

**IN THE MATTER OF AUSTIN ENERGY BASE
RATE CASE FILING DATED APRIL 18, 2022**

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**BEFORE THE CITY OF
AUSTIN HEARING
EXAMINER**

DIRECT TESTIMONY OF EZRA D. HAUSMAN, PH.D.

ON BEHALF OF

SIERRA CLUB, PUBLIC CITIZEN, AND SOLAR UNITED NEIGHBORS

June 22, 2022

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1 **I. Professional Qualifications and Purpose of Testimony**

2 **Q. Please state your name, occupation, and business address.**

3 A. My name is Ezra D. Hausman, Ph.D. I am an independent consultant doing business as
4 Ezra Hausman Consulting, operating from offices at 77 Kaposia Street, Auburndale,
5 Massachusetts 02466.

6 **Q. What is your educational and professional background?**

7 A. I hold a BA in Psychology from Wesleyan University, an MS in Environmental
8 Engineering from Tufts University, an SM in Applied Physics from Harvard University,
9 and a PhD in Atmospheric Chemistry from Harvard University. I have been involved in
10 analysis of both regulated and restructured electricity markets for over two decades. I
11 have provided a detailed resume as Exhibit EDH-1.

12 I have worked as an independent consultant and expert based in energy economics
13 and environmental science since 2014. From 2005 until early 2014, I was employed at
14 Synapse Energy Economics, Inc., a research and consulting company located in
15 Cambridge, Massachusetts, where I served most recently as Vice President and Chief
16 Operating Officer. In both of these positions I served as an analyst and expert in the
17 following areas:

- 18 • State and regional energy, capacity, and transmission planning, including both utility
19 resource planning and long-term (multi-decadal) climate-constrained resource
20 planning
- 21 • Electricity, generating capacity, and demand-side resource market design, analysis,
22 and regulation
- 23 • Review and analysis of utility energy efficiency (“EE”) and transportation
24 electrification program filings
- 25 • Electric system dispatch modeling

- 1 • Economic analysis of environmental and other regulations, including greenhouse gas
2 regulation, in electricity markets
- 3 • Economic analysis, price forecasting, and asset valuation in electricity markets
- 4 • Quantification of the economic and environmental benefits of displaced emissions
5 and market price impacts associated with energy efficiency and renewable energy
- 6 • Regulation and mitigation of greenhouse gas emissions from the supply and demand
7 sides of the U.S. electricity sector.
- 8

9 I have provided testimony or appeared before public utility commissions and/or
10 legislative committees in Arizona, Florida, Illinois, Idaho, Iowa, Kansas, Louisiana,
11 Maryland, Massachusetts, Minnesota, Mississippi, Missouri, North Carolina, New
12 Hampshire, New Jersey, Nevada, Oregon, Pennsylvania, South Carolina, South Dakota,
13 Utah, Vermont, Virginia, Washington, DC, Washington State, Wisconsin, and at the
14 federal level. I have provided expert representation for stakeholders at the PJM RTO, at
15 the Midcontinent Independent System Operator, Inc. (“MISO”), and at the Federal
16 Energy Regulatory Commission (“FERC”).

17 From 1998 through 2004 I was employed as a Senior Associate at Tabors
18 Caramanis and Associates (“TCA”) of Cambridge, Massachusetts. In 2004, TCA was
19 acquired by Charles River Associates (“CRA”), where I remained until I joined Synapse
20 in 2005. At TCA/CRA, I performed a wide range of electricity market and economic
21 analyses and price forecast modeling studies. These included asset valuation studies,
22 market transition cost/benefit studies, market power analyses, and litigation support. I
23 have extensive experience with market simulation, production cost modeling, and
24 resource planning methodologies and software.

1 **Q. Have you previously testified before the Austin City Council?**

2 A. No.

3 **Q. What is the purpose of your testimony in this proceeding?**

4 A. In its filing, Austin Energy (herein also “Company”) has proposed a significant redesign
5 of its electricity rates, most dramatically for residential consumers. In my testimony I
6 review this proposal in the context of good utility practice for residential rates, and
7 address whether Austin Energy’s proposal is in the public interest, and will result in just
8 and reasonable rates.

9 I further comment on the opacity of Austin Energy’s expenditures related to the
10 maintenance and operations of the Fayette Power Plant, which are largely undisclosed
11 despite their inclusion in the current rate case. I address how Austin Energy’s continued
12 investment in and use of this plant should be evaluated in the future.

13 **Q. What information have you reviewed in preparation of this testimony?**

14 A. I have reviewed Austin Power’s filing package including its appendices and Schedules,
15 and responses to discovery from all parties. I have also reviewed industry literature on
16 rate design and its relation to successful energy efficiency programs.

