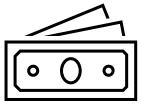
8

The number of jurisdictions that reference the NWS or local weather advisory groups in their moratorium policy. Most temperature-based moratoriums use a fixed temperature range as the trigger (often below 32°F or above 95°F).



4.78

The average length (in months) of moratoriums that involve date ranges. This includes protections for both hot and cold weather.



18

The number of jurisdictions that include some criteria relating to income or age in their moratorium policy, either as standalone policies or in addition to temperature protections.

33

The number of jurisdictions that have protections related to illness or medical conditions, either as standalone policies or in addition to temperature protections.

Arizona’s moratoriums are unique

- The Arizona Corporate Commission (ACC) moratorium is four and a half months. But it’s nearly seven months in practice.
- Outside of Arizona, most of the utilities we interviewed said the longest heat moratorium they experienced in their territory was one or two weeks.
- It’s important to use weather modeling to inform the moratorium policy.

> “Longer moratoriums, from our experience, lead to increased balances owed by customers ... and lead to the customers taking longer to repay their debt … There’s a sweet spot. Really in five months we feel like we can pretty much catch up on everyone ... but it puts pressure on resources. It’s not efficient.”
>
> *–Arizona utility*

Moratorium financial impacts

- All utilities reported customer balances rising significantly throughout the moratorium.
- Utilities reported that longer moratoriums increase customer debt going into the next season. This essentially compounds the debt from year to year.

> "Not all customers who don't pay are in limited income class. So possibly not eligible for assistance. MOST customers pay, or don't pay but catch up in 6 months. So, we need to focus on the 2-3% that are falling behind."
>
> –*Arizona utility*

> "Longer moratoriums lead to increased balances owed by customers. Lead to customers taking longer to repay their debt. … In 5 months, can catch up on everyone. Puts pressure on resources. If everything is automated, the system could potentially handle everything. But when you have to blend in other errors/failure (i.e., AMI failure) that requires boots on the ground. You now have a seasonal workforce requirement. Engineers, linemen, call center reps increases. Affects everything and every division at our utility."
>
> –*Arizona utility*

SRP’s action plan

2024 Moratorium Plan

- Fixed date, 2-month residential customer disconnect moratorium for July and August. Normal collection practices resume after Labor Day.
  - Exempt LPF for income-qualified discount plan customers during July and August.
- During all other months, we will continue to suspend disconnects for residential when National Weather Service issues an Excessive Heat Warning or Freeze Warning.
- Work with state and community agency partners on connecting customers to available resources.
- Develop enhanced customer payment options and communications.

Why a date-based moratorium

Customers prefer set dates.

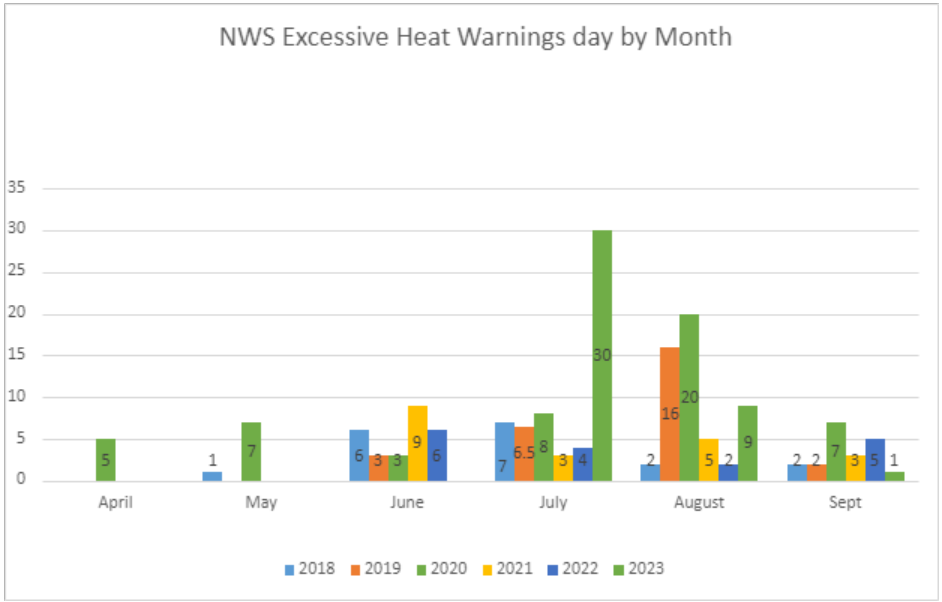
Most Excessive Heat Warnings occur in July and August.

