Office of the Secretary
Service Date
May 26, 1999

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF) UNITED WATER IDAHO INC. FOR APPROVAL) OF COST OF SERVICE ALLOCATION AND) RATE DESIGN.)	**CASE NO. UWI-W-98-3**
	ORDER NO. 28043

On July 6, 1998, the Idaho Public Utilities Commission (Commission) issued final Order No. 27617 in United Water Idaho Inc. (United Water; Company) Case No. UWI-W-97-6, the revenue requirement phase of the Company's general rate case. In its Order the Commission established a revenue requirement of $24,051,928 and authorized United Water to increase its revenues by $1,581,989 or approximately 7.15%. Pending conclusion of the cost-of-service/rate design phase of the Company's rate case, the Company was authorized to implement a uniform percentage increase in rates and charges for all customers.

On August 13, 1998, in Case No. UWI-W-98-3 United Water filed an Application with the Commission requesting approval of the Company's submitted cost-of-service allocation study and rate design proposal. The proposed rate design includes the following features:

- A customer charge recovering costs associated with billing, meters, service and fire protection;

- A volumetric or commodity charge that is an inverted three block rate structure that would charge higher rates as volumes increase (departure from existing summer/winter rates).

In Order No. 27617 the Commission also granted the Company leave to present information in its cost-of-service/rate design phase regarding a proposed adjustment related to Micron Technology Inc.'s reuse/efficiency program. Micron is the Company's largest consumer of water. The Company proposes to reduce the test year consumption figures for Micron based on projected use. The effect would be to increase rates to remaining customers. United Water presents a witness in this case regarding this adjustment. The issue is whether the proposed change in consumption by Micron is sufficiently "known and measurable" to justify an adjustment to test year data.

The Commission in this Order reaffirms the reasonableness of continuing with the present rate structure for United Water, rejects the proposed Micron adjustment to test year consumption, and rejects all proposed changes to rate design. The Commission further based on its assessment of the relative contributions of the intervening parties to the Commission's decision in this case and consideration of the factors set forth in *Idaho Code* § 61-617A and related Commission Rules of Procedure, awards intervenor funding in the following amounts: Idaho Citizens Coalition $16,661.87; and Ms. Sharon Ullman $589.84.

A public hearing in Case No. UWI-W-98-3 was held in Boise, Idaho on March 16 (17), 1999. The following parties appeared individually and/or by and through their respective counsel or representative:

United Water Idaho Inc.	Dean J. Miller, Esq.
Idaho Citizens Coalition	Al Fothergill
Coalition of United Water Customers	Peter J. Richardson, Esq.
Sharon Ullman	Pro se
Commission Staff	Scott D. Woodbury, Esq.

The record in this case presents the Commission with questions requiring consideration and decision in the following six areas:

1) Micron Adjustment,
2) Cost of Service,
3) Rate Design,
4) Further Public Hearings,
5) Intervenor Funding, and
6) Timing of Implementation.

Micron Adjustment

At hearing in the revenue requirement phase of the Company's rate case the Commission granted a Staff Motion to Strike regarding Company rebuttal testimony and related exhibits dealing with a proposed test year pro forma adjustment for Micron consumption. The Commission granted the Company leave, however, to bring the issue back to the Commission in the cost-of-service/rate design phase of its rate case. Order No. 27617 p. 46. In its Order, the Commission stated "Regarding the Micron reuse program, the Company may present testimony and a related adjustment in the next phase of this case, if it can demonstrate that Micron's Conservation Program will result in a significant, known and measurable reduction in consumption."

The proposed Micron adjustment is related to water conservation and reclamation measures implemented by Micron. Reference UWI Exhibit 3, p. 1, Micron Letter September 4, 1996, announcing proposed waste water reclamation project; and UWI Exhibit 3, p. 2, UWI Letter April 3, 1998, setting forth estimate of projected water usage.

In a general rate case, test year consumption is used to establish a rate design that is likely to recover the calculated revenue requirement. Pro forma adjustments to test year consumption are permitted for "known and measurable" changes.