17 **Q. Are you providing any exhibits with your testimony?**

18 A. Yes. I am providing the following Exhibits:

- Exhibit EDH-1: Resume of Ezra D. Hausman, Ph.D.
- Exhibit EDH-2: Chapter IV of Lazar and Gonzalez, Regulatory Assistance Project, 2015: “Smart Rate Design for a Smart Future”
- Exhibit EDH-3: Austin Energy Resource, Generation and Climate Protection Plan to 2030
- Exhibit EDH-4: Austin Energy Responses to Requests for Information cited in this testimony

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2 **II. Summary of Conclusions and Recommendations**

3 **Q. Please summarize your conclusions and recommendations in this matter.**

4 A. I conclude Austin Energy’s proposed restructuring of its residential electric rates,
5 including both its proposal to more than double the monthly fixed charge per customer
6 and its proposed modification of its five-tiered rate structure, would be detrimental to the
7 effectiveness of its energy efficiency programs and harmful to customers, and particularly
8 to low-income customers. I conclude that these costs outweigh the benefits identified by
9 Austin Energy for the proposed changes, and that the Austin City Council should reject
10 these proposals. Instead, the City Council should direct the Company to retain its existing
11 residential base rate schedule until it can develop and file an alternative rate plan that
12 retains these benefits and is less harmful to customers. Austin Energy should also be
13 directed to introduce a time-of-use rate option to give customers further opportunities to
14 control their own usage and costs, and to provide operational benefits to the Austin
15 Energy system.

16 I also conclude that Austin Energy has not provided sufficient support or
17 justification for its proposed continued capital investments in the Fayette Power Plant for

1 these costs to be included in rates. Further, the continued operation of the Fayette Power
2 Plant is inconsistent with commitments from the Company’s “Resource, Generation and
3 Climate Protection Plan to 2030” and the City of Austin’s “Climate Equity Plan.” Austin
4 Energy has failed to provide any evidence or analysis supporting its continued
5 investments in this resource, including investments made during the test year, or
6 demonstrating that such investments are prudent. Moreover, the City of Austin cannot
7 meet its ambitious and necessary greenhouse gas emissions goals while continuing to use
8 coal-fired electricity from the Fayette units. The City should direct Austin Energy to
9 oppose all life-extending capital investments at Fayette, including any capital investment
10 necessary to comply with impending environmental regulations; to take all actions
11 necessary to prepare to exit the plant, including ensuring the adequacy of its non-nuclear
12 decommissioning fund; and to continue or redouble its efforts to close the plant
13 permanently in favor of cleaner generation sources.

14 **III. Residential Rate Proposal**

15 a. Proposed change in revenue requirements for residential customers

16 **Q. Please briefly describe Austin Energy’s proposed change to its rates overall, and in**
17 **particular to its residential rates.**

18 A. Austin Energy proposes to increase total base rate revenue by 4.2%, or \$48.2 million, in
19 order to fully fund its expected revenue requirements.¹ It also claims that its residential
20 rates, in particular, are not reflective of the cost of serving residential customers – that is,
21 when the Company allocates its overall costs according to the cost of serving each

¹ See Filing Package 4.3.1. Total base revenue requirements would be \$686.8 million as proposed, compared to \$638.6 million under current rates.

1 customer class, it claims that its overall recovery from residential customers should be
2 increased by about 15%, or by \$76.5 million, to match the cost of service associated with
3 these same customers.²

4 Austin Energy does not propose to make this entire adjustment immediately, but
5 to make only half of the readjustment among classes in the interest of gradualism in
6 changing rates.³ I am not offering an opinion on the reasonableness of Austin Energy's
7 overall allocation of costs among rate classes; however, if such a significant reallocation
8 of costs to residential customers is justified, I believe it is appropriate for Austin Energy
9 to implement this change gradually, as proposed.

10 b. Proposed change in rate structure for residential customers

11 **Q. Please explain how Austin Energy has proposed to change its rate structure for**
12 **residential customers.**

13 A. Austin Energy currently has a \$10 per month fixed charge for all residential customers,
14 combined with an ascending variable energy rate structure that is tied to monthly kWh
15 usage. This overall structure was initially adopted by the City Council in 2012.⁴ In 2016,
16 as part of a previous rate case, the City Council amended this ascending block rate
17 structure and expanded to five tiers inside the city limits, and three tiers outside the city
18 limits, both with increasing rates as consumption increases.⁵ The idea of such a structure
19 is to have a minimum bill for all customers that covers the cost of being connected to the

² Filing Package Table 5-O, page 73. The overall proposed increase is 4.3%, so the “needed” increase for residential customers of 15.2% is about 3.5 times as large.

³ Filing Package Section 6, page 75.

⁴ Filing Package Section 7.1, page 78 and Figure 7-1.

⁵ See Figure 1 below for a depiction of Austin Energy's current and proposed residential energy charges.

1 system, but to also charge customers for the energy they use in a way that encourages
2 conservation.

3 Austin Energy's current structure has lower costs at lower usage levels, but
4 imposes increased rates and more strongly encourage energy efficiency as usage
5 increases. It now proposes to change the current structure both within and outside the city
6 limits to have a much higher (\$25 per month) per-customer fixed charge, and an energy
7 rate with only three tiers and only a small increase in rates for each tier. Austin Energy
8 claims that its current structure is both unduly complicated and poorly suited to current
9 usage patterns.⁶

10 **Q. Do you agree that it is reasonable for Austin Energy to change to a three-tier rate**
11 **structure as it proposes?**

12 A. Not necessarily. I agree that in principle, a three-tier structure could be sufficient to
13 protect lower-usage customers while increasing the incentive for energy efficiency for
14 those with higher usage. However, I do not believe that the structure proposed by Austin
15 Energy provides adequate incentive for energy efficiency because the proposal would
16 significantly decrease the marginal benefit of reducing energy use for consumers with
17 high levels of usage. I also find that Austin's overall proposal is manifestly unfair to
18 those with lower monthly energy usage, to the benefit of those who use much more.
19 These issues are discussed in more detail below.

