



## **Filing Receipt**

**Filed Date - 2025-07-16 01:48:19 PM**

**Control Number - 57386**

**Item Number - 1983**

**SOAH DOCKET NO. 473-25-14320.WS  
PUC DOCKET NO. 57386**

<b>APPLICATION OF CSWR-TEXAS</b>	<b>§</b>	<b>BEFORE THE STATE OFFICE</b>
<b>UTILITY OPERATING COMPANY, LLC</b>	<b>§</b>	<b>OF</b>
<b>FOR AUTHORITY TO CHANGE RATES</b>	<b>§</b>	<b>ADMINISTRATIVE HEARINGS</b>

**REBUTTAL TESTIMONY**

**OF**

**CHRIS EKRUT**

**ON BEHALF OF**

**CSWR-TEXAS UTILITY OPERATING COMPANY, LLC**

**JULY 16, 2025**

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CHRIS EKRUT, ON BEHALF OF  
CSWR-TEXAS UTILITY OPERATING COMPANY, LLC**

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**LIST OF EXHIBITS**

Exhibit CDE-R-1:	NARUC Board of Directors, “Resolution Supporting Consideration of Regulatory Policies Deemed as Best Practices”
Exhibit CDE-R-2:	Texas Water Development Board, Water Conservation Best Management Practices Guide for Municipal Water Users

**LIST OF SCHEDULES**

Schedule CDE-R-1	Water Elasticity of Demand Analysis
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1 **Q. HAVE YOU PREPARED ANY EXHIBITS, SCHEDULES, OR STUDIES IN**  
2 **CONNECTION WITH YOUR REBUTTAL TESTIMONY?**

3 A. Yes. All exhibits and schedules that I have prepared or relied upon are presented,  
4 referenced, and described within my rebuttal testimony as well as listed in the table of  
5 contents.

6 **Q. WERE YOUR REBUTTAL TESTIMONY AND THE EXHIBITS,**  
7 **SCHEDULES, AND WORKPAPERS YOU SPONSOR PREPARED BY YOU**  
8 **OR BY SOMEONE UNDER YOUR DIRECT SUPERVISION?**

9 A. Yes.

10 **II. CONSOLIDATION OF THE CASSIE WATER SYSTEM**

11 **Q. PLEASE SUMMARIZE YOUR UNDERSTANDING OF ELLEN MATSON’S**  
12 **TESTIMONY AS IT RELATES TO CONSOLIDATION OF THE CASSIE**  
13 **WATER SYSTEM WITH THE OTHER SYSTEMS OWNED BY CSWR-**  
14 **TEXAS?**

15 A. Ms. Matson is of the opinion that Cassie Water System is uniquely different and  
16 warrants special treatment such as exclusion from the proposed consolidated rate.<sup>1</sup>

17 **Q. WHAT ARE THE MEASURABLE BENEFITS PROVIDED TO THE CASSIE**  
18 **WATER SYSTEM AND OTHER SYSTEMS OWNED AND OPERATED BY**  
19 **CSWR-TEXAS FROM CONSOLIDATION UNDER A SINGLE TARIFF?**

20 A. As noted by the U.S. Environmental Protection Agency (“EPA”) and National  
21 Association of Regulatory Commissioners (“NARUC”) in a report prepared by Jan

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<sup>1</sup> Ellen Matson Direct Testimony at 4:97–112 (Jun. 6, 2025).

1 Beecher and dated September 1999, “the primary advantages of single-tariff pricing  
2 are that it can lower administrative and regulatory costs, enhance financial capability  
3 and capital deployment, achieve rate and revenue stability, and improve service  
4 affordability for customers of very small water systems.”<sup>2</sup> Additionally, as noted in  
5 the report, when multi-system utilities exist, “each individual system eventually will  
6 require an infusion of capital for renovations and improvements; only the timing varies.  
7 Equalizing rates smooths the effect of discrete cost spikes across systems over time . .  
8 . [and] achieves equity to the extent that all customers of a given utility company pay  
9 the same price for comparable service.”<sup>3</sup>

10 The timing of capital investments by CSWR-Texas will vary by system, but  
11 over time all systems will require some level of capital investment to ensure continuous  
12 and adequate service. Further, those capital investment requirements will change as  
13 regulations change, so it is impossible to know today exactly what capital requirements  
14 may be required by a specific system in the long term to comply with future regulatory  
15 requirements.

16 Under system consolidation, which is achieved through uniform rates under a  
17 single tariff, there is the potential for economies of scale that may be achieved in  
18 operations, general and administrative services, or regulatory reporting. It is a common  
19 misconception that these economies of scale are of a magnitude sufficient to lower  
20 overall total cost such that rates will decrease. This is particularly true for a utility like

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<sup>2</sup> EPA Report 816R-99-009, *Consolidated Water Rates: Issues and Practices in Single-Tariff Pricing*  
USEPA, Office of Water and NARUC, September 1999.

<sup>3</sup> *Id.*

1 CSWR-Texas, which is working to improve service and bring neglected and under-  
2 capitalized systems into regulatory compliance. The tangible benefit is that cost is  
3 allocated and shared over a larger base of customers, thereby lowering the per unit cost  
4 as experienced by customers through near-term rates. In this way, as systems  
5 experience higher capital cost demands over time, that capital cost is shared across  
6 systems and can improve affordability of service to customers by sharing those cost  
7 burdens over a larger group. In short, uniform rates can help reduce rate shock to  
8 customers in rate setting.

9 **Q. IS THE CASSIE WATER SYSTEM SUBJECTED TO HIGHER RATES IN**  
10 **THIS PROCEEDING THAN MIGHT BE WARRANTED ON A STAND-**  
11 **ALONE BASIS?**

12 A. When viewed at a single point in time, consolidation can result in higher rates for an  
13 individual system on a temporary basis, but the benefits of consolidation are best  
14 viewed over a longer period due to the smoothing effect on the impact of capital  
15 investment requirements I discussed above. Cost of service will always vary between  
16 systems due to the timing of required capital investment. As noted in the rebuttal  
17 testimony of Company witness Todd Thomas, the Cassie Water System will require  
18 substantial capital investment on a going forward basis, similar to other systems owned  
19 by CSWR-Texas. While one system today may experience a lower overall cost of  
20 service than another, five or ten or twenty years from now that same system may have  
21 a higher overall cost of service due to capital investment requirements. Consolidation  
22 is a long-term policy issue—it should not be simply viewed and evaluated under a  
23 short-term time horizon.