As reflected in Company records, the actual consumption for Micron for the test year 7/96-6/97 was 580,661 ccf. The Company in this case proposes to use an adjusted annual consumption figure for Micron of 396,375 ccf, a reduction of 184,286 ccf. UWI Exhibit 3, p. 2; Tr. pp. 70, 192. The Company proposed figure is its estimate of Micron's expected consumption and is calculated on an average reduction in the base line usage by Micron for the first two billing periods in 1998 of approximately 35% from 1997 levels for the same two periods and a projected reduction in usage for the remainder of the year. In support of its proposed reduction, the Company provides additional and actual Micron consumption figures for July 97-June 98 (485,601 ccf) and the most recent 12-month period March 98-January 99 (328,066 ccf) UWI Exhibit 4. The more recent consumption figures for Micron, the Company speculates, indicate that Micron's consumption during the next two years is likely to be even less than the Company proposes. Tr. p. 15.

Based on reduced consumption the Company calculates a $10,150-related reduction in power and chemical expense. Exh. 2, Sch. 24; Tr. p. 193.

Commission Staff opposes the proposed test year adjustment arguing that (1) the Company has not provided sufficient documentation to demonstrate that the reduction is "known and measurable" and (2) that the reduction is not unusual as there exists an historic variability in Micron's water usage. Tr. p. 233; Exh. No. 130. Staff also points to the following qualifying language of Micron in the April 3, 1998 Letter, i.e., "These estimates are not binding on Micron Technology, Inc. as future conditions may cause changes in your water demands." UWI Exh. 3, p. 2.

Regarding lack of supporting documentation Staff raises three points:

1. There is no technical description, operational data, or even general description of Micron's reclamation processes,

2. The documentation submitted fails to demonstrate that the reduced consumption is not the result of some other reason, and

3. The documentation submitted is contradictory when compared to actual consumption data. Tr. p. 234.

Month-to-month and year-to-year variations in industrial consumption are the rule, Staff contends, and not the exception. Tr. p. 240; Ref. also prior Micron adjustment for reduced consumption related to Micron's supply well (Case No. BOI-W-93-1). Tr. pp. 246, 247. As reflected in the April 3, 1998 Letter, Staff further notes that Micron commits to the projected consumption figures for a period of only 12-24 months. Tr. p. 242.

Responding to Staff's objections, United Water contends that "if a customer informs us that they are installing equipment that will reduce their consumption, informs us that the equipment is operational, and then their consumption is reduced, I don't need a lot of technical description or operational data to convince me they were telling the truth." Tr. p. 19. Commenting on Micron's qualifying language in the April 3, 1998 Letter, the Company states that it is "a typical business practice to never forecast the future with certainty...no prudently operated business will limit their flexibility with a simple letter.... Tr. p. 19.

Micron, itself, a member of the Coalition of United Water Customers, indicates that it is unable to accurately estimate its consumption. It operates, it states, at the beck-and-call of changes in technology, international markets and international economic environment. Tr. p. 614. The volatility in its consumption, it states, is evidenced by Staff Exhibit 130, which shows that Micron's water consumption is all over the board. Tr. p. 614.

Factors identified by Micron as influencing its water consumption were (1) manufacturing process used; (2) water reclamation efforts; (3) weather; (4) status of Micron's own water production and supply options and the status of its pumping equipment; (5) price of computer chips may influence production levels and hence water consumption; (6) water quality standards (both internal and wastewater standards) and; (7) availability of new water sources. Tr. pp. 614-616. Based on its review of the enumerated factors, Micron anticipates that it will consume about 450,000 ccf over the next 12 months. Tr. p. 617.

We Find:

The Commission has reviewed the filings of record regarding the Company-proposed adjustment to test year consumption figures for Micron Technology, Inc. As established in the revenue requirement phase of this rate case, the test year (7/96-6/97) consumption for Micron was 580,661 ccf. Micron's usage reflected 3.5% of the total test year consumption for the Company, i.e., 16,722,721 ccf. The Company proposes that we utilize an adjusted annual consumption figure of 396,375 ccf, a reduction of 184,286 ccf. The proposed consumption figure is a projected number that is said to represent the effect of implemented water conservation and reclamation measures by Micron. While no one disputes that Micron has in fact implemented such measures and that recent actual consumption for Micron is below test year levels, we are asked to attribute all reduction to conservation and reclamation measures and accept a test year adjustment for rate calculation purposes, the longevity or reliability of which Micron itself is reluctant to endorse.

