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IDAHO PUBLIC  
UTILITIES COMMISSION

**BEFORE THE**

**IDAHO PUBLIC UTILITIES COMMISSION**

<b>KIMBALL PROPERTIES LIMITED</b>	)	
<b>PARTNERSHIP, AND HEWLETT PACKARD</b>	)	<b>CASE NO. IPC-E-00-12</b>
<b>COMPANY,</b>	)	
	)	
<b>Complainant</b>	)	
	)	
<b>vs.</b>	)	
	)	
<b>IDAHO POWER COMPANY,</b>	)	
	)	
<b>Respondent.</b>	)	

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**DIRECT TESTIMONY OF RICK STERLING**

**IDAHO PUBLIC UTILITIES COMMISSION**

**JANUARY 8, 2004**

1 Q. Please state your name and business address for  
2 the record.

3 A. My name is Rick Sterling. My business address is  
4 472 West Washington Street, Boise, Idaho.

5 Q. By whom are you employed and in what capacity?

6 A. I am employed by the Idaho Public Utilities  
7 Commission as a Staff engineer.

8 Q. What is your educational and professional  
9 background?

10 A. I received a Bachelor of Science degree in Civil  
11 Engineering from the University of Idaho in 1981 and a  
12 Master of Science degree in Civil Engineering from the  
13 University of Idaho in 1983. I worked for the Idaho  
14 Department of Water Resources from 1983 to 1994. In 1988,  
15 I became licensed in Idaho as a registered professional  
16 Civil Engineer. I began working at the Idaho Public  
17 Utilities Commission in 1994. My duties at the Commission  
18 include analysis of utility applications and customer  
19 petitions.

20 Q. What is the purpose of your testimony in this  
21 proceeding?

22 A. The purpose of my testimony is to offer my  
23 opinion on how I believe costs of the Bethel Court  
24 substation should be shared between Idaho Power and Hewlett  
25 Packard/Kimball Properties Limited Partnership

1 (HP/Kimball). I also discuss and offer solutions to what I  
2 believe are problems with current policies regarding  
3 contributions for substations and transmission facilities  
4 for Schedule 19 customers. Finally, I make recommendations  
5 for further proceedings.

6 Q. Please describe all Idaho Power tariffs and  
7 Commission-approved rules that you believe are relevant to  
8 this case.

9 A. The relevant Idaho Power tariff is Schedule 19,  
10 Large Power. With regard to substations, Schedule 19  
11 provides as follows:

12 AVAILABILITY

13 Service under this schedule is available at  
14 points on the Company's interconnected  
15 system within the State of Idaho where  
16 existing facilities of adequate capacity  
17 and desired phase and voltage are  
18 available. If additional distribution  
19 facilities are required to supply the  
20 desired service, those facilities provided  
21 for under Rule H will be provided under the  
22 terms and conditions of that rule. **To the  
23 extent that additional facilities not  
24 provided for under Rule H, including  
25 transmission and/or substation facilities,  
are required to provide the requested  
service, special arrangements will be made  
in a separate agreement between the  
Customer and the Company. (Emphasis added)**

22 A complete copy of Schedule 19 is attached to  
23 Idaho Power witness Said's testimony as Exhibit No. 104.

24 Rule H, New Service Attachments and Distribution  
25 Line Installations or Alterations, sometimes generally

1 referred to as the Company's line extension rules, has been  
2 frequently referred to in this case. In part, it states,

3 This rule applies to requests for electric  
4 service under Schedules 1, 7, 9, 19, 24,  
5 45, and 46 that require the installation,  
6 alteration, relocation, removal, or  
7 attachment of Company-owned distribution  
8 facilities. New construction beyond the  
9 Point of Delivery for Schedule 9 or  
10 Schedule 19 is subject to the provisions  
11 for facilities charges under those  
12 schedules. **This rule does not apply to  
13 transmission or substation facilities, or  
14 to requests for electric service that are  
15 of a speculative nature.** (Emphasis added)

16 A complete copy of Rule H is attached to Idaho  
17 Power witness Said's testimony as Exhibit No. 103.

18 Q. Do you believe Rule H applies in this case?

19 A. No, not directly. Rule H very clearly states that  
20 it does not apply to transmission or substation facilities.  
21 Therefore, Rule H does not apply since this complaint  
22 concerns costs associated with the Bethel Court substation.

23 Q. How are the four HP/Kimball buildings billed by  
24 Idaho Power?

25 A. It is my understanding that two buildings (HP #26  
and #29) are metered through a single meter and billed  
together as a single Schedule 9 primary customer. The other  
two buildings (HP #27 and #28) are billed individually as  
Schedule 9 primary customers. None of the buildings have  
ever been billed under Schedule 19.

