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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. GR-2021-0108

DIRECT TESTIMONY

OF

ROGER COLTON

ON

BEHALF OF

NATIONAL HOUSING TRUST

May 12, 2021

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Roger Colton. My business address is 34 Warwick Road, Belmont, MA
3 02478.

4 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

5 A. I am testifying on behalf of the National Housing Trust (NHT), on whose behalf I have
6 been retained as an expert.

7 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

8 A. I am a principal in the firm Fisher, Sheehan & Colton, Public Finance and General
9 Economic. In that capacity, I provide technical assistance to a variety of federal and state
10 agencies, community organizations and public utilities on rate and customer service
11 issues involving water/sewer, natural gas, and electric utilities.

12 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND.**

13 A. I work primarily on low-income utility issues. This involves regulatory work on rate and
14 customer service issues, as well as research into low-income usage, payment patterns,
15 and affordability programs. At present, I am working on various projects in the states of
16 Maryland, Virginia, Pennsylvania, Michigan, Illinois, Missouri and Washington. My
17 clients include state agencies (e.g., Pennsylvania Office of Consumer Advocate,
18 Maryland Office of People's Counsel, Illinois Office of Attorney General), federal
19 agencies (e.g., the U.S. Department of Health and Human Services), community-based
20 organizations (e.g., Sierra Club , Natural Resources Defense Council, Advocacy Centre
21 Tenants Ontario), and private utilities (e.g., Unitil Corporation d/b/a Fitchburg Gas and
22 Electric Company, Entergy Services, Xcel Energy d/b/a Public Service of Colorado). In
23 addition to state-specific and utility-specific work, I engage in national work throughout

1 the United States. For example, in 2007, I was part of a team that performed a multi-
2 sponsor public/private national study of low-income energy assistance programs. In 2011,
3 I worked with the U.S. Department of Health and Human Services (the federal LIHEAP
4 office) to develop and advance the utilization of the Home Energy Insecurity Scale as an
5 outcomes measurement tool for the federal Low-Income Home Energy Assistance
6 Program (“LIHEAP”). This year, I completed a study of water affordability in twelve
7 U.S. cities for the London-based newspaper, The Guardian. I am presently working on
8 the development of an online national tool through which water/wastewater utilities (as
9 well as other stakeholders) can assess the financial impact of bill assistance programs
10 directed toward low-income customers.

11 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

12 A. After receiving my undergraduate degree in 1975 (Iowa State University), I obtained
13 further training in both law and economics. I received my law degree in 1981 (University
14 of Florida). I received my Master’s Degree (Regulatory Economics) from the MacGregor
15 School in 1993.

16 **Q. HAVE YOU EVER PUBLISHED ON PUBLIC UTILITY REGULATORY**
17 **ISSUES?**

18 A. Yes. I have published three books and more than 80 articles in scholarly and trade
19 journals, primarily on low-income utility and housing issues. I have published an equal
20 number of technical reports for various clients on energy, water, telecommunications and
21 other associated low-income utility issues. A list of my publications is included in
22 Appendix A.

1 **Q. HAVE YOU EVER TESTIFIED BEFORE THIS OR OTHER UTILITY**
2 **COMMISSIONS?**

3 A. Yes. Last year, I filed testimony in the Evergy COVID-19 AAO proceeding (File No.
4 EU-2020-0350). Twenty years prior in 2001, I testified on behalf of the Office of Public
5 Counsel (OPC) regarding low-income rate relief for Missouri Gas Energy (File No. GR-
6 2001-292). In 2000, I testified on behalf of the Missouri Department of Natural Resources
7 with respect to the merger of UtiliCorp with St. Joseph Light and Power (File No.
8 EM2000-292) and again on behalf of DNR with respect to the merger of UtiliCorp with
9 Empire District Electric (File No. EM2000-369). In 1994, I prepared comments for the
10 OPC regarding credit and collection fees, although those comments were not presented as
11 “testimony” through being a witness.

12 Outside of Missouri, over the past 35 years, I have testified in roughly 300
13 regulatory proceedings in more than 35 states and various Canadian provinces on a wide
14 range of utility issues affecting low-income customers and residential customer service.

15 **Q. PLEASE SUMMARIZE THE PURPOSE OF YOUR REBUTTAL TESTIMONY.**

16 A. The purpose of my Rebuttal Testimony is as follows.

- 17 1. First, I briefly outline the disparate impacts which the COVID pandemic has had on
18 low-income households, along with the disparate racial impacts accompanying those
19 socio-economic impacts;
- 20 2. Second, I explain the regulatory principles that the PSC should apply in considering
21 how the costs of Spire’s response to the COVID pandemic should be recovered;
- 22 3. Third, I explain the economic crisis facing poor and near-poor customers as a result
23 of the COVID pandemic and how that affects Spire;

- 1 4. Fourth, I explain certain actions that Spire should undertake with respect to its
2 collection responses to unpaid bills resulting from the COVID pandemic;
- 3 5. Fifth, I assess the reasonableness of proposed responses to arrearages that can
4 reasonably be expected to be incurred during the pendency of the economic crisis
5 caused by COVID;
- 6 6. Sixth, I explain proactive steps that Spire should be taking to minimize and mitigate
7 the extent to which lower income customers will incur arrearages during the COVID
8 economic crisis, and thus to minimize and mitigate the resulting COVID costs to the
9 utility;
- 10 7. Seventh, I examine the role of energy efficiency investments in minimizing COVID
11 arrearages;
- 12 8. Eighth, I examine certain “administrative” (rather than programmatic) steps that Spire
13 should be required to take during the COVID pandemic that will help stakeholders,
14 including the Company, the Commission, and others, address the financial impact of
15 the COVID crisis; and
- 16 9. Finally, I assess the reasonable principles of cost recovery for the actions that I
17 recommend above, as well as for other COVID related costs.

18 **Q. PLEASE PROVIDE A SUMMARY OF THE RECOMMENDATIONS YOU**
19 **MAKE IN YOUR DIRECT TESTIMONY.**

20 A. Based on the data and analysis presented throughout my Direct Testimony, I recommend
21 as follows:

- 22 1. Spire should continue its Customer Arrearage Payment Plan program through which
23 customers can earn credits to retire their arrears, with eligibility set at 200% of the

1 Federal poverty level. I also recommend that, Spire remove its funding cap through
2 the end of calendar year 2022 for income-eligible customers to enter into payment
3 plans. In addition, Spire should offer long-term deferred payment plans of at least 12
4 months for those customers that do not qualify for the Customer Arrearage Payment
5 Plan.

6 2. Spire should expand its FCAP, while targeting relief to the extremely poor, using
7 “Express Lane Eligibility,” and expanding use of grassroots outreach. Spire should
8 remove its FCAP funding cap through the end of calendar year 2022.

9 3. Spire’s current and newly proposed income-eligible energy efficiency funds should
10 be approved. In addition, Spire should direct its implementers and weatherization
11 service providers to target energy efficiency and weatherization dollars to the extent
12 practicable in order to assist customers in arrears.

13 4. Spire should build on the data collection and reporting practices agreed to in File No.
14 GU-2020-0376 by including data by geography (census tract and/or ZIP code), and
15 by reporting data publicly.

16
17 **PART 1. THE DISPARATE ECONOMIC AND HEALTH IMPACTS OF COVID**

18
19 **Q. SHOULD THE DISPARATE IMPACTS OF COVID ON LOW-INCOME**
20 **CUSTOMERS BE CONSIDERED IN ANY REVIEW OF THE ISSUES YOU**
21 **ADDRESS IN THIS PROCEEDING?**

1 A. Yes. Since the start of the pandemic in March 2020, Missouri has had over 600,000
2 laboratory-confirmed COVID-19 cases, and over 9,300 deaths.¹ While the COVID-19
3 pandemic is obviously a critical public health crisis to the general population, it also
4 presents a particular health and economic crisis to low-income households and to the
5 working poor. The current infection rate is significantly down from its peak, but the
6 consequences of public safety measures and infection risks still reverberate through the
7 Missouri economy.

8 In Part 1 of my Rebuttal Testimony in File No. EU-2020-0350 (Evergy’s AAO
9 case), I discussed the disparate socio-economic impacts caused by the COVID pandemic,
10 including a brief outline of the impacts on communities of color. My discussion was
11 based on the U.S. Census Bureau’s experimental “Household Pulse Survey” in 2020, and
12 included an examination of two different aspects of the COVID impact on lower-income
13 households: (1) employment; and (2) housing security. I recommend review of my
14 testimony for a summary of these disproportionate impacts on individuals in low wage
15 industries and across racial lines.

16 **Q. WHAT DO YOU CONCLUDE FROM THIS DATA FOR PURPOSES OF THIS**
17 **PROCEEDING?**

18 A. The utility industry continues to be deeply impacted by the economic impacts of the
19 COVID-19 pandemic affecting Missouri and the rest of the nation. That population which
20 has the least ability to respond to the economic catastrophe caused by COVID-19 is the
21 same population that has been hardest hit with the public health and economic
22 consequences. The economic hardship is not simply caused by the loss of jobs, though

¹ <https://www.nytimes.com/interactive/2021/us/missouri-covid-cases.html>

1 that is a major part of it. The hardship is caused by the loss of income, which includes
2 loss of jobs, a reduction of hours, and a reduction of work-related income. Since lower-
3 income, low-wage employees also are the least likely to have paid leave time, not only
4 personal illness, but also family illness requiring workers to take time off to be
5 caretakers, suffer adverse economic impacts. Substantial research shows that one
6 consequence of these economic harms is the inability to pay monthly bills, including
7 utility bills. National research quantifies the inability to pay utility bills in particular.
8 While similar state-level research relating only to utility bills has not been performed in
9 Missouri, the corresponding research (inability-to-pay “housing” bills) has been
10 performed in Missouri, and supports the applicability of the national conclusions to
11 Missouri. Due to the nature of low wage employment, these customers find it difficult, if
12 not impossible, to avoid the economic crisis that has arisen due to COVID

13 We should also be cognizant of the clear racial implications of the conclusions
14 that I reach above. In Missouri, as elsewhere, COVID has had and continues to have a
15 disparately adverse impact on population demarcated by race. In particular, not only is a
16 higher proportion of Missouri’s Black population getting sick, but, in addition, a higher
17 proportion of Missouri’s Black population is dying as a result of COVID, than is
18 warranted by the percentage of Black individuals in the population as a whole.

19

1 **PART 2. THE REGULATORY PRINCIPLES TO BE**
2 **APPLIED TO SPIRE COST RECOVERY**

3
4 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR REBUTTAL**
5 **TESTIMONY?**

6 A. In this section of my testimony, I explain several regulatory principles that the
7 Commission should articulate in the context of a general rate case that should govern cost
8 recovery in the context of the ongoing COVID pandemic and economic crisis,
9 particularly with respect to minimizing costs due to arrearages and uncollectibles.

10 **Q. PLEASE EXPLAIN THE FIRST REGULATORY PRINCIPLE.**

11 A. Spire has an obligation to provide service within a least-cost framework. This regulatory
12 principle is not unique to questions of how to respond to inability-to-pay. This principle
13 pervades utility regulation. One question, for example, with utilities involves the question
14 of insurance. The issue poses itself as to which insurance alternative is least-cost: self-
15 insurance or the purchase of insurance. A second question involves how a utility should
16 handle “cash.” The regulatory review is whether a utility should pay bank fees, or
17 whether it should maintain compensating bank balances.

18 Least-cost service is also at the heart of much of the regulatory debate regarding
19 utility investments in energy efficiency over the past several decades. The question posed
20 is whether investments in producing natural gas, or investments in reducing the
21 consumption of natural gas, result in the least-cost provision of service. A related issue in
22 today’s world presents the same least-cost question with respect to environmental clean-
23 up. Is it lesser cost to produce additional natural gas, and engage in the clean-up of the

1 production facilities, or is it lesser cost to avoid the production of greenhouse gasses with
2 which to begin by instead investing in usage reduction measures?

3 The same principle applies to Spire's response to nonpayment during the ongoing
4 COVID pandemic and economic crisis. The question Spire faces is whether it can make
5 investments, in resources or policies, that will result in a more effective, more efficient,
6 more cost-effective and cost-efficient response to the general and COVID-related
7 nonpayment problems which its customers are facing. Further in doing so, can Spire
8 mitigate the costs that will arise if it fails to make such investments?

9 One regulatory principle that the Commission should articulate as governing the
10 costs associated with the economic inability-to-pay involves a mandate that Spire should
11 pursue those activities resulting in the least-cost provision of service.

12 **Q. WHAT IS THE SECOND PRINCIPLE THAT THE MISSOURI PSC SHOULD**
13 **CLEARLY ARTICULATE?**

14 A. Another regulatory principle the Commission should articulate is the obligation of Spire
15 to undertake those reasonable actions to mitigate the harms of COVID inability-to-pay
16 before such harms arise. In this sense, Spire is not a passive observer of the adverse
17 economic consequences of COVID. There is little question that non-paying customers
18 impose costs on a utility and its remaining ratepayers. As the Pennsylvania Public Utility
19 Commission's (PUC) Bureau of Consumer Services found nearly 30 years ago in its
20 report based on its investigation into the control of uncollectible accounts, the findings of
21 which remain valid today:

22 ratepayers are already bearing significant costs attributable to the
23 problems of payment troubled customers and uncollectible balances.
24 Further, BCS believes incorporating the following recommendations into
25 utility operations will lead to a more rational and cost-effective use of

1 existing resources. Over time, proper implementation of the
2 recommendations may result in a reduction of total utility costs.²

3
4 Costs associated with termination include: transaction costs of notice,
5 disconnecting service, engaging in collection activity and writing off uncollectible debt.
6 In addition, utility terminations generate hidden costs as terminated customers go
7 underground – changing names on accounts, moving to new addresses (whether within or
8 without the jurisdiction of the utility) and the like – or enlist advocates to fight the
9 termination. All these activities impose costs on the utility in the form of increased legal,
10 transaction, and monitoring costs.³

11 There are few principles regarding remedies as well established as that of a
12 claimant's duty of mitigation. Under this doctrine, a breaching party is responsible only
13 for those consequences for which her breach was the proximate cause. Accordingly, she
14 must *not* be held liable for consequences that her victim could have avoided by the
15 victim's own reasonable conduct. The same principle applies in the context of utility
16 regulation. Where a utility such as Spire knows, or has reason to know, that the income of
17 a consumer is simply inadequate to meet the demands for each month's current bill
18 payment, it is reasonable for the Commission to direct the utility to take action which
19 would reduce the expectation of an unpaid bill *ab initio* so as to allow the utility to collect
20 what it can.

² Bureau of Consumer Services, Pennsylvania Public Utility Commission, Investigation of Uncollectible Balances: Final Report to the Pennsylvania Public Utility Commission, at 6 (Feb. 1992) (recommendations excluded).

³ These include costs associated with approving new accounts, and greater scrutiny of new accounts, and increased collection costs and legal fees. In addition, the company may have lost forever a potentially profitable account. A utility with a reputation as a hard-core collector of fees risks loss of good will and encouraging subversive behaviors as well. Leff, "Injury, Ignorance and Spite, the Dynamics of Coercive Collection," 80 Yale L.J. 1, 5 -10 and 35 (1970). Available at: https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=3821&context=fss_papers (last accessed August 4, 2020).

1 The second regulatory principle that the Commission should articulate as
2 governing the costs associated with the economic inability-to-pay caused by COVID
3 involves mandating Spire to undertake those activities that result in the mitigation of the
4 system-wide costs of inability-to-pay in the COVID environment.

5 **Q. WHAT IS THE THIRD REGULATORY PRINCIPLE THE COMMISSION**
6 **SHOULD CLEARLY ARTICULATE?**

7 A. The ongoing presence of the COVID pandemic does not relieve Spire from its obligation,
8 as a regulated public utility, to operate in an efficient manner. From a collections
9 perspective, efficiency is measured not merely by the metric of how much money is
10 collected but also by the metric of how much is collected given the level of effort
11 involved. Improvements in efficiency of collection activities can occur in either of two
12 ways:

- 13 1. Reduce the effort. The need for collection interventions can be reduced thus
14 allowing an increased payment per each collection intervention performed;⁴ or
- 15 2. Increase the result. The customer response to the collection activity can improve
16 thus allowing an increased payment per each collection intervention performed.⁵

17
18 In essence, Spire should, as a condition of the recovery of costs, be expected to
19 improve the efficiency of collection activities from two different but related perspectives.
20 On the one hand, Spire efforts should be considered *vis a vis* how much revenue (outputs)
21 is generated by each collection intervention. On the other hand, Spire efforts should be
22

⁴ In this first instance, improvement can be seen even if total dollars collected remains the same (but the number of interventions needed to generate those dollars decreases).

⁵ In this second instance, improvement can be seen if the total number of collections activities remains the same but the dollars generated by those activities increase.

1 considered *vis a vis* how many collection activities (inputs) are needed to generate the
2 revenue.

3
4 **PART 3. THE NONPAYMENT BASELINE AND ADDITIONAL**
5 **COVID CRISIS-RELATED NONPAYMENT**
6

7 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?**

8 A. In my testimony above (and my referenced Evergy AAO case testimony), I document the
9 disproportionate adverse impact that COVID is having on lower income households
10 (customers). For our purposes here, however, it is not only the extent to which COVID
11 impacts grow, it is the base from which that growth occurs which is important. It will be
12 difficult, if not impossible, for Spire to address the COVID impacts if it does not first
13 understand and acknowledge the baseline inability-to-pay.

14 **Q. WHY IS THAT RELEVANT IN THIS PROCEEDING?**

15 A. The inability-to-pay on the part of the low-income customer base also results in an
16 inability-to-collect on the part of Spire. As a result, Spire seeks to include excessive
17 increased costs through the regulatory asset which it seeks the PSC to authorize in this
18 proceeding in contradiction to all three regulatory principles that I have articulated above
19 if it does not acknowledge and address that inability-to-collect.