The documentation submitted to support the proposed adjustment does not provide us with the degree of known and measurable certainty required to make an adjustment from test year data. In this case, as in the prior revenue phase, the Company submits an April 3, 1998, letter crafted by the Company (Exhibit 3, p. 2) for the signature and purported acquiescence of Micron. It is this letter that reflects the adjusted figure proposed by the Company, i.e., 396,375 ccf. The letter recites "we should anticipate this usage rate to continue over the next 12 to 24 months." The Commission notes that at the time of hearing in this case we were already one year into the 24 months. We also note that the Company at hearing has requested that any change in rates be deferred until the next calendar year, nearly 20 months into the 12-24 month effective period. It is also not without significance that Micron qualifies and essentially negates its acceptance of the letter tendered to it by adding the following language over its signature: "These estimates are not binding on Micron Technology, Inc. as future conditions may cause changes in your water demands."

Staff arguing against the test year adjustment contends and Micron agrees that Micron's historic water consumption is all over the board. Micron has enumerated seven factors which it states influence its water consumption. Given the historic and potential variability of Micron's water usage, we are not convinced that the Company has demonstrated with the reasonable certainty required for ratemaking purposes that the proposed adjustment to test year consumption is sufficiently "known and measurable." While we acknowledge the role test year

consumption plays in the calculation of rate design, we acknowledge also that calculating rates on past consumption is to engage to some degree in a fiction. In denying the adjustment we do not believe that we are denying the Company a reasonable opportunity to realize its calculated revenue requirement and related return on investment.

Cost-Of-Service

A cost-of-service allocation study allocates total cost of service (i.e., the revenue requirement) to a series of functional costs and then to classes of customers in accordance with recognized principals and generally accepted procedures in order to obtain an indication of the relative cost responsibilities of each class of customer. Tr. p. 81.

United Water in this case presents a Cost-Of-Service Allocation Study (pro forma 12 months ending June 30, 1997) based upon the widely-recognized and used "base-extra capacity method". Tr. pp. 82, 115; UWI Exh. 1. This methodology identifies costs and allocates them to the functional cost categories of base cost, extra capacity cost, customer cost and fire hydrant cost. Once the cost of service has been allocated to functional cost categories, the usual procedure is to then allocate such functional cost categories directly to the customer classes. Tr. pp. 82-83.

In the study performed, the Company identified three customer classifications—general water service, public fire protection service, and private fire protection service. The Company notes parenthetically that since Order No. 15617 issued on June 12, 1980 in Case No. U-1025-41, costs related to providing public fire protection service have been recovered through the general water service rates. Tr. p. 86. The Company also notes that the general water service class was analyzed in its entirety rather than by its subclasses (residential, commercial, public authority, industrial) since each subclass is served under the same rate schedule. Tr. pp. 86, 117, 118.

The Cost-of-Service Study presented indicates that the costs associated with providing service which are unrelated to the quantity of water supplied are higher than the revenues now being collected through customer charges. The study also suggests that, in general, customer costs should be increased proportionately more for the smaller meter sizes than for the large meter sizes. Tr. p. 282. The Study determines the amount of revenue that should be collected through commodity-related charges and allocates costs for both private and public fire

protection. Tr. p. 282. The Study also determines costs associated with meeting base demand, maximum day demand, and peak hour demand. Tr. p. 283.

Fully allocated customer charges were calculated based on billing, meter and service costs. Added to these costs is an allocated share of overhead. Tr. p. 88. The customer cost category includes costs associated with connecting and serving a customer irrespective of the volume of water use or demand requirements imposed. Tr. pp. 82-83. In its cost of service analysis the Company focuses on average use and the peak use above that average, an analysis that demonstrates the highly seasonal nature of customer consumption (approximately 62% of UWI water consumption occurs in the four summer months).

The Company's COS analysis and discussions it states are presented as guides which the Commission can use to design rates to generate the revenue amount allowed. Tr. p. 89. Actual tariff design, in addition to relying on the results of cost of service analyses, should also, the Company contends, include consideration of policy matters, historical differences, impact of rate change, future planning, special customer characteristics, and judicial, regulatory, and contract requirements. Tr. p. 90.