1           Q.    If none of the four HP/Kimball buildings have ever  
2 been billed as Schedule 19 customers, why is Schedule 19  
3 relevant in this case rather than Schedule 9?

4           A.    Schedule 19 is relevant because at the time the  
5 request for new service was made, HP/Kimball informed Idaho  
6 Power that its load at the location would be approximately  
7 four megawatts.  Because a one-megawatt load qualifies a  
8 customer for Schedule 19, both Idaho Power and HP/Kimball  
9 believed that the new buildings would be served under  
10 Schedule 19.  Under Schedule 19, special arrangements are to  
11 be made to establish charges for substations and  
12 transmission facilities.

13          Q.    Although Idaho Power and HP/Kimball both initially  
14 thought the buildings would be served under Schedule 19, all  
15 of the buildings have been served under Schedule 9.  Why  
16 weren't the rules for Schedule 9 customers applied in this  
17 case?

18          A.    At the time the request for service was made, both  
19 Idaho Power and HP/Kimball believed the load would be  
20 sufficient to qualify for Schedule 19.  Idaho Power  
21 proceeded to design and construct the necessary facilities  
22 to serve a four-megawatt load, and assessed charges for the  
23 Bethel Court substation as if HP/Kimball was a Schedule 19  
24 customer.  It was not until after the Bethel Court  
25 substation had been constructed that it became apparent that

1 HP/Kimball would not be a Schedule 19 customer. The four  
2 megawatts of load never materialized, however, so Idaho  
3 Power was left with extra substation capacity. Neither  
4 Idaho Power nor HP/Kimball dispute that the initial service  
5 request was made assuming service would be provided under  
6 Schedule 19.

7 Q. What difference does it make whether HP Kimball is  
8 treated as a Schedule 19 or a Schedule 9 customer?

9 A. Schedule 19 requires that Idaho Power and  
10 HP/Kimball make special arrangements for substation costs.  
11 Under Schedule 9, HP/Kimball would not be assessed anything  
12 for the Bethel Court substation. Stated another way, Idaho  
13 Power has required Schedule 19 customers to pay for their  
14 share of substation costs through up-front charges when  
15 capacity is not available, while Schedule 9 customers pay  
16 nothing up-front and instead pay for substations over time  
17 through rates, as do other customer classes.

18 Q. Do you believe Idaho Power violated any tariffs or  
19 rules by seeking a substation contribution from HP/Kimball?

20 A. No, technically Idaho Power has not violated any  
21 tariffs or rules. Idaho Power exercised its judgment in  
22 determining that additional substation facilities were  
23 needed to provide service. Anytime the Company is allowed  
24 to use its discretion to make such a determination,  
25 questions can arise regarding discrimination or preferential

1 treatment.

2 The applicable rule, I believe, is the requirement  
3 in Schedule 19 that special arrangements shall be made in  
4 instances where new substation or transmission facilities  
5 are needed in order to provide service. By seeking a  
6 contribution from HP/Kimball, Idaho Power was, in effect,  
7 making "special arrangements."

8 I firmly believe, however, that there is an  
9 expectation that those special arrangements will be fair and  
10 non-discriminatory. "Special arrangements" does not mean  
11 that any arrangements are acceptable. *Idaho Code* §61-315  
12 prohibits discrimination and preference amongst customers.  
13 Further, *Idaho Code* §61-502 requires that utilities' rules,  
14 regulations, practices and rates be just and reasonable. In  
15 instances where a utility's rules or tariff is unclear or  
16 not specific, I believe these basic principles of the *Idaho*  
17 *Code* should be relied on as a guide to establishing fair  
18 treatment for customers.

19 Q. What do you believe is a fair way to resolve this  
20 dispute?

21 A. I believe a fair resolution would be for Idaho  
22 Power to refund to HP/Kimball an amount proportionate to the  
23 share of substation capacity that HP/Kimball is actually  
24 using. This seems fair since HP/Kimball is (and has been)  
25 paying for this share of substation costs through its rates

1 as a Schedule 9 customer. For that share of substation  
2 capacity that HP/Kimball requested and paid for but never  
3 utilized, I recommend that HP/Kimball not be permitted a  
4 refund.

5 Q. What is the combined load of the four HP/Kimball  
6 buildings?

7 A. The highest monthly combined load of the four  
8 buildings (three metering locations) is 1519 kW, which  
9 occurred in July 2003. I believe that the highest monthly  
10 combined load of the four buildings most accurately  
11 represents the amount of substation capacity utilized by  
12 HP/Kimball.