"Customers go from hopeful to helpless after 2 to 3 months of nonpayment or $500 in debt."

Recommended by outside research firm

Agency partners and frontline employees concerned with long moratorium.

We have the experience.



We can help customers be even more successful this year

CREATE PROACTIVE AND PERSONALIZED OUTREACH.

TARGET COMMUNICATIONS IN ADVANCE OF MORATORIUM.

INCLUDE MORE EDUCATION

RESEARCH OPTIMAL TERMS OF PAYMENT ARRANGEMENTS.

COLLABORATE WITH AGENCY PARTNERS ON BETTER WAYS TO CONNECT CUSTOMERS TO ASSISTANCE DURING THE MORATORIUM.

REVIEW TERMS OF EXISTING PROGRAMS LIKE PREPAY AND BUDGET BILLING.

September 11, 2023

Dear SRP:

I wanted to send an official letter thanking SRP for creating a program for those of us that are past due and could not afford to pay their bill on time. I also want to thank the rep that I spoke to today. She was kind, understanding but most of all, sincere and did not make me feel horrible for not being able to pay my bill. It is embarrassing and I am ashamed and it is hard to make that type of call.

After the pandemic, my wage decreased, and now my choice to work for a very low paying job so that my child can attend college at a discounted tuition, since I will not be credit worthy for a Parent Plus Loan. Electricity is something that we can't live without, and I live in fear of not being able to pay, using the washer and dryer, and how am I going to juggle food, gas, all my other bills, and how to continue with life like everything is good and not letting my daughter know how scared I am.

Thank you SRP for providing representatives like the one that I spoke with today. Thank you for being understanding. Thank you for being easy to contact and providing these programs. Thank you for allowing me to sleep better tonight with my almost broken AC, but with it on so we don't wake up with headaches due to the heat.

With respect and gratitude,

Beatrice Romero

Beatrice Romero

PS: Thank you for the cards too. It's very human and kind.

Group discussion

Group discussion

1. What's the amount (dollar or number of unpaid monthly bills) of your struggling customers' indebtedness before they can't recover?

2. What's the success or breakage rate (%) of your payment arrangements for past-due customers?

3. Are your payment arrangements tied to your billing cycle? Are they on a separate schedule?

Next steps and options

- Interested in learning more about how a similar initiative could support your utility?
- Discuss your challenges with us and request more detailed findings! I'll reach out to all attendees.

Contacts

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Appendix

Project background and approach

Project background

Arizona experienced extreme heat (above 110°F) for a sustained period of months in 2023, resulting in hardship for many customers and communities. SRP implemented a programmatic approach to suspend service disconnections because of nonpayment (moratorium) when the NWS issues an Excessive Heat Warning or Freeze Warning. During these events, bills continue to generate and are due according to SRP standard terms, resulting in rising customer debt, disconnections, and collections after the moratorium.

SRP needed to determine if its current methodology for weather-related moratoriums is the best solution for its customers and the utility. Experts predict that extreme heat events like those Arizona experienced in 2023 will become the norm instead of the exception. SRP wished to proactively develop and administer policies that are in the best interest of its customers, especially income-qualified customers and frontline communities that are disproportionally impacted by extreme weather conditions. SRP sought a more holistic understanding of the potential effects of its policy on customers and the utility and wanted to identify other approaches for consideration.

SRP leadership hired E Source to identify, study, and report data-driven, fact-based policy and practice recommendations related to the utility's moratorium approach. SRP can use these recommendations and supporting evidence to revise its current methodology for weather-related moratoriums that balance the priorities of the utility with those of its customers, especially vulnerable populations.