1   **Q.    HAVE OTHER INDUSTRY GROUPS RECOGNIZED THE BENEFITS OF**  
 2       **CONSOLIDATING MULTIPLE SYSTEMS UNDER A UNIFORM RATE**  
 3       **STRUCTURE?**

4    A.    Yes. The benefits of consolidation have also been recognized by NARUC outside of  
 5       the report published in conjunction with the EPA. Specifically, on July 27, 2005, the  
 6       NARUC Board of Directors adopted a resolution titled “*Resolution Supporting*  
 7       *Consideration of Regulatory Policies Deemed as ‘Best Practices’*” included herein as  
 8       Rebuttal Exhibit CDE-R-1. Within this resolution, the Board finds that Single Tariff  
 9       Pricing “of a multi-divisional . . . utility to spread capital costs over a larger base of  
 10      customers”<sup>4</sup> is a best practice relative to regulated rate design. This best practice was  
 11      deemed appropriate “in light of the possibility that rate increases necessary to remediate  
 12      aging infrastructure to comply with increasing water quality standards could adversely  
 13      affect the affordability of water service to some customers.”<sup>5</sup>

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<sup>4</sup> *Resolution Supporting Consideration of Regulatory Policies Deemed as ‘Best Practices,’* National Association of Regulatory Utility Commissioners Board of Directors, July 27, 2005.

<sup>5</sup> *Id.*



**III. WATER AND SEWER RATES DESIGN**

**Q. PLEASE DISCUSS YOUR UNDERSTANDING OF MS. HEDDIN'S RECOMMENDATIONS SPECIFIC TO CSWR-TEXAS'S PROPOSED WATER AND SEWER RATE DESIGN.**

A. Specific to water rates, Ms. Heddin recommends consideration of an inclining block or a conservation-based volumetric water rate design.<sup>6</sup> However, she also indicates that the information needed to develop such a rate design is not available.<sup>7</sup> Specific to sewer rates, Ms. Heddin recommends that instead of charging a flat sewer rate per month, the Commission approve a two-part rate structure involving a fixed monthly charge plus a volumetric component.<sup>8</sup> Finally, she recommends that the Commission consider a three-year phase-in of the rates approved in this proceeding.<sup>9</sup>

**Q. WHAT IS YOUR UNDERSTANDING OF STAFF WITNESS MR. BLANCHARD'S RECOMMENDATIONS SPECIFIC TO CSWR-TEXAS'S PROPOSED WATER AND SEWER RATE DESIGN?**

A. While Ms. Heddin generally accepted CSWR-Texas's recommended allocation of water-related costs between fixed and variable components, Mr. Blanchard recommends that non-variable cost be allocated as 60% fixed and 40% variable.<sup>10</sup> He

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<sup>6</sup> Corrected Confidential Direct Testimony of Nelisa Heddin – Revised 6/25/2025 to Reflect Stricken Testimony at 79:6–7 (Jun. 25, 2025).

<sup>7</sup> *Id.* at 80:3–5.

<sup>8</sup> *Id.* at 80:11–13.

<sup>9</sup> *Id.* at 81:7–10.

<sup>10</sup> Direct Testimony of Ethan Blanchard at 7:21–23 (Jun. 27, 2025) (Blanchard Direct).

1 also recommends and calculates an inclining block rate design specific to the  
2 Company's proposed water rates.<sup>11</sup>

3 **A. Three-year Phased-In Water Rates**

4 **Q. WHAT IS YOUR RESPONSE TO MS. HEDDIN'S RECOMMENDATION FOR**  
5 **A THREE-YEAR PHASE IN FOR RATES IN THIS PROCEEDING?**

6 A. I understand Ms. Heddin's concerns and concur that rate shock should be avoided  
7 where feasible. I have also recommended the phase-in of rates in other cases before  
8 this Commission. However, the phase-in of rates must also be balanced with protecting  
9 the financial integrity of the Company as required in Texas Water Code (TWC)  
10 § 13.183(2). As indicated by the Company's witnesses, CSWR-Texas has invested  
11 significant amounts in its efforts to bring the systems included in the application into  
12 compliance with regulations and to ensure that customers can receive continuous and  
13 adequate service as required under the TWC. Yet despite this investment, more is still  
14 needed. Additionally, as further discussed in the testimony of Company witness Mr.  
15 Dylan D'Ascendis, CSWR-Texas experienced a significant financial net loss as  
16 illustrated in the Company's Annual Report to the Commission for Calendar Year  
17 2024. In other words, for the Company to be able to continue to meet its regulatory  
18 obligations and ensure continued access to capital, the Company's financial integrity  
19 must be considered as part of this rate action.

20 In this case, Ms. Heddin has provided no quantification or analysis to illustrate  
21 how the phase-in of rates will balance both the protection of customers with the  
22 financial integrity of the utility. Without some consideration as to how the proposed

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<sup>11</sup> *Id.* at 10:12–13.

1 rate phase-in will meet the requirements of just and reasonable rates under TWC  
2 § 13.183(2), I do not believe that a phase-in can be approved by this Commission as  
3 representative of a just and reasonable rate.

4 **B. Phased-In Sewer Rate**

5 **Q. WHAT IS YOUR RESPONSE TO MS. HEDDIN'S RECOMMENDATION**  
6 **THAT CSWR-TEXAS'S SEWER RATE CONSIST OF A TWO-STEP PHASED-**  
7 **IN RATE INCLUSIVE OF A FIXED CHARGE AND A VOLUMETRIC**  
8 **CHARGE?**

9 A. CSWR-Texas's proposed sewer rate design was approved by this Commission in  
10 Docket No. 54565. In Docket 54565, it was noted that over half of CSWR-Texas's  
11 wastewater customers at the time were billed a flat, uniform rate per month or billed  
12 based on volumetric data obtained from another provider.<sup>12</sup> Nothing has significantly  
13 changed in the operation of CSWR-Texas that would indicate a need for a change in  
14 rate design from the Company's prior proceeding.

15 Ms. Heddin's recommendation is particularly problematic in terms of  
16 implementation for two of CSWR-Texas's systems—the Leon Springs system and the  
17 Shady Grove system. In both instances, CSWR-Texas owns and operates the sewer  
18 system but not the water system. Because residential retail sewer service is not  
19 metered, a manual reading of the water used by the customer would be needed to bill  
20 for sewer service through a volumetric charge. For these two systems, CSWR-Texas  
21 does not have agreements in place to obtain these water meter readings due to the

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<sup>12</sup> *Application of CSWR-Texas for Authority to Change Rates*, Docket No. 54565, Proposal for Decision at 79 and fn. 273 (Nov. 28, 2023).

1 Commission's prior approval of CSWR-Texas's flat, uniform rate per month, making  
2 near-term implementation of Ms. Heddin's recommendation difficult.

3 Additionally, it has been my experience that water providers that generate water  
4 reports for sewer providers typically charge a fee for this service. While recommending  
5 a two-part sewer rate, Ms. Heddin has not provided any allowance for the increase in  
6 cost that will potentially be experienced by CSWR-Texas for obtaining the water meter  
7 readings required to implement her recommendation. Such allowance would only serve  
8 to further increase rates required of customers.