13 Q. What amount do you recommend be refunded to  
14 HP/Kimball?

15 A. Because HP/Kimball's request was for four MW, I  
16 recommend HP/Kimball be refunded an amount equal to  
17  $1519/4000$  or 37.98 percent of the amount it paid toward  
18 substation costs. The recommended refund amount, therefore,  
19 is  $0.3798 * \$490,824 = \$186,390$ .

20 Q. Won't additional growth in customer loads  
21 eventually utilize the extra substation capacity that  
22 HP/Kimball has not used?

23 A. Yes, it will. In fact, as a result of shifting  
24 load between surrounding substations, Idaho Power now  
25 reports that over 80 percent of the capacity of the

1 substation is now being used.

2 Q. If most of the extra substation capacity unused by  
3 HP/Kimball is now being used to serve other customers, won't  
4 Idaho Power eventually be able to recover the associated  
5 share of substation costs from new customers?

6 A. Assuming a portion of HP/Kimball's contribution is  
7 refunded, yes, Idaho Power will not only recover that share  
8 of the investment from other customers, but will also earn a  
9 return on the investment. The entire cost of the Bethel  
10 Court substation will be rate based, and any contributions  
11 received from HP/Kimball will be booked as a contribution in  
12 aid of construction (CIAC). CIAC directly offsets rate  
13 base, so effectively, Idaho Power will only earn a return on  
14 the net rate base.

15 Q. If the extra capacity will eventually be used  
16 anyway, why should HP/Kimball be required to make any  
17 contribution?

18 A. If other customers eventually use the extra  
19 capacity and no contribution is required from HP/Kimball,  
20 the cost of the substation capacity will be rate based and  
21 recovered through rates from other customers. This increase  
22 in rate base will cause rates for other customers to  
23 eventually be higher than they otherwise would be. This is  
24 generally true for all plant added to serve new customers.  
25 The marginal cost of new plant is always higher than the

1 embedded cost included in rates.

2 In addition, if no contribution had been required  
3 from HP/Kimball, Idaho Power would have borne the full risk  
4 that enough other customers would eventually materialize to  
5 utilize the excess capacity. Although most of the excess  
6 capacity is now apparently being used, I suspect it is being  
7 used by a combination of both new customers as well as  
8 existing customers who were previously served from other  
9 substations.

10 Finally, unless some contribution is required from  
11 new Schedule 19 customers, there is no incentive for  
12 customers to accurately estimate their loads when they  
13 request service. Customers could request service and  
14 possibly trigger construction of new facilities to serve the  
15 ultimate maximum load expected, and face no consequences if  
16 only a part of the load (and revenue that goes along with  
17 it) materialized.

18 I believe that the risk of speculative development  
19 should be on the customer requesting service, not on Idaho  
20 Power. It might be argued that there was minimal or no risk  
21 that there would not be additional development in the case  
22 of the Bethel Court substation, because it is located west  
23 of the Boise Towne Square Mall in a rapidly developing area.  
24 That will not always be the case for other substations,  
25 however. Requiring a contribution from all new Schedule 19

1 customers will eliminate the need for Idaho Power to assess  
2 the degree of speculation in each instance, and avoid the  
3 possibility for discriminatory treatment that could result.

4 Q. Certainly at least some of the unused capacity  
5 that HP/Kimball originally requested is now being used to  
6 serve other new customers who, in turn, are generating  
7 revenue, a portion of which goes towards recovery of  
8 substation costs. Why shouldn't HP/Kimball be granted a  
9 refund for this portion of the substation capacity?

10 A. Notwithstanding my earlier recommendation, I  
11 believe there could, in fact, be some justification for a  
12 refund for this portion of the contribution. However, there  
13 simply is no current rule or mechanism in place to provide  
14 for such a refund or to determine the proper amount. It is  
15 extremely difficult, for example, to determine exactly how  
16 much of the excess capacity has now been utilized by new  
17 customers. Although 80 percent of the substation capacity  
18 is now used, some of the excess capacity previously at the  
19 Bethel Court substation has now been shifted to other  
20 substations. It would also be very difficult to determine  
21 the amount of excess capacity used by new loads versus  
22 existing loads. Furthermore, the amount of substation  
23 capacity use will change over time; presumably, nearly all  
24 of the substation capacity will eventually be used.