⁶ See discussion in Filing Package Section 7.1

1 c. Proposed change in fixed vs. variable charges for residential customers

2 **Q. Please describe how Austin Energy proposes to reconfigure its residential rates with**
3 **respect to fixed vs. variable charges.**

4 A. Austin Energy currently assesses a monthly \$10 per-customer fixed charge, which is
5 unavoidable and independent of energy usage. All other residential charges are on a per-
6 kWh basis, and thus scale directly according to the customer's electricity usage each
7 month. The Company now proposes to increase the fixed (unavoidable) portion of each
8 customer's bill to \$25. Thus, while the per-kWh charge is likely to be lower for most
9 customers (as seen in Figure 2 below), the total bill will increase for many customers, and
10 more of the cost will be unavoidable.⁷

11 **Q. Would this change affect all Austin Energy ratepayers equally?**

12 A. No. Because the fixed portion of the bill would increase while the variable portion would
13 decrease, the effect would be a large rate *increase* for customers who use little energy
14 every month, coupled with a large rate *decrease* for those who use a large volume of
15 energy. This would effectively be rewarding customers with large, energy-intensive
16 homes and other large energy uses such as pool heaters and electric vehicles, while
17 penalizing users with smaller or more energy efficient homes.

18 **Q. Has Austin Energy acknowledged this differential effect?**

19 A. Yes. Schedule H-3 of Austin Energy's filing shows the bill impact of the proposed
20 change on various rate classes. The "Residential" section of this schedule is reproduced
21 in Figure 1 below. As may be seen, Austin Energy projects that customers who use 1250

⁷ See Filing Package Section 7.3 and Figure 7-31.

1 kWh per month or less will see a monthly bill *increase*, while those whose usage is above
 2 this level will see a bill *decrease*. Those with usage lower than 250 kWh per month inside
 3 the city would see an increase of around 85% in their monthly bill, while those with
 4 usage of 3500 kWh or more would see a bill decrease of 25% - and an even larger
 5 decrease for even higher monthly usage.

6 **Figure 1. Monthly bill impact of proposed change in residential rates. (Excerpted**
 7 **from Schedule H-3 of the Filing Package.)**

Schedule H-3 Bill Impact (Overview)		Schedule H-3					
Annual Average Change in Monthly Bill Under Proposed Rates vs. Current Rates							
No.	Customer Class by Usage	Bill Frequency	Cum. Bill Frequency	Inside		Outside	
				\$	%	\$	%
		(A)	(B)	(C)	(D)	(E)	(F)
1	Residential						
2	0 and Below (kWh)	0	0.0%	\$ 15.00	150.0%	\$ 15.00	150.0%
3	1 - 250 (kWh)	719,705	13.7%	\$ 16.26	84.5%	\$ 15.20	75.4%
4	251 - 500 (kWh)	1,260,836	37.6%	\$ 19.16	50.8%	\$ 15.97	39.5%
5	501 - 750 (kWh)	1,114,131	58.7%	\$ 19.15	31.9%	\$ 15.24	24.1%
6	751 - 1000 (kWh)	766,323	73.3%	\$ 15.34	17.8%	\$ 12.14	13.8%
7	1001 - 1250 (kWh)	492,883	82.6%	\$ 9.06	7.9%	\$ 6.20	5.3%
8	1251 - 1500 (kWh)	310,837	88.5%	\$ 1.18	0.8%	\$ (1.70)	-1.2%
9	1501 - 1750 (kWh)	194,036	92.2%	\$ (8.20)	-4.6%	\$ (9.22)	-5.2%
10	1751 - 2000 (kWh)	122,909	94.6%	\$ (19.46)	-9.1%	\$ (16.74)	-8.0%
11	2001 - 2500 (kWh)	134,130	97.1%	\$ (36.35)	-13.7%	\$ (28.03)	-11.0%
12	2501 - 3000 (kWh)	63,582	98.3%	\$ (62.61)	-18.5%	\$ (43.07)	-13.6%
13	3001 - 3500 (kWh)	33,777	98.9%	\$ (92.63)	-22.3%	\$ (58.12)	-15.4%
14	3501 - 4000 (kWh)	19,601	99.3%	\$ (122.65)	-24.9%	\$ (73.17)	-16.7%
15	4001 and Above (kWh)	36,010	100.0%	\$ (137.66)	-25.9%	\$ (80.69)	-17.2%

9 **Q. Were you able to replicate the revenue and bill impacts of the proposed change in**
 10 **residential rates?**

11 A. No. I attempted to replicate the existing and projected base rate revenues shown in Table
 12 6-A of the filing package (Columns (B) and (I), respectively) using the customer usage
 13 data for 2020 provided by Austin Energy in response to Discovery Request SCPC 3-1A.
 14 and the existing and proposed rates. I was unable to obtain results even close to these

1 numbers through independent calculations. In fact, when I try to calculate the total
2 revenues for the Residential class using the old and new rates, the old rates yield
3 significantly higher total revenues. Had the procedural schedule and discovery process
4 allowed, I would have pursued these issues further with Austin Energy.

5 However, my calculations did confirm the dynamic presented in Figure 1: that
6 customers with low usage would see a very large rate increase under Austin Energy's
7 proposal, and those with high usage would see a very large rate decrease. While
8 regressive and in my opinion very unfair, this finding is both intuitively predictable from
9 the proposal, and consistent with the Company's own projections.