9 **C. Fixed and Variable Expense Allocation**

10 **Q. WHAT IS YOUR RESPONSE TO MR. BLANCHARD'S**  
11 **RECOMMENDATION RELATIVE TO THE ALLOCATION OF WATER**  
12 **COSTS BETWEEN THE FIXED AND VARIABLE COMPONENTS OF THE**  
13 **RATE STRUCTURE?**

14 A. The Company's proposal to allocate 67% of non-variable costs to the fixed charge and  
15 33% to the variable charge follows the methodology approved by the Commission in  
16 CSWR-Texas's prior rate case application, Docket 54565.<sup>13</sup> Mr. Blanchard's  
17 recommendation appears to be based on nothing but his general opinion. While he  
18 purports that his recommendation will "provide an additional price signal for water  
19 conservation, while still allowing for a majority of CSWR-Texas's fixed costs to be  
20 recovered via the fixed monthly customer charge,"<sup>14</sup> he presents no analysis to quantify  
21 how his recommendation will lead to a more robust water conservation signal or

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<sup>13</sup> Direct Testimony of Chris Ekrut at 27:4–5 (Dec. 30, 2025).

<sup>14</sup> Blanchard Direct at 7:24–8:2.

1 otherwise justify deviating from the methodology previously approved by this  
2 Commission.

3 **Q. WHAT WOULD BE THE IMPACT OF MR. BLANCHARD'S**  
4 **RECOMMENDATION ON CSWR-TEXAS?**

5 A. Shifting revenue recovery from the fixed charge to the variable charge will lead to more  
6 instability in the Company's revenue stream as it will expose more revenues to the  
7 impacts of water conservation and variations in rainfall. Mr. Blanchard has not shown  
8 why deviating from a previously approved Commission methodology is justified.

9 **D. Inclining Block Water Rate**

10 **Q. WHAT RATIONALE DOES MR. BLANCHARD PROVIDE FOR**  
11 **RECOMMENDING AN INCLINING BLOCK WATER RATE?**

12 A. Mr. Blanchard cites to the requirements of 16 Texas Administrative Code (TAC)  
13 § 24.43(b)(1) which states, "In order to encourage the prudent use of water or promote  
14 conservation, water and sewer utilities shall not apply rate structures which offer  
15 discounts or encourage increased usage within any customer class." Mr. Blanchard  
16 states that, "[f]ixed customer charges do not encourage water conservation as the  
17 customer is billed the same charge regardless of water usage and therefore faces less of  
18 an incentive to reduce discretionary water usage. Volumetric charges provide a direct  
19 price incentive to curtail discretionary water usage."<sup>15</sup>

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<sup>15</sup> *Id.* at 7:5-8.

1   **Q.    DOES THE WATER RATE DESIGN PROPOSED BY CSWR-TEXAS OFFER**  
2       **DISCOUNTS OR ENCOURAGE INCREASED USAGE?**

3    A.   No. The water rate design utilized by the Company, which was approved by this  
4       Commission in Docket No. 54565, includes a volumetric water rate applied to all  
5       customer usage. Customers that use greater amounts of water will pay more under this  
6       structure as the volumetric unit water rate applies to every unit of use.

7   **Q.    DO COMMISSION RULES PROVIDE ANY FURTHER GUIDANCE ON HOW**  
8       **AN INCLINING BLOCK RATE SHOULD BE STRUCTURED OR HOW**  
9       **STEEP AN INCLINE SHOULD BE EMPLOYED IN DEVELOPING**  
10      **VOLUMETRIC RATES?**

11   A.   No, not to my knowledge.

12   **Q.    ARE OTHER DOCUMENTS AVAILABLE THAT PROVIDE FURTHER**  
13      **GUIDANCE ON HOW TO DEVELOP INCLINING BLOCK RATES?**

14   A.   Yes. Rebuttal Exhibit CDE-R-2 contains Section 3.1 from the Texas Water  
15      Development Board's ("TWDB") Water Conservation Best Management Practices  
16      Guide for Municipal Water Users ("BMP") as published in February 2020. Specific to  
17      implementing conservation-based or inclining block rates, the guide states:

18               The price difference between blocks is very important in  
19               influencing the customer's usage behavior. Price increases  
20               between blocks should be no less than 25 percent of the previous  
21               block. For maximum effectiveness, the price difference going  
22               from one block to the next highest block is recommended to be  
23               at least 50 percent of the lower block. For example if the third  
24               block of a four-block rate structure is \$4.00 per 1000 gallons, the

fourth and final block should have a rate of at least \$6.00 (50 percent higher) per 1000 gallons.<sup>16</sup>

**Q. DOES MR. BLANCHARD'S RECOMMENDED RATE DESIGN FOLLOW THIS GUIDANCE?**

A. No. Mr. Blanchard's recommended rate design is significantly outside of the 50% unit price increase cited to achieve maximum effectiveness in water conservation. Table 1 below provides the percentage increases in Mr. Blanchard's recommended unit rates per volumetric tier.

**Table 1. Unit Rate Increases under Staff Water Rate Design**

	<b>Volumetric Rate (per kgal)</b>	<b>% Increase between Tiers</b>
0–4,000 gallons	\$ 4.48	
4,001–14,000 gallons	9.70	116%
Over 14,001 gallons	19.40	100%

**Q. WHAT IS THE IMPACT OF EMPLOYING A STEEPER INCLINE WITHIN VOLUMETRIC RATE DESIGN AS RECOMMENDED BY MR. BLANCHARD?**

A. By increasing the volumetric rate as more water is utilized, a utility is attempting to take advantage of the economic concept of price elasticity of demand to encourage conservation. Put simply, price elasticity of demand is the sensitivity between the quantity demanded and the price. In other words, if a good or service is price elastic, quantity demanded will change at a greater rate as the price rises. If a good or service is price inelastic, quantity demanded will not change as significantly as the price rises.

<sup>16</sup> Texas Water Development Board, Report 362 (2004) "Water Conservation Best Management Practices: Best Management Practices for Municipal Water Users," February 2020, PDF pg. 45, accessible at <https://www.twdb.texas.gov/conservation/TBMPs/Mun/doc/2020%20Update%20Files/MuniMiniGuide2020.pdf>.

Specific to water service, by employing a steeper or more aggressive pricing structure as recommended by Mr. Blanchard, Commission Staff is sending a stronger conservation signal than that recommended for maximum effectiveness in the TWDB's BMP Guide. While the actual impacts to customers are unclear absent a more thorough review of usage patterns, the impact to CSWR-Texas is that it will recover less revenue than proposed under Commission Staff's recommended rate design, which could have a destabilizing effect on its revenue stream without further recognition of this effect within the rate design.

**Q. PLEASE EXPLAIN.**

A. Utilities are extremely fixed cost intensive enterprises. The only expenses that truly vary based on water consumption are generally chemicals, electricity, and, sometimes, a component of purchased water supply. When less water is utilized, the utility's fixed cost must be spread over less units of consumption, resulting in a higher required rate to fully recover the cost of providing service. In this instance, Mr. Blanchard is sending an aggressive conservation signal, which is intended to promote less usage. To ensure the Company can still recover its cost with less usage requires a higher fixed or volumetric rate to ensure that the Company is permitted a reasonable opportunity to earn its authorized return on investment as required under TWC § 13.183(1).

**Q. WHAT ESTIMATES ARE AVAILABLE SPECIFIC TO THE IMPACT OF PRICE ELASTICITY OF DEMAND?**

A. In a report prepared for the TWDB, Bell and Griffin indicated that "price elasticities (-0.3 for indoor water use and -0.50 for outdoor water use) are based on a study . . . that surveyed 1,400 water utilities in Texas that serve at least 1,000 people to estimate



1 demand elasticity . . .”<sup>17</sup> In other words, for every 10% increase in price, indoor  
2 consumption will fall by 3% and outdoor consumption will fall by 5%.

