BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the tariff filing of UtiliCorp United Inc., ("UtiliCorp") to implement a general rate increase for retail electric service provided to customers in the Missouri service area.	)))))	Case No. ER-2001-672

AFFIDAVIT OF HONG HU

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Hong Hu, of lawful age and being first duly sworn, deposes and states:

1. My name is Hong Hu. I am a Public Utility Economist for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony consisting of pages 1 through 6.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Hu Hong
Hong Hu

Subscribed and sworn to me this 22nd day of January, 2002.

BONNIE S. HOWARD NOTARY SEAL MY COMMISSION EXPIRES 05-03-2005 NOTARY PUBLIC COUNTY OF MONITEAU STATE OF MISSOURI

Bonnie S. Howard, Notary Public

My commission expires May 3, 2005.

SURREBUTTAL TESTIMONY

OF

HONG HU

UTILICORP UNITED INC.

CASE NO. ER-2001-672

Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.

A. Hong Hu, Public Utility Economist, Office of the Public Counsel (OPC), P. O. Box 7800, Jefferson City, Missouri 65102.

Q. HAVE YOU FILED ANY PREVIOUS TESTIMONY IN THIS CASE?

A. Yes, I filed direct testimony and rebuttal testimony on the issue of cost of service and rate design.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimonies filed by the Company witness Mr. Matt Tracy regarding rate design issues.

Q. COMPANY WITNESS MR. MATT TRACY STATED THAT NO OTHER PARTIES ADDRESSED THE OTHER TARIFF CHANGES PROPOSED IN HIS DIRECT TESTIMONY. DO YOU AGREE?

A. No. On page 3, lines 5 through 9, Mr. Tracy proposed new reconnection charges and meter reads charges. In my direct testimony, I have presented OPC's calculation on what the proper charges should be. My understanding is that all parties have reached an agreement in settlement discussions regarding the proper charges, which are close to my proposed rates.

Q. ON PAGE 6, LINE 11 THROUGH PAGE 7, LINE 11 OF HIS REBUTTAL TESTIMONY, MR. TRACY DISCUSSED OPC'S POSITION THAT NO CLASS SHOULD RECEIVE A NET INCREASE WHILE THERE IS A TOTAL COMPANY REVENUE REQUIREMENT REDUCTION AND NO CLASS SHOULD RECEIVE A NET DECREASE WHILE THERE IS A TOTAL INCREASE. MR. TRACY CLAIMS THAT THIS POSITION IS "UNTENABLE" AND THAT "THERE CAN BE NOTHING OTHER THAN ACROSS-THE-BOARD CHANGES" IF IT IS NOT REJECTED. DO YOU AGREE?

A. Absolutely not. Mr. Tracy is simply incorrect in his description. Public Counsel's general rate design principle **is** tenable and **does not** constrain rate design efforts to across-the-board changes only. Furthermore, by adopting these criteria for rate design in a general rate case, the Commission will have balanced the movement toward cost of service with the provision of affordable service and equity among customer classes.

Q. COULD YOU GIVE AN EXAMPLE TO EXPLAIN IN DETAIL HOW THIS PRINCIPLE WORKS IN A RATE CASE TO ENSURE THE COMMISSION BALANCES THE MOVEMENT TOWARD COST OF SERVICE WITH PROVISION OF AFFORDABLE SERVICE AND EQUITY AMONG CUSTOMER CLASSES?

A. Yes. Table 1 shows a very simple example where there are only two customer classes in a utility.

Table 1. Example showing how OPC's rate design principle works in a revenue reduction case

Customer Class	A	B	Total
Current Revenue (million)	80	20	100
% of Current Revenue	80%	20%	100%
Class Cost of Service	85	15	100
% of Class Cost of Service	85%	15%	100%
Revenue Neutral Revenue Shift Indicated by Class Cost of Service	5	-5	0
Spread of Revenue Reduction			
If the total reduction is 20 million	-17	-3	-20
Net class revenue reduction	-12	-8	-20
Resulted Class Revenue	68	12	80
% of Resulted Class Revenue	85%	15%	100%
If the total reduction is 5 million	-4.25	-0.75	-5
Net class revenue reduction	0.75	-5.75	-5
After adjustment for the equity principle	0	-5	-5
Resulted Class Revenue	80	15	95
% of Resulted Class Revenue	84%	16%	100%