1           If there were rules in place to provide for vested  
2 interest refunds, both the amount and timing of refunds to  
3 HP/Kimball could be determined. In the absence of such  
4 rules, I do not believe it is reasonable to retroactively  
5 recommend a refund for the cost of excess substation  
6 capacity that may eventually be used by other new customers.

7           Q. If the Commission decides that Idaho Power should  
8 not refund any substation costs to HP/Kimball, and  
9 HP/Kimball continues to take service as a Schedule 9  
10 customer and thus pay for substations through a portion of  
11 its rates, won't HP/Kimball pay twice and Idaho Power  
12 collect twice for the cost of the substation?

13           A. Yes, HP/Kimball will effectively pay twice, but  
14 no, Idaho Power won't collect twice. HP/Kimball will have  
15 paid once through up-front charges and will effectively pay  
16 a second time for a share of substation costs built into the  
17 rates paid by it and all other Schedule 9 customers.

18           Idaho Power won't collect twice, but it will,  
19 however, have to collect less in the future from its other  
20 Schedule 9 customers if it retains HP/Kimball's  
21 contribution. HP/Kimball's contribution will reduce rate  
22 base, and the substation revenue requirement for all other  
23 Schedule 9 customers will be less by the amount of  
24 HP/Kimball's contribution.

25

1 Q. HP/Kimball contends that, even if it were a  
2 Schedule 19 customer, it should not have to pay for a share  
3 of substation costs because Idaho Power's application of the  
4 Schedule 19 rule is arbitrary and unfair. Do you agree that  
5 the rule is unfair?

6 A. The requirement in Schedule 19 requiring  
7 substation contributions, the amounts of which are  
8 determined on a case-by-case basis, is not unfair by itself.  
9 However, Idaho Power's application of the rule causes unfair  
10 results. Idaho Power charges Schedule 19 customers who  
11 request new service when substation and transmission  
12 capacity is not adequate, but imposes no up-front charges  
13 when adequate capacity already exists. By applying the rule  
14 in this way, whether a customer is asked to make an up-front  
15 payment truly is a matter of timing. All customers need  
16 substations in order to receive service; therefore, all  
17 customers should make proportionate contributions toward  
18 substation costs either in up-front charges or through  
19 rates. To the extent some Schedule 19 customers make no  
20 contribution either up-front or through rates, that is  
21 unfair.

22 Q. Do you have any suggestions on how the problem of  
23 some customers being required to make contributions for  
24 substations while others are not might be resolved in the  
25 future?

1           A.     There are several methods that could be  
2 implemented that I believe would be more equitable.  One  
3 method would simply be to not require a contribution from  
4 any new customer for transmission and substation costs.  
5 The Company's investment in substations and transmission  
6 would then be recovered through rates from all customers  
7 within a class.  This would be the same method as is now  
8 used for all classes except Schedule 19.  The most logical  
9 way to build substation and transmission costs into the rate  
10 would be to include it in the demand charge.  As a component  
11 of the demand charge, large customers would pay more and  
12 small customers less, proportionate to each customer's  
13 demand.  This method would not address the problem of  
14 speculative commercial development or existing Schedule 19  
15 customers that have already contributed substation costs.

16                 Another method would be to implement a standard  
17 charge, most likely an amount per kilowatt of load, that  
18 would be charged to all new Schedule 19 customers at the  
19 time they request service.  Under this approach, all new  
20 customers would be required to make a contribution,  
21 regardless of whether sufficient substation capacity exists  
22 or not, and the amount of the contribution would be  
23 proportionate to the size of the customer's load.  This  
24 method would require that a proxy substation cost be  
25 established and updated periodically.

1           A third method would be to require Schedule 19  
2 customers to make contributions based on the share of  
3 substation capacity utilized by each respective customer.  
4 Such contributions would have to be made regardless of  
5 whether sufficient substation capacity already exists. In  
6 cases where a Schedule 19 customer's request triggers the  
7 need to construct a new substation, the customer would be  
8 assessed a charge based on its required share of capacity,  
9 and any remaining excess capacity would be held by Idaho  
10 Power as a vested interest. Subsequent Schedule 19  
11 customers would then have to effectively "purchase" a  
12 portion of Idaho Power's vested interest in order to receive  
13 service. I would recommend that this method be restricted  
14 to only Schedule 19 customers in order to keep  
15 administration simple. Under such a policy, all Schedule 19  
16 customers would make an up-front contribution to substation  
17 costs. Unlike the previous suggested method, costs under  
18 this method would be based on the specific substation from  
19 which service is provided.

20           Q.    Why does it make any difference to Idaho Power  
21 whether it recovers its investment through up-front charges  
22 or through rates charged to customers?