3 **Q. HAVE YOU QUANTIFIED THE ELASTICITY IMPACT OF STAFF’S**  
4 **RECOMMENDATION ON THE COMPANY?**

5 A. Elasticity impacts should be assessed between the then-applicable current rate charged  
6 to customers and the rate proposed to be charged. At this time, I have not performed a  
7 full analysis due to the time requirement and complexity of aligning the various rate  
8 structures currently in place for the unconsolidated CSWR-Texas systems and properly  
9 classifying volumes by block.

10 However, to provide an example of the impact of elasticity, I have prepared  
11 Rebuttal Schedule CDE-R-1, which compares and quantifies the elasticity impact on  
12 demand consumption between CSWR-Texas’s proposed rate and Commission Staff’s  
13 proposed rate. Within this schedule, I have assumed an elasticity value of -0.3 applied  
14 to all consumption. For purposes of this analysis, I have also accepted the assigned  
15 volumes by block as recommended by Mr. Blanchard; however, I believe his analysis  
16 in which he assigned volumes to his identified rate blocks is fundamentally flawed and  
17 will discuss this later within my testimony. For each rate block, I have calculated the  
18 difference in the rate proposed by CSWR-Texas and the rate proposed by Commission

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<sup>17</sup> Bell, D.R. and Griffin, R.C. “Community Water Demand in Texas as a Century is Turned.” Research contract report prepared for the Texas Water Development Board. May 2006, as cited in, Norvell, S.D. and Shaw, “Economic Impacts of Projected Water Shortages for the Region C Regional Water Planning Area,” July 2010, pg. 14, available at [https://www.twdb.texas.gov/waterplanning/data/analysis/doc/2011/Region\\_C.pdf#:~:text=%E2%96%AB%20%CE%B5%20is%20the%20price%20elasticity%20of,several%20variables%20including%20price%2C%20income%2C%20weather%20etc](https://www.twdb.texas.gov/waterplanning/data/analysis/doc/2011/Region_C.pdf#:~:text=%E2%96%AB%20%CE%B5%20is%20the%20price%20elasticity%20of,several%20variables%20including%20price%2C%20income%2C%20weather%20etc).

1 Staff. As shown, if Commission Staff's recommended rate is higher, I have calculated  
2 the assumed reduction in consumption under my assumed elasticity value.

3 Based on the analysis presented in Rebuttal Schedule CDE-R-1, I calculate that  
4 CSWR-Texas could potentially see an approximate 10% reduction in overall  
5 consumption under the rates recommended by Commission Staff when compared to  
6 the rates proposed by CSWR-Texas. If you apply Commission Staff's recommended  
7 rates to this lower level of consumption, this results in over \$1 million less in revenue  
8 for the Company. Given the assumptions I've employed, and the fact that the analysis  
9 is not accounting for the difference between the current rates charged by system and  
10 Commission Staff's recommended rates, it is my opinion that this estimate I've  
11 developed is conservative at best. In other words, if the Commission accepts Staff's  
12 recommended rate design, a substantially higher rate than what is recommended by  
13 Commission Staff will be required to meet the requirements of TWC § 13.183(1) and  
14 (2).

15 **Q. YOU STATED EARLIER THAT YOU BELIEVE MR. BLANCHARD'S**  
16 **CLASSIFICATION OF VOLUMES BY BLOCK IS FUNDAMENTALLY**  
17 **FLAWED. CAN YOU PLEASE ELABORATE?**

18 A. As indicated in Ms. Heddin's testimony, data is simply not available to prepare an  
19 accurate estimate of the required inclining block water rates. Specifically, within the  
20 volumes used by Mr. Blanchard for rate design, three different types of usage are  
21 included. The first is actual volumes used by customers in the Test Year. The second  
22 is unmetered volumes. These are assumed volumes of water consumption for  
23 customers that do not currently have a meter and are based on an assumed monthly

1 usage of 6,000 gallons for each customer. The third is what I will refer to as adjusted  
2 volumes. Adjusted volumes are volumes added to Test Year billing determinants  
3 within CSWR-Texas's application to account for growth in customers over the Test  
4 Year, as well as to annualize consumption for systems which did not have a full twelve  
5 (12) months of operational history under CSWR-Texas ownership at the time the rate  
6 application was filed.

7 While I agree with how Mr. Blanchard assigned volumes to his recommended  
8 rate tiers for the first two types of usage, I disagree with how he has assigned the third  
9 type, the adjusted volumes, to his recommended rate blocks as he appears to have made  
10 invalid assumptions that mischaracterize the specific rate tiers to which these volumes  
11 should be applied. His mischaracterization results in a recommended rate design that  
12 is not accurate. These inaccuracies could result in rates which are too high or too low  
13 and which are not just and reasonable.

14 **Q. WHAT IS YOUR UNDERSTANDING OF HOW MR. BLANCHARD**  
15 **ASSIGNED THE ADJUSTED VOLUMES TO HIS RECOMMENDED RATE**  
16 **TIERS?**

17 A. For the adjusted volumes, Mr. Blanchard appears to have used Schedule II-G-1c-f from  
18 CSWR-Texas's application. His testimony does not cite to this Excel file, which was  
19 only provided as a workpaper, but appears to tie back to his calculations. This  
20 worksheet is originally derived from Schedule II-G-1c-f as filed by CSWR-Texas, but  
21 within his workpapers, Mr. Blanchard has added an additional column that was used to  
22 assign volumes to his recommended rate tiers. In assigning these volumes to rate tiers,  
23 Mr. Blanchard appears to have made general assumptions on how these volumes would

apply to his tiers, but his work is imprecise, resulting in an inappropriate rate recommendation.

For example, as shown in Table 2 below, the current rates for the 4R Ranch system utilize four rate tiers. Mr. Blanchard has assigned all consumption to his first recommended rate tier, but some of this consumption could ultimately be above the 4,000 gallon level and more appropriately assigned to his recommended second rate tier. If this is the case, Mr. Blanchard's recommendation would actually result in potential over-recovery by the Company as he is not taking into account how higher rates may be applied to certain volumes for this system.

<b>Table 2. Unit Rate Increases under Staff Water Rate Design</b>			
<b>Current Rate Tiers</b>	<b>Assigned kgals</b>	<b>Staff Recommended Rate Tiers</b>	<b>Assigned kgals</b>
0 – 2,000 gal	1,511	0 – 4,000 gal	3,418
2,001 – 5,000 gal	1,908	4,001 – 14,000 gal	0
5,001 – 10,000 gal	0	Over 14,001 gal	0
Over 10,001 gal	0		

Conversely, his treatment of the volumes for the Cassie Water System could result in an under-recovery for the Company. This system does not currently employ an inclining block rate design. In his assignment of volumes to his rate tiers, Mr. Blanchard assumed that all adjusted volumes for this system would fall within his second tier, or the 4,001 to 14,000 gallon rate tier, thereby not accounting for the volumes that would fall within his recommended first rate tier. In this case, some volumes would be charged a lower rate than what Mr. Blanchard has allowed for.