20 For purposes of future cost recovery, it is important to know what Spire *currently*
21 knows about its inability-to collect. Once the baseline inability-to-collect is established,
22 Spire has been put on notice that failing to acknowledge that information and to act
23 accordingly will be considered inadequate, unreasonable, and imprudent cost control.

1 **Q. HOW SHOULD SPIRE MEASURE THE EXTENT TO WHICH THE INABILITY-**
2 **TO-PAY BY LOW-INCOME CUSTOMERS RESULTS IN AN INABILITY-TO-**
3 **COLLECT?**

4 A. I use four different metrics to measure the inability-to-collect from low-income customers
5 who cannot afford to pay their bills:

- 6 1. **Complete payment.** When Spire bills \$100, it wants to collect \$100 from its
7 customers. Paying something less than \$100 means that the customer is not making
8 a “complete” payment.
9
- 10 2. **Timely payment.** When Spire sends a bill with a due date 20 days after the billing
11 date, it wants to collect its payment on or before Day 20. Even if a customer makes
12 a complete payment, if that payment comes on Day 45, or any other day after Day
13 20, the customer is not making a “timely” payment.
14
- 15 3. **Regular payment.** When Spire sends a bill for current service, it wants to collect
16 a payment in response to that bill. If at the end of six months (representing six
17 monthly bills), for example, even if two separate customers had both paid 100% of
18 those bills, if Customer A made 100% of his/her payment in six (6) payments (1
19 payment per each bill), and Customer B made 100% of his/her payment in two (2)
20 payments (1 payment for every 3 bills), Customer B would have made less regular
21 payments.
22
- 23 4. **Unsolicited payment.** When Spire sends a bill, it wants to receive payment without
24 needing to “chase” that payment. Even if Spire receives a complete payment from
25 a customer, if that payment comes only after the Company needs to send a reminder
26 notice, issue a disconnection notice, and perhaps even perform a disconnection of
27 service, Spire is expending more resources in the process of collection than if the
28 payment would have been “unsolicited.”
29

30 **A. Illustrating the Baseline Low-Income Problems.**

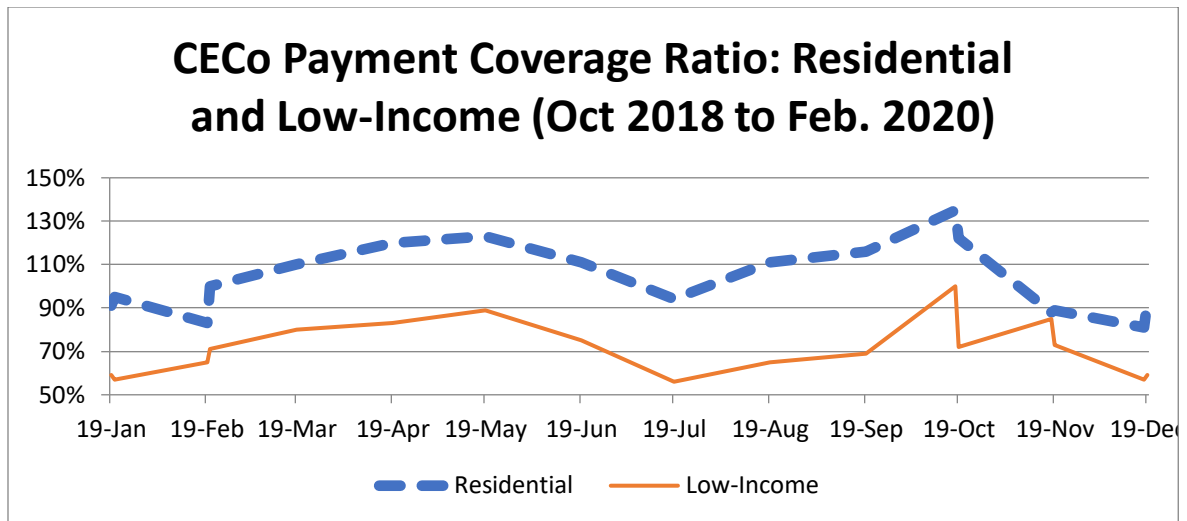
31 **Q. WHAT DO YOU KNOW ABOUT THE BASELINE INABILITY-TO-PAY?**

32 A. While Spire does not engage in the type of data collection and public reporting which
33 allows me to present utility-specific data for Spire, the quantity and quality of

1 information that exists nationwide leads to the firm conclusion that inability-to-pay on the
2 part of low-income households is associated with the inability-to-collect on the part of
3 Missouri utilities such as Spire. Given the lack of Spire data, I first illustrate the problem
4 using data from Consumers Energy (Michigan) both because it is a similar utility and
5 because it is recent, while nonetheless predating COVID.

6 **Q. FROM A “COMPLETE” PAYMENTS PERSPECTIVE, WHAT IS CONSUMERS**
7 **ENERGY’S (CECO) INABILITY-TO-COLLECT FROM ITS LOW-INCOME**
8 **CUSTOMERS?**

9 A. The first thing I illustrate is the extent to which the unaffordability problems documented
10 above translate into issues with “complete” payments, measured by the “payment coverage
11 ratio.” The payment coverage ratio places the dollars actually received in the numerator
12 and the dollars billed in the denominator. If a customer’s payments equal the customer’s
13 bills, the payment coverage ratio is 100%. If the customer’s payments equal half of the
14 customer’s bills, the payment coverage ratio is 50%. That completeness data is
15 summarized in the Chart immediately below. The residential payment-coverage ratio by
16 month is the dashed line while the low-income payment coverage ratio by month is the
17 solid line.



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A number of observations stand out from looking at the Chart above. First, CECo’s Payment Coverage Ratio for residential customers as a whole is substantially higher than for low-income customers. Over the 17-month study period,⁶ the cumulative residential Payment Coverage Ratio (cumulative payments divided by cumulative bills) was 101%. In contrast, the low-income Payment Coverage Ratio for that 17-month period was only 71%. That means that, as a whole,⁷ low-income customers were paying only \$70 for every \$100 they received as their bill.

Second, for the residential population as a whole, in 9 of the 17 study months, CECo collected more than it billed (*i.e.*, had a Payment Coverage Ratio of 100% or more). In 13 of the 17 months, CECo collected 90% or more of what it billed. In contrast, with the low-income customer base, in five months, CECo’s Payment Coverage Ratios

⁶ Data was collected beginning in October 2018. That month was selected to allow for at least one full heating season to be included in the data (October 2018 – February 2020).

⁷ The Payment Coverage Ratio does not reference individual customers. For example, if Customer A began with a \$100 arrears and completely retired it, while Customer B began with a \$0 arrears and ended with an arrears of \$110, the Payment Coverage Ratio would be less than 100%. Similarly, if Customer A began with a \$100 arrears and completely retired it, while Customers B and C began with a \$0 arrears and ended with arrears of \$50 and \$60 respectively, the Payment Coverage Ratio would be less than 100%.

1 were lower than 60% (*i.e.*, CECo collected fewer than \$6 for every \$10 billed). In three
2 more months, the Payment Coverage Ratio was less than 70% (but higher than 60%).

3 The point here is not to critique or assess CECo’s collection practices. Rather, the
4 point is to compare low-income payment patterns to the payment patterns of residential
5 customers as a whole. The further point here is that the COVID-19 related economic
6 impacts I identify will exacerbate these problems to an even greater extent.

7 **Q. HAVE YOU EXAMINED THE REGULARITY OF PAYMENTS?**

8 A. Yes. As explained above, the “regularity” of payments is measured by the number of
9 payments made as a function of the number of bills rendered. When Spire issues a bill, it
10 wants a payment in response to that bill. The Payment Regularity Ratio places the
11 number of payments in the numerator and the number of bills in the denominator. If the
12 ratio is 1.0, customers are making exactly one payment for each one bill that has been
13 rendered. In making this calculation, the size of the payment is not considered (*i.e.*, the
14 *size* of the payment is considered in the Payment Coverage Ratio discussed above). A
15 payment of \$10 is considered equal to a payment of \$100 for purposes of the Payment
16 Regularity Ratio.

17 **Q. WHAT DID YOU FIND WITH RESPECT TO CECO’S PAYMENT**
18 **REGULARITY?**

19 A. Over the 17-month study period (October 2018 through February 2020), residential
20 customers had a substantially higher Payment Regularity Ratio than did low-income
21 customers. For the 17-months as a whole, while residential customers as a whole made 91
22 payments for each 100 bills rendered (a Payment Regularity Ratio of 0.91), low-income
23 customers made 68 payments for each 100 bills rendered (a Payment Regularity Ratio of

1 0.68). Given this starting point, the COVID-related nonpayment impacts I identify will
2 exacerbate these problems to an even greater extent.

3 **Q. HAVE YOU EXAMINED THE TIMELINESS OF PAYMENTS FOR LOW-**
4 **INCOME CUSTOMERS RELATIVE TO RESIDENTIAL CUSTOMERS AS A**
5 **WHOLE?**

6 A. Yes. The way in which I examine the “timeliness” of payments is by examining the aging
7 of the dollars of arrears. CECo provided data for October 2018 through February 2020
8 from which I calculated monthly “roll rates.” “Roll rates” are the rate at which the
9 previous month's aging bucket rolls into the subsequent month’s next aging bucket (*i.e.*
10 are not paid).⁸ A higher roll rate means that a higher percentage of arrears remains in that
11 aging bucket (*i.e.*, rolls forward). For purposes here, in other words, the higher the roll
12 rate, the older an arrearage is and the less timely payments are being made by residential
13 customers or by low-income customers.⁹

14 CECo’s low-income customers make consistently less timely payments than do
15 residential customers as a whole. In the 13 months of data, low-income customers had a
16 higher percentage of arrears outstanding at Day 150 than did residential customers as a
17 whole. For example, in January 2019, while 8.25% of low-income arrears were still
18 outstanding (at the Day 150 mark), only 5.74% of residential arrears were. Indeed, in nine
19 of the 13 months, the percentage of low-income arrears remaining at Day 150 was two
20 times (or nearly so) higher than the residential percentage. In April 2019, for example,

⁸ An “aging bucket,” for example, refers to customers who are 1 – 30 days in arrears, 30 – 60 days in arrears, 60 – 90 days in arrears, and higher. Different utilities use different top codes for their aging buckets.

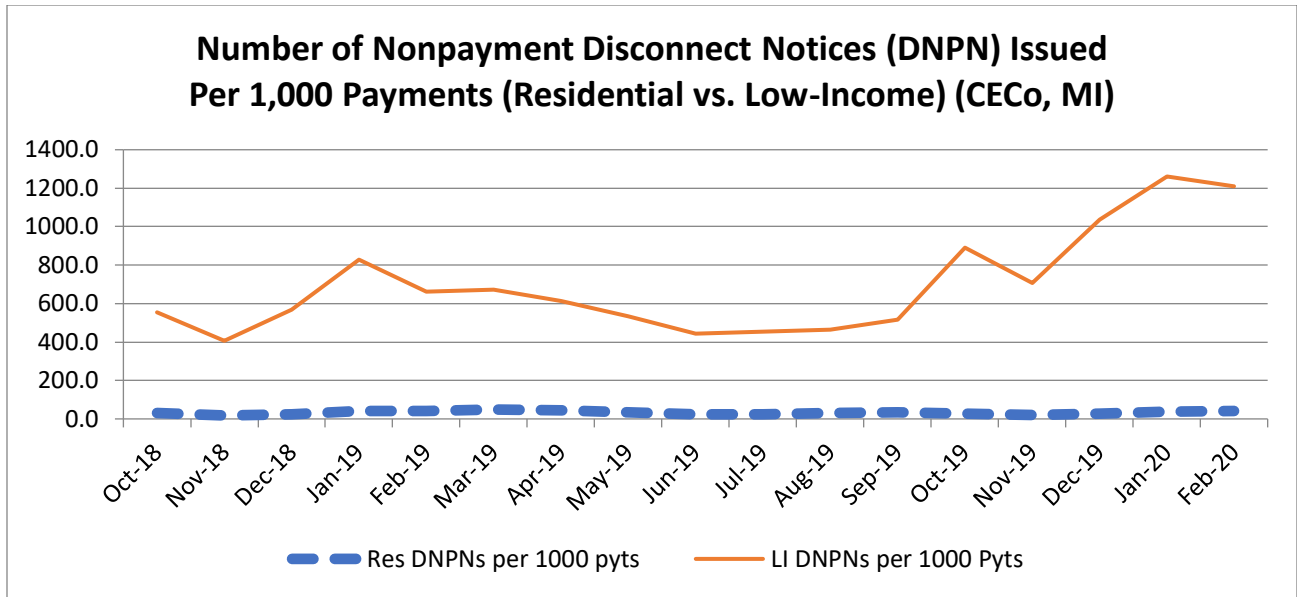
⁹ My purpose here is not to assess how well CECo is doing in collecting its arrears. The purpose here is only to compare low-income arrears to residential arrears to see if low-income customers make payments in a more timely, or a less timely, fashion than do residential customers generally.

1 the low-income rate was 8.79% compared to a residential rate of 4.52% in April. In July
2 2019, the low-income rate was 10.11%, compared to a residential rate of 4.61% in July.
3 In January 2020, the low-income rate was 10.37%, compared to a residential rate of
4 5.09% in that same month. As stated above with respect to complete and timely
5 payments, given this starting point, the COVID related economic impacts I identify will
6 exacerbate these problems to an even greater extent.

7 **Q. HAVE YOU EXAMINED HOW HARD CONSUMERS ENERGY WAS**
8 **REQUIRED TO WORK TO COLLECT FROM RESIDENTIAL AND LOW-**
9 **INCOME CUSTOMERS?**

10 A. Yes. There are two separate but related metrics that I examine below: (1) the number of
11 disconnection notices that CECo issues for each 1,000 payments it receives; and (2) the
12 number of disconnection notices for each \$1,000 in payments CECo receives.

13 The Chart immediately below presents the number of disconnect notices that
14 CECo issues for every 1,000 payments it receives from its low-income and from its
15 residential customer base. A lower figure indicates that the Company sends fewer notices
16 for every 1,000 payments it receives. The exact numbers are not as important for my
17 discussion here as is the location of the residential line (dashed line) to the low-income
18 line (solid line).



1

2

The analysis is a simple ratio. I place the number of disconnection notices the Company issues each month in the numerator and the number of payments it receives each month in the denominator. The Chart above demonstrates that CECo works much less hard for its residential payments than it works for its low-income payments.

6

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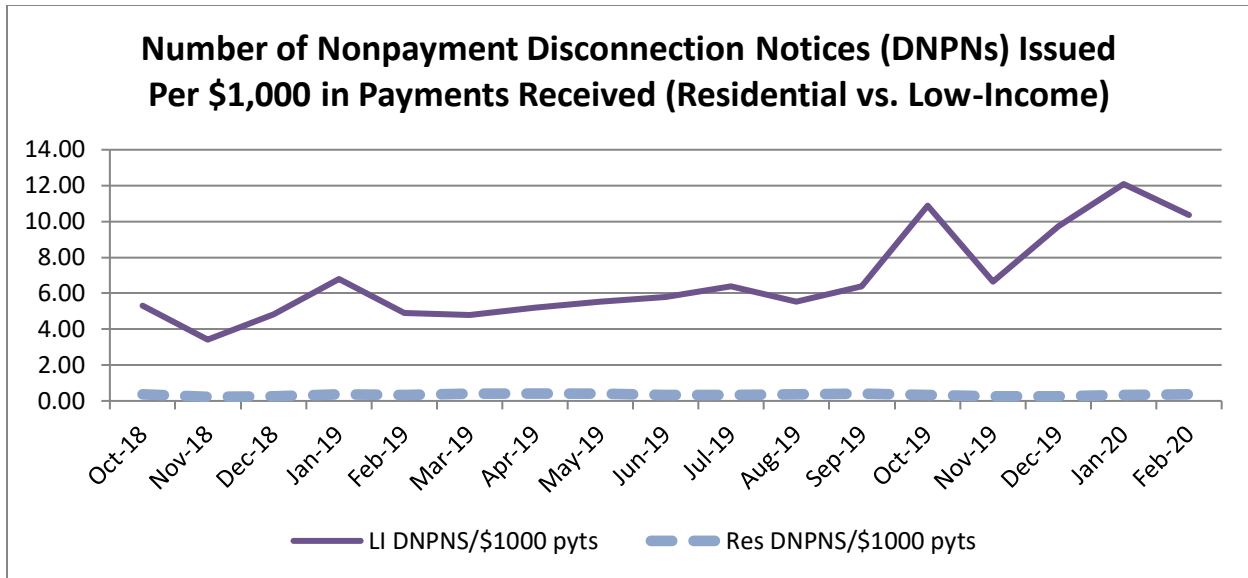
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In addition, the Chart below shows the same data, but uses the dollars of payments rather than the number of payments. The dashed-line at the bottom of the Chart shows that residential customers as a whole receive substantially fewer disconnection notices for every \$1,000 in payments that CECo receives than do low-income customers (solid line). While low-income customers receive from four to twelve disconnect notices for each \$1,000 payments they make, residential customers receive fewer than 1.0 disconnection notice for each \$1,000 in payments they make.



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B. Corroborating Data from Additional States.

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Q. WHAT INFORMATION FROM OTHER STATES CORROBORATES YOUR CONCLUSIONS BASED ON CONSUMERS ENERGY DATA REGARDING THE RELATIONSHIP BETWEEN LOW-INCOME STATUS AND INABILITY-TO-COLLECT FOR SPIRE?

