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

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

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

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

Q.Are you the same Rick Sterling that previously presented testimony in this case?

A.Yes, I am.

Q.What is the purpose of your rebuttal testimony?

A.I wish to rebut direct testimony filed by Dr. Richard Slaughter on behalf of the Idaho Building Contractors Association.

Q.Please summarize your rebuttal testimony.

A.First I will provide additional information regarding work order costs and average unit costs, compare differences in cost estimating methods and clarify Staff’s position on this issue.  Next, I will refute Dr. Slaughter’s argument that all customers, both new and existing, should be responsible for the increased cost of new distribution facilities.  I will explain why I believe distribution costs are different from generation and transmission costs, and therefore merit different treatment.  I will further explain what I believe are reasons why the Company’s per customer investment in distribution facilities is rising.  I will provide an example, directly conflicting an example provided by Dr. Slaughter, demonstrating that both customer growth and inflation have a synergistic effect and contribute toward causing a higher revenue requirement per customer.  Finally, I will point out how I believe Dr. Slaughter has overstated the impact of increased line extension fees on the ability of new home buyers to enter the market.

Q.On page 3 of his testimony, Dr. Slaughter implies that the proposed change will cost developers a minimum of $1200 per lot.  Do you agree with his conclusion?

A.Yes, generally.