1 **Q. CAN YOU MODIFY MR. BLANCHARD'S ANALYSIS TO DEVELOP A JUST**  
2 **AND REASONABLE INCLINING BLOCK VOLUMETRIC RATE WITHIN**  
3 **THIS PROCEEDING?**

4 A. Not without making general assumptions that would favor either the Company or the  
5 customers. More operational history is needed before a just and reasonable inclining  
6 block volumetric rate can be developed. Given this circumstance, I strongly  
7 recommend that the Commission approve CSWR-Texas's uniform volumetric rate as  
8 proposed in this proceeding and as originally approved in Docket No. 54565.

9 **Q. PLEASE SUMMARIZE THE OVERALL EFFECT OF COMMISSION**  
10 **STAFF'S RECOMMENDED CHANGES TO THE PROPOSED WATER RATE**  
11 **DESIGN.**

12 A. Very simply, the rate design recommended by Mr. Blanchard will not generate the  
13 revenue requirement supported by other Commission Staff witnesses. Without  
14 accounting for the impact of elasticity of demand and enhancing the precision  
15 employed in rate design, the rate design proposed will not allow the Company the  
16 opportunity to generate the return on investment supported by Commission Staff and  
17 is not in compliance with TWC requirements for a just and reasonable rate.

18 **IV. CONCLUSION**

19 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

20 A. Yes, but I reserve the right to revise or supplement my testimony based on any  
21 discovery responses received on or after the date of filing.

***Resolution Supporting Consideration of Regulatory Policies Deemed as “Best Practices”***

**WHEREAS,** A number of innovative regulatory policies and mechanisms have been implemented by public utility commissions throughout the United States which have contributed to the ability of the water industry to effectively meet water quality and infrastructure challenges; *and*

**WHEREAS,** The capacity of such policies and mechanism to facilitate resolution of these challenges in appropriate circumstances supports identification of such policies and mechanisms as “best practices”; *and*

**WHEREAS,** During a recent educational dialogue, the “2005 NAWC Water Policy Forum,” held among representatives from the water industry, State economic regulators, and State and federal drinking water program administrators, participants discussed (consensus was not sought nor determined) and identified over 30 innovative policies and mechanisms that have been summarized in a report of the Forum to be available on the website of the Committee on Water at [www.naruc.org](http://www.naruc.org); *and*

**WHEREAS,** As public utility commissions continue to grapple with finding solutions to meet the myriad water and wastewater industry challenges, the Committee on Water hereby acknowledges the Forum’s *Summary Report* as a starting point in a commission’s review of available and proven regulatory mechanisms whenever additional regulatory policies and mechanisms are being considered; *and*

**WHEREAS,** To meet the challenges of the water and wastewater industry which may face a combined capital investment requirement nearing one trillion dollars over a 20-year period, the following policies and mechanisms were identified to help ensure sustainable practices in promoting needed capital investment and cost-effective rates: a) the use of prospectively relevant test years; b) the distribution system improvement charge; c) construction work in progress; d) pass-through adjustments; e) staff-assisted rate cases; f) consolidation to achieve economies of scale; g) acquisition adjustment policies to promote consolidation and elimination of non-viable systems; h) a streamlined rate case process; i) mediation and settlement procedures; j) defined timeframes for rate cases; k) integrated water resource management; l) a fair return on capital investment; *and* m) improved communications with ratepayers and stakeholders; *and*

**WHEREAS,** Due to the massive capital investment required to meet current and future water quality and infrastructure requirements, adequately adjusting allowed equity returns to recognize industry risk in order to provide a fair return on invested capital was recognized as crucial; *and*

**WHEREAS,** In light of the possibility that rate increases necessary to remediate aging infrastructure to comply with increasing water quality standards could adversely affect the affordability of water service to some customers, the following were identified as best practices to address these concerns: a) rate case phase-ins; b) innovative payment arrangements; c) allowing the consolidation of rates (“Single Tariff Pricing”) of a multi-divisional water utility to spread capital costs over a larger base of customers; *and* d) targeted customer assistance programs; *and*

**WHEREAS,** Small water company viability issues continue to be a challenge for regulators, drinking water program administrators and the water industry; best practices identified by Forum participants include: a) stakeholder collaboration; b) a memoranda of understanding among relevant

State agencies and health departments; c) condemnation and receivership authority; and d) capacity development planning; *and*

**WHEREAS**, The U.S. Environmental Protection Agency's "Four-Pillar Approach" was discussed as yet another best practice essential for water and wastewater systems to sustain a robust and sustainable infrastructure to comprehensively ensure safe drinking water and clean wastewater, including: a) better management at the local or facility level; b) full-cost pricing; c) water efficiency or water conservation; *and* d) adopting the watershed approach, all of which economic regulators can help promote; *and*

**WHEREAS**, State drinking water program administrators emphasized the following mechanisms which Forum participants identified as best practices: a) active and effective security programs; b) interagency coordination to assist with new water quality regulation development and implementation, such as a memorandum of understanding; c) expanded technical assistance for small water systems; d) data system modernization to improve data reliability; e) effective administration and oversight of the Drinking Water State Revolving Fund to maximize infrastructure remediation, along with permitting investor owned water companies access in all States; f) the move from source water assessment to actual protection; *and* g) providing State drinking water programs with adequate resources to carry out their mandates; *now therefore be it*

**RESOLVED**, That the National Association of Regulatory Utility Commissioners (NARUC), convened in its July 2005 Summer Meetings in Austin, Texas, conceptually supports review and consideration of the innovative regulatory policies and practices identified herein as "best practices;" *and be it further*

**RESOLVED**, That NARUC recommends that economic regulators consider and adopt as many as appropriate of the regulatory mechanisms identified herein as best practices; *and be it further*

**RESOLVED**, That the Committee on Water stands ready to assist economic regulators with implementation of any of the best practices set forth within this Resolution.

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*Sponsored by the Committee on Water*

*Adopted by the NARUC Board of Directors July 27, 2005*

## 3.1 Water Conservation Pricing

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### *Applicability*

This BMP is intended for all Municipal Water User Groups (“utility”) wishing to send price signals to customers to encourage water conservation. A utility may have already accomplished this BMP if it currently has a conservation price structure.

### *Description*

Water Conservation Pricing is the use of rate structures that discourage the inefficient use or waste of water. Conservation pricing structures include increasing unit prices with increased consumption such as inverted block rates, base rates and excess use rates such as water budget rates, and seasonal rates. Seasonal rate structures may include additional charges for upper block (outdoor) usage or excess-use surcharges for commercial customers to reduce demand during summer months. The goal of conservation pricing is to develop long run consumption patterns consistent with cost. Under this BMP, utilities should consider establishing rates based upon long-run marginal costs, or the cost of adding the next unit of capacity to the system. An established cost of service methodology should be followed whenever rates are developed or proposed for change.