10 **Q. What is Austin Energy's rationale for this proposed change?**

11 A. Austin Energy reviewed all of its costs to serve customers, and separated them into what
12 it claimed were fixed and variable costs. In short, it classified demand-related costs
13 (which depend on peak demands) and customer-related costs (i.e., meters and
14 connections) as fixed costs, while energy-related costs, i.e., kWh purchased on behalf of
15 the customer, are treated as variable costs. The Company claims that its proposed rate
16 structure would more closely match the costs paid by customers with the underlying cost
17 drivers, and will allow deferral of future rate cases.⁸

18 **Q. Do you agree with Austin Energy's allocation of costs between fixed and variable**
19 **costs?**

20 A. No. While I agree that certain customer-related costs, such as meters, interconnections,
21 and billing, are essentially fixed on a per-customer basis, I do not think this is a

⁸ Filing Package Section 7.3, page 111.

1 reasonable characterization of capacity costs, at least over time. One of the great benefits
2 of energy efficiency, customer-sited solar, and demand response is that they can delay,
3 reduce, or even eliminate the need for system expansion and distribution investments.
4 Once those investments have been made and become sunk costs, it is true that they can
5 no longer be avoided; but to say that the ongoing need for system investments is
6 insensitive to usage is not only misleading, it is a counterproductive planning and
7 ratemaking perspective that would lead to inefficient system investment and usage.

8 **Q. Do you agree that it is reasonable and appropriate to recover all “fixed” costs on a**
9 **fixed-charge basis, and variable costs through a per-kWh charge?**

10 A. No. While the simplicity of such a “straight fixed/variable” billing scheme may have
11 some intuitive appeal, it is not generally considered best practice for electric utilities. For
12 example, the Regulatory Assistance Project has identified three principles of “modern
13 rate design” to maximize customer benefit and efficient investment in and utilization of
14 grid resources:

- 15 • Principle 1: A customer should be able to connect to the grid for no more than the
16 cost of connecting to the grid.
- 17 • Principle 2: Customers should pay for grid services and power supply in
18 proportion to how much they use these services, and how much power they
19 consume.
- 20 • Principle 3: Customers that supply power to the grid should be fairly compensated
21 for the full value of the power they supply.⁹

⁹ Regulatory Assistance Project, July 2015. “Smart Rate Design for a Smart Future.” Available at <https://www.raponline.org/knowledge-center/smart-rate-design-for-a-smart-future/>. Chapter IV, “Rate Design Principles and Solutions” is provided as Exhibit EDH-2.

1 **Q. Why do high fixed charges lead to less efficient utilization of, and investment in, the**
2 **grid?**

3 A. Efficient grid utilization requires customers to use electricity, to the extent possible, in a
4 way that minimizes the stress on the system. This generally means they should have a
5 strong incentive to lower peak usage, either by reducing usage overall, or by shifting
6 usage to times of lower overall demand such as the middle of the night. Customers can
7 respond to these incentives by, for example, using programmable thermostats and
8 “smart” appliances, or choosing when to charge their electric vehicles (EVs), or through
9 investments in energy efficiency, rooftop solar, or on-site storage. Austin Energy should
10 be focusing on rate designs that increase flexibility and help customers make beneficial
11 energy choices; it should not be eliminating flexibility by moving costs into a fixed per-
12 customer charge.

13 Moving toward higher fixed charges and lower variable costs disincentivizes
14 beneficial energy use practices and increases payback times for customer investments in
15 energy efficiency measures or distributed energy resources, because the customer sees
16 less financial benefit for each unit of savings. It penalizes customers who have already
17 invested in reducing their energy usage, and raises the bills of other low-usage customers,
18 who may also be low-income customers. While it is true that greater reliance on fixed
19 charges improves revenue predictability and lowers risk *for the utility*, it does so at a
20 significant net societal cost by disincentivizing efficient use of resources.

1 **Q. Are there other kinds of rate design that would improve the economic incentive to**
2 **use the grid more efficiently?**

3 A. Yes. Time-of-use pricing is one such rate structure that can encourage customers to move
4 flexible energy use (such as smart appliances and EV charging) to off-peak periods, and I
5 recommend that Austin Energy be directed to offer such a rate. This reduces stress on the
6 distribution system, lowers overall energy costs, and can delay or avoid future system
7 upgrade costs. Increasing block rates, such as Austin Energy’s current rate design,
8 increases the incentive for energy savings as each customer’s usage goes up.

9 d. Impact on low-income customers

10 **Q. Austin Energy suggests that based on its analysis, “the current residential rate**
11 **structure negatively impacts vulnerable customers.”¹⁰ Do you agree?**

12 A. No. I think it is very important to be aware of how rate structures affect vulnerable,
13 lower-income customers, and to mitigate that impact when possible, but I do not believe
14 that Austin Energy customers with high usage are low-income or vulnerable customers in
15 general, or that its proposal would benefit low-income or vulnerable customers in any
16 way.

17 **Q. What is the basis of Austin Energy’s claim?**

18 A. Austin Energy asserts, based on its review of usage of customers enrolled in Customer
19 Assistance Program (“CAP”) vs. those who are not, that low-income CAP customers may
20 use more energy on average than other customers.