The Company's cost-of-service methodology was criticized by the Citizens Coalition and the Coalition of United Water Customers. The Citizens Coalition contends that the Company is arbitrary in implementing its COS analysis, heavily muting the seasonal cost information yet mechanically adopting in its entirety the calculated customer costs (raising bimonthly customer charges for small use customers by 40-60%). Tr. pp. 428, 437. Identifying perceived flaws in the Company's methodology (i.e., re: overhead costs; peak costs) the Citizens Coalition concludes that there is no economic logic or justification for not implementing the seasonal cost results while mechanically implementing the customer cost results. Tr. p. 437. The Citizens Coalition recommends that the commodity rates during the peak summer season be increased (including the percentage of summer consumption that the peak use rate applies) to send accurate price signals. Tr. pp. 428, 437. Cost of service rates, the Citizens Coalition contends, focusing on average use and the peak use above that average, imply that summer rates should be four to five times winter rates (i.e., winter $0.36/ccf; summer $1.53/ccf). Tr. pp. 433, 434, 452, 453; Staff Critique Tr. pp. 334-337. As the Company does, however, the Citizens Coalition recognizes that full implementation of the cost-of-service results would have a disruptive and burdensome impact on customers. Tr. pp. 436, 453.

The Citizens Coalition is also critical of the level of overhead costs (A&G, depreciation on and the revenue requirement for general and intangible plant, and income taxes) that the Company seeks to add to and collect in the functional customer cost component and in its fixed customer charge. Tr. pp. 443, 444. The Citizens Coalition contends that if this increase is stripped from the calculation, that no increase is indicated. Regarding overhead, the Company responds that an argument could be advanced that all A&G and general plant expenses be included in the functional customer costs since these costs and plant would exist even if no water were taken. Rather, the Company follows allocation examples presented in the American Water Works Association (AWWA) Water Rates Manual No. M1 at p. 34. Tr. p. 92; UWI Exh. 5. Further support for inclusion of overhead costs in customer cost component: publication NRRI 93-13, "Meeting Water Utility Revenue Requirements: Financing and Ratemaking Alternatives" page 69. Tr. p. 92; UWI Exh. 5; Staff Critique Tr. p. 338.

The Citizens Coalition is also critical of the manner in which the customer cost calculation was performed. For customer billing and customer service costs, the Company simply divides the total cost by the number of bills, weighting each customer equally regardless of size. Meter costs are allocated in proportion to the capacity of the meter. Services are allocated yet another way, by the diameter of the service pipe connecting the customer to the water main. A more systematic approach, it is contended, would be to allocate all these costs on a similar weighted basis. Tr. p. 446. The Company in response contends that it merely uses the equivalent meter ratios and equivalent service ratios recommended by the AWWA. Tr. p. 96.

Another reason for not increasing the customer charge, the Citizens Coalition contends, is that it tends to dampen the price signal of the high cost of water consumption during peak use periods. It is this signal (price elasticity of demand) that provides accurate cost information that allows customers to make rational decisions about their own economic behavior. Tr. pp. 446, 447.

In its cost-of-service analysis of peak costs, the Company, the Citizens Coalition contends, assumes that costs rise in a proportional way with peak demand, Tr. p. 453. Unfortunately, the Citizens Coalition contends, we have economic and engineering information that tells us it is not a correct assumption. Tr. p. 454. Knowing that a design criteria exists tells us nothing about the costs associated with meeting that design criteria. It takes cost analysis, not just assumptions to move from a design criteria to cost-of-service analyses. United Water, the

Citizens Coalition contends, has not provided that cost analysis. What is needed, the Citizens Coalition contends, is the incremental cost associated with serving additional peak loads. Tr. p. 454. The Company disagrees contending that the base-extra capacity method of water utility cost allocation is not premised upon the identification of incremental costs. In reality, plant facilities, the Company states, are designed and built as single units. Extra capacity costs are not the incremental costs incurred in providing the extra plant capacity to meet above average needs. Tr. p. 96. The Citizens Coalition concludes that United Water cost-of-service analysis is not terribly useful in indicating how much higher peak period prices should be or to whom these costs should be allocated. Tr. p. 460.

In assessing the Company's cost-of-service study Commission Staff makes the following observations:

- Costs are not allocated according to meter size. Tr. p. 283
- By grouping general service customers together (residential, commercial, industrial and public authority), it becomes impossible to associate specific costs with specific customers. Tr. p. 284.
- Although the Study discloses costs associated with meeting peak day and peak hour demand, it provides no direct information as to how costs vary by season. Tr. p. 284.
- The Cost-of-Service Study tells us nothing specific about load factor, or characteristic patterns of usage. Tr. p. 284.

These limitations of the Cost-of-Service Study, in turn, Staff contends limits the linkage between rate design and cost of service. Tr. p. 285.