Study goals and objectives

The research objectives and analysis include the following:

- Benchmark other utilities' weather-related moratoriums, customer impacts, and financial analyses and identify industry trends and leading policies and practices.
- Develop and deploy new surveys to better understand residential customers' perceptions of utility moratorium impacts, learn about their expectations for and interest in existing and potential new products and services, and determine how to best direct resources and support the most vulnerable customers to advance SRP's goals.
- Use new survey results to understand how customer sentiment has changed and conduct comparative analyses.
- Use benchmarking and new survey results to prioritize initiatives and evolve programs.
- Establish a baseline model to allow SRP to continue monitoring utility or financial impacts and customer trends, prioritizing vulnerable populations.
- Stay current on customer perceptions, awareness, and expectations of the utility's performance as the utility evolves its approaches to disconnection moratoriums.

Understanding weather-related disconnection moratorium impacts

SRP understands that any changes to the policies governing weather-related moratoriums will result in tradeoffs. It's looking to make determinations in three main areas:

- *Utility impact.* Understand the financial and other impacts to the utility from past-due balances, collections, write-offs, etc.
- *Customer experience.* Understand the current weather-related moratorium methodology's customer experience and identify the best approaches to facilitate balance repayment.
- *Vulnerable population.* Evaluate and balance the impacts of moratoriums on SRP's most vulnerable, limited-income customer population and the utility partners that serve them.

Research approach

E Source combined existing SRP data on the activities of customers affected by previous weather moratoriums with research on other moratorium-related programs.

SRP collected briefings from other utilities, stakeholder feedback, and contact center feedback; analyzed impacted customers and those who had debt forgiven; and identified the current state of its programs.

E Source collected additional information from SRP customers, employees, agency partners, and peer utilities. E Source used its data tools, expertise, and existing body of research regarding utility policies and practices, industry trends, and leading strategies related to customer service, vulnerable populations, moratoriums, and service connection disruptions (especially natural disasters and COVID-related impacts).

This hybrid approach of pairing SRP data with E Source insights and experience resulted in an initial determination of SRP's moratorium approach. It also allowed E Source to develop a model to help SRP leadership prioritize operational considerations and understand potential financial impacts for making future decisions around weather-related disconnections.

The focus of the research is guided by the financial impacts and trade-offs inherent with priorities and choices in three primary areas:

- For SRP as a public business, inclusive of all customer owners
- For the most vulnerable populations in the SRP service area
- For outcomes that may limit regulatory options regarding climate impacts on business practices

Research methods

E Source research methods included:

- *Industry scan.* Benchmark other utilities' weather-related moratorium policies and practices, customer impacts, financial analyses, and any other relevant information using our research tools, library, external resources, and industry contacts
- *Interviews.* Conduct interviews with SRP staff, assistance agency partners, and other utilities with weather-related moratoriums
- *Synthesize SRP's existing information.* Analyze relevant, existing information from SRP to answer questions and guide our research
- *SRP customer survey,* Survey customers using the steps described in the "Market research approach" section, including:
  - Current-state assessment and strategy development
  - Survey development and deployment, and data analysis
  - Results, recommendations, and conclusions

We also describe extensional tasks for consideration, including data science solutions and ongoing support services in the section "Extensional tasks for consideration."

Customer survey approach

Step 1: Current-state assessment and strategy development

E Source established a shared understanding of SRP's desired outcomes. In addition to reviewing documents relevant to the project—such as previous surveys, reports, retrospective feedback from stakeholders on prior studies, and data—E Source interviewed key SRP employee stakeholders, agency partners, and peer utilities. These meetings gathered critical research and made it possible for E Source to develop a well-rounded understanding of the issues, identify what stakeholders want to learn and accomplish from the project, understand ongoing needs, and finalize a methodology that will meet project goals economically and effectively.

Step 2: Survey development and deployment, and data analysis

Create a database of customers to survey. E Source used SRP's existing database of residential customers for the survey samples, particularly those the utility has identified as part of a vulnerable population for which the utility has acquired an email address. E Source worked with SRP to identify other existing customer data and operational data to use for the surveys and analysis.