¹⁰ Filing package p.108.

1 **Q. How do you respond?**

2 A. I do not find that Austin Energy’s analysis supports its claim. Austin Energy compared
3 only “average” usage for CAP and non-CAP customers, and did not consider, for
4 example, the number of customers at each consumption level. It is very likely that there
5 are many non-CAP customers who have large homes and very high monthly usage, but
6 the overall distribution of usage that might reveal this effect is obscured by the reliance
7 on average numbers. These non-CAP, high-energy customers can and should be given a
8 strong incentive to reduce their energy usage, without affecting lower income customers.

9 Further, the Company admits that it has no data to accurately identify lower-
10 income customers. Instead, it merely compares customers that are enrolled in CAP vs.
11 those who are not, which is only a rough proxy for income level. For example, it may be
12 that those low-income customers who have higher-than-average usage are more likely to
13 apply for energy assistance through CAP, which would strongly skew the Company’s
14 analysis. I have also seen press reports suggesting that a large number of automatically
15 enrolled CAP recipients may even not be lower income customers.¹¹ A better proxy for
16 income may be whether a customer lives in a single-family or multi-family house, as
17 higher-income customers are more likely to live in a single-family house. Figure 7-6 of
18 the Company’s filing package shows that per-bill energy use in single-family homes is
19 almost twice as much as in multi-family homes. It is hard to square this finding with
20 Austin Energy’s implication that lower-income customers use more energy than higher-
21 income customers, or that they are disproportionately hurt by the current rate structure.

¹¹ For example, see <https://www.austinchronicle.com/news/2021-01-29/austin-energy-still-hasnt-fixed-problems-with-utility-bill-discounts-on-expensive-homes/>. (Accessed on June 16, 2021).

1 Austin Energy should ensure that low-income customers are getting the full
2 benefit of energy efficiency programs and other assistance in managing their bills. CAP-
3 enrolled customers are already getting assistance with their monthly bills, which could
4 partly explain their higher usage if they have less incentive to conserve. It should also not
5 be assumed that CAP customers' usage is representative of other low-income customers
6 who are not enrolled in the program. It also would not serve the long-term interests of
7 low-income customers, or any customers for that matter, to implement a rate design that
8 will ultimately lead to less efficient investment in the distribution system.

9 Finally, as noted above, not all customers would face the same rate impact of the
10 proposal. Those residential customers with the highest usage – with large houses and
11 heated swimming pools – would see a substantial rate *decrease* under the proposal, while
12 those with the lowest usage would see a very large *increase*. It is clear to me that this
13 would be very detrimental to low-income customers, to the benefit of their wealthier
14 neighbors.

15 **Q. You stated earlier that Austin Energy's comparison of usage for CAP and non-CAP**
16 **customers in Section 7.2.3 of its filing package relied only on average usage for each**
17 **group. Correct?**

18 A. Yes.

19 **Q. Have you reviewed the data underlying this analysis?**

20 A. Yes. The data were provided in response to Date Request SCPC 3-1.

1 **Q. What did you find?**

2 A. After removing thousands of rows of apparently bad data from the dataset,¹² I looked at
3 the number of customers in each 50-kWh/month “block” in each year, along with the
4 number in each tier under the existing and proposed rate designs.

5 My first observation is that CAP customers comprised about 7.7% of Austin
6 Energy’s customers in 2020.¹³ While it is essential to ensure that these customers’ energy
7 burden is addressed, this is already the basis of the CAP program itself. It makes no sense
8 to abandon an effective rate structure for encouraging energy efficiency among the other
9 92% of customers because a small number of CAP-enrolled customers also have
10 relatively high energy use.

11 My next observation is that at higher levels of energy use, the number of CAP
12 customers drops off rapidly, as would be expected. The current tier 5 (2500+ kWh per
13 month) had less than 4% CAP customers in 2020, and above customers using 3,000 kWh
14 per month or more included only about 2% CAP customers. It is still concerning if *any*
15 low-income customers are using such a large volume of electricity, although as noted
16 above questions have been raised about how well CAP is restricted to low-income users,
17 and we do not know the specific circumstances for each customer. But in general,
18 customers using this high volume of electricity should be given a stronger incentive to
19 reduce their usage, regardless of their income.

¹² Austin Energy provided the data underlying its analysis in Attachment SCPC 3-1A, in response to Data Request SCPC 3-1. The Attachment includes a significant amount of apparently erroneous data, including 8,330 “bills” with very large negative reported usage and 42,122 “bills” in a usage block identified as “9999999”, which would generally imply unknown or bad data. No explanation was provided for these values.

¹³ Austin Energy provided data for the years 2012 through 2020. According to those data, the percentage of customers enrolled in CAP declined from a high of 10.3% in 2015 to 7% in 2019 and 2020.