This BMP addresses conservation pricing structures for retail customers. For utilities supplying both water and sewer service, this BMP applies to pricing of both water and sewer service. Utilities that supply water but not sewer service should make good faith efforts to work with sewer agencies so that those sewer agencies do not provide sewer services for a declining block rate.

For conservation pricing structures to be effective, customers should be educated on the type of rate structure that the utility uses and be provided monthly feedback through the water bill on their monthly water use. Most customers do not track water use during the month because of the difficulty and inconvenience of reading the meter. When customers read their bill, they most often just look at the total amount billed. Conservation pricing has the advantage of providing stronger feedback to the customers who will see a larger percent increase in their water bill than the increase in water use. Utilities should move toward adopting billing software that allows customers to compare water use on their bill with average water use for their customer class as well as their individual water use for the last 12 months. The rate structure should be clearly indicated on the water bill.

It is not recommended that a minimum monthly water allotment be included in the minimum bill. The AWWA notes that minimum charges are often considered to work counter to conservation goals and are unfair to those who use less than the monthly minimum. A customer who does not use the entire amount included in the minimum during the billing period will be charged for the water allotment regardless, and thus may feel he should find a way to use the additional water. A customer in a house with all efficient fixtures and appliances



can use 1000 gallons or less per month and may be inclined to increase their water use if a minimum bill includes more than 1000 gallons<sup>1</sup>. In the Residential End Use Study<sup>2</sup>, approximately 6 percent of homes had a per capita use of less than 1000 gallons per month.

### *Implementation*

Successful adoption of a new rate structure may necessitate developing and implementing a public involvement process in order to educate the community about the new rate structure. The new rate structure should adhere to all applicable regulatory procedures and constraints. If the conservation pricing structure to be implemented is substantially different from current practices, then a phase-in approach may be appropriate.

Public involvement in the development and implementation of conservation rates can help assure that the goals of the conservation pricing initiatives will be met and accepted by local constituents. Public meetings, advisory groups, and public announcements are among ways to generate public involvement.

Development of conservation-based rate structures is more than just selection of arbitrary usage breaks. The process requires consideration of the effect on water demand and water utility finances.

- 1) Basic rate structure considerations should include rates designed to recover the cost of providing service and billing for water and sewer service based on actual metered water use. Conservation pricing should provide incentives to customers to reduce average or peak use, or both. The conservation rate structure can be designed to bring in the same amount of revenue, often termed revenue neutral, as the previous rate structure.
- 2) Only one type of conservation pricing is required for this BMP. Conservation pricing is characterized by one or more of the following components:
  - a. Seasonal rates to reduce peak demands during summer months. There are a variety of approaches including having increasing block rates only during the summer months or having a year round block rate structure with higher block rates during the summer months.
  - b. Rates in which the unit rate increases as the quantity used increases (increasing block rates). For block rate structures, the rate blocks should be set so that they impact discretionary use. A utility should analyze historical records for consumption patterns of its customers. The first block should typically cover the amount of water for normal household health and sanitary needs. To increase the effectiveness of this rate structure type, the additional revenue from the higher blocks should be associated with discretionary and seasonal outdoor water use.
    - Rates for single family residential and other customer classes may be set differently to reflect the different demand patterns of the classes.

- The price difference between blocks is very important in influencing the customer's usage behavior. Price increases between blocks should be no less than 25 percent of the previous block. For maximum effectiveness, the price difference going from one block to the next highest block is recommended to be at least 50 percent of the lower block. For example if the third block of a four-block rate structure is \$4.00 per 1000 gallons, the fourth and final block should have a rate of at least \$6.00 (50 percent higher) per 1000 gallons. Any surcharge based on water usage should be included when calculating these percentages.
- c. Rates based on individual customer water budgets in which the unit cost increases above the water budget. Water budget rate structures are based on the philosophy that a certain amount of water is adequate for all normal necessary uses, and uses above that amount are considered excessive and charged as excessive. For example, Irvine Ranch Water District in California<sup>3</sup> sets the excess use charges at 200 percent of the base rate. Typically there should be an indoor and an outdoor component to a water budget.
- For residential rates, the indoor component should be based upon estimates of average family use. The outdoor component is based upon landscape area. For business customers, water budgets will often be based upon historical average for indoor water use, and outdoor component based upon landscape area.
  - To qualify as a conservation rate, utilities that implement water budget based rate structures typically begin excess rate charges for landscaped areas at no more than 80 percent of average annual reference evapotranspiration replacement rates.
- d. Rates based upon the long-run marginal cost or the cost of adding the next unit of capacity to the system.
- 3) Conservation pricing should use a consumption charge based upon actual gallons metered. The minimum bill for service should be based on fixed costs of providing that service which generally includes service and meter charges. Including an allotment for water consumption in the minimum bill does not promote conservation and it is recommended that if a minimum is included, it not exceed 2000 gallons per month. Utilities including a water allotment in the minimum bill should consider eliminating that allotment within five years of implementing this BMP.
- 4) Adoption of lifeline rates neither qualifies nor disqualifies a rate structure as meeting the requirements of this BMP except that the minimum bill guidelines should be followed. Lifeline rates are intended to make a minimum level of water service affordable to all customers.
- 5) The utility should educate customers about the rate structure and use billing software that allows the customer to compare water use on their bill with average water use for their customer class as well as their individual water use

for the last 12 months. The rate structure should be clearly indicated on the water bill. The utility may want to consider implementing the Public Information BMP in conjunction with this BMP in order to provide customers information on how to reduce their water bill under a conservation rate structure.

- 6) In order to be able to set up an effective irrigation rate, the utility should consider adopting rules or ordinances requiring new commercial and industrial customers to install separate irrigation meters and consider retrofitting current commercial and industrial customers with irrigation meters. It is important for commercial and industrial customers to have a separate irrigation meter so they can better understand how much water they are using for irrigation. This provision is optional for this BMP.

### *Schedule*

Utilities pursuing this BMP should begin implementing this BMP according to the following schedule:

- 1) The utility should follow applicable regulatory procedures and adopt a conservation oriented rate structure within the first twelve months. The conservation rate structure should be designed to promote the efficient use of water by customer classes as outlined in this BMP.
- 2) At least annually, a utility should review the consumption patterns (including seasonal use) and its income and expense levels to determine if the conservation rates are effective and make appropriate, regular rate structure adjustments as needed.
- 3) At least annually, the utility should provide information to each customer on the conservation rate structure.
- 4) If not already in place, within five years or when the utility changes billing software, whichever is sooner, the utility bill should provide customers with their historical water use for the last 12 months and a comparison of water use with the other customers in their customer class. The rate structure should be clearly indicated on the water bill.
- 5) While not required to be implemented as part of this BMP, within one year the utility should consider adopting service rules or an ordinance requiring all new commercial and industrial customers to install separate irrigation meters and the feasibility of retrofitting commercial and industrial current customers with irrigation meters.

### *Scope*

To accomplish this BMP, the utility should implement a conservation-oriented rate structure and maintain its rate structure consistently with this BMP's definition of conservation pricing and implement the other items listed in D above.