Develop the survey instrument. E Source worked closely with SRP to develop the most important and actionable research questions in the survey instruments as identified during the research and discovery phase of the project.

The E Source Market Research team programmed the survey instruments into the survey software and conducted thorough troubleshooting and testing. After a detailed internal review, E Source sent the survey links to the SRP team so they could evaluate the end-to-end experience of survey respondents. E Source administered the surveys through internet data-collection methods in both English and Spanish. E Source used a web-based survey and analytics platform to deploy the surveys. As respondents completed the survey, E Source entered all collected data into the dataset, allowing for quicker, easier access to results.

Customer survey approach (cont.)

Collect primary market data from the survey. To achieve the target penetration and completion rates for the survey portion of this project, E Source used internet-delivered surveys. After removing customers who opted out of receiving email communications from SRP, E Source deployed surveys to a random sample of residential customer emails.

To boost participation, E Source developed a communication cadence to best address interest. For example, we sent two reminder communications (about a week apart) after the initial survey launch. This is considered a best practice. Increasing the number of responses not only improves the margin of error around the insights, but it also increases the ability to dive more deeply into the data by customer subgroups. Having more-precise data also improves the inferences we can make.

Analyze data and compile findings. E Source combined and analyzed the survey data, including but not limited to, assuring the quality of the data, carrying out statistical analysis including statistical inference, and putting data in the context of SRP and its regional trends.

E Source applied decades of utility experience to the results and outputs. We identified actionable insights and made recommendations for moving SRP forward. We worked with the SRP team to prioritize the recommendations before developing the deliverables and presenting them.

Step 3: Results, recommendations, and conclusions

E Source prepared a summary report on the results to highlight key findings and recommendations. We included information about our research methodology to provide context and transparency around the data collected for the project. SRP will have the opportunity to review and provide feedback. E Source will incorporate changes as we collaborate with the utility team to finalize the report.

Market research details

SRP residential customer survey

In January 2023, E Source fielded a 10-minute survey, in English and Spanish, for SRP's residential customers. Questions explored:

- Customer experiences with billing and payment
- Customer needs in terms of assistance and support
- Customer perceptions of current policy or approach
- Customer expectations
- Customer perceptions of potential adjustments to current policy or approach
- Customer preferences for receiving information from the utility
- Demographics and household characteristics or firmographics

Residential Survey Invite

Subject line: Salt River Project wants to hear from you!

Body:

SRP

Delivering water and power®

Dear valued customer,

Input from our customers is essential to better understand your needs and provide you with an improved customer experience, especially during extreme weather events. That's why SRP is working with E Source, a leading research firm, to conduct a brief customer survey. E Source will analyze the results on behalf of SRP and will not share your responses with anyone outside of SRP. Your responses are completely confidential. SRP will use the results to set priorities for customer service.

We are grateful for your time and consideration. Participants of the SRP study will be entered in a drawing to win one of five $100 Visa gift cards or equivalent. You will be entered in the drawing after completing the survey and clicking the submit button. The electronic randomized drawing sponsored by E Source will be held on February 28, 2024. Winners will be notified by email.

Please help us serve you better! Take our brief online survey about your experiences with SRP by clicking the link below. It should take you about 10–12 minutes to complete the survey.

{SURVEY LINK}

Thank you,

SRP Customer Services

{OPT OUT LINK}

Customer survey target groups

For customers SRP had email addresses for, E Source sent a survey to a random sample of customers in each of four customer groups. Surveys were offered in English and Spanish. E Source received 1,459 completed surveys, about a 5% response rate overall. More than 100 respondents completed the survey in Spanish.

SRP billing plan	SRP rate class	Customer count	Invitations sent count	Survey response count
M-Power (prepay)	EPP (income-qualified discount plan)	29,720	4,791	290
	Non-EPP	94,103	8,512	275
Credit (traditional postpay)	EPP	33,374	5,115	277
	Non-EPP	675,679	11,896	617

We have a proportionally larger sample of M-Power and EPP customers to gain statistically significant numbers for customer group comparisons. We applied postfieldwork weighting to the results to better match the overall customer base population.