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A. The CECo information presented above is uniformly consistent with data that has been generated for natural gas and electric utilities in other states. Not only each set of data unto itself, but the group of states taken as a whole, demonstrates that low-income customers suffer from a greater baseline inability-to-pay than residential customers generally. The data also demonstrates the relationship between low-income inability-to-pay and the utility’s inability-to-collect.

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Q. WHAT LESSONS CAN BE LEARNED FROM UTILITIES SERVING LOW-INCOME RESIDENTS IN OTHER STATES?

15

1 A. Spire can learn many lessons from utilities serving low-income Maryland residents in the
2 energy (gas and electric) industries. Data from Maryland demonstrate that low-income
3 customers are not only more likely to be in arrears, but, also, that those who are in arrears
4 are more likely to be deeper in arrears. In its 2007 evaluation¹⁰ of the Electric Universal
5 Service Program (“EUSP”),¹¹ the PA Consulting Group compared a variety of attributes
6 of payment difficulties, including but not limited to the number of elapsed days after
7 receiving a bill before making a payment, the completeness of payment,¹² the regularity
8 of payments,¹³ and the continuity of payments.¹⁴ PA Consulting found that “all
9 households” outperformed low-income customers on each of these payment metrics.
10 “All households” paid a higher percentage of their bills, made more payments in
11 response to bills, and exhibited more regularity in payments than did low-income
12 customers prior to their participation in EUSP. Table below presents data comparing
13 low-income performance to residential performance as a whole. Even when Maryland’s

¹⁰ PA Consulting (May 2007). Electric Universal Service Program Evaluation: Final Evaluation Report, prepared for Maryland Public Service Commission. (hereafter, “PA Consulting”). Available at <http://webapp.psc.state.md.us/intranet/reports/EUSP051107.pdf> (last accessed May 9, 2020).

¹¹ Maryland Public Service Commission (2014). Electric Universal Service Report: 2014 Annual Report, at 1, prepared for the General Assembly of Maryland. (“The Electric Universal Service Program (“EUSP”), enacted as part of the Electric Customer Choice Act of 1999, was designed by the Maryland General Assembly to assist low-income electric customers with retiring utility bill arrearages, making current bill payments, and accessing home weatherization following the restructuring of Maryland’s electric utilities and electricity supply market. The Act, codified as Section 7-512.1 of the Public Utilities Article, Annotated Code of Maryland (“PUA §7-512.1” or “EUSP Legislation”) required the Public Service Commission of Maryland (“Commission”) to establish the program, make it available to low-income electric customers Statewide, and provide oversight to the Office of Home Energy Programs (“OHEP”), the arm of the Department of Human Resources (“DHR”) responsible for administering the EUSP.”)

¹² “The completeness index is an indicator of the percent of the total bill for which the household was responsible that was paid during the before and after periods.” PA Consulting, *supra*, at 4-3.

¹³ The regularity index “is the percentage of payments the customer made compared to the number of billings.” PA Consulting, *supra*, at 4-4.

¹⁴ The continuity index “is an indicator of how consistently payments were made. For example, making nine payments in a row would yield a higher consistency score than making three payments in a row.” PA Consulting, *supra*, at 4-4.

1 low-income energy customers did make payments, PA Consulting found, they were less
 2 regular and less continuous. Moreover, low-income households making payments took
 3 more days before making their payments.

Table 1. Low-Income ¹⁵ vs. All Residential Customers				
Selected Payment Performance Indicators				
	Completeness of Payment	Regularity of Payment	Continuity of Payment ¹⁶	Elapsed Days before Payment
Low-income customers	83.6%	70.0%	0.3	32.6
All customers	97.6%	86.8%	0.52	21.8

¹⁵ “Low-income” is defined as a participant in the Maryland EUSP program prior to their entry into EUSP. All EUSP participants, however, receive federal fuel assistance through the Maryland Energy Assistance Program (“MEAP”). The reported performances would, as a result, be better than low-income customers not receiving MEAP. MEAP serves a fraction of all Maryland low-income customers.

¹⁶ The “continuity of payment” is measured as follows according to PA Consulting: “The continuity index is the sum of the square of payments made in sequence divided by the square of the number of billings in the study period. Thus, if a participant makes 12 payments in a row and there are 12 billing periods then the continuity index is $12^2 / 12^2$ or one. This means that the participant consistently paid the electric bill. The continuity index is structured so that the more payments that are made in sequence, the higher the continuity index. A household that made 9 of 12 payments in contiguous months would have a continuity index of $9^2/12^2$ or 0.56. A household that made 9 of 12 payments where four and five of the payments were in sequence, would have a continuity index of $(5^2 + 4^2)/12^2 \cdot 100$ or 0.28. The three missed payments could have been dispersed at the beginning, middle, or end of the study period; have all been at the beginning, middle, or end; or in some other combination. A final illustration is that nine payments made in clusters of 3 would result in a continuity index of $(3^2 + 3^2 + 3^2)/12^2$ or 0.19. The continuity index captures how payments are made in sequence.” PA Consulting, supra, at 4-4.

1 **Q. IS THERE ANY OTHER STATE THAT SHARES THE PAYMENT**
 2 **DIFFICULTIES DOCUMENTED IN MARYLAND AND MICHIGAN?**

3 A. Yes, the Pennsylvania PUC’s Bureau of Consumer Services publishes an annual report
 4 on “collections performance” for that state’s natural gas and electric utilities. The data in
 5 Table below show that nearly three times more low-income electric customers (26% vs.
 6 9%) are in arrears. However, not only is a higher percentage of accounts in arrears, but, in
 7 addition, those who are in arrears are deeper in arrears. The average dollar level of low-
 8 income natural gas arrears is more than 20% higher than residential customers as a
 9 whole. The resulting collections outcomes are thus not surprising. Pennsylvania utilities
 10 disconnect service (for nonpayment) to between three and four times more low-income
 11 customers than they do to residential customers generally. Having disconnected service to
 12 that many low-income customers, the bad debt rate (in terms of percentage of billed
 13 revenue) is between three and four times higher for low-income customers than it is for
 14 residential customers as a whole.

	Electric		Natural Gas	
	Residential as a whole	Low-Income	Residential as a whole	Low-Income
Percent accounts in arrears	9.1%	25.9%	9.3%	18.2%
Average dollars of arrears	\$452	\$672	\$470	\$566
Termination rate	4.4%	15.8%	3.9%	12.0%
Bad debt rate	2.3%	9.8%	3.9%	14.0%

¹⁷ The annual BCS Report on Universal Service Programs and Collections Performance can be accessed at: http://www.puc.state.pa.us/filing_resources/universal_service_reports.aspx (last accessed on August 9, 2020).

1 **C. Relevance of Low-Income Payment Problems to this Proceeding.**

2 **Q. WHY DO YOU DOCUMENT ABOVE THE LOW-INCOME PAYMENT**
3 **PROBLEMS IN SUCH DETAIL?**

4 A. My experience counsels that people often consider the fact that low-income customers
5 have greater affordability problems than do non-low-income customers to be self-evident
6 and, as a result, do not given the notion that these problems can be measured, quantified,
7 and controlled much additional thought. When viewed as self-evident, people fail to
8 translate the inability-to-pay into the various manifestations of the inability-to-collect.
9 Flowing from this failure is a reaction to the low-income affordability problem as though
10 such unaffordability is a “social” problem. The correlative argument is that it is not the
11 role of a public utility to address such a “social” problem. This approach fails to consider
12 the resulting business problems associated with inability-to-pay and inability-to-collect.
13 The approach fails to consider the fact that a utility can take steps to control and improve
14 its ability-to-collect. That need to control the inability-to-collect, and the ability to do so,
15 is directly presented in a rate case proceeding.

16 My detailed discussion above confirms that an unaffordability problem viewed as
17 an “inability-to-pay” from a social perspective is also an “inability-to-collect” from the
18 utility’s perspective. When seen as a utility’s inability-to-collect the bills it is rendering
19 for service, low-income unaffordability is not merely a social problem, it is a business
20 problem which the utility not only *can* address through responsive actions, and but *needs*
21 to do so as well.

1 **Q. WHY IS THE DATA FROM MICHIGAN’S CECO (CONSUMERS ENERGY**
2 **COMPANY), MARYLAND AND PENNSYLVANIA RELEVANT TO THIS**
3 **PROCEEDING?**

4 A. As I indicated above, Spire does not publicly report data that allow me to undertake an
5 analysis specific to the Company. Accordingly, the data from CECo, Maryland and
6 Pennsylvania are relevant because they allow us to gain insights into the baseline
7 collection problems that Spire would face even in the absence of COVID. Only by
8 understanding the baseline collection problems can Spire understand how to address the
9 additional payment difficulties facing the lower-income population, which will be most
10 adversely affected by the COVID pandemic. Moreover, only by understanding the
11 baseline collection problems can Spire understand which responsive actions it might take
12 can reasonably be expected to be effective, or ineffective, as cost-mitigation measures.
13 Knowing, now, the problems which currently exist, and knowing, now, how those
14 problems have been exacerbated by COVID, Spire should now be charged with taking
15 actions to mitigate those problems and to minimize the resulting costs. *Not* taking
16 available actions to mitigate the Company’s inability-to-collect would be an unreasonable
17 passivity on the part of Spire to control costs and to preserve revenues.

18

19 **PART 4. SPIRE COVID-19 COLLECTION RESPONSES**

20

21 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?**

22 A. In this section of my testimony, I recommend that Spire extend the suspension of late
23 payment fees.

1 **Q. WHAT SHOULD SPIRE’S TREATMENT OF LATE PAYMENT FEES BE,**
2 **CONSIDERING THE ONGOING EFFECTS OF THE PANDEMIC?**

3 A. Spire should be required to suspend the imposition of residential late payment charges for
4 an appropriate length of time as circumstances require. A late payment charge has two
5 purported objectives: (1) to serve as an incentive for customers to pay their bills; and (2)
6 to allow the utility to recover its collection costs associated with nonpayment from those
7 customers who cause (or contribute to the cause) of those costs. Neither of these
8 objectives are valid while Spire customers are experiencing the ongoing economic
9 impacts of the COVID pandemic.

10 To impose a late payment charge as an “incentive” for customers to pay their bills
11 assumes that a customer has an ability-to-pay but, for some reason, lacks the motivation
12 to do so. As documented in detail throughout my testimony, however, during the COVID
13 pandemic, lower-income customers have an even lesser ability-to-pay than they do in
14 periods not marked by the health emergency and the economic crisis attributable to the
15 pandemic.

16 Indeed, as with nonpayment service disconnections, from a cost-control
17 perspective, imposing late payment charges during the economic crisis associated with
18 the COVID pandemic is likely to be counter-productive as a cost-control measure rather
19 than productive. Two arguments are generally advanced in support of the “incentive”
20 function of a late payment charge. On the one hand, utilities have argued that late
21 payment charges will incentivize payments in order for customers to avoid paying the
22 higher bills caused by the late charge. On the other hand, utilities have argued that late

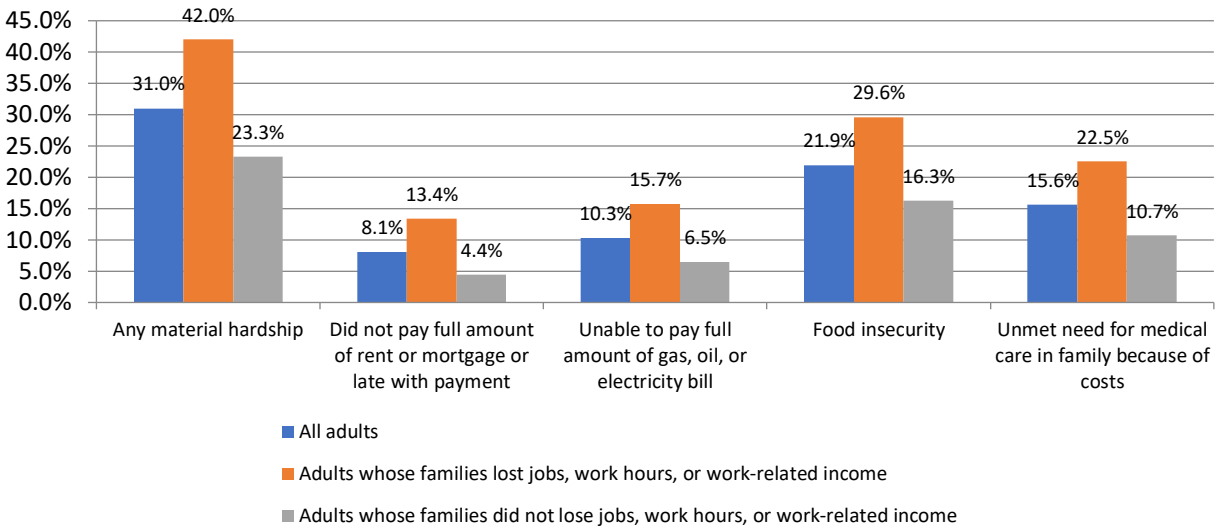
1 payment charges will incentivize customers to pay their utility bills before paying any
2 credit card bills that may bear equal or higher interest rates.

3 Neither of these arguments applies to consumer decision-making in the economic
4 crisis associated with the COVID pandemic. As shown in my Rebuttal Testimony in File
5 No. EU-2020-0350, customers during the COVID pandemic are not making the choices
6 that Spire late payment charges are designed to influence. Customers are not choosing to
7 make payments between their credit cards and their utility bills. Customers are instead
8 faced with an inability to make payments on fundamental households needs such as food,
9 medicine, and housing.

10 **Q. WHAT INFORMATION IS AVAILABLE ON THE CHOICES CONSUMERS**
11 **ARE MAKING WHEN THEY FACE COVID-19 RELATED INCOME LOSS?**

12 A. The Urban Institute study, which I have previously cited in my testimony in File No. EU-
13 2020-0350, illuminates the choices that households are being forced to make in today's
14 COVID pandemic world. The Chart below shows those choices that people are making.
15 One-in-six (15.7%) of adults are unable to pay their home energy bills when they lost
16 jobs, or suffered lost work hours or reductions in work-related income. For purposes of
17 assessing late payment charges, however, that number does not tell the full story. Nearly
18 one-in-three (29.6%) of adults who lost jobs/income experienced food insecurity, while
19 nearly one-in-four (22.5%) were unable to received medical care for someone in their
20 family because of cost. There are, in other words, people who are choosing to pay their
21 utility bills before they are buying food or obtaining health care in the midst of the worst
22 public health crisis in more than 100 years.

Material Hardship In the Last 30 Days Reported by Adults Ages 18 to 64 (March/April 2020)



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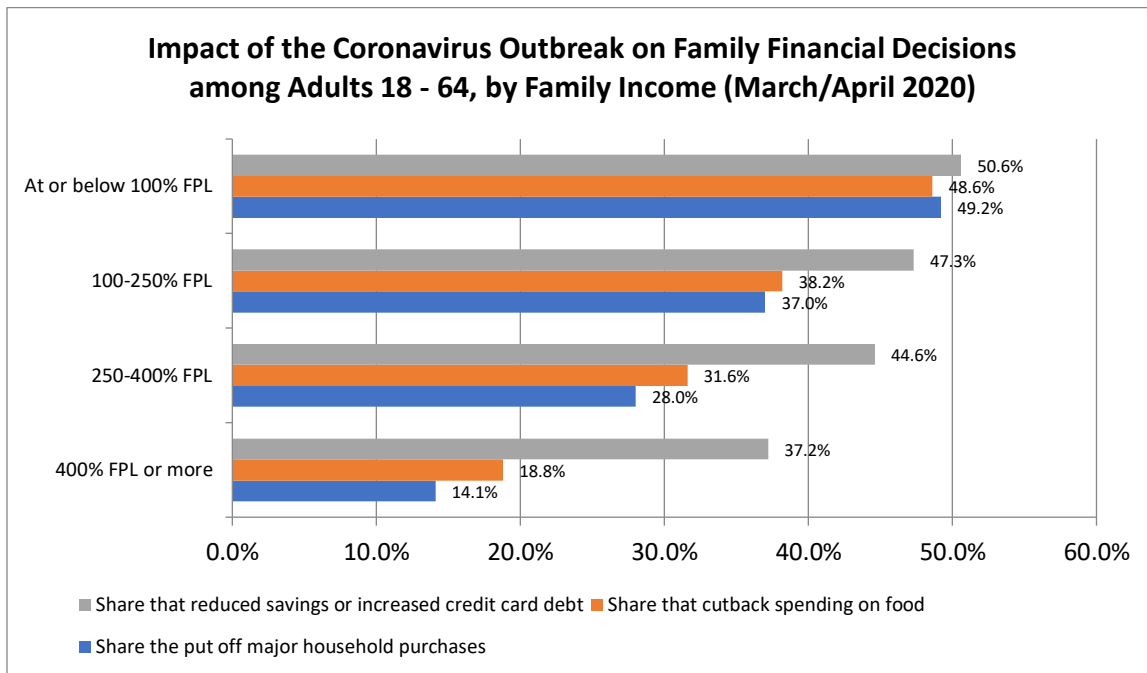
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Table below shows that these choices are exacerbated at the lowest income levels. More than one-in-four adults with income at or below 100% of Poverty could not pay their home energy bills in the past 30 days (March/April 2020). Even as income increased to between 100% and 250% of Poverty, one-in-seven (13.9%) could not pay their home energy bills. At all income levels, the Table shows, adults were choosing to pay their home energy bills before buying food or accessing medical care during this pandemic.