23           A.    Up-front investment provides Idaho Power with  
24 immediate funds that can be used to construct the  
25 substation, thus partially alleviating the Company's problem

1 of having to redirect funds already budgeted for other  
2 system improvements. On the other hand, Idaho Power does  
3 not earn a return on plant contributed by customers like it  
4 does for plant investment it makes itself. Recovering  
5 substation investment through up-front charges also closely  
6 matches the cost causers with the cost payers, rather than  
7 spreading the same amount of substation cost across entire  
8 customer classes. Finally, because each new substation is  
9 generally more expensive to construct, upward pressure on  
10 rates is reduced whenever up-front contributions are  
11 collected from new customers.

12 Q. HP/Kimball witness Teinert suggests that Idaho  
13 Power's policy of requiring a contribution in aid of  
14 construction for substations is capricious and  
15 discriminatory. Idaho Power witness Said disagrees. What  
16 is your opinion?

17 A. I agree with Mr. Teinert. It is discriminatory  
18 whenever one customer has to pay for substation facilities  
19 and another customer, who may require the same or even  
20 larger substation capacity, does not have to pay just  
21 because extra substation capacity is already available.  
22 While Idaho Power may attempt to honestly and fairly apply  
23 its policy, the results are inconsistent and discriminatory.

24 Q. Couldn't a customer, by bringing its load on in  
25 phases, avoid or pay substantially lower charges for

1 substations under the rules as now implemented by Idaho  
2 Power?

3 A. Yes, conceivably. A Schedule 19 customer could  
4 request to use only as much capacity is currently available.  
5 As other non-Schedule 19 loads materialize, Idaho Power  
6 would be forced to upgrade substation capacity at its own  
7 expense. Once substation capacity has been upgraded, the  
8 Schedule 19 customer could then request to use the increased  
9 capacity.

10 Q. If Idaho Power had elected to serve the HP/Kimball  
11 buildings from an existing substation, wouldn't HP/Kimball  
12 have been required to pay substantial line extension charges  
13 under Rule H?

14 A. Yes, they would have. Moreover, the costs of  
15 doing so would have been higher according to Idaho Power.

16 Q. Do you wish to weigh in on the issue of whether a  
17 new substation was actually needed to serve HP/Kimball  
18 instead of serving HP/Kimball from existing substations?

19 A. No, except to say that I believe Idaho Power  
20 should be granted discretion in system engineering design  
21 issues since it, not its customers or the Commission, is  
22 ultimately responsible for the system's reliability and  
23 safety and is responsible in the event of failures or  
24 inadequate service.

25

1 Q. How do you propose that rules for establishing and  
2 charging substation costs be developed and implemented going  
3 forward?

4 A. I believe it is necessary to open a new docket.  
5 Although I have suggested possible approaches that could be  
6 taken to resolve the problem, I believe it is important to  
7 provide an opportunity for the Staff, the Company and other  
8 interested parties to collaborate in developing details. I  
9 do not believe it is possible for Staff on its own to  
10 identify all of the potential implementation problems, nor  
11 do I believe it is advisable for Staff to unilaterally come  
12 up with substation contribution rules to be forced upon the  
13 Company. Even if no agreement can be reached, I think the  
14 issue merits a lively debate amongst various parties.

15 Q. Please summarize your recommendations.

16 A. I recommend that Idaho Power be required to refund  
17 to HP/Kimball \$186,390, an amount equal to 38 percent of the  
18 amount previously contributed by HP/Kimball toward  
19 substation costs. The amount paid by HP/Kimball for line  
20 extension of distribution facilities is not in dispute and  
21 therefore no refund for this portion of the costs is  
22 recommended.

23 I also recommend that a separate docket be  
24 established by the Commission for the purpose of clarifying  
25 the rules on how substation costs should be charged to

1 customers.

2 Q. Does this conclude your direct testimony in this  
3 proceeding?

4 A. Yes, it does.  
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## CERTIFICATE OF SERVICE

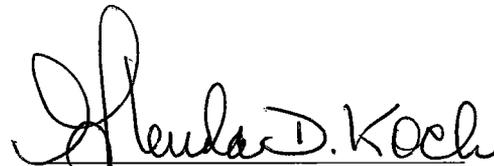
I HEREBY CERTIFY THAT I HAVE THIS 8TH DAY OF JANUARY 2004, SERVED THE FOREGOING **DIRECT TESTIMONY OF RICK STERLING**, IN CASE NO. IPC-E-00-12, BY MAILING A COPY THEREOF, POSTAGE PREPAID, TO THE FOLLOWING:

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SECRETARY