We Find:

The Commission has reviewed and considered the Company's submitted cost-of-service allocation study and related critiques of same. The average-and-excess methodology that the Company has employed is the "base-extra capacity method." We find, as represented, that the methodology employed is widely accepted within the industry. We note also that it is the same methodology previously utilized by the Company. We accept the methodology as a reasonable means of providing some insight and analysis into Company operations and costs. As directly pertains to the Idaho operations of United Water, we find that the methodology has

limitations. We specifically note the observations of Staff detailed above, which we agree prevent any strict correlation between the cost-of-service study and rate design or in any assignment of cost to a particular subgroup of general service customers (residential, commercial, industrial or public authority). We agree with the Company that the submitted COS analysis and discussions are only one of many factors to be considered in actual tariff design.

Rate Design

United Water in this case is proposing a change in rate design. Its rate design proposal, it states, is grounded in its cost-of-service findings, the obvious need to manage customer demand giving the prevailing climatic conditions, and the needs of the Company in terms of revenue sufficiency and stability. Tr. p. 158. The present rate structure (seasonal winter/summer rates—Reference Case No. BOI-W-93-1), the Company states, fails to send a conservation signal during the winter months and is perceived, as evidenced by complaints received during the summer, to be unfair by customers whose usage is flat throughout the year and who do not engage in outdoor summer irrigation/sprinkling. Those customers do not understand why they are required to pay 25% more in the summer for the same volume used the rest of the year. Tr. pp. 10-11, 149, 168.

The present rate design for United Water Schedule 1 General Metered Service customers is as follows:

Customer Charges:

Meter Size	Bi-Monthly Per Meter Charge
5/8"	$ 13.51
3/4"	13.51
1"	17.80
1-1/4" and 1-1/2"	28.81
2"	41.64
3"	76.52
4"	121.78
6"	234.33
8"	353.59
10"	494.33
Micron	234.33

Volume (commodity) Charge:

	Winter Rates	Summer Rates
For all water used per 100 cubic feet (CCF):	$0.9113	$1.1388
For all water used per 1,000 gallons	$1.2183	$1.5225

The rate design proposed by the Company includes the following features:

Customer Charge

- Continuation of existing basic structure that recovers costs associated with billing, meters, service and fire protection. As reflected in Exhibit 2, Schedule 1, 30% of fixed costs incurred are to provide basic customer-related services. An additional 4% is allocated to private and public fire protection. (Note exception—UWI proposes to collect public fire costs through the commodity charge. Tr. p. 289)

- Proposed change in customer charge (redefinition of customer class based on meter size.) Tr. pp. 150, 151.

Cost of Service results, the Company contends, support increasing the bimonthly customer charge by as much as 39% (i.e., existing revenue recovered via customer-based service charges $4,973,023; proposed $6,911,745) *see* Tr. p. 430; Sch. 2, p. 9.

Commodity Charge

- Proposed change in structure—three step inclining block (inverted block)

- Base, intermediate and high volume rate blocks—based on meter size.

Tr. pp. 11, 149; UWI Exh. 2.

Contending that there is a strong correlation between the consumption level of customers and the size of the meter, the Company in this case has chosen to develop a rate design with charges that differ by meter size—a redefinition of customer class based on meter size and the introduction of an inverted rate block structure. Tr. pp. 150, 151; Exh. 2, p. 6. Inherent in the Company's design proposal, it states, is the "right sizing" of meters to expected demand characteristics (meter sizes 5/8" to 8"). Tr. pp. 151-152. Addressing this, the Company proposes to submit tariff changes reserving unto itself the right (with appeal) to supply a meter

based on an evaluation of customer consumption and limiting the frequency of meter change-outs. Tr. pp. 156, 189-191.

The Company's proposal includes significant changes in the overall allocation of how costs should be recovered (that is, the proportion to be recovered from fixed versus commodity charges), and in the way commodity revenues are generated (inverted block versus summer/winter differential). Tr. p. 154.

The critical factors to take into account in designing an inverted block rate structure, the Company contends are three:

1. When does the peak usage period occur?
2. How much water is used during base and peak periods?
3. At what point should a break point for basic water use and peak water use be set?

Exh. 2, p. 3.