	By Family Income			
	At or below 100% FPL	100-250% FPL	250-400% FPL	400% FPL or more
Any material hardship %	68.6%	42.8%	28.3%	10.7%
Did not pay full amount of rent or mortgage or late with payment	21.7%	10.8%	6.2%	2.2%
Unable to pay full amount of gas, oil or electricity bills	27.5%	13.9%	8.2%	2.6%
Food insecurity	57.5%	31.0%	17.9%	4.6%
Unmet need for medical care in family because of costs	29.4%	22.3%	14.9%	6.4%

8

1 Finally, the Chart below shows that people are not simply refusing to pay (or
 2 ignoring) their home energy bills. At every income level, adults are reducing their
 3 savings or increasing their credit card debt to make their payments. These adults,
 4 however, particularly those at the lowest income levels, simply do not have sufficient
 5 resources to be able to continue months-on-end having lost their jobs, lost work hours, or
 6 suffered the loss of work-related income.



7
 8 **Q. CAN IMPOSING LATE PAYMENT CHARGES BE COUNTER-PRODUCTIVE**
 9 **TO SPIRE RECEIVING FULL AND TIMELY PAYMENT OF THEIR**
 10 **MONTHLY BILLS FOR CURRENT SERVICE?**

11 A. Yes. Imposing late payment charges in the circumstances that I describe above not only
 12 “could” be counter-productive, but is almost certain to be counter-productive. Imposing
 13 late payment charges, in other words, exacerbates rather than improves the nonpayment
 14 of bills for current service. Late payment charges divert scarce household resources away
 15 from the payment of bills for current service to the payment of these secondary charges.

1 As a result, fewer resources remain for households to pay their bills for current service.
2 By not continuing to suspend the imposition of late payment charges, Spire would be
3 unnecessarily exacerbating the costs it incurs, and the revenue it loses. The result is
4 contrary to each of the regulatory principles that I described in detail above regarding the
5 control and mitigation of COVID-19 costs.
6

7 **PART 5. PROCESSES TO ADDRESS COVID ARREARAGES**

8 9 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?**

10 A. During the period of this COVID economic crisis, it is reasonable to expect that many
11 residential customers will incur unpaid balances. The question for Spire is how to
12 respond to those unpaid balances in this period marked by the COVID financial and
13 health emergency in a way that is both socially and economically responsible. My
14 recommendations below are for Spire to continue its Customer Arrearage Payment Plan
15 program for customers with income at or below 200% of Poverty, and to provide long-
16 term deferred payment plans for households above that income level.

17 **Q. WHY IS IT IMPORTANT FOR SPIRE TO ADDRESS UNPAID ACCOUNT** 18 **BALANCES?**

19 A. Based on the discussion I present above, it seems evident that unpaid account balances
20 will persist during the economic emergency associated with the COVID pandemic. The
21 question presented to Spire, therefore, is how it can respond to those unpaid account
22 balances in a way that will seek to generate revenue and to minimize costs.

1 When I reference the need to generate revenue and minimize costs, my reference
2 is not simply to minimizing credit and collection costs. Imposing an obligation on
3 customers to retire the entirety of COVID-related balances, when customers do not have
4 the ability to do so, will not only place the collection of those balances in jeopardy, it will
5 also place the ability of customers who would otherwise be able to maintain future
6 payments in jeopardy of having service disconnected. The result will be to deny Spire
7 future revenue that it need not have lost.

8 Going forward, providing an opportunity for customers to make complete
9 payments for current service, and providing an arrearage repayment program, are
10 interrelated. People do not make separate payments for their bill for current service and
11 for their arrearages. Rather people make a payment toward their total bill. From a
12 payment perspective, therefore, it makes no difference whether that total payment is
13 unpayable due to the bill for current service or unpayable due to a pre-existing arrearage.
14 I find that, in the absence of an arrearage payment program, pre-existing arrearages will
15 represent a substantial contributor to the inability of low-income customers to pay their
16 current Spire bills for current service and to retain service.

17
18 **A. Spire’s Customer Arrearage Payment Plan Program**

19 **Q. PLEASE EXPLAIN YOUR RECOMMENDATIONS WITH RESPECT TO**
20 **SPIRE’S CUSTOMER ARREARAGE PAYMENT PLAN PROGRAM.**

21 A. Spire should continue its existing Customer Arrearage Payment Plan program for
22 customers with an income at or below 200% of the Federal Poverty Level. Spire’s
23 agreement to offer the program has had a profound impact on customers over the past

1 months, and should remain a permanent feature of the company’s consumer protection
2 efforts into the future. I recommend that Spire eliminate the program’s cost cap through
3 the end of calendar year 2022 so as to not limit participation in the program.

4 **Q. PLEASE EXPLAIN WHY YOU RECOMMEND AN INCOME ELIGIBILITY**
5 **LEVEL OF 200% OF THE FEDERAL POVERTY LEVEL FOR THE**
6 **PROGRAM.**

7 A. My recommended eligibility guideline is based on Missouri’s 2020 Self-Sufficiency
8 Standard.¹⁸ The self-sufficiency standard calculates the cost of a minimum standard of
9 living without need for public assistance. It does not provide for non-essentials. For
10 example, it provides for no savings, no education, and no entertainment. The self-
11 sufficiency standard calculates a minimum standard of living for 719 household
12 configurations. I chose a typical 3-person household size and configuration, including
13 one adult and two school-age children. I examined the self-sufficiency standard for the
14 City of St. Louis plus the 37 Missouri counties served by Spire. The data are set forth in
15 the Table immediately below. As Table 4 shows, the Missouri Self-Sufficiency Standard
16 consistently exceeds 185% of Poverty, with the standard approaching 200% of Poverty in
17 20 instances. Remember, however, that while this self-sufficiency standard reflects this
18 particular household size and composition, other household sizes and compositions exist.

¹⁸ Available at: <http://www.selfsufficiencystandard.org/missouri> (last accessed August 6, 2020).

**Table 4. 2020 Self-Sufficiency (SS) Income by Percent of Federal Poverty Level (FPL)
(3 person household: 1-adult, 2 school-age children)**

County	Annual SS Income	100% FPL (3-person)	Annual SS Income as FPL Percent
Andrew County	\$40,298	\$21,720	186%
Barry County	\$38,952	\$21,720	179%
Barton County	\$35,204	\$21,720	162%
Buchanan County	\$40,227	\$21,720	185%
Butler County	\$40,733	\$21,720	188%
Carroll County	\$40,602	\$21,720	187%
Cass County	\$47,617	\$21,720	219%
Cedar County	\$37,744	\$21,720	174%
Christian County	\$39,690	\$21,720	183%
Clay County	\$43,049	\$21,720	198%
Clinton County	\$47,385	\$21,720	218%
Cooper County	\$39,047	\$21,720	180%
Dade County	\$40,169	\$21,720	185%
DeKalb County	\$45,517	\$21,720	210%
Greene County	\$38,706	\$21,720	178%
Henry County	\$40,325	\$21,720	186%
Howard County	\$42,127	\$21,720	194%
Iron County	\$37,140	\$21,720	171%
Jackson County	\$47,323	\$21,720	218%
Jasper County	\$40,923	\$21,720	188%
Jefferson County	\$39,808	\$21,720	183%
Johnson County	\$42,036	\$21,720	194%
Lafayette County	\$43,865	\$21,720	202%
Lawrence County	\$36,643	\$21,720	169%
McDonald County	\$37,341	\$21,720	172%
Madison County	\$37,176	\$21,720	171%
Moniteau County	\$37,538	\$21,720	173%
Newton County	\$39,166	\$21,720	180%
Pettis County	\$41,157	\$21,720	189%
Platte County	\$49,024	\$21,720	226%
Ray County	\$40,430	\$21,720	186%
St. Charles County	\$47,757	\$21,720	220%
St. Francois County	\$38,090	\$21,720	175%
St. Louis County	\$43,045	\$21,720	198%
Saline County	\$39,188	\$21,720	180%
Stone County	\$42,759	\$21,720	197%
Vernon County	\$38,507	\$21,720	177%
St. Louis city	\$38,707	\$21,720	178%

1 **Q. SHOULD PARTICIPATION IN THE PROGRAM BE AVAILABLE WHETHER**
2 **THE CUSTOMER IS CURRENTLY ACTIVE OR HAS HAD THEIR SERVICE**
3 **DISCONNECTED FOR NONPAYMENT?**

4 A. Yes. The Program should be available not only to a customer who has an unpaid balance
5 but remains on the system, but also to a customer who has had service previously
6 disconnected for nonpayment. The objective of the program is to address pre-existing
7 arrearages in a way that generates a stream of revenue to Spire and generates offsetting
8 cost savings such as the reduction in working capital (and the return and taxes thereupon)
9 from receiving payments toward pre-existing arrearages. Whether those arrears are
10 associated with a customer who has had service disconnected for nonpayment, or a
11 customer whose service remains active, does not affect the ability of the program to
12 achieve those objectives.

13 **Q. WHAT DO YOU CONCLUDE?**

14 A. I conclude that the Customer Arrearage Payment Plan program currently in place for
15 Spire should be continued, while eliminating the cost cap until the end of calendar year
16 2022. The program is a reasonable response to unpaid balances that could not be paid
17 during the COVID pandemic and resulting economic crisis. The program addresses
18 unpaid balances in an efficient, least-cost manner. The program is the most appropriate
19 way for Spire to address low-income arrearages while minimizing and mitigating total
20 costs that it will eventually bear.

21

1 **B. Long-Term Deferred Payment Plans.**

2 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?**

3 A. In this section of my testimony, I explain why it is necessary for Spire to make available
4 reasonable long-term deferred payment arrangements¹⁹ for customers who do not qualify
5 for participation in the Customer Arrearage Payment Plan program discussed above. For
6 purposes in this case, a customer who does not qualify for the program should be required
7 to repay all arrearages over at least a 12-month period. That customer, however, will be
8 allowed to do so over a term of months that does not unreasonably place the customer's
9 payment of bills for current service in jeopardy.

10 The need to consider the term of a payment plan (in months) within the context of
11 a customer's ability-to-pay is simply sound utility management. Entering into a payment
12 plan that a customer has no reasonable likelihood of completing does not serve anyone's
13 interest, including the interest of Spire in minimizing revenue loss and controlling the
14 costs of unpaid bills.

15 **Q. PLEASE EXPLAIN YOUR CONCERNS WITH RESPECT TO SPIRE'S**
16 **DEFERRED PAYMENT PLANS.**

17 A. A deferred payment plan is an agreement between a customer and Spire for the customer
18 to retire undisputed arrearages over a negotiated period of time. A deferred payment plan
19 may be made available to customers who are not income-eligible for the Customer
20 Arrearage Payment Plan program.

21 I address the impact of deferred payment plans within the context of the
22 affordability of Spire's underlying natural gas bills. Based on data from EIA's Form 176

¹⁹ Throughout my testimony, references to "deferred payment plans," "deferred payment arrangements" and other similar phrases are intended to be synonymous.

1 for 2018, the most recent year available, and the average natural gas price of \$10.39/MCF
 2 for 2018, I estimate an average residential bill for Spire Missouri of \$700.

3 In Table 5 below, using 4% to demarcate an affordable percentage of income for
 4 bills for current natural gas service plus an arrearage payment,²⁰ I determine the income
 5 that would be necessary to have bill payments for different arrearage levels, using a 12-
 6 month payment plan, be affordable, both in dollar terms and in terms of income as a
 7 percentage of Federal Poverty Level. I consider arrearages at different levels of “bills
 8 behind.” I explained the significance of “bills behind” earlier in my testimony.

9 Developed by the Pennsylvania PUC’s Bureau of Consumer Services, “bills behind”
 10 normalizes arrearages for usage and price. It is calculated by dividing the level of the
 11 arrearage (numerator) by the average monthly bill (denominator). An arrears of \$200
 12 with an average bill of \$50, for example, would represent 4.0 “bills behind.”²¹

	Arrears as “Bills Behind”			
	3 Bills Behind	4 Bills Behind	5 Bills Behind	6 Bills Behind
Annual bill for current service	\$700	\$700	\$700	\$700
Arrearage	\$175	\$233	\$292	\$350
Total annual payment with 12-month DPA	\$875	\$933	\$992	\$1,050
Affordable Pct of Income	4%	4%	4%	4%
Income Needed to Have 12-Mo DPA Affordable	\$21,875	\$23,325	\$24,800	\$26,250
Needed income as FPL Pct (3-person HH) ²²	101%	107%	114%	121%

²⁰ For the same reasons I describe above, using a 3% figure would not be appropriate. The 3% figure discussed above applies to bills for current service. Nonetheless, Spire would not want to stray too far from that 3% figure and risk nonpayment of the total bill. Accordingly, I increase the affordable figure from 3% to 4% to account for the arrearage payments.

²¹ BCS said it was important to consider bills behind in order to compare arrears of differing sizes due to differences in usage, weather, price or time. For example, while an arrearage of \$400 would historically have been considered a greater problem than an arrearage of \$200, if the \$200 arrearage was based on an average \$50 bill (4.0 bills behind) and the \$400 arrearage was based on an average \$150 bill 2.7 “bills behind,” a different reaction may be merited.

²² 100% of Federal Poverty Level for a 3-person household in 2020 was \$21,720.

1 The Table above demonstrates why Deferred Payment Arrangements so often fail.
 2 Even for a customer who is only three “bills behind” for Spire, the income required to
 3 make repayment of such an arrearage over a 12-month payment plan, in addition to the
 4 normal bill for current service, affordable would reach nearly \$22,000 (or 101% of
 5 Poverty for a 3-person household). For a customer who is six bills behind, the income
 6 required to make repayment of such an arrearage over a 12-month payment plan, in
 7 addition to the normal bill for current service, would reach \$26,250, or more than 121%
 8 of Poverty.

9 By capping arrearage installment payments through a deferred payment plan at
 10 25% of the customer’s average monthly bill, the terms of payment plans are extended
 11 somewhat, but the likelihood of the payment plan being successfully completed is
 12 increased. Table 6 below shows the months required to complete a payment plan when
 13 imposing a cap on the monthly payment plan payment. For a customer who is six “bills
 14 behind” in their arrearage, a payment plan using this ceiling on monthly payments would
 15 require 24 months to complete.

Table 6. Impact of 25% Ceiling on Payment Plan Monthly Payment				
	Bills Behind			
	3	4	5	6
Arrearage	\$175	\$233	\$292	\$350
Months to complete	12	16	20	24

16
 17 **Q. DON’T THE HOME ENERGY BURDENS STILL REMAIN AT**
 18 **UNAFFORDABLE LEVELS?**

1 A. No. Given the assumptions in this illustration (e.g., average Spire bill, 3-person
2 household), bill payments for each deferred payment plan would be affordable at 121%
3 of Poverty if arrears are six bills behind. If incomes are higher, they would be able to
4 afford to pay a higher percentage of their income toward their arrearage. Either way,
5 Spire’s payment plan payments would generate affordable bills and thus increase the
6 likelihood that Spire customers would be able to complete the deferred payment plans
7 which they enter into.

8 **Q. WHAT DO YOU RECOMMEND?**

9 A. I recommend modifications to Spire’s practices and procedures that will improve both the
10 effectiveness and the efficiency of the Company’s use of deferred payment plans as a
11 collection tool for unpaid bill balances. In particular, I recommend that payment plans be
12 offered with a \$0 down payment. In addition, I recommend that Spire offer a payment
13 plan term of *not less* than 12 months.²³ Finally, payment plan installments to be paid
14 toward arrears, however, should not exceed one-quarter (25%) of the average of a
15 monthly bill for current service. The 12-month limit often thus may well be extended
16 through application of this 25% limitation.

17 For the reasons I outline below, the offer of these payment plan terms should
18 extend indefinitely. In recommending that Spire “offer” a payment plan with a term of
19 *not less than* 12 months, I note that a customer contact script wherein a customer service
20 representative (“CSR”) first offers a payment plan of three months, second offers a
21 payment plan of six months, and only if the customer says “no” to both of those
22 proposals, finally asks the customer what payment amount is affordable, does not comply

²³ The phrase “not less than” is not synonymous with “at” or “equal to.”

1 with this recommendation. Moreover, if a customer states an amount that would require a
2 payment plan term of more than 12 months, informing that customer that a payment plan
3 of such a term requires supervisory or managerial approval also does not comply with
4 this recommendation.

5 Clearly, requiring a customer repeatedly to decline payment plan terms offered by
6 a CSR, and to insist on supervisory approval for terms that are within the bounds of the
7 payment plan terms as provided in the recommendation, does not constitute “offering”
8 such payment plan terms. Requiring customers to continue to decline payment plans
9 proffered by Spire and to insist on obtaining supervisory approval for a plan that falls
10 within the payment plan terms provided above is inappropriate. The fact that a customer
11 might eventually obtain a DPA of longer than 12 months by appealing a CSR denial of
12 the longer plan to a supervisor assumes that customers have both the knowledge of their
13 right to escalate the DPA negotiation to a supervisor and the wherewithal to insist on
14 escalating the payment plan negotiation to the supervisory level. Early and conspicuously
15 in any CSR conversation relating to the length of time for payment plans, a CSR should
16 advise customers of their right to gain a longer DPA without supervisory approval.
17 Obviously, a “right” that the customer is uninformed about is no “right” at all.

18 **Q. WHAT IS YOUR ULTIMATE CONCLUSION?**

19 A. Spire should be required to adopt flexible payment agreement terms to retire arrears,
20 including arrears for customers who are not income-eligible for the Customer Arrearage
21 Payment Plan program.

1 **PART 6. PROACTIVE STEPS TO MITIGATE COVID-19 ARREARAGES**

2
3 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?**

4 A. In this section of my testimony, I explain the bill payment assistance that I recommend
5 Spire provide to income-eligible customers during the period of the COVID pandemic
6 and the ongoing economic crisis that is accompanying that pandemic. I recommend two
7 levels of bill payment assistance.