1 **Q. Would Austin Energy’s proposed three-tier structure interfere with that signal?**

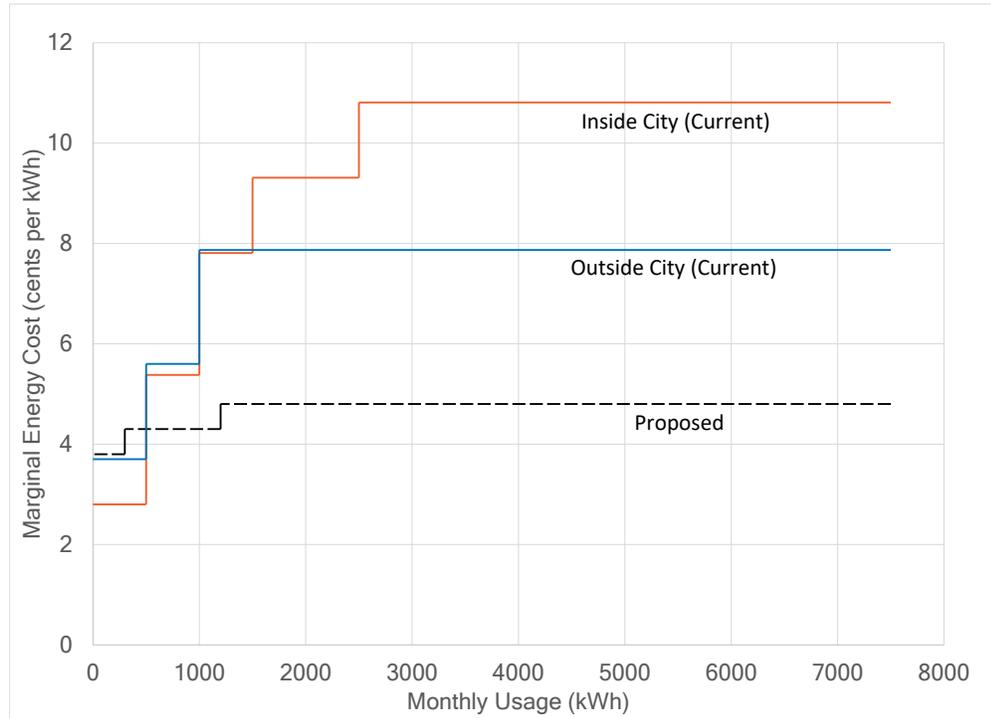
2 A. Yes. Under Austin Energy’s proposal, the highest marginal cost for energy would be 4.8
3 cents per kWh, compared to 10.81 cents per kWh today. That means that the payback
4 time for an energy saving investment (or for on-site generation) would be more than
5 twice as long as it is today. Many such investments might no longer be economically
6 beneficial to the customer at all. In addition, customers who made such investments
7 under the good-faith understanding that their contribution to clean energy and system
8 resiliency would be rewarded, would suddenly experience a “bait-and-switch” as their
9 ability to control their energy costs is pulled out from under them in favor of fixed
10 customer charges.

11 Austin Energy may describe its proposal as a three-tiered structure, but in fact it
12 would be very close to a flat rate schedule. Under the proposal, over 60% of Austin
13 Energy customers would be in the central tier, and all of them – including those with the
14 highest usage – would have a very weak signal to conserve. In fact, at 4.8 cents per kWh,
15 even the highest-priced tier under the proposal is 18% *below* the current price at Tier 2
16 (5.8 cents per kWh.) In other words, the price signals that are designed to encourage
17 conservation under the current rate structure would be effectively eliminated.

18 Finally, under Austin Energy’s proposal, those with the lowest energy use –
19 including low-income customers in small, multifamily homes or customers who have
20 invested in high levels of energy efficiency or distributed generation – would see by far
21 the *highest* rate increase, as their variable cost of energy would increase at the same time
22 their fixed per-customer charge would increase by 150%, from \$10 per month to \$25 per
23 month.

1 A comparison of the proposed vs. existing per-kWh energy price structures is
2 shown in Figure 2. Under Austin Energy’s proposal, customers with high energy usage
3 would receive a *decrease* in their monthly bills, as the per-kWh cost of energy falls by
4 more than half, overwhelming the proposed increase in the fixed charge. Those at the
5 lower end would see the largest increase, absorbing both the overall rate increase
6 proposed in the current filing and the shift of costs from higher-usage customers.

7 **Figure 2. Existing vs. Proposed energy charge structure. Under the proposed**
8 **structure, all customers would be charged an energy rate that is between the current**
9 **rates for Tiers 1 and 2. All customers would also face an increase in the fixed per-**
10 **customer charge (not shown) from \$10 per month to \$25 per month, with the net**
11 **effect being a bill increase for customers with lower usage levels.**



12
13 **Q. What does Austin Energy claim regarding the success of its energy efficiency**
14 **programs?**

15 **A.** Filing Package page 79 states that “Since 2009, Austin Energy has achieved a significant
16 level of energy efficiency through targeted programs, in addition to gains from more

1 efficient appliances and building codes.” This is supported by the usage curves shown in
2 Figure 7-2 of the Filing Package, which shows a shift from higher-usage to lower-usage
3 monthly bills from 2009 to 2021.

4 As the Company acknowledges, much of this change is due to changing housing
5 stock, building codes, and appliance standards. It is reasonable to assume that the
6 Company’s programs have also played an important role. But together with these factors,
7 customers must still make decisions and investments, and that’s where rate design comes
8 into play.

9 **Q. Please explain.**

10 A. Customers must have an incentive to invest in energy-saving equipment and to adopt
11 energy-saving practices, and must be confident that their investments will be more than
12 repaid over a reasonable period of time through energy savings. Further, contractors can
13 more easily promote energy-saving building upgrades and appliances if they can show
14 customers that they are good financial investments, in addition to promoting home
15 quality, health and comfort. Austin Energy’s past success in promoting energy efficiency,
16 and the beneficial usage trends it cites in its filing package,¹⁴ cannot be separated from a
17 rate design that has effectively promoted energy efficiency and distributed generation by
18 providing a strong price signal for reducing energy use, especially at higher monthly
19 usage levels.