Based on its review of water billings, the Company states that all customer sectors (residential, commercial and public) exhibit a tri-modal usage pattern:

		Residential		% of Total Consumption
e.g.,	winter—	base period	January-April	42.46%
	summer—	peak period	July-October	30.57%
		shoulder period	May, June, Nov, Dec	26.97%

Exh. 2, Sch. 5

Based on its review of data, the Company concludes that class differences are not of significant relevance in tariff design for its water system. Instead, the key determinants, it concludes, should be water usage patterns (with meter size being the best indicator of consumption patterns Exh. 2, p. 6). The following composite water demand pattern developed:

	% of Total Consumption
Base period	47.31%
Peak period	25.43%
Shoulder period	27.26%

Exh. 2, p. 5

In determining break points for its inverted block, the goal of the Company, it states, was to define a tariff structure that aims to charge customers for water based on their increasing level of consumption and define a rate structure that could be used as a tool to encourage by more precise pricing signals prudent use of water at all times. Tr. pp. 203, 205; Exh. 2, p. 7; *see* Exh. 2, Sch. 21, 22—break points by meter size. As discussed by Staff, commodity block rates are dependent on two factors: 1) the revenue to be generated in each block and 2) the volume of water sold in each block. Tr. p. 299. Staff proposed break points based on the following: 1st block-roughly equal to base consumption; 2nd block—peak-day costs; 3rd block-peak-hour costs. Tr. pp. 300-301.

The revenue requirement determined by the Commission in Case No. UWI-W-97-6 was $24,051,928. As reflected in Exhibit 2, Schedule 23, the revenue requirement components for UWI are:

- Meter sales to customers in base UWI system
- Meter sales to customers in recently acquired systems (rate phase-in)
- Private fire protection revenues
- Other water revenues

The Company's calculated revenue requirement to be recovered from base meter sales is $22,824,840: Customer Service Charges (recovery of $6,911,745) and Commodity Charges (recovery of $15,913,094): base use: $10,635,000 first block (75% of use); peak use: $2,739,000 second block (next 15% of use), $2,539,000 third block (remaining 10% of use). Exh. 2, pp. 8, 9; Exh. 2, Sch. 23 col. 7, line 4. The Company's calculation assumes the Micron consumption adjustment and related decrease in operating costs ($10,150/yr).

The Company's proposed level for fixed customer charges was based on full implementation of its cost-of-service findings. The result was customers with smaller meter sizes (residential) getting large rate increases relative to customers with larger meters (commercial, public customers). Tr. p. 155; Exh. 302. Recognizing that some adjustment was likely, the Company indicates that it will support reducing fixed customer charges in favor of increasing the first block of the commodity rate. Tr. p. 156. In general, the Company states that Staff's Alternative B (inverted block) rate proposal accomplishes this goal and the Company

would support and even prefers a rate schedule structured along those lines. Tr. pp. 39, 72, 73, 156; Staff Exh. 115, 183.

Staff Alternative B Rates

Customer Charge	Consumption Limits 1st Block	2nd Block
$15.41	24	66
$15.41	24	66
$22.19	47	150
$34.18	140	440
$34.18	140	440
$50.05	300	950
$78.43	740	2,300
$121.57	1,700	5,000
$227.16	3,900	8,600
$344.65	3,900	8,600
$227.16	48,000	82,000

Commodity Charge	
1st Block	$0.8817
2nd Block	$1.0636
3rd Block	$1.2855

Under Staff Alternative B, customer charges are moved halfway to cost-of-service from the rates in effect prior to the revenue requirement phase of this case (UWI-W-97-6). The rate in the first block is higher than UWI's proposed rate, but the rates in the second and third blocks do not increase as quickly. Tr. pp. 295, 296. Under the existing rate design slightly over 21% of revenue is collected through customer charges. Under Staff Alternative B, 25% of revenue will be generated from customer charges. Tr. p. 418. It is to be noted that Staff, as did the Company, recommends that Micron because its usage differs so much from that of other customers be placed in a class by itself. Tr. pp. 277, 312-314 (1st block size 33 ccf; 2nd block 58,000 ccf); Exh. 119.

Staff contends that an appropriate rate design will attempt to balance the following factors: equity, simplicity, and conservation. Tr. pp. 277, 278.