8
9 **A. Modification of the Fixed Charge Assistance Program (FCAP).**

10 **Q. WHAT TYPE OF BILL ASSISTANCE DO YOU RECOMMEND THAT SPIRE**
11 **PROVIDE DURING THE ECONOMIC CRISIS ASSOCIATED WITH THE**
12 **COVID-19 PANDEMIC?**

13 A. I commend Spire and the Commission for the offer of Spire’s Fixed Charge Assistance
14 Program (FCAP). (PSC Mo., No. 7, Sheet Nos. R-1, et seq.). (effective April 19, 2018).
15 My understanding of the FCAP is that it provides financial assistance to customers with
16 income at or below 185% of Poverty Level. The Spire tariff states that “(e)ligible
17 customers will receive a monthly bill credit of \$20 year-round. In the billing months of
18 November through April, eligible customers with household incomes ranging from 0% to
19 135% of the FPL will receive an additional credit of \$30. The total bill credit shall not
20 exceed the customer’s monthly bill amount.” (Id.). Throughout my testimony below, I
21 will refer to the lower income range (0-135% of Poverty) as “Tier 1” and the higher
22 income range (135-185% of Poverty) as “Tier 2.”

1 I have assessed the impact of this financial assistance on the affordability of
2 participant bills given the average Spire bill of \$780 I describe elsewhere in my
3 testimony. At that average bill, FCAP participants with income at or below 135% of
4 Poverty would receive the maximum annual bill credit of \$420 ((12 months x \$20/month)
5 + (6 months x \$30/month)). Households with income between 135% and 185% of
6 Poverty would receive the maximum bill credit of \$240 (12 months x \$20/month). Spire’s
7 tariff provides that “The Program shall be funded at a total annual level not to exceed
8 \$900,000 for Spire East and \$750,000 for Spire West (of which no more than 10% shall
9 be set aside annually for each operating unit to pay for the administrative costs specified
10 above) and shall consist of the Fixed Charge Assistance Program (FCAP) and the
11 Customer Arrearage Payment Plan program.” (Id.). No allocation of funding is
12 established between the FCAP and the Customer Arrearage Payment Plan program.

13 **Q. HOW DID YOU ASSESS THE AFFORDABILITY IMPACTS OF THE SPIRE**
14 **FCAP?**

15 A. For each of the geographic areas I have previously identified (St. Louis City plus 37
16 counties), I determine what 100% of Poverty would be based on the average household
17 size in each county. I then calculated an undiscounted bill burden (using the average bill
18 of \$780) for each county. After subtracting the FCAP credit (Tier 1: \$420; Tier 2: \$240)
19 from the average bill, I separately calculated a “discounted bill burden.” I calculated bill
20 burdens at six different income levels:²⁴ (1) 50% of Poverty; (2) 75% of Poverty; (3)

²⁴ A common mistake made in performing affordability assessments is to examine impacts only at the maximum income eligibility level. While the maximum income eligibility for the program recommended below is set at 185% of Poverty Level, in reality, people live at *or below* 185%. Differentiating income levels thus allows me to consider the impacts over a range of incomes for households who qualify for the bill assistance program.

1 100% of Poverty; (4) 125% of Poverty; (5) 150% of Poverty; and (6) 185% of Poverty.
2 The results are set forth in Schedule RDC-1.

3 The data show that, at average bill levels (\$780) and average household size for
4 each county, the Spire FCAP does a reasonably good job of reducing bills for current
5 service to an affordable percentage of income for nearly, but not quite, all households
6 through its FCAP.

- 7 1. Households with income at 75% of Poverty receive Spire bills, after receipt of the
8 FCAP credit, resulting in a bill burden (i.e., bills as a percentage of income) in a
9 narrow range of 2.4% to 2.8% of income;
- 10 2. Households with income at 100% of Poverty receive Spire bills, after receipt of
11 the FCAP credit, resulting in a bill burden in a narrow range of 1.8% to 2.1% of
12 income;
- 13 3. Households with income at 125% of Poverty receive Spire bills, after receipt of
14 the FCAP credit, resulting in a bill burden in a narrow range of 1.4% to 1.7% of
15 income;
- 16 4. Households with income at 150% of Poverty receive Spire bills, after receipt of
17 the FCAP credit, resulting in a bill burden in a narrow range of 1.8% to 2.1% of
18 income; and
- 19 5. Households with income at 185% of Poverty (the maximum income-eligibility
20 level) receive Spire bills, after receipt of the FCAP credit, resulting in a bill
21 burden in a narrow range of 1.5% to 1.7% of income.

1 Based on this data, I conclude that, for a flat dollar discount, the FCAP distribution of
2 discounted bill burdens for households with income higher than 50% of Poverty
3 demonstrates that the Spire discount is not unreasonable.

4 **Q. IS THERE ANY INCOME RANGE THAT IS NOT WELL-SERVED BY THE**
5 **SPIRE FCAP CREDIT?**

6 A. Yes. Households with income at or below 50% of the Federal Poverty continue to receive
7 substantially unaffordable bills even after receipt of the FCAP credit. As is shown in
8 Schedule RDC-1, households falling in this lowest income bracket would experience bill
9 burdens, even at the average Spire bill, at or above 4% of income.

10 **Q. GIVEN THIS OBSERVATION ABOUT SPIRE’S FCAP, WHAT DO YOU**
11 **RECOMMEND IN GENERAL?**

12 A. Given the affordability distribution I find above, with the exception of the change I
13 recommend in my next section, I recommend that the FCAP program continue with the
14 current fundamental structure that is laid out in the current Spire tariff. I recommend that
15 the program be available for income-eligible customers (as defined in the Spire tariff) in
16 both the service territory of Spire East and Spire West. The current Spire FCAP should be
17 modified to this extent. The current tariff provides that annual program funding shall not
18 “exceed \$900,000 for Spire East and \$750,000 for Spire West. . .” Out of those funding
19 amounts, up to 10% can be devoted to administration along with an undesignated portion
20 devoted to the Customer Arrearage Payment Plan program.

21 I recommend that these caps on program funds be eliminated for the duration of
22 the COVID-19 pandemic and associated economic crisis. The expanded funding for
23 FCAP should continue indefinitely.

1 **Q. WHAT IS THE BASIS FOR YOUR TIMING RECOMMENDATION?**

2 A. As the first section of my testimony summarizes, the economic crisis arising from the
3 COVID pandemic has fallen most severely on lower income households. Without
4 repeating that testimony, I simply note that the data demonstrate that these households are
5 most likely to lose jobs, to face reduced work hours, and/or to face reductions in income.

6 Given these data, even while the cap on “program funds” may have been
7 appropriate in a non-COVID time period – and that is a question that I have not answered
8 in this proceeding – accepting the reasonableness of that cap in “normal” times would
9 indicate that it is *not* appropriate in these COVID times.

10 **Q. DO YOU HAVE OTHER RECOMMENDATIONS FOR FCAP?**

11 A. I make other recommendations elsewhere in my testimony. Those recommendations
12 include, but are not necessarily limited to, suspending the requirement that FCAP
13 participants recertify their income during the COVID pandemic and economic crisis;
14 allowing customers to participate in FCAP with a lesser need of income-eligibility
15 documentation (including, e.g., the use of Express Lane Eligibility); eliminating
16 administrative barriers to FCAP participation (e.g., any personal interview requirement);
17 easing the initial income verification requirements; and the like. This section of my
18 testimony is not intended to be the support for those other recommendations. Those
19 additional recommendations are discussed in detail below.

20

21 **B. Targeted Relief to the Extreme Poor.**

22 **Q. PLEASE DESCRIBE THE ONE MODEST MODIFICATION YOU PROPOSE**
23 **FOR FCAP DURING THE DURATION OF THE COVID-19 PANDEMIC.**

1 A. My one recommendation for modifying FCAP during the COVID pandemic and
2 economic crisis, and associated economic crisis, involves the mis-targeting of FCAP
3 benefits to households in Extreme Poverty. “Extreme Poverty” is a term-of-art,
4 referencing households with income at or below 50% of Poverty Level. My affordability
5 analysis presented above demonstrates that the Spire FCAP does a reasonably good job
6 of reducing bills for current service to an affordable percentage of income for nearly, but
7 not quite, all households. I found that for a flat dollar discount, the FCAP distribution of
8 discounted bill burdens for households *with income higher than 50% of Poverty*
9 demonstrates that the Spire discount is not unreasonable. (emphasis added).

10 My discussion above demonstrates further, however, that the FCAP falls short for
11 households in Extreme Poverty. In all counties studied (and St. Louis city), the FCAP
12 credit, given an average bill and the average household size for each county, would result
13 in a natural gas burden, *after* applying the FCAP discount, of at or above four percent
14 (4%) of income. While that is a considerable improvement over the non-discounted Spire
15 burdens, nonetheless, the existing Spire discount results in natural gas bill burdens more
16 than 30% higher than the 3% burden generally accepted as being affordable.²⁵

17 **Q. WHAT DO YOU RECOMMEND?**

18 A. I recommend that during the pendency of the COVID pandemic, and associated
19 economic crisis, customers who can demonstrate that they have income at or below 50%
20 of Poverty (“Extreme Poverty”) should be given an adjusted FCAP credit of \$25 per
21 month for the 12 months of the year (rather than the existing \$20/month discount) and

²⁵ As explained in detail above, the 3% is a 6% burden for total energy, split half-and-half between electricity and natural gas.

1 \$35 per month for the cold weather months of November through April (rather than the
2 existing \$30 per month discount).

3 **Q. WHAT IS THE IMPACT ON AFFORDABILITY?**

4 A. The impact of this additional credit is demonstrated in Schedule RDC-2 below. As I did
5 above, I assess the affordability for Spire counties (and St. Louis City) using Spire’s
6 average bill and the average household size for each county. Schedule RDC-2 shows that
7 my proposed enhanced discount for those households in Extreme Poverty reduces Spire
8 bill burdens to a narrow range of 2.7% to 3.2% of income. I find this to be a reasonable
9 accomplishment for the existing FCAP structure.

10 **Q. HAS YOUR RECOMMENDATION THAT AN INCREASED BENEFIT BE**
11 **PROVIDED TO LOW-INCOME CUSTOMERS IN EXTREME POVERTY BEEN**
12 **ADOPTED IN ANY JURISDICTION?**

13 A. Yes. In a Rhode Island rate case in 2018, National Grid proposed a flat percentage
14 discount for low-income customers. In a settlement of that proceeding, National Grid
15 agreed to provide an across-the-board discount for income-eligible customers of 25%.²⁶
16 That across-the-board discount would be increased by an additional 5% (to 30% total) for
17 customers who are found to participate in one of three programs indicating a likelihood of
18 “Extreme Poverty”: (1) Medicaid, (2) General Public Assistance; or (3) Family
19 Independence Program (Rhode Island’s TANF program).

20 **Q. WHAT DO YOU CONCLUDE?**

21 A. I conclude that when viewed from the perspective of the three regulatory principles that I
22 articulated at the beginning of my testimony, an expanded discount as presented above is

²⁶ National Grid, RI Tariff No. RIPUC No. 2184, Sheet 3.

1 a reasonable way for Spire to respond to the COVID pandemic and associated economic
2 crisis as a means to reduce the costs of low-income nonpayment. I recommend the
3 adoption of this expanded discount.

4
5 **C. Use of “Express Lane Eligibility.”**

6 **Q. PLEASE EXPLAIN THE PURPOSE OF THIS SECTION OF YOUR**
7 **TESTIMONY.**

8 A. In this section of my testimony, I explain why Spire should be required to allow access to
9 the recommended initiatives above through the simplest means available. While the
10 notion that “if you build it, they will come” may apply to fantasy baseball parks in Iowa,
11 it does not apply to natural gas bill assistance programs. An entire array of barriers
12 prevents low-income persons from accessing available assistance, even when such
13 assistance might generate a substantive improvement in a household's ability-to-pay.

14 There are two different perspectives to this recommendation. On the one hand,
15 there is the elimination of barriers to enrollment. On the other hand, there are proactive
16 steps that Spire should take to encourage enrollment.

17 **Q. PLEASE EXPLAIN WHAT STEPS SHOULD BE TAKEN TO ELIMINATE**
18 **BARRIERS TO ENROLLMENT IN SPIRE INITIATIVES RESPONDING TO**
19 **THE COVID-19 PANDEMIC AND RESULTING ECONOMIC CRISIS.**

20 A. There is an abundance of information about how nonparticipation in benefit programs can
21 result from barriers to participation as well as from either a lack of need or a lack of
22 desire to participate. Aside from these reasons for nonparticipation, there are a variety of
23 institutional *barriers* which *prevent* enrollment in programs such as the Customer

1 Arrearage Payment Plan program and expanded bill assistance which I propose Spire
2 pursue in response to COVID.

- 3 1. **Lack of effective knowledge:** The lack of "effective knowledge" is one such
4 barrier. "Effective knowledge" is a concept first articulated by the Pennsylvania
5 PUC's Bureau of Consumer Services (BCS). It recognizes that while consumers
6 may indicate an awareness of energy assistance, their knowledge may not be
7 sufficient to allow them to act. Many consumers, for example, who say they
8 "know about" energy assistance cannot name a single program.
9
- 10 2. **Lack of program awareness:** Similarly, many low-income households do not
11 know of, and thus do not use, existing energy intervention programs designed for
12 their benefit. Since no intervention program can be effective unless it is known
13 and used, the degree to which eligible persons are aware of and utilize such
14 programs is important.
15
- 16 3. **Access to program offices:** In some areas, transportation to offices that accept
17 applications may be a problem. For those who are homebound or socially isolated,
18 getting to an office may be nearly impossible.
19
- 20 4. **Confusing application forms:** The application forms for some programs
21 represent a major barrier to participation. In particular, many participants find
22 application forms complex and overwhelming *the first time* they seek to enroll in
23 a program.
24
- 25 5. **Misperceptions as to eligibility:** Many eligible nonparticipants have
26 misperceptions regarding their eligibility for a program. These households might,
27 for example, mistakenly believe that their income or assets are too high to entitle
28 them to receive fuel assistance, or that some other program requirement precludes
29 their participation. Persons who have been found ineligible for one program
30 (however unrelated to fuel assistance, for example) are less likely to apply for fuel
31 assistance. Similarly, persons who have been found ineligible in the past for fuel
32 assistance are not likely to apply again, even if their circumstances have changed.

33 The particular applicability of these barriers to households affected by COVID is
34 evident. Customers who previously did not need assistance without COVID are more
35 likely to lack effective knowledge and/or program awareness. They are more likely to

1 find application forms (with which they have never before dealt) confusing. They are
2 more likely to have misperceptions as to their program eligibility.

3 As can be seen, nonparticipation in benefit programs can result from barriers to
4 participation. Particularly in this time of economic crisis, Spire should adopt the
5 reasoning of the U.S. General Accounting Office when it once said about Food Stamp
6 enrollment:

7 From a policy viewpoint, an informed decision on the part of an eligible
8 household not to participate in the program is not an issue. Lack of
9 information about the program, however, and at least some program and
10 access problems can and should be remedied.²⁷

11 In light of this information, one step that Spire should take, therefore, is to simplify the
12 means by which eligible customers can access available assistance. I recommend that:

- 14 1. Written applications be minimized to the extent feasible. Enrollment should be
15 maximized through the use of telephonic and on-line contacts between Spire and
16 its customers;
- 17 2. Income documentation should be minimized to the extent feasible. Enrollment
18 should be allowed based on self-declarations of income.²⁸
- 19 3. Application requirements should be minimized to the extent feasible. Experience
20 counsels that every application step that is required will result in the exclusion of
21 an increasing number of eligible customers needing, and desiring, assistance. For
22 example, any required “interview” for FCAP assistance should be suspended.
- 23 4. Periodic income recertification to continue participation in a Spire COVID-19
24 responsive initiative should be suspended. Customers who are currently
25 participating in an initiative, and who might otherwise be required to contact
26 Spire and update their income and household information, should be allowed to
27
28
29

²⁷ General Accounting Office, Food Stamp Program: A Demographic Analysis of Participation and Non-participation, at 22 (January 1990). Available at: <https://www.gao.gov/products/PEMD-90-8> (last accessed August 6, 2020).

²⁸ In addition, I discuss below my recommendation of a reliance on “Full Express Lane Eligibility,” whereby establishing eligibility for one program automatically establishes eligibility for bill assistance.

1 continue participation during the continuation of the moratorium on nonpayment
2 disconnections.

3
4 **Q. ARE THERE PROACTIVE ACTIONS THAT SPIRE SHOULD TAKE TO**
5 **PURSUE ENROLLMENT?**

6 A. Yes. One strategy advocated for expanding the number of low-income children enrolled
7 in Medicaid and SCHIP²⁹ utilizes an approach called “Express Lane Eligibility.”

8 Express Lane Eligibility...accelerates enrollment for the hundreds of
9 thousands of uninsured children already enrolled in other income-
10 comparable publicly funded programs such as Head Start or school lunch.
11 The simple notion is that children who have met the income test for these
12 income-comparable programs should have their eligibility expedited and do
13 not need to provide duplicative income information to qualify for health
14 care coverage. Express Lane Eligibility can cut administrative red tape
15 while streamlining the application process. . .³⁰

16
17 Express Lane Eligibility can be operationalized by using the same application form for
18 multiple programs.³¹ With a single application, families are required to fill out and submit
19 information only once. A number of states, for example, use joint applications for their
20 TANF, Medicaid and Food Stamp programs. Other states use the same application for
21 their WIC and Medicaid programs.

²⁹ State Children’s Health Insurance Program (SCHIP).