## *Documentation*

To track this BMP, the utility should maintain the following documentation:

- 1) A copy of its legally adopted rate ordinance or rate tariff that follows the guidelines of this BMP;
- 2) Billing and customer records which include annual revenues by customer class and revenue derived from commodity charges by customer class for the reporting period;
- 3) Customer numbers and water consumption by customer class at the beginning and end of the reporting period;
- 4) If a water allotment is included in the minimum bill, a cumulative bill usage analysis similar to Figure C-3 in the AWWA M1 Manual;
- 5) A copy of the education materials on the conservation rate sent to customers for each calendar year this BMP is in effect;
- 6) A utility bill meeting the parameters and schedule in Section D;
- 7) Optional provisions:
  - a. A copy of the rule or ordinance requiring all new commercial and industrial customers to install separate irrigation meters; and
  - b. Implementation and schedule for an irrigation meter retrofit program for current commercial and industrial customers or a feasibility analysis of an irrigation meter retrofit program for current commercial and industrial customers.

## *Determination of Water Savings*

The effect of conservation pricing implementation is very specific to each utility. Elasticity studies have shown an average reduction in water use of 1 to 3 percent for every 10 percent increase in the average monthly water bill.<sup>1</sup> When implementing a conservation pricing structure, consideration should be given to the factors that influence whether the new structure results in a reduction in water use. The *Water Price Elasticities for Single-Family Homes in Texas* (See Section I. References for Additional Information, 1) study included several significant findings that water savings can be expected:

- 1) Average price is better than marginal price in explaining the quantity of water demanded by customers.
- 2) Customers have a general lack of awareness of their block rates.
- 3) The water savings that accompanies a switch to a block rate may be lost in subsequent years if water rates do not keep up with inflation.
- 4) Customers do not understand the link between water use and sewer billing and therefore do not tend to factor sewer prices into their water use decisions.

- 5) The study did find price elasticities of approximately -0.20, which translates into a reduction of 2 percent in water use for a 10 percent increase in price.

The utility should focus on a rate design that sends the appropriate price signal to customers to reduce discretionary water use. To remain effective, the rates need to be adjusted periodically to take into account inflation as well as other factors.

### *Cost Effectiveness Considerations*

A cost effectiveness analysis can be done by comparing the cost of implementing this BMP to the anticipated water savings from adopting the conservation rate structure. The costs for implementing a rate structure change are associated with managing a stakeholder involvement process and costs for consultant services, if needed, and there may be one time only costs associated with developing and adopting ordinances and enforcement procedures. There may be significant costs associated with reprogramming the billing system if this step is necessary.

### *References for Additional Information*

- 1) *Principles of Water Rates, Fees, and Charges (M1 Manual)*, AWWA, 2000.
- 2) *Residential End Uses of Water*, AWWA Research Foundation, 1999
- 3) *Irvine Ranch Excess Use Residential Water Rate*
- 4) <http://www.irwd.com/FinancialInfo/ResRates.html>
- 5) *Water Price Elasticities for Single-Family Homes in Texas*, Texas Water Development Board, August 1999.
- 6) *Designing, Evaluating, and Implementing Conservation Rate Structures*, California Urban Water Conservation Council, July 1997.
- 7) *Effectiveness of Residential Water Price and Nonprice Programs*, AWWARF, 1998.
- 8) *San Antonio Sample Water Bill*  
<http://www.saws.org/service/ebill/saws%20ebill%20sample.htm>
- 9) *Example Rate Structures*
  - *City of Austin Water Rates*  
<http://www.ci.austin.tx.us/water/rateswr03.htm>
  - *Dallas Water Utilities*  
[http://www.dallascityhall.com/dallas/eng/pdf/dwu/conservation\\_rate\\_100101.pdf](http://www.dallascityhall.com/dallas/eng/pdf/dwu/conservation_rate_100101.pdf)

**Application of Central States Water Resources**  
**PUC Docket No. 57386**  
**Water Elasticity of Demand Analysis**

Line No.	Col (A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
Elasticity Factor		(0.30)							
		CSWR Proposed	Staff Proposed	% Increase in Price	% Decrease in Consumption	Total Consumption <sup>1</sup> (000's)	Consumption w/Elasticity (000's)	Revenues w/ Elasticity (\$)	Revenues w/o Elasticity (\$)
1	Consolidated								
2	0-4 kgal	S 8.64	S 4.48	-48.15%	0.00%	176,554	176,554	\$ 790,961	\$ 790,961
3	4-14 kgal	8.64	9.70	12.27%	-3.68%	107,465	103,510	1,004,044	1,042,411
4	>14 kgal	8.64	19.40	124.54%	-37.36%	88,760	55,598	1,078,601	1,721,936
5									
6	4R Ranch								
7	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	3,418	3,418	\$ 15,314	\$ 15,314
8	4-14 kgal	8.64	9.70	12%	-3.68%	-	-	-	-
9	>14 kgal	8.64	19.40	125%	-37.36%	-	-	-	-
10									
11	Cassie Water								
12	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	660	660	\$ 2,959	\$ 2,959
13	4-14 kgal	8.64	9.70	12%	-3.68%	2,248	2,165	21,005	21,808
14	>14 kgal	8.64	19.40	125%	-37.36%	72	45	872	1,392
15									
16	Circle R Ranchettes								
17	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	1,597	1,597	\$ 7,153	\$ 7,153
18	4-14 kgal	8.64	9.70	12%	-3.68%	1,130	1,089	10,560	10,963
19	>14 kgal	8.64	19.40	125%	-37.36%	246	154	2,991	4,775
20									
21	Cooley Point & Hills of Briar Oaks								
22	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	7,932	7,932	\$ 35,534	\$ 35,534
23	4-14 kgal	8.64	9.70	12%	-3.68%	5,068	4,882	47,355	49,164
24	>14 kgal	8.64	19.40	125%	-37.36%	1,986	1,244	24,133	38,527
25									
26	Crazy Horse								
27	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	2,237	2,237	\$ 10,021	\$ 10,021
28	4-14 kgal	8.64	9.70	12%	-3.68%	1,509	1,454	14,100	14,639
29	>14 kgal	8.64	19.40	125%	-37.36%	1,368	857	16,628	26,546
30									
31	Danielsdale & Rocky Point								
32	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	11,862	11,862	\$ 53,143	\$ 53,143
33	4-14 kgal	8.64	9.70	12%	-3.68%	7,313	7,043	68,321	70,932
34	>14 kgal	8.64	19.40	125%	-37.36%	6,173	3,867	75,014	119,756
35									
36	Deer Springs								
37	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	1,522	1,522	\$ 6,817	\$ 6,817
38	4-14 kgal	8.64	9.70	12%	-3.68%	4,231	4,075	39,531	41,041
39	>14 kgal	8.64	19.40	125%	-37.36%	815	510	9,898	15,802
40									
41	Douglas Utility Company								
42	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	6,299	6,299	\$ 28,219	\$ 28,219
43	4-14 kgal	8.64	9.70	12%	-3.68%	3,108	2,994	29,041	30,151
44	>14 kgal	8.64	19.40	125%	-37.36%	21,395	13,401	259,965	415,054
45									
46	Farrar Water Supply Corp.								
47	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	490	490	\$ 2,195	\$ 2,195
48	4-14 kgal	8.64	9.70	12%	-3.68%	264	254	2,469	2,563
49	>14 kgal	8.64	19.40	125%	-37.36%	75	47	910	1,453
50									
51	Floyd Acres								
52	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	627	627	\$ 2,807	\$ 2,807
53	4-14 kgal	8.64	9.70	12%	-3.68%	499	480	4,659	4,837
54	>14 kgal	8.64	19.40	125%	-37.36%	38	24	460	735
55									
56	Island Lodges								
57	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	1,147	1,147	\$ 5,137	\$ 5,137
58	4-14 kgal	8.64	9.70	12%	-3.68%	1,267	1,221	11,842	12,295
59	>14 kgal	8.64	19.40	125%	-37.36%	166	104	2,014	3,215
60									
61	Lincecum								
62	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	-	-	\$ -	\$ -
63	4-14 kgal	8.64	9.70	12%	-3.68%	-	-	-	-
64	>14 kgal	8.64	19.40	125%	-37.36%	-	-	-	-
65									
66	North University Estates								
67	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	5,680	5,680	\$ 25,445	\$ 25,445
68	4-14 kgal	8.64	9.70	12%	-3.68%	4,723	4,549	44,125	45,811
69	>14 kgal	8.64	19.40	125%	-37.36%	2,039	1,277	24,778	39,558
70									
71	Oak Hills Estates								
72	0-4 kgal	S 8.64	S 4.48	-48%	0.00%	4,500	4,500	\$ 20,159	\$ 20,159
73	4-14 kgal	8.64	9.70	12%	-3.68%	2,355	2,269	22,006	22,847
74	>14 kgal	8.64	19.40	125%	-37.36%	754	472	9,157	14,619
75									