¹⁴ E.g., Filing Package Figure 7-24.

1 **Q. Are Austin Energy’s current rates consistent with good rate design in the sense of**
2 **promoting energy efficiency investments and practices?**

3 A. Yes. Rates such as Austin Energy’s current tariff, which is primarily composed of
4 variable energy charges and has increasing per-unit costs as consumption increases, are
5 generally considered a far better design for promoting energy efficiency¹⁵ and protecting
6 vulnerable customers.¹⁶

7 **Q. Are you concerned that the effectiveness of these programs, and the rate of energy**
8 **savings in general, would be compromised by the proposed rate structure?**

9 A. Yes. Customers generally have to invest some of their own money and time to achieve
10 future energy savings. Austin Energy’s proposed rate structure would reduce the benefit
11 of such investments and increase payback times, weakening the investment case for
12 customers taking such actions. Basic economic theory, along with copious experience in
13 energy efficiency programs, suggests that this would tend to lead to poorer performance
14 of energy efficiency programs and investments.

15 e. Revenue stability

16 **Q. Austin Energy claims that its proposed rate structure change “promotes stability**
17 **and financial health.” How do you respond?**

18 A. From the utility’s perspective, reducing the incentive for customers to save energy
19 improves financial predictability because it will ultimately sell more kWh and have a

¹⁵ For example, *see* Baatz, B., 2017: “Rate Design Matters: The Intersection of Residential Rate Design and Energy Efficiency.” Published by the American Council for and Energy Efficient Economy (ACEEE). Available at <https://www.aceee.org/sites/default/files/publications/researchreports/u1703.pdf>. (Accessed June 17, 2022.)

¹⁶ For example, the National Consumer Law Center states that “High Utility Fixed Charges Harm Low Income, Elders and Households of Color.” See <https://www.nclc.org/issues/energy-utilities-a-communications/utility-rate-design.html>. (Accessed June 17, 2022.)

1 more predictable revenue stream. By relying more on fixed customer charges, however,
2 the utility transfers risk from its shoulders onto those of its customers – at the same time
3 eliminating the customers’ ability to reduce costs through good energy decision-making.
4 The risk, according to Austin Energy, is that if revenue growth continues to lag customer
5 growth, Austin Energy might need another rate adjustment “sooner than would otherwise
6 be the case.”¹⁷

7 **Q. In your opinion, is stability and financial health more important than continued**
8 **successful energy efficiency and protecting low-income customers?**

9 A. No. In my view, the pursuit of a longer interval between rate cases must not come at the
10 expense of these important policy requirements. Austin Energy should be tasked with
11 finding other ways of ensuring revenue adequacy, such as carefully modeling customer
12 behavior and asking the City Council for rate adjustments as needed. It should not be
13 allowed to harm customers in the name of revenue predictability, as it proposes to do in
14 this case.

15 **IV. Capital Investments in Fayette Power Plant**

16 **Q. Are costs associated with the maintenance and operation of, and improvements to,**
17 **the Fayette coal plant included in Austin Energy’s current rate request?**

18 A. Yes. Austin Energy is including \$441 million in “Production” costs in its test year
19 revenue requirements.¹⁸ This broad category includes capital and operating expenses for
20 all of Austin Energy’s plants, including the Fayette Power Plant (FPP). For FPP, not

¹⁷ Response to Data Request SCPC 1-2.

¹⁸ See Filing Package Table 4-C.

1 including fuel or emissions costs, Austin Energy has identified \$30.6 million in non-fuel
2 O&M costs, \$1.9 million in capital costs, and \$17.8 million in depreciation costs.¹⁹
3 However, despite the fact that continued expenditures on the plant fly in the face of
4 Austin Energy’s own 2030 Generation Resource Plan,²⁰ which states that “Austin Energy
5 will maintain its current target to cease operation of Austin Energy’s portion of the
6 Fayette Power Project (FPP) coal plant by year-end 2022,” and is incompatible with the
7 City of Austin’s Climate Equity Plan,²¹ frustratingly little information has been provided
8 on exactly what Austin Energy is spending on this plant, and why, and how such
9 decisions are made and approved.

10 Austin Energy either has not performed or has refused to provide any studies of
11 the economics of continued operation versus retirement of the Fayette plant, and claims
12 that “There are no current studies with regard to current or impending environmental
13 regulations” as they may affect the plant.²² Moreover, the Company has refused to
14 provide any detailed information regarding future costs and operations²³ or future capital
15 expenditures.²⁴

¹⁹ Response to Data Request SCPC 2-1.

²⁰ Austin Energy Resource, Generation and Climate Protection Plan to 2030, page 3. Available at: <https://austinenergy.com/wcm/connect/6dd1c1c7-77e4-43e4-8789-838eb9f0790d/gen-res-climate-prot-plan-2030.pdf?MOD=AJPERES&CVID=n85G1po>, attached as Exhibit EDH-3.

²¹ <https://www.austintexas.gov/page/austin-climate-equity-plan>.

²² See Response to SCPC 2-3.