SRP billing plan	SRP rate class	Population norm	Unweighted	Weighted
M-Power (prepay)	EPP (income-qualified discount plan)	4%	20%	10%
	Non-EPP	11%	19%	11%
Credit (traditional postpay)	EPP	4%	19%	10%
	Non-EPP	81%	42%	69%

Stakeholder interviews

From December 2023 through January 2024, E Source researchers interviewed key stakeholders using a series of questions that explored:

- Their experiences with heat-related disconnection moratoriums, including assisting customers with postmoratorium disconnections, collections, and repayment options.
- Their perceptions of heat-related disconnection moratorium impacts on postmoratorium disconnects, reconnection, ongoing customer debt, and other impacts on different customers.
- How they're conducting customer outreach around heat-related disconnection moratoriums and postmoratorium disconnections, collections, and repayment options.
- How they view the success of repayment options, payment arrangements, and prepaid service in relation to heat-related disconnection moratoriums.
- How they're working with the utility/assistance agencies to provide bill payment support and mitigate disconnections following heat-related disconnection moratoriums.

Interview subjects and questions are listed on the following slides.

Stakeholder interview subjects

From December 2023 through January 2024, E Source conducted interviews with three groups.

SRP teams:

- Contact center managers and supervisors
- Contact center representatives and leads
- Customer resource counselors and community relations
- Back-office leadership
- Customer service leadership (Policy Shop)
- Credit services

SRP agency partners:

- Saint Vincent de Paul
- City of Phoenix
- Wildfire
- Maricopa County Human Services

Other utilities:

- Ameren Illinois
- Arizona Public Service
- Austin Energy
- Avista Utilities (Washington)
- BGE
- DTE Energy (Michigan)
- JEA
- Los Angeles Department of Water and Power
- NV Energy
- Puget Sound Energy
- Seattle City Light
- SMUD
- Tucson Electric Power

Extensional tasks for consideration

Audience of One workshop: A unique, customer-centric data science approach

As part of this project, E Source will provide a 90-minute data science workshop to introduce the concept combining our industry-leading market research with innovative data science. Data science allows deeper insight into how to serve, market to, and communicate with utility customers. By combining our market research survey expertise with predictive data science, we get powerful, data-driven insights about your unique customer cohorts. No other entity can provide these skills and capabilities. With the E Source Audience of One solution, we deliver value to specific customers groups. It's a unique customer-centric approach.

Our approach has allowed clients to engage with targeted customers groups who have a 400% higher likelihood to adopt, participate, or engage than the average customer.

During the workshop, we'll review the results of the surveys and provide examples of what a data science project might look like. We'll show you the value of reaching the right customers with the right programs.

For example, we can use data science to:

- Predict which customers are most likely to be significantly impacted by extreme weather months and the associated high bills
- Match specific customers to programs that would preemptively mitigate the impacts of high bills before they reach a level of nonpayment
- Identify the customers most at risk of a moratorium leading to high debt that they cannot repay after the moratorium is lifted (and identify the right services or messaging to help prevent this situation before it happens)

During this workshop, we'll highlight how other utilities are using data science and why. We'll explain what data we would need to conduct a data science project, and we'll map out next steps including the cost to the utility and the timeline for such a project.

Ongoing support services

Market Research

We know that questions will come up as you act on the customer insights and implement our recommendations. E Source can provide iterative market research and analysis services to support utility teams. For example, we can:

- Do deeper analysis on a specific question or customer group
- Test customer reactions to changes in program offerings or moratorium strategy
- Interview a small set of customers to dive deeper into a specific question or topic

Data Science

Use data science-based predictions of customer bill impact to send the right messaging to customers before their bills become so high they can't pay. An E Source dashboard would allow a utility to:

- Predict which customers are most at risk
- Observe trends in growing risk as weather modeling changes
- Engage the right customers with the right programs to mitigate the potential impacts of high weather-related bill

We can drill down to the individual customer level, allowing utilities to analyze specific customer groups in multiple ways (for example, income-qualified, non-English-speaking, urban versus rural, etc.).