Application of Central States Water Resources  
PUC Docket No. 57386  
Water Elasticity of Demand Analysis

Line No.	Col (A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
Elasticity Factor		(0.30)							
		CSWR Proposed	Staff Proposed	% Increase in Price	% Decrease in Consumption	Total Consumption <sup>1</sup> (000's)	Consumption w/Elasticity (000's)	Revenues w/ Elasticity (\$)	Revenues w/o Elasticity (\$)
76	Parkview								
77	0-4 kgal	S	8.64	4.48	-48%	0.00%	-	-	\$ -
78	4-14 kgal		8.64	9.70	12%	-3.68%	3,690	3,554	34,472
79	>14 kgal		8.64	19.40	125%	-37.36%	-	-	-
80									
81	RJR Water Company								
82	0-4 kgal	S	8.64	4.48	-48%	0.00%	2,943	2,943	\$ 13,185
83	4-14 kgal		8.64	9.70	12%	-3.68%	1,676	1,614	15,660
84	>14 kgal		8.64	19.40	125%	-37.36%	1,305	817	15,858
85									25,316
86	Sidney Shores								
87	0-4 kgal	S	8.64	4.48	-48%	0.00%	44	44	\$ 197
88	4-14 kgal		8.64	9.70	12%	-3.68%	259	250	2,423
89	>14 kgal		8.64	19.40	125%	-37.36%	115	72	1,393
90									2,224
91	Southwest Garden Water								
92	0-4 kgal	S	8.64	4.48	-48%	0.00%	3,783	3,783	\$ 16,946
93	4-14 kgal		8.64	9.70	12%	-3.68%	3,486	3,358	32,573
94	>14 kgal		8.64	19.40	125%	-37.36%	795	498	9,662
95									15,426
96	Vacation Village								
97	0-4 kgal	S	8.64	4.48	-48%	0.00%	13,169	13,169	\$ 58,996
98	4-14 kgal		8.64	9.70	12%	-3.68%	9,054	8,721	84,589
99	>14 kgal		8.64	19.40	125%	-37.36%	3,216	2,014	39,075
100									62,382
101	Valley Vista								
102	0-4 kgal	S	8.64	4.48	-48%	0.00%	329	329	\$ 1,472
103	4-14 kgal		8.64	9.70	12%	-3.68%	295	284	2,756
104	>14 kgal		8.64	19.40	125%	-37.36%	59	37	716
105									1,142
106	Ville D Alsace								
107	0-4 kgal	S	8.64	4.48	-48%	0.00%	4,476	4,476	\$ 20,050
108	4-14 kgal		8.64	9.70	12%	-3.68%	5,375	5,177	50,221
109	>14 kgal		8.64	19.40	125%	-37.36%	7,565	4,738	91,924
110									146,752
111	Vineyard Ridge								
112	0-4 kgal	S	8.64	4.48	-48%	0.00%	400	400	\$ 1,792
113	4-14 kgal		8.64	9.70	12%	-3.68%	3,948	3,802	36,881
114	>14 kgal		8.64	19.40	125%	-37.36%	117	73	1,417
115									2,262
116	Wood Trail								
117	0-4 kgal	S	8.64	4.48	-48%	0.00%	1,057	1,057	\$ 4,737
118	4-14 kgal		8.64	9.70	12%	-3.68%	2,689	2,590	25,128
119	>14 kgal		8.64	19.40	125%	-37.36%	161	101	1,962
120									3,133
121	Total								
122	0-4 kgal					250,723	250,723	1,123,241	1,123,241
123	4-14 kgal					171,654	165,336	1,603,759	1,665,042
124	>14 kgal					137,217	85,951	1,667,450	2,662,004
125						559,594	502,011	\$ 4,394,450	\$ 5,450,287
126									
127	Estimated Consumption Reduction (000's)						(57,583)		
128	Estimated Consumption Reduction (%)						-10.3%		
129									
130	Estimated Volumetric Revenue Reduction (000's)							\$	(1,055,837)
131	Estimated Volumetric Revenue Reduction (%)								-19.4%

Notes:

1 - Unmetered volumes have been excluded

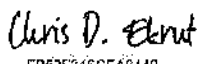
STATE OF TEXAS       §  
                                  §  
COUNTY OF TRAVIS   §

**AFFIDAVIT OF CHRISTOPHER D. EKRUT**

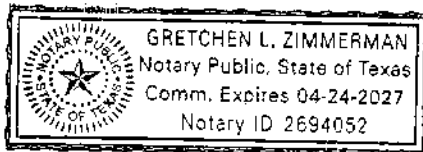
BEFORE ME, the undersigned authority, on this day personally appeared Christopher D. Ekrut, who having been placed under oath by me did depose as follows:


1. "My name is Christopher D. Ekrut. I am of sound mind and capable of making this affidavit. The facts stated herein are true and correct based upon my personal knowledge. My current position is Partner and Chief Financial Officer for NewGen Strategies & Solutions, LLC.
2. I have prepared the foregoing Rebuttal Testimony and the information contained in this document is true and correct to the best of my knowledge."

Further affiant sayeth not.

Signed by:  
  
\_\_\_\_\_  
Christopher D. Ekrut

SUBSCRIBED AND SWORN TO BEFORE ME by the said Christopher D. Ekrut on this  
14th day of July, 2025.



  
\_\_\_\_\_  
Notary Public, State of Texas

My commission expires: 4-24-2027