In the above example, cost of service analysis indicates a revenue neutral shift of 5 million from class B to class A. In the first case, if the total company revenue reduction is 20 million, the principle does not impose a binding constraint to rate design. Cost of service goals are reached without the principle being violated. In the second case where the total company revenue reduction is only 5 million, the principle becomes binding, since the net effect of the revenue neutral shift and the spread of revenue reduction is that class A would have to receive a rate increase

even if the company's total revenue is to be reduced. In other words, customers in class A would be even worse off than before the company's total revenue is reduced. This is not fair to customers in class A and not a sound public policy. Applying the principle will ensure that class A customers are at least no worse off than before the total revenue reduction. The result of the adjustment is that the Commission chooses rates that move toward class cost of service but not unduly burden some group of customers. Class A's revenue responsibility moves from 80% to 84%, closer to their share of cost of service, i.e. 85%. The movement toward cost of service is achieved without sacrificing the equity concerns among customer classes.

The same general principle can be applied when there is an increase in the total Company revenue requirement to ensure the provision of affordable service. Applying this principle ensures that no class of customers will receive unreasonable rate increases in order to provide other customers with a rate decrease in a case where the revenue requirement increases.

Both cases shown in the above example result in rate designs that are clearly not across-the-board changes at all. The policy goal of moving toward cost of service is achieved. OPC's recommended principle works to ensure fairness, affordability, and equity among customer classes. The example shows that Mr. Tracy's claim that this principle "puts an untenable constraint on rate design, and must be explicitly rejected or there can be nothing other than across-the-board changes" is completely wrong. In fact, in lines 8 through 9 on page 7 of his rebuttal testimony, Mr. Tracy himself admitted that if such a general principle is followed, "a large change in overall revenue might allow meaningful shifts in costs [revenues], smaller changes would allow smaller relative shifts." I believe

this is the exact end result that the Commission should pursue in rate designs of a general rate case.

Q. IS OPC'S RATE DESIGN PRINCIPLE THAT NO CLASS SHOULD RECEIVE A REVENUE INCREASE WHILE OTHER CLASSES RECEIVE A REVENUE REDUCTION AND THAT NO CLASS SHOULD RECEIVE A REVENUE REDUCTION WHILE OTHER CLASSES RECEIVE A REVENUE INCREASE CONSISTENT WITH ECONOMIC THEORY?

A. Yes. A concept of economic efficiency most often used in economics is called "Pareto-optimality" or "Pareto-efficiency". These terms mean that an efficient improvement to the current outcome is one that harms no one and improves a lot of some people. The benefits of the application of this economic principle is widely accepted in economics and political science. The OPC's recommendation for Pareto-optimal rate design is consistent with the principles of economically efficient public utility pricing.

Q. IS OPC'S PRINCIPLE THAT NO CLASS SHOULD RECEIVE A REVENUE INCREASE WHILE OTHER CLASSES RECEIVE A REVENUE REDUCTION AND THAT NO CLASS SHOULD RECEIVE A REVENUE REDUCTION WHILE OTHER CLASSES RECEIVE A REVENUE INCREASE CONSISITENT WITH GOOD PUBLIC POLICY?

A. Yes. The Commission is responsible for determining just and reasonable rates for Missouri public utilities. The importance of incorporating social and political factors including affordability and equity concerns into utility rate design have long been recognized by regulators and public utility researchers. OPC's recommended general principle ensures affordability by avoiding any unnecessarily excessive rate increase to any customer class, and ensures equity through balancing the best interest of all concerned in a rate case. In previous

cases, the Commission has adopted rate designs based on this principle of OPC. In fact, the Commission has explicitly rejected other rate design recommendations where one customer class or a group of customer classes were asked to bear more revenue responsibility than would be required in order to shoulder the entire company revenue requirement increase.

Q. WILL THIS PRINCIPLE APPLY IN A REVENUE NEUTRAL COST OF SERVICE/RATE DESIGN DOCKET?

A. No. A revenue neutral cost of service/rate design docket can be used to investigate a Company's class cost structure and to determine whether the current rate structure generates class revenues that reflect the appropriate class cost of service. If large discrepancies between class costs and class revenues are determined, it may be appropriate to make some revenue neutral shift that will result in rate increase for some classes and rate decreases for other classes. In this special circumstance, OPC's principle of mitigating rate shocks through gradualism still applies. Also, depending on the level of adjustments identified in a revenue neutral rate design case, actual adjustment may be best effectuated in a subsequent rate case or earnings complaint case.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.