Numerous rate proposals were put forward by the other parties to this case:

Ullman rate proposal: Tr. p. 565

Customer charge—no change (Tr. p. 563).
Commodity charge—inverted block

Block 1 $0.92—just above current winter rate ($0.9113)
Block 2 $1.14—current summer rate (24% higher)
Block 3 $1.36—(48% higher)

Block Size: e.g., 5/8" meter

Block 1—First 45 ccf
Block 2—Next 45 ccf
Block 3—Greater than 90 ccf

No rate proof submitted. By maintaining a "relatively" lower customer charge and increasing the per unit charge for water itself, Ms. Ullman maintains that there is a closer link between each ratepayers usage and resulting bill—water conservation is thereby promoted. Tr. p. 561.

Ms. Ullman contends that pricing presents the philosophical question of how to balance the issue of cost of service versus a conservation incentive and a social conscience (societal obligation to help less fortunate and to provide basic needs). Tr. pp. 562, 563.

Addressing the needs of the less fortunate, Ms. Ullman suggests that the Company develop a low income water assistance program. Tr. p. 564.

Ms. Ullman further suggests that customers with continuing aesthetic water quality problems (i.e., iron/manganese) should receive a price adjustment. Tr. p. 566.

Idaho Citizens Coalition rate proposals: Tr. pp. 433-435

1. Base period costs spread over base & shoulder period consumption
   Peak day/hour costs spread over peak period consumption
   ($0.48/winter)
   ($2.33/summer)

2. Rates calculated on average & peak use above average
   ($0.36/winter)
   ($1.53/summer)

3. Collect peak costs during peak & shoulder periods —($1.12 peak & shoulder)
   Collect base costs only during base period — ($0.76 base)

4. Three block rate structure: Tr. p. 461.
   Block 1—25%—winter rate—(small block)
   Block 2—50%—summer rate—(majority of consumption)

Block 3—25%—several times initial Block 1 rate (relatively modest, but significant percentage of summer consumption)

5. Summer surcharge that applies to summer consumption exceeding avg. winter consumption (approximately 31% of summer usage in initial blocks)
   $0.91 winter; summer Block 1
   $1.24 summer Block 2

No change in customer charge. Tr. p. 466.

Dr. Power, the witness for the Idaho Citizens Coalition, objects to a shift in revenue recovery from use charges to fixed charges and from peak period use to off-peak period use. Tr. p. 431. It is peak summer consumption, Dr. Power maintains, that is driving UWI costs upward. To reduce bills during this period sends the wrong message to customers. Tr. p. 432.

Dr. Power recommends that the design of rates for UWI customers in this case be guided by the following principles:

1. The bimonthly customer charges should not be increased.
2. Summer bills should not be reduced significantly.
3. The summer tailblock rate should provide a substantial incentive to reduce summer consumption.
4. There should not be wide and disruptive billing impacts. Tr. p. 460.

Dr. Power in his rebuttal testimony states that the Commission should be very cautious about adopting any of the proposed changes in rate design and suggests that the current rate design be maintained, albeit with a somewhat higher summer rate. Tr. pp. 472, 473. Alternatively, he suggests something similar to his No. 5 rate proposal with the base rates at close to the current winter rate and initial summer block equal in size to the average winter use. Tr. p. 473. Regarding customer complaints and confusion as a stated reason for changing rate design, Dr. Power suggests the need instead for better customer education as to the reason water rates rise in the summer. Tr. p. 476.

Coalition of United Water Customers rate proposal: Tr. pp. 594-596

- Flat uniform customer charge: regardless of meter size or consumption level of customer to recover all fixed customer costs ($6,911,745). Tr. pp. 591, 600; Staff Critique Tr. pp. 320-321.

Dr. Reading, the witness for the Coalition of United Water Customers, contends that meter sizes are highly correlated with usage level. He concludes that it is thus redundant to have a customer charge based on usage and at the same time a commodity charge based on usage. Tr. pp. 600-601.

- Commodity Charge: excess use structure based on individual customer winter usage (base); Staff Critique Tr. pp. 323-327.

- Excess Consumption Charge: (2 x base charge) applied to shoulder and summer months. Tr. pp. 82, 596; Staff Critique Tr. pp. 321-322.

Block Sizes

Shoulder Months—Base consumption equal winter plus 15%,.

Summer Months—Base consumption equal winter plus 30%.

Staff Critique Tr. pp. 327-328

Customer Charge	$20.87	($6,911,745)
Commodity Charge		
Basic Rate	$0.65/ccf	($5,946,689)
Irrigation Rate	$1.31/ccf	($9,966,406)

Exh. 302, Sch. 3; Tr. p. 596

The stated goal of Dr. Reading's proposed rate design is not to reduce water usage in the absolute, but to reduce the amount of potable water wastefully being used for irrigation. Tr. p. 599. Dr. Reading contends that excess usage is almost always irrigation-related. His rate design, he contends, encourages dual water systems. Tr. p. 603.