²³ See Response to SCPC 2-5.

²⁴ See Response to SCPC 2-8.

1 **Q. To your knowledge, has Austin Energy evaluated the costs and risks associated with**
2 **future environmental regulations that may affect the Fayette plant?**

3 A. The Company claims that it has not evaluated the potential costs of bringing FPP into
4 compliance with EPA’s proposed “Good Neighbor” rule²⁵ or EPA’s Regional Haze Rule,
5 either of which could require installation of additional NOx control equipment at the
6 plant or the purchase of emission credits.²⁶

7 **Q. Why not?**

8 A. The Company states in both cases that “the proposed rule has not been adopted.”

9 **Q. Does this make sense to you?**

10 A. No. Increasingly stringent environmental regulations and associated costs and risks are a
11 fact of life for all utilities that rely on coal-fired power plants, and it makes no sense for
12 Austin Energy to fail to even consider these risks just because EPA has not yet adopted a
13 final rule. Utilities are always required to do resource plans taking various kinds of
14 uncertainty into account, and the potential for future environmental compliance costs is a
15 very important consideration that cannot be ignored.

16 **Q. In your experience, is it reasonable for a utility to withhold detailed cost and**
17 **compliance information in a rate case such as this one?**

18 A. In my experience, utility regulatory commissions generally would not allow costs to be
19 included in customer rates without far more justification and proof than Austin Energy
20 has provided that those costs are prudent, used, and useful. This justification would have

²⁵ 87 Fed. Reg. 20,036 (Apr. 6, 2022). *See* Response to SCPC 3-3.

²⁶ *See* Response to SCPC 3-4.

1 to be made in the face of existing *and potential* environmental regulations that can affect
2 the economics of the resource. As part of the regulatory compact, the burden of proof is
3 invariably on the utility to show that its investments are well-supported and can
4 reasonably be included in just and reasonable rates. This kind of detailed information and
5 analysis is routinely provided to stakeholders and their experts, and to the relevant
6 regulatory authority, under the terms of a nondisclosure agreement to prevent any
7 legitimately confidential information from being released to the general public. It is not
8 reasonable to expect ratepayers to shoulder these costs without having sufficient
9 information and analysis available for thorough inspection and review by both
10 intervenors and the City Council.

11 **Q. What is your recommendation with regard to capital expenditures on the Fayette**
12 **Power Plant?**

13 A. I recommend that the City Council find that Austin Energy has not met its burden of
14 proof that capital expenditures on FPP are reasonable or prudent, and the Company
15 should not be allowed to include these costs in rates. I recognize that disallowing costs
16 for a municipal utility may be problematic, but the principle of ensuring just and
17 reasonable rates must be upheld. Further, Austin Energy should be directed to
18 immediately provide project justification analyses for all capital expenditures at the plant
19 in excess of \$100,000, and these analyses should be available for intervenors to review
20 under appropriate non-disclosure agreements. It should also be directed to evaluate the
21 risks and cost implications of all proposed or likely future environmental regulations on
22 the plant, including the Good Neighbor Rule and possible additional emissions control
23 requirements under the Clean Air Act.

1 To my understanding, Austin Energy has been in negotiations with the plant's co-
2 owner and operator, LCRA, to determine a way for the utility to exit the plant. This is no
3 excuse for failing to provide full information to the Council or to other intervenors who
4 have an interest in ensuring that Austin Energy's ratepayers are paying only for prudent
5 investments and are benefitting from least-cost planning and operations. In fact, Austin
6 Energy should be required to provide to the Council any offers made or received and
7 analyses performed as part of those negotiations, again under protection of nondisclosure
8 agreements. As sunlight is known to be the best disinfectant, requiring this level of
9 disclosure may also help Austin Energy in its claimed goal of freeing its customers from
10 reliance on FPP sooner rather than later.

11 **V. Overall Recommendation**

12 **Q. What are your recommendations in this matter?**

13 A. I recommend that the Council reject Austin Energy's proposal to increase its fixed per-
14 customer charge from \$10 to \$25, along with its proposed revisions to its current five-tier
15 residential rate structure. While some modification may be appropriate, Austin Energy
16 should retain a rate structure that provides a strong incentive for energy efficiency and
17 customer-sited distributed generation, that is protective of vulnerable customers, and that
18 allows those who have already implemented such beneficial practices and technologies to
19 continue recouping their investments through reduced energy costs. The Company should
20 be directed to develop and file an alternative rate plan that retains these benefits. In
21 addition, Austin Energy should be directed to develop and propose a Time-of-Use rate
22 option for customers who wish to further control their energy use and costs in ways that
23 provide overall system benefits.

1 I further recommend that Austin Energy be directed immediately to fully evaluate
2 all future capital investments in the Fayette Power Plant in excess of \$100,000, including
3 potential costs associated with proposed environmental regulations, and show that
4 continued investment in and operation of the units remain in customers' interests. This
5 information should be made available to intervenors under appropriate non-disclosure
6 agreements. Absent clear and convincing evidence that continued use of the plant is
7 beneficial to customers, Austin Energy should not be allowed to include such costs in
8 rates. It should also be directed to oppose all life-extending capital investments in the
9 units starting immediately, and should continue in or redouble its efforts to close the plant
10 permanently in favor of cleaner generation sources.

11 **Q. Does this conclude your testimony?**

12 A. Yes.