³⁰ The Children's Partnership (1999). Express Lane Eligibility: How to Enroll Large Groups of Uninsured Children in Medicaid and CHIP, Children's Partnership: Washington D.C. Available at: <https://www.childrenspartnership.org/research/express-lane-eligibility-how-to-enroll-large-groups-of-uninsured-children-in-medicaid-and-chip/> (last accessed August 6, 2020).

³¹ Programs that Spire should accept as establishing income-eligibility for its COVID-19 responsive initiatives include, but are not necessarily limited to: LIHEAP; Public or assisted housing; SSI; SNAP (formerly Food Stamps); TANF; Telephone lifeline; PAAD (Pharmaceutical Assistance for the Aged and Disabled); WIC; Medicaid; Free or reduced school lunch/school breakfast; Head Start; Dependency and Indemnity Compensation (DIC) for Surviving Spouse or Parents of Veterans.; and any other programs as may from time to time be recognized by the commission.

1 When applying for benefits through an income-comparable program, applicants can
2 authorize the sharing of their names and addresses with Spire. As The Children's
3 Partnership appropriately notes:

4 Authorization can be accomplished through a check-off box on the
5 application or through a separate consent form attached to the application.
6 Guidance released by the United States Department of Agriculture (USDA)
7 in the fall of 1998 on ways states and school officials can use the National
8 School Lunch Program as a referral mechanism for Medicaid or CHIP is a
9 good example of this model. The USDA created prototype applications for
10 schools, which ask parents whether they want to waive confidentiality for
11 the limited purpose of permitting the school to share information from the
12 NSLP application for purposes of determining appropriate Medicaid/CHIP
13 outreach. Moreover, in 1991, at the request of Congress, a DHHS/USDA
14 task force produced a joint application for seven Federal programs: WIC,
15 Title V, Head Start, Migrant and Community Health Centers, Health Care
16 for the Homeless, Medicaid, and AFDC.

17
18 According to The Children's Partnership “the greatest potential for reaching large
19 numbers of children most simply is to allow eligibility for one program to be used to
20 fulfill some or all of the eligibility requirements for health care.” “Express Lane
21 Eligibility” is not unknown to the utility industry. It is the primary source of enrollment
22 in the telephone Lifeline Program. One common use of Express Lane Eligibility in the
23 energy industry, which I recommend for Spire’s bill assistance, is to allow participants in
24 low-income energy efficiency programs (MEEIA) be deemed automatically eligible for
25 rate assistance.

26 **Q. IS THERE ANOTHER CONCERN PARTICULARLY APPLICABLE TO**
27 **CUSTOMERS AFFECTED BY COVID-19 THAT WOULD BE ADDRESSED BY**
28 **YOUR RECOMMENDATION ABOVE?**

29 A. Yes. One attribute of hard-to-reach populations is the constant set of life difficulties
30 facing them on a daily basis. These difficulties not only create emotional barriers, but

1 create physical and time-use barriers as well. “Frequent and regular contact with service
2 staff may also be difficult where families face daily stresses and have chaotic routines,
3 especially for care givers in low-income families, sole parents, and those with children
4 with disabilities. . .”³² The study found that “many vulnerable families who refused were
5 unable to understand information about service provision, while others felt too burdened
6 by the complexity of their lives to be able to think about the possible benefits of a new
7 service.” “To access a support service is so hard if you haven’t slept properly or eaten
8 that day. It’s hard to step outside that cycle.”³³ Overlaying the multiple findings I address
9 above – the economic concerns that are accompanied by health concerns; the risk not
10 only to self, but to family; the newly experienced economic crisis in which many people
11 find themselves – Spire’s actions should reflect the recognition that the very presence of
12 the economic crisis which its customers face may be a barrier to accessing Spire
13 assistance to address that crisis.

14 **Q. ARE THERE PRIVACY CONCERNS THAT ARISE IN YOUR**
15 **RECOMMENDATION FOR AN AUTOMATIC ENROLLMENT PROGRAM?**

16 A. No. Since there would need to be no disclosure of utility data to the program
17 administrators, there is no privacy concern from the perspective of the utility.
18 Conversely, from the client’s perspective, under federal privacy laws, state agencies may
19 lawfully release client information when such release is a “routine use” of that
20 information. When such information is used to qualify households for additional public
21 assistance, it falls within this “routine use” construct. There are reasonable restrictions

³²Cortis et al. (2009). Occasional Paper No. 26, Engaging hard-to-reach families and children, Australian Government, Department of Families, Housing, Community Services and Indigenous Affairs.

³³ Engaging hard-to-reach families and children, supra.

1 placed upon this release of information: (1) the data exchanged through this process may
2 not be *redisclosed* to other parties; (2) the data exchanged through this process are for the
3 *exclusive* purpose of “verifying and recertifying” the eligibility of public assistance
4 recipients for the utility program; and (3) the data exchanged through this process will
5 convey only the fact of eligibility. If, however, privacy is a policy concern rather than a
6 legal concern, the relevant programs could include a client consent procedure in the
7 application process.

8 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATION ON HOW TO SIMPLIFY**
9 **THE PROCESS OF ACCESSING SPIRE COVID RESPONSIVE INITIATIVES.**

10 A. First and foremost, my testimony above supports the conclusion that assistance programs,
11 such as those recommended in this testimony, are only helpful if, and to the extent, that
12 those customers who are eligible to participate do, in fact, participate. Accordingly, in
13 addition to those steps to address barriers as I discuss above, I recommend:

- 14 1. That periodic income recertification to continue participation in a Spire COVID
15 responsive initiative should be suspended for the pendency of the continuing
16 suspension of nonpayment disconnections.
- 17
18 2. That enrollment in COVID responsive initiatives be pursued, to the maximum
19 extent possible, through a process known as “full Express Lane Eligibility.” I
20 recommend that a demonstration of an enrollment in a program that has similar
21 income qualifications to those I recommend herein be accepted, without
22 additional documentation of income qualification (including income and/or
23 household size), as a documentation of qualification for a Spire COVID
24 responsive program.
25

1 **D. Expanded Use of Grassroots Outreach.**

2 **Q. PLEASE EXPLAIN THE PURPOSE OF THIS SECTION OF YOUR**
3 **TESTIMONY.**

4 A. In this section of my testimony, I recommend a series of steps that Spire should take to
5 improve the outreach for COVID response initiatives that I recommend herein.

6 **Q. ARE THERE GENERALLY ACCEPTED WAYS TO IMPROVE OUTREACH FOR**
7 **INITIATIVES SUCH AS YOU RECOMMEND IN YOUR TESTIMONY?**

8 A. Yes. Over the past 40 years in which I have engaged in work throughout the United States
9 and Canada on helping to design low-income assistance programs (both ratepayer-funded
10 and taxpayer-funded), I have learned that certain outreach strategies are consistently found
11 to be important and effective. Some of the more successful strategies that have been
12 identified, and the rationale behind the strategies, are as follows:

- 13 1. Use the community as a means of identifying and engaging the hard-to-reach
14 population; and
15
16 2. Go to the community rather than making the community come to you.
17

18 In addition, one commonly accepted proposition is that using other community
19 members as a mechanism to identify and engage hard-to-reach populations is one of the
20 most effective mechanisms to use in serving hard-to-reach populations.

21 **Q. PLEASE EXPLAIN THE IMPORTANT FINDINGS YOU HAVE IDENTIFIED.**

22 A. Dr. Linda Wharton Boyd, of the D.C. Health Benefit Exchange Authority, urges
23 institutions reaching out to hard-to-reach population that their “outreach mantra” for best
24 practices for informing, educating, and enrolling hard-to-reach populations in health

1 insurance coverage was “reach them where they live, work, shop, play and pray.”³⁴ She
2 said this approach involved “a wide-ranging *grassroots approach* with an army of *boots-*
3 *on-the-ground*.” (emphasis added). The initiative entailed “a more well-defined hyper-
4 local approach targeting consumers more at the neighborhood level.” One part of their
5 campaign was called “each one: link one,” through which they promoted “because you
6 care, be the link: reach family, reach a friend, reach a neighbor or colleague.”

7 **Q. IS THE PERSON WHO MAKES THE CONTACT IMPORTANT IN**
8 **OUTREACH?**

9 A. Yes. One evaluation of outreach efforts seeking to enroll customers in affordable health
10 insurance, for example, found that “*trusted messengers* at the national and local levels
11 were more important than ever.” (emphasis added). Building a “sustainable outreach and
12 enrollment community” involved “bolstering the capacity of partnership organizations
13 and recruiting a broad network of volunteers.” According to the evaluation, “Enroll
14 America... partnered with enrollment coalitions in 11 target states through the Get
15 Covered America campaign to recruit and/or train more than 2,400 volunteers – from
16 groups such as churches, clinics, food banks, nursing homes and law schools” to serve as
17 counselors in their communities.” The evaluation found that “partner collaboration has a
18 multiplier effect. Teaming up with established, trusted institutions made it possible for

³⁴ Nancy J. Hicks (Ed.) (2017). Health Industry Communication: New Media, New Methods, New Message, at Chapter 22, Linda Wharton Boyd, Insuring the Uninsured: Reaching Consumers in the D.C. Marketplace (describing a “robust, proactive, multifaceted, grassroots, community-based education campaign to reach DC residents and small business owners and their employees where they live, work, shop, pray and play”). Available at: https://books.google.com/books?id=vO3BDAAAQBAJ&pg=PA406&lpg=PA406&dq=reach+them+where+they+live,+work,+shop,+play+and+pray&source=bl&ots=o0xMBMb5p&sig=ACfU3U3DbBpUHwKQ9iXVp6xZ1ZSxWAnL_Q&hl=en&sa=X&ved=2ahUKewj42YeVpb7pAhWdoHIEHTynBnYQ6AEwAHoECACQAQ#v=onepage&q=reach%20them%20where%20they%20live%2C%20work%2C%20shop%2C%20play%20and%20pray&f=false (last accessed May 18, 2020).

1 Enroll America, and other organizations focused on enrollment, to meet a greater number
2 of consumers with a higher level of credibility. Among the organizations that Enroll
3 America surveyed this year, more than two-thirds identified collaboration as one of the
4 most effective strategies in their toolbox. . .”³⁵

5 One study funded by Blue Shield of California, and performed by the Institute of
6 Medicine (IoM), undertook a comprehensive review of evaluations from organizations
7 from all across the nation that focused on “enrollment of hard-to-reach populations.” The
8 IoM report stated that “the marker of success was not only total enrollment numbers but
9 whether outreach and enrollment were better than expected for the populations of
10 interest.”³⁶ One purpose was to create “a conceptual model” that incorporated the
11 successful strategies and approaches. The lessons reported by IoM included the
12 following:

- 13 1. “Community partnerships were also an important resource for enrollment efforts
14 to reach hard-to-reach populations. Partnerships with longstanding and trusted
15 community organizations provided access to hard-to-reach communities and
16 served as trusted sources of information and trusted spaces for enrollment to
17 occur.”
- 18 2. “It is important to know where the community gets its health information and who
19 its trusted messengers are for that information. . .It is also important to understand
20 that different groups have different needs.”
21
22

³⁵ Enroll America, State of Enrollment: Helping America Get Covered and Stay Covered, 2014 – 2015, What We Learned, at 22. Available at: https://nationaldisabilitynavigator.org/wp-content/uploads/resources-links/EA_SOENationalReport_2014-15_021915.pdf (last accessed on May 1, 2020).

³⁶ Parker, et al. Successfully Engaging Hard-to-Reach Populations in Health Insurance: A Focus on Outreach, Sign Up and Retention, and Use. Institute of Medicine, Roundtable on Health Literacy, Collaborative on Health Literacy and Access, Health Care Coverage, and Care, Washington D.C. Available at: <https://www.pdfFiller.com/jsfiller-desk10/?projectId=458692280#01776d34e2ab8069152a9026289f8b08> (last accessed May 18, 2020).

1 **Q. PLEASE EXPLAIN WHY IT IS NECESSARY TO RELY ON “TRUSTED**
2 **SOURCES” IN OUTREACH FOR PROGRAMS SUCH AS SPIRE’S BILL**
3 **DISCOUNT.**

4 A. The need to rely on “trusted sources” (“trusted messengers”, “trusted advisors”) cannot
5 be overstated. The IoM evaluation stated:

6 The need to create trust among consumers is the foundation upon which
7 successful strategies rest. First and foremost, it is essential to identify
8 community partners who are trusted resources in the population at which
9 enrollment efforts are aimed. All of the interviewees said that the most
10 important and successful method in reaching their intended audiences was
11 approaching consumers through a trusted source; such an approach could
12 occur either through their own organization, if it was a community-based
13 trusted source, or through a partnership with groups and individuals who
14 were trusted in the community. Although every community has different
15 trusted sources, each community organization and coalition interviewed
16 highlighted that identifying and working with trusted sources is key to a
17 successful outreach and enrollment process.

18
19 Trusted sources varied by community and culture and included advocacy
20 groups, social services and community support groups, faith-based groups,
21 and federally qualified health centers. Although different, these trusted
22 community partners had all been active in the communities prior to the
23 enrollment process and were either already aware of or uniquely positioned
24 to identify population-specific challenges and sensitive issues in the
25 targeted populations.

26
27 . . . Across all successful approaches, the key for building trust was
28 identifying the populations to be reached, assessing who would be a trusted
29 community partner, and using those partners to reach out and educate the
30 populations in trusted locations.

31
32 One important step, the IoM found, is to “identify who the trusted advisors are in
33 the various communities of interest – that is, who do people in these communities turn to
34 for advice about what is correct information and what to do with it.” These “trusted
35 advisors” are necessary because “in addition to profound financial challenges, many also

1 do not trust the system to advocate for them or to help them successfully navigate
2 complex content and tasks. . .”

3 In short, one of the continuing themes of the IoM study was that “processes must
4 be intentionally designed to build trust with targeted populations and provide actionable
5 steps for consumers. . .[B]eing trusted by the targeted community is foundational to all
6 implementation efforts. Deliberately considering and practically planning on how best to
7 foster trust must be considered throughout all activities.”³⁷

8 **Q. CAN THESE LESSONS BE GENERALIZED FOR PURPOSES OF ENROLLING**
9 **CUSTOMERS IN THE SPIRE INITIATIVES?**

10 A. Yes. The ability to generalize these lessons is also learned from state and private efforts
11 to identify and enroll children in the federal Children’s Health Insurance Program (CHIP,
12 sometimes known as SCHIP, State Children’s Health Insurance Program). One review of
13 CHIP initiatives by the National Academy for State Health Policy, for example, stated
14 that “regardless of the field or program in which outreach is used, a goal of developing an
15 outreach strategy, or an outreach campaign consisting of several strategies, is to generate
16 awareness, educate the public and, in this case, enroll people in health insurance

³⁷ See also California Pan-Ethnic Health Network (2014). Improving enrollment of communities of color in health coverage: Recommendations from first responders to covered California and Medi-Cal. California Pan-Ethnic Health Network: Oakland (CA), available at https://shea.senate.ca.gov/sites/shea.senate.ca.gov/files/CPEHN_ImprovingEnrollmentforCommunitiesofColor_2014.pdf (last accessed May 12, 2020); Jahnke et al. (2014). Marketplace consumer assistance programs and promising practices for enrolling racially and ethnically diverse communities. San Francisco Foundation: San Francisco (CA), available at https://www.texashealthinstitute.org/uploads/1/3/5/3/13535548/tsff_thi_report_on_marketplace_outreach_diverse_populations_may_2014.pdf (last accessed May 12, 2020); Parker, et al. (2013). Amplifying the voice of the underserved in the implementation of the Affordable Care Act. Institute of Medicine: Washington D.C. available at <https://nam.edu/perspectives-2013-amplifying-the-voice-of-the-underserved-in-the-implementation-of-the-affordable-care-act/> (last accessed May 12, 2020).

1 coverage.”³⁸ The National Academy reported, as with examples cited above, that
2 important outreach elements identified from their survey of CHIP programs included, for
3 example, the use of community-based organizations as partners.

4 According to a 2008 NASHP survey of CHIP programs, the percentage of
5 programs using CBOs to conduct outreach activities surpassed the
6 percentage using state agency staff compared to a similar survey from 2005.
7 In addition, a 2011 evaluation noted that states reported partnerships with
8 CBOs as the most effective partnerships due to the ‘prominence and trust’
9 these organizations have within their communities.

10
11 The Academy’s report noted that “CBOs are viewed as trusted members of a
12 community and have well-established relationships and means of communications that
13 could prove beneficial to the state.”³⁹

14 **Q. WHAT DO YOU RECOMMEND?**

15 A. I recommend that Spire be directed to implement a grass-roots, boots-on-the-ground
16 outreach for its COVID responses that relies on community-based “trusted messengers”
17 to help identify and enroll eligible customers in those initiatives. These initiatives would
18 include each of the initiatives I identify in my testimony today (e.g., suspension of
19 disconnections, expansion of rate assistance, Arrearage Repayment Program, long-term

³⁸ National Academy for State Health Policy (August 2012). Lessons Learned from Children’s Coverage Programs: Outreach, Marketing, and Enrollment, available at <https://nashp.org/wp-content/uploads/sites/default/files/outreach.lessons.children.pdf> (last accessed on May 12, 2020); see also, Wachino (2009). Maximizing Kids’ Enrollment in Medicaid and SCHIP: What Works in Reaching, Enrolling and Maintaining Eligible Children, National Academy for State Health Policy: Washington D.C.), available at <https://ccf.georgetown.edu/wp-content/uploads/2012/03/maximizing-kids-enrollment.pdf> (last accessed May 12, 2020).