Dr. Reading indicates that the members of his Coalition (Micron and Hewlett-Packard) would expect to see significant rate reductions as a result of his rate design (Micron 32% decrease; Hewlett-Packard 36% decrease). Tr. p. 610, Staff Exh. 131, Tr. pp. 322-323. This is because his client group, he states, are large flat-use customers with good load factors. Dr. Reading contends that the industrial customers of United Water system are substantially subsidizing other customers. This is not fair, he states. Tr. p. 610. The longer subsidies exist, the more harm is done he maintains. Tr. p. 611.

Dr. Reading contends that an inverted block sends erroneous and inefficient pricing signals in winter —i.e., discourages added consumption. Tr. pp. 25-26, p. 590. Staff Critique Tr. pp. 328-330. *See* also discussion Sterling at Tr. p. 287 relating to economic efficiency and sound management of limited resources. Also Tr. p. 68.

We Find:

The Commission has reviewed and considered the numerous rate design proposals of the parties. The Commission and all parties recognize that there are any number of rate designs that will provide the Company with a reasonable opportunity to recover its authorized revenue requirement. The existing and all proposed rate designs consist of a customer charge and a commodity charge. In this case we consider the reasonableness of changing the commodity charge from the present seasonal winter/summer rate structure, which charges customers 25% more for the five months of summer usage to a year-round or seasonal inclining block rate structure. The perceived need for change was to address what has been a recurring seasonal pattern of complaints from customers who perceive the summer surcharge to be unfair, especially as it affects those customers who have no summer irrigation or sprinkler use. The Citizens Coalition alone recommends that we retain the existing structure but increase efforts to educate the public as to the reasons for the winter/summer differential.

No party, we note, contends that the present seasonal pricing has been ineffective in reducing peak use or in sending appropriate pricing signals during the season of peak use (summer). Instead, what is suggested is that a rate structure that sends a uniform year-round conservation signal may be a better method of encouraging wise and responsible water use choices.

Unfortunately, we are presented with proposals that are more complex rather than simpler and easier to understand. We are concerned that the customer will be provided with no signal that a pricing threshold has been crossed and that additional consumption will be more expensive. We are concerned that the average customer does not realize that 100 cubic feet of water (ccf), the measure by which the Company calculates usage, is 748 gallons. We are concerned that the Company will be no more successful in explaining an inverted block to its customers than it has been in explaining seasonal rates. For these reasons and because it has not been demonstrated that a change is required or that the existing rate design is unfair, we are

reluctant to abandon the present summer/winter rate structure. We further agree with Dr. Power that the Company's efforts regarding customer confusion and the perceived unfairness of rates should be directed at developing and providing more effective education as to the reasons for the summer/winter rate differential.

In addition to a change to the commodity rate structure, the Company and others propose to increase the customer charge. As acknowledged by all parties, increasing the customer charge will shift revenue generation away from the commodity or usage charge. This in turn will have the effect of dampening the conservation and pricing signal that is to be conveyed by the summer rates. It is also recognized that increasing the fixed customer charge beyond present levels may serve to create further hardship for the low or fixed income customer, to whom the ability to control costs may be more critical. The Company, we note, has neither contended nor demonstrated that an increase in the customer charge is necessary to meet monthly operating expense. We find that there is no requirement that customer cost be recovered in the customer charge component to rates. We find that no change in the customer charge is necessary.

Further Public Hearing

No customers appeared at the scheduled evening hearing for public testimony in Case No. UWI-W-98-3. Discussion ensued as to whether sufficient or adequate notice had been provided. The Commission's Rules of Procedure require Company notice to customers of proposed changes in rates. IDAPA 31.21.02.102. Proceedings in the Company's present general rate case were bifurcated by the Commission into two phases: (1) revenue requirement and (2) cost of service/rate design. The Company provided customer notice in the rate requirement phase, however, not in the cost-of-service/rate design phase. The Commission issued Notices of Application and Hearing in both phases of the case and disseminated its Notice of Hearing in this case to the local news media and to interested parties registered with the Commission Secretary.

We Find:

In considering the necessity of further public hearing in this case, the Commission, based on its recollection and review of the record and the testimony of the parties, finds that the