³⁹ See also, Chung, at al. (2010). Trusted Hands: The Role of Community Based Organizations in Enrolling Children in Public Health Insurance Programs, The Colorado Trust: Denver (CO), available at https://folio.iupui.edu/bitstream/handle/10244/771/TrustedHands_021010_FINAL.pdf?sequence=1 (last accessed may 12, 2020); California Coverage and Health Initiatives (2011). A Trusted Voice: Leveraging the Local Experience of Community Based Organizations in Implementing the Affordable Care Act, California Coverage and Health Initiatives: Sacramento (CA), available at <https://board.coveredca.com/meetings/2012/03%20Mar-22%20Meeting%20Materials/PDFs/CCHI%20Background%20Materials%20-%20Leveraging%20Local%20Experience%20of%20CBOs.pdf> (last accessed May 12, 2020).

1 deferred payment arrangements). The outreach program should be directed to explicitly
2 identify how it implements each of the principles set forth below:

- 3 1. Using the community as a “boots-on-the-ground” means of identifying and
4 engaging the hard-to-reach population.
- 5
- 6 2. Going to the community (reaching them “where they live, work, shop, play and
7 pray”) rather than making the community come to you.
- 8
- 9 3. Relying on grassroots “trusted messengers” from within the community.

10

11 **PART 7. THE CRITICAL ROLE OF ENERGY EFFICIENCY**

12

13 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?**

14 A. In this section of my testimony, I explain the critical role that low-income energy
15 efficiency investments can play in helping to control low-income arrearages and,
16 correspondingly, helping to mitigate the costs of low-income nonpayment.

17 **Q. GIVEN YOUR TESTIMONY REGARDING THE ECONOMIC CRISIS**
18 **ASSOCIATED WITH COVID, PLEASE EXPLAIN HOW AND WHY USAGE**
19 **REDUCTION INVESTMENTS DIRECTED TOWARD PAYMENT-TROUBLED**
20 **LOW-INCOME CUSTOMERS COULD BE USED TO HELP REDUCE NON-**
21 **PAYMENT UTILITY COSTS.**

22 A. The notion that usage reduction investments directed toward payment-troubled low-
23 income customers can yield benefits beyond the traditional “avoided costs” is neither new
24 nor revolutionary. The delivery of energy efficiency investments to low-income
25 customers not only yields resource conservation and avoided cost benefits to the affected
26 utility, but delivers a broad range of other utility cost reductions as well. Accordingly,

1 low-income energy efficiency programs should be implemented as an important tool in
2 controlling system-wide utility costs. Avoided costs commonly associated with low-
3 income energy efficiency would include reduced arrears, reduced working capital,
4 reduced credit and collection expenses, and the like.

5 The existence of direct financial benefits to utilities arising from energy efficiency
6 programs targeted specifically to low-income households has been recognized for more
7 than 30 years. The presence of such avoided costs was first postulated in 1987. That
8 analysis stated that targeted electric energy efficiency programs had advantages that went
9 beyond the traditional energy and capacity savings associated with energy efficiency
10 measures:

11 The cost-effective reduction of system costs is relevant and important in
12 every part of the business operations of the utility, not simply to the power
13 supply function. Accordingly, a utility should be concerned with the
14 problem of nonpayment, overdue payment, and partial payment of utility
15 bills. Bad debt arises when ratepayers demand power from the system and
16 then do not pay for it on a timely basis.... [A] new conservation program
17 [can be proposed] that is justified on an avoided cost basis. The proposal
18 rejects the historical view that avoided costs include only an energy and a
19 capacity component. Instead, it introduces the notion of avoided bad debt.
20 As long as the energy efficiency program costs less than the bad debt it will
21 avoid, the program is cost-justified.⁴⁰

22 In this 1987 article, “bad debt” was defined to include all aspects of costs
23 associated with payment troubles. The term was used to include not only written-off
24 accounts, but credit and collection expenses, working capital expenses, and a host of
25 other expenses related to nonpayment. Since that time, the existence and importance of
26 such expanded avoided costs has become generally accepted. Analysts have since
27

⁴⁰ Colton and Sheehan (1987). “A New Basis for Conservation Programs for the Poor: Expanding the Concept of Avoided Costs,” 21 *Clearinghouse Review* 135, 139.

1 repeatedly confirmed that low-income energy efficiency generates benefits beyond
2 simply energy and capacity savings.

3 **Q. CAN YOU ILLUSTRATE HOW USAGE REDUCTION TARGETED TO LOW-**
4 **INCOME PAYMENT TROUBLED CUSTOMERS MIGHT REDUCE COSTS TO**
5 **THE UTILITY?**

6 A. Yes. My discussion here is not intended to be an exhaustive list of how usage reduction
7 investments targeted to payment-troubled customers, all else equal, might reduce costs to
8 Spire. This list, instead, is intended to be illustrative.

- 9 1. To the extent that a low-income customer has an arrearage, the total “asked to
10 pay” amount includes the unpaid arrears *plus* the bill for current service. To the
11 extent that usage reduction reduces the bill for current service, more of the total
12 payment by the customer will be available to apply to the retirement of arrears.
13 By reducing the level of arrears, not only does Spire reduce its working capital
14 requirement, it reduces its risk of bad debt (in the event that some portion of the
15 arrears ultimately goes unpaid).
16
- 17 2. To the extent that a low-income customer has an arrearage, in addition to reducing
18 the dollar level of arrears, reducing the bill for current service, and allowing more
19 of the total asked-to-pay amount to be devoted to arrearage payments given a
20 constant payment, would allow the customer to retire the arrears more quickly as
21 well. By retiring arrearages more quickly, Spire would reduce its working capital
22 requirement.
23
- 24 3. To the extent that a customer has been unsuccessful on a payment plan, the
25 arrearages subject to that payment plan are placed in jeopardy of ultimate
26 nonpayment. By reducing the asked-to-pay amount for current service,
27 particularly on a seasonal basis, given a constant payment, the ability of a low-
28 income customer to successfully complete a renegotiated payment plan would
29 increase. As a result, Spire would reduce both its working capital requirement and
30 its risk of loss due to bad debt.
31
- 32 4. To the extent that Spire disconnects service to a low-income customer for
33 nonpayment, reducing that customer’s usage, and thus his/her bills, would make
34 the reconnection of service more affordable. As a result, Spire would not only
35 reduce its risk of loss due to bad debt, but it would also preserve its future stream

1 of revenue from having the customer back on its system, and more likely to
2 remain, with a more affordable bill.

- 3
- 4 5. To the extent that a customer has enrolled in Budget Billing, but has been
5 removed for nonpayment, there is evidence that even a levelized bill exceeds the
6 capacity of a customer to pay. By targeting usage reduction toward such a
7 customer, this customer, who by his/her enrollment in Budget billing has
8 evidenced their willingness to work with the Company to address potential
9 payment difficulties, experiences a reduced levelized annual bill that is less likely
10 to result in nonpayment. As a result, Spire would experience a reduction in
11 working capital requirements (both due to the level of arrears and due to the age
12 of arrears) and a reduction in the risk of bad debt.
- 13

14 **Q. ARE THERE GENERAL CONCLUSIONS THAT YOU DRAW FROM THIS**
15 **DISCUSSION ABOUT THE POTENTIAL COST SAVINGS TO SPIRE FROM A**
16 **TARGETED USAGE REDUCTION PROGRAM?**

17 A. Yes. First, cost reductions arise from reductions in arrears in two different ways
18 associated with working capital. To the extent that targeted usage reduction reduces the
19 dollar level of arrears, Spire will experience expense savings. In addition, to the extent
20 that targeted usage reduction will reduce the amount of time a customer carries arrears,
21 Spire will experience expense savings.

22 Second, a targeted usage reduction program does not need to result in a low-
23 income customer's ability to completely eliminate his/her arrearage in order for Spire to
24 experience cost savings. If, instead, a low-income customer merely reduces his/her
25 arrearage below the level that the arrearage otherwise would have been, the Company
26 will experience cost savings. An arrearage of \$250, in other words, imposes a lower
27 working capital requirement than an arrearage of \$350. A final bill of \$300 poses a lower
28 risk of bad debt than a final bill of \$500.

1 **Q. IS THERE AN ADDED FINANCIAL BENEFIT TO SPIRE THAT ARISES FROM**
2 **A REDUCTION IN ARREARS ABOVE AND BEYOND THE DOLLAR**
3 **REDUCTION?**

4 A. Yes. Since working capital is a rate base item, Spire will earn a rate of return on the
5 working capital associated with the arrearage. Within this rate of return will be a return
6 on equity. Associated with the return on equity will be an income tax effect. A reduction
7 in arrearage dollar amounts, as well as a reduction in the time over which an arrears
8 exists, therefore, results in a working capital savings that must be adjusted upwards to
9 account for this tax effect. Again, as I just noted, the arrearage does not need to be
10 reduced to \$0 for this effect to arise. The arrearage must simply be reduced below that
11 dollar level, or to less than the length of time, that would have existed in the absence of
12 the targeted usage reduction.

13 **Q. WHAT DO YOU CONCLUDE?**

14 A. Each of the savings that I have identified above – again which is intended to be
15 illustrative and not exhaustive – represent a financial benefit of a targeted low-income
16 usage reduction (or energy efficiency) program that is not otherwise included in
17 traditional “avoided costs.” Given the extent of these potential savings to Spire, the
18 benefits of the low-income program targeted to payment-troubled customers creates a
19 justification for the recommendations I make below.

20 **Q. HAVE OTHER UTILITIES IMPLEMENTED LOW-INCOME USAGE**
21 **REDUCTION PROGRAMS BASED ON THEIR BENEFICIAL**
22 **AFFORDABILITY IMPACTS?**

1 A. Yes. Pennsylvania’s natural gas and electric utilities have operated what that state’s
2 Public Utility Commission (“PUC”) calls the Low-Income Usage Reduction Program
3 (“LIURP”). LIURP involves offering the following types of usage reduction packages to
4 low-income households: (1) an electric space heating package; (2) an electric water
5 heating package; (3) a baseload electric package; and (4) a natural gas heating package.

6 The objectives established for the Pennsylvania LIURP initiative are very similar
7 to the objectives I would set forth for a low-income usage reduction component to be
8 added to Spire’s bill affordability programs, including, but not limited to:

- 9 1. To assist low-income residential customers in conserving energy by reducing their
10 energy *consumption*;
- 11 2. To assist participating households in reducing their energy *bills*; and
- 12 3. To decrease the incidence and risk of customer payment delinquencies and the
13 attendant utility costs associated with customer arrearage and uncollectible
14 accounts.
15
16

17 According to the January 2009 evaluation of the LIURP initiative:
18

19 To meet these goals, LIURP is targeted toward low-income households with
20 the highest energy consumption. Of these households, those with payment
21 problems and high arrearages are targeted. Since the program’s inception in
22 1988 through 2006, the major electric and gas companies required to
23 participate in LIURP have spent over \$330 million to provide
24 weatherization treatments to more than 292,071 low-income households in
25 Pennsylvania.
26

27 In January 2009, Penn State University released a comprehensive long-term
28 evaluation of the LIURP program. Prepared for the Pennsylvania PUC, the evaluation
29 examined data over the first 18 years of program operation. The evaluation provides
30 important lessons that inform whether Spire would promote least-cost service by adding

1 an energy efficiency and weatherization reduction component to the Company’s bill
2 assistance programs. The LIURP evaluation reported:

- 3 1. “LIURP is a cost-effective method of reducing both energy consumption and
4 energy bill arrearages. . .Sixty nine percent of LIURP households reduce their
5 energy consumption following weatherization treatments, with an average
6 reduction of 16.5 percent.”
- 7
8 2. “Of those households with energy bill arrearages, 40 percent reduce their
9 arrearage following weatherization services. LIURP was targeted to households
10 with arrears (within the population of large consumers). The LIURP evaluation
11 found that “by the end of the year following weatherization, 68 percent of the
12 households have an energy bill arrearage, a decrease of 29 percent. . .Although
13 the average number of full payments made does not vary from the pre- to post-
14 period, the percent of households with missed payments decreased and the
15 average number of partial payments increased.”⁴¹
- 16
17 3. “The [third] most significant, and most common, variable that is positively related
18 to reductions in energy consumption is the amount of arrearage owed in the pre-
19 period [before usage-reduction treatments are installed], suggesting that
20 households with large arrearages are motivated to make the necessary behavioral
21 changes to contribute toward additional reductions in energy consumption. It
22 therefore makes sense to target households with higher arrearages when
23 prioritizing LIURP jobs.”

24
25 While low-income usage reduction investments generate the traditional benefits
26 (i.e., avoided energy and capacity costs) associated with usage-reduction programs, as is
27 evident, the affordability benefits flowing from low-income usage reduction extend far
28 beyond those traditional benefits.

29 **Q. HOW DO THESE PENNSYLVANIA DATA RELATE TO SPIRE’S INCOME-**
30 **ELIGIBLE ENERGY EFFICIENCY PROGRAMS?**

⁴¹ The evaluation noted that participation in LIURP was associated with increased participation in energy assistance programs. It was difficult to distinguish the impact of the two.

1 A. The reduction of arrears, and an improvement in payment patterns, are clearly objectives
2 of a Spire low-income bill assistance program. Adding targeting of low-income energy
3 efficiency and weatherization to Spire’s suite of initiatives addressing bill payment and
4 arrearages will generate two positive outcomes relating to this objective: (1) it will assist
5 the Company in generating the outcomes it seeks (i.e., bringing down arrears while
6 encouraging good payment habits); and (2) it will reduce the cost of future arrears by
7 helping low-income customers avoid accruing arrears that need to be offset by future
8 arrearage credits. In other words, directing targeting funding specifically for usage
9 reduction by payment-troubled customers will improve the performance of Spire in
10 reducing costs.

11 **Q. WHAT DO YOU RECOMMEND?**

12 A. While bill assistance is an important tool in addressing arrearages, energy efficiency is
13 another important tool for long-term affordability and bill stability. Accordingly, first I
14 recommend that Spire’s proposed income-eligible energy efficiency programs be
15 approved and all budgets be fully spent, including any unspent funds from previous
16 program years or quarters. Spire should direct its implementers and weatherization
17 providers to target a reasonable amount of energy usage reduction budgets toward low-
18 income customers in arrears. Spire may wish to increase its energy efficiency and
19 weatherization budgets beyond current proposals in order to accommodate increased
20 targeting.

21 For the reasons I describe below, I recommend that this annual investment in low-
22 income energy efficiency, targeted in the manner I describe immediately below, be
23 continued indefinitely.

1 I recommend that Spire target low-income energy usage reduction activities based
2 on the following non-exclusive⁴² factors:

- 3 1. **High energy usage:** Research has shown that the single greatest predictor of
4 energy usage reduction potential is high consumption prior to efficiency measures
5 being implemented. This reference to “high energy use” should be construed to
6 incorporate high energy intensity on a per square foot basis. An exclusive focus
7 on absolute levels of usage commonly, and unfairly, excludes residents of
8 multifamily buildings. Such buildings often have energy inefficient consumption,
9 but due to the size of units, have lower absolute consumption levels.
10
- 11 2. **High arrearages:** High arrearages and high usage frequently, but not universally,
12 correspond. Customers with high arrearages disproportionately tend to have high
13 usage as well. Targeting low-income customers with high arrearages generates
14 three benefits: (1) high arrearages have been associated with a greater usage
15 reduction potential; (2) directing usage reduction to low-income customers with
16 high arrearages can reduce the utility’s non-energy costs whether or not the
17 arrearages are reduced to \$0. For example, if usage reduction investments can
18 help a low-income customer reduce his or her arrearage from \$500 to \$300, the
19 utility pockets the working capital savings associated with carrying those \$200 in
20 reduced arrearages (along with a potential reduction in bad debt if those arrears
21 are ultimately written off).
22
- 23 3. **Current or broken/defaulted deferred payment arrangements:** A low-income
24 customer on a deferred payment arrangement (“DPA”), by definition, is in arrears.
25 To the extent that a customer has a history of negotiating a DPA, that customer
26 has evidenced a willingness to work with the Company to address his or her
27 nonpayment. In such instances, bill affordability is not driven by the bill for
28 current service standing alone, but by the total asked-to-pay amount (i.e., the bill
29 for current service *plus* the installment payment for arrearages). To the extent that
30 usage reduction can reduce the bill for current service, the low-income customer
31 is more likely to pay that total asked-to-pay amount. As discussed above, not only
32 will the ultimate risk of lost revenue due to nonpayment be reduced, but the
33 immediate working capital associated with any delayed collection of revenue will
34 be reduced as well. Entering into a DPA, even if (or especially if) that DPA was
35 broken or defaulted should be an indicator of payment-troubled status for
36 purposes of targeted low-income usage reduction.
37

⁴² By “non-exclusive,” I mean that customers may fall into one or more of these categories.

1 As I discuss in more detail above, the non-exclusive factors I identify above are
2 not *eligibility* criteria for low-income energy usage reduction. They are instead targeting
3 objectives, through which Spire should engage in particular efforts to identify low-
4 income customers to enroll in its low-income energy usage reduction program.

5 **Q. PLEASE EXPLAIN YOUR RECOMMENDATION THAT THE TARGETING OF**
6 **LOW-INCOME ENERGY EFFICIENCY BE CONTINUED INDEFINITELY.**

7 A. I recommend not only that the targeting of low-income energy efficiency be continued
8 indefinitely, but also that the expanded rate assistance, the Customer Arrearage Payment
9 Plan program, and the revised deferred payment arrangement conditions, be continue
10 indefinitely as well.

11 The need for these responses did not end with the public availability of COVID
12 vaccines. Each of these programmatic responses, including targeted energy efficiency
13 investments, will be important long-term strategies as the economic impacts of the
14 COVID pandemic persist for years to come.

15 The public availability of COVID vaccines has not ended the economic crisis
16 facing Spire’s low-income customers. One analysis by the Center on Poverty and Social
17 Policy at Columbia University projects the longer-term effects of the COVID economic
18 crisis.⁴³ The Columbia University research center forecasted poverty rates under three
19 alternative unemployment scenarios: 10 percent; 20 percent, and 30 percent. The Center
20 assumed that such high levels of unemployment lasted for two different scenarios: (1)

⁴³ Parolin and Wimer (April 16, 2020). Forecasting Estimates of Poverty During the COVID-19 Crisis: Poverty Rates in the United States Could Reach Highest Levels in Over 50 Year, available at <https://www.povertycenter.columbia.edu/news-internal/coronavirus-forecasting-poverty-estimates>, last accessed August 9, 2020.

1 one quarter, and (2) one year. The Center uses the “Supplemental Poverty Measure”
2 (SPM), which differs somewhat from the Federal Poverty Level.

3 The Center began with a projected SPM of 12.4% in February 2020, the lowest
4 recorded poverty rate since 2001. Its projected poverty rates after the onset of the COVID
5 pandemic, however:

6 point to higher poverty rates today. If unemployment rates rise to 10
7 percent, comparable to the unemployment rate during the peak of the Great
8 Recession, we project that poverty rates would rise to 15 percent. This is
9 approximately the same rate of poverty observed in 2010. (note omitted). If
10 unemployment rates rise to 20 percent, we project a poverty rate of 16.9
11 percent – the highest rate of poverty since 1967, the first year for which
12 reliable estimates of poverty are available. Finally, if annual unemployment
13 rates rise to 30 percent, we project a poverty rate of 18.9 percent. This would
14 mark the highest rate of poverty over the past 50 years.⁴⁴

15
16 As of June 2020, Missouri’s “smoothed seasonally adjusted unemployment rate
17 went down by 2.2 percentage points [. . .], decreasing to 7.9 percent from a revised May
18 2020 rate of 10.1 percent.”⁴⁵ Accordingly, I set aside the 20% and 30% unemployment
19 scenarios. Even with this lowest scenario, the Columbia research center stated: “under an
20 optimistic scenario, in which employment rates return to pre-crisis levels during the
21 summer of 2020, annual SPM poverty rates are still projected to reach levels comparable
22 to the Great Recession.”⁴⁶

23 This increase in Poverty is important for purposes of this proceeding because it is
24 not likely to be resolved in the short-term. The long-term danger arises because when
25 people lose their jobs, the long-lasting effects are not just on their income.

⁴⁴ Id., at 4 - 5.

⁴⁵ June Jobs Report, available at: <https://ded.mo.gov/content/june-jobs-report-released> (last accessed August 9, 2020).

⁴⁶ Id., at 9.

1 Unemployment has a negative effect on workers' skills and education, even on their
2 health – people who are unemployed become sicker. Human capital, the skills of the
3 overall workforce, decays over time because of the loss of jobs. Moreover, with the
4 COVID pandemic, it is generally recognized that many of the jobs that have been lost
5 will never come back. One recent research paper from the Becker Freidman Institute for
6 Economics at the University of Chicago estimates that between 32% and 42% of COVID
7 induced layoffs will be permanent.⁴⁷

8 I conclude that the economic crisis which is associated with the COVID pandemic
9 will result in long-term economic disruption for Spire's customers. As a result, some
10 Spire responsive actions (e.g., targeted energy efficiency, Customer Arrearage Payment
11 Plan program, FCAP expansion) will need to be maintained for the foreseeable future.

12 **PART 8. DATA COLLECTION AND REPORTING**

13 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATION FOR THIS SECTION?**

14
15 A. In this section of my testimony, I commend Spire for adopting certain data collection and
16 reporting practices in the previous year's AAO case (File No. GU-2020-0376), and I
17 recommend that Spire build upon those practices by reporting these data publicly and on
18 a geographic basis.

19
20 In File No. GU-2020-0376, Spire agreed to issue a report within two weeks of the
21 Commission's order that identified all cost increases related to the pandemic, including
22 but not limited to:

⁴⁷ Davis et al. (June 2020). COVID-19 is also a Reallocation Shock, available at: https://bfi.uchicago.edu/wp-content/uploads/BFI_WP_202059.pdf (last accessed August 9, 2020).

- 1 1. The number of customers, by customer class, voluntarily disconnected by month;
- 2 2. The number of customers, by customer class, involuntarily disconnected by
- 3 month;
- 4 3. Number of utility reconnections, reported by month;
- 5 4. Number of customers on a utility payment plan, by payment plan type (including
- 6 budget billing), by month;
- 7 5. Total \$ amount of arrearages by customer class;
- 8 6. The number of accounts in arrearage by customer class in increments of \$100
- 9 (e.g., less than \$100, \$101 to \$200, etc...) by month;
- 10 7. The range of arrearage amounts by customer class (i.e., current high and low
- 11 dollar amount) and the mean average; and
- 12 8. A quantification of total past-due customer arrearages and number of customers
- 13 experiencing arrearages, that are thirty, sixty, and ninety days.

14 The availability of this data is an important element in allowing regulators,
15 advocates, and the public to track the severity of the economic crisis brought on by the
16 pandemic. Spire should be commended for delivering this information to parties.

17 **Q. WHAT CHANGES DO YOU RECOMMEND TO THIS DATA COLLECTION**
18 **AND REPORTING?**

19 A. I recommend that Spire report these data publicly each month through the end of calendar
20 year 2022. In addition, I recommend that the above data metrics be collected and reported
21 on a geographic basis, either by census tract or by ZIP code.

22 Geographic data will enable stakeholders to understand and target where
23 arrearages and disconnections are most severe, and to coordinate advocacy, programs,
24 and volunteer efforts to where they can have the largest impact.

25
26 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

27 A. Yes it does.

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Spire Missouri Inc.'s Request)
for Authority to Implement a General Rate)
Increase for Natural Gas Service Provided)
in the Company's Missouri Service Areas.) Case No. GR-2021-0108

AFFIDAVIT OF ROGER COLTON

CITY OF BELMONT,)
)
STATE OF MASSACHUSETTS) **SS**

Roger Colton, of lawful age and being first duly sworn on his oath, states:

1. My name is Roger Colton. I work in the City of Belmont, State of Massachusetts and I am employed by the consulting firm Fisher, Sheehan & Colton.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of The National Housing Trust, which I have prepared in written form for introduction into evidence in the above-referenced docket before the Missouri Public Service Commission.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

/s/ 

Roger Colton

Subscribed and sworn to me this 12th day of May, 2021

/s/ 

Notary Public



My commission expires: August 22, 2025

Colton Schedules

Schedule RDC-1. Spire Bills After FCAP Discount by County (and St. Louis City)

County	Income by Poverty Level						Bill Before/After Discount					Discounted Bill as Percent of Poverty					
	50 FPL	75 FPL	100 FPL	125 FPL	150 FPL	185FPL	Avg Bill	Tier 1 Dscnt	Tier 2 Dscnt	Tier 1 Dscntd Bill	Tier 2 Dscntd Bill	50 FPL	75 FPL	100 FPL	125 FPL	150 FPL	185F PL
Andrew	\$9,375	\$14,062	\$18,750	\$23,437	\$28,124	\$34,687	\$780	\$420	\$240	\$360	\$540	3.8%	2.6%	1.9%	1.5%	1.9%	1.6%
Barry	\$9,656	\$14,483	\$19,311	\$24,139	\$28,967	\$35,726	\$780	\$420	\$240	\$360	\$540	3.7%	2.5%	1.9%	1.5%	1.9%	1.5%
Barton	\$9,029	\$13,544	\$18,058	\$22,573	\$27,088	\$33,408	\$780	\$420	\$240	\$360	\$540	4.0%	2.7%	2.0%	1.6%	2.0%	1.6%
Buchanan	\$9,396	\$14,095	\$18,793	\$23,491	\$28,189	\$34,767	\$780	\$420	\$240	\$360	\$540	3.8%	2.6%	1.9%	1.5%	1.9%	1.6%
Butler	\$9,418	\$14,127	\$18,836	\$23,545	\$28,254	\$34,847	\$780	\$420	\$240	\$360	\$540	3.8%	2.5%	1.9%	1.5%	1.9%	1.5%
Carroll	\$9,224	\$13,835	\$18,447	\$23,059	\$27,671	\$34,127	\$780	\$420	\$240	\$360	\$540	3.9%	2.6%	2.0%	1.6%	2.0%	1.6%
Cass	\$9,483	\$14,224	\$18,966	\$23,707	\$28,448	\$35,086	\$780	\$420	\$240	\$360	\$540	3.8%	2.5%	1.9%	1.5%	1.9%	1.5%
Cedar	\$9,051	\$13,576	\$18,102	\$22,627	\$27,152	\$33,488	\$780	\$420	\$240	\$360	\$540	4.0%	2.7%	2.0%	1.6%	2.0%	1.6%
Christian	\$9,720	\$14,581	\$19,441	\$24,301	\$29,161	\$35,965	\$780	\$420	\$240	\$360	\$540	3.7%	2.5%	1.9%	1.5%	1.9%	1.5%
Clay	\$9,569	\$14,354	\$19,138	\$23,923	\$28,708	\$35,406	\$780	\$420	\$240	\$360	\$540	3.8%	2.5%	1.9%	1.5%	1.9%	1.5%
Clinton	\$9,202	\$13,803	\$18,404	\$23,005	\$27,606	\$34,047	\$780	\$420	\$240	\$360	\$540	3.9%	2.6%	2.0%	1.6%	2.0%	1.6%
Cooper	\$9,288	\$13,933	\$18,577	\$23,221	\$27,865	\$34,367	\$780	\$420	\$240	\$360	\$540	3.9%	2.6%	1.9%	1.6%	1.9%	1.6%
Dade	\$9,051	\$13,576	\$18,102	\$22,627	\$27,152	\$33,488	\$780	\$420	\$240	\$360	\$540	4.0%	2.7%	2.0%	1.6%	2.0%	1.6%
DeKalb	\$9,051	\$13,576	\$18,102	\$22,627	\$27,152	\$33,488	\$780	\$420	\$240	\$360	\$540	4.0%	2.7%	2.0%	1.6%	2.0%	1.6%
Greene	\$8,813	\$13,220	\$17,626	\$22,033	\$26,440	\$32,609	\$780	\$420	\$240	\$360	\$540	4.1%	2.7%	2.0%	1.6%	2.0%	1.7%
Henry	\$8,964	\$13,447	\$17,929	\$22,411	\$26,893	\$33,168	\$780	\$420	\$240	\$360	\$540	4.0%	2.7%	2.0%	1.6%	2.0%	1.6%
Howard	\$9,591	\$14,386	\$19,182	\$23,977	\$28,772	\$35,486	\$780	\$420	\$240	\$360	\$540	3.8%	2.5%	1.9%	1.5%	1.9%	1.5%
Iron	\$9,029	\$13,544	\$18,058	\$22,573	\$27,088	\$33,408	\$780	\$420	\$240	\$360	\$540	4.0%	2.7%	2.0%	1.6%	2.0%	1.6%
Jackson	\$9,116	\$13,673	\$18,231	\$22,789	\$27,347	\$33,728	\$780	\$420	\$240	\$360	\$540	3.9%	2.6%	2.0%	1.6%	2.0%	1.6%
Jasper	\$9,483	\$14,224	\$18,966	\$23,707	\$28,448	\$35,086	\$780	\$420	\$240	\$360	\$540	3.8%	2.5%	1.9%	1.5%	1.9%	1.5%
Jefferson	\$9,569	\$14,354	\$19,138	\$23,923	\$28,708	\$35,406	\$780	\$420	\$240	\$360	\$540	3.8%	2.5%	1.9%	1.5%	1.9%	1.5%

Schedule RDC-1. Spire Bills After FCAP Discount by County (and St. Louis City)

County	Income by Poverty Level						Bill Before/After Discount					Discounted Bill as Percent of Poverty					
	50 FPL	75 FPL	100 FPL	125 FPL	150 FPL	185FPL	Avg Bill	Tier 1 Dscnt	Tier 2 Dscnt	Tier 1 Dscntd Bill	Tier 2 Dscntd Bill	50 FPL	75 FPL	100 FPL	125 FPL	150 FPL	185F PL
Johnson	\$9,224	\$13,835	\$18,447	\$23,059	\$27,671	\$34,127	\$780	\$420	\$240	\$360	\$540	3.9%	2.6%	2.0%	1.6%	2.0%	1.6%
Lafayette	\$9,224	\$13,835	\$18,447	\$23,059	\$27,671	\$34,127	\$780	\$420	\$240	\$360	\$540	3.9%	2.6%	2.0%	1.6%	2.0%	1.6%
Lawrence	\$9,461	\$14,192	\$18,922	\$23,653	\$28,384	\$35,006	\$780	\$420	\$240	\$360	\$540	3.8%	2.5%	1.9%	1.5%	1.9%	1.5%
Madison	\$9,094	\$13,641	\$18,188	\$22,735	\$27,282	\$33,648	\$780	\$420	\$240	\$360	\$540	4.0%	2.6%	2.0%	1.6%	2.0%	1.6%
McDonald	\$9,936	\$14,905	\$19,873	\$24,841	\$29,809	\$36,765	\$780	\$420	\$240	\$360	\$540	3.6%	2.4%	1.8%	1.4%	1.8%	1.5%
Moniteau	\$9,807	\$14,710	\$19,614	\$24,517	\$29,420	\$36,285	\$780	\$420	\$240	\$360	\$540	3.7%	2.4%	1.8%	1.5%	1.8%	1.5%
Newton	\$9,461	\$14,192	\$18,922	\$23,653	\$28,384	\$35,006	\$780	\$420	\$240	\$360	\$540	3.8%	2.5%	1.9%	1.5%	1.9%	1.5%
Pettis	\$9,526	\$14,289	\$19,052	\$23,815	\$28,578	\$35,246	\$780	\$420	\$240	\$360	\$540	3.8%	2.5%	1.9%	1.5%	1.9%	1.5%
Platte	\$9,396	\$14,095	\$18,793	\$23,491	\$28,189	\$34,767	\$780	\$420	\$240	\$360	\$540	3.8%	2.6%	1.9%	1.5%	1.9%	1.6%
Ray	\$9,461	\$14,192	\$18,922	\$23,653	\$28,384	\$35,006	\$780	\$420	\$240	\$360	\$540	3.8%	2.5%	1.9%	1.5%	1.9%	1.5%
Saline	\$9,396	\$14,095	\$18,793	\$23,491	\$28,189	\$34,767	\$780	\$420	\$240	\$360	\$540	3.8%	2.6%	1.9%	1.5%	1.9%	1.6%
St. Charles	\$9,612	\$14,419	\$19,225	\$24,031	\$28,837	\$35,566	\$780	\$420	\$240	\$360	\$540	3.7%	2.5%	1.9%	1.5%	1.9%	1.5%
St. Francois	\$9,051	\$13,576	\$18,102	\$22,627	\$27,152	\$33,488	\$780	\$420	\$240	\$360	\$540	4.0%	2.7%	2.0%	1.6%	2.0%	1.6%
St. Louis city	\$8,532	\$12,799	\$17,065	\$21,331	\$25,597	\$31,570	\$780	\$420	\$240	\$360	\$540	4.2%	2.8%	2.1%	1.7%	2.1%	1.7%
St. Louis	\$9,159	\$13,738	\$18,318	\$22,897	\$27,476	\$33,888	\$780	\$420	\$240	\$360	\$540	3.9%	2.6%	2.0%	1.6%	2.0%	1.6%
Stone	\$9,137	\$13,706	\$18,274	\$22,843	\$27,412	\$33,808	\$780	\$420	\$240	\$360	\$540	3.9%	2.6%	2.0%	1.6%	2.0%	1.6%
Vernon	\$9,202	\$13,803	\$18,404	\$23,005	\$27,606	\$34,047	\$780	\$420	\$240	\$360	\$540	3.9%	2.6%	2.0%	1.6%	2.0%	1.6%

Schedule RDC-2. Spire Bills after FCAP Discounted (50% FPL)

	Enhanced 50% FPL Discount	New 50% FPL Discounted Bill	New 50% FPL Bill as Pct of Poverty
Andrew	\$510	\$270	2.9%
Barry	\$510	\$270	2.8%
Barton	\$510	\$270	3.0%
Buchanan	\$510	\$270	2.9%
Butler	\$510	\$270	2.9%
Carroll	\$510	\$270	2.9%
Cass	\$510	\$270	2.8%
Cedar	\$510	\$270	3.0%
Christian	\$510	\$270	2.8%
Clay	\$510	\$270	2.8%
Clinton	\$510	\$270	2.9%
Cooper	\$510	\$270	2.9%
Dade	\$510	\$270	3.0%
DeKalb	\$510	\$270	3.0%
Greene	\$510	\$270	3.1%
Henry	\$510	\$270	3.0%
Howard	\$510	\$270	2.8%
Iron	\$510	\$270	3.0%
Jackson	\$510	\$270	3.0%
Jasper	\$510	\$270	2.8%
Jefferson	\$510	\$270	2.8%
Johnson	\$510	\$270	2.9%
Lafayette	\$510	\$270	2.9%
Lawrence	\$510	\$270	2.9%
Madison	\$510	\$270	3.0%
McDonald	\$510	\$270	2.7%
Moniteau	\$510	\$270	2.8%
Newton	\$510	\$270	2.9%
Pettis	\$510	\$270	2.8%
Platte	\$510	\$270	2.9%
Ray	\$510	\$270	2.9%
Saline	\$510	\$270	2.9%
St. Charles	\$510	\$270	2.8%
St. Francois	\$510	\$270	3.0%
St. Louis city	\$510	\$270	3.2%
St. Louis	\$510	\$270	2.9%
Stone	\$510	\$270	3.0%
Vernon	\$510	\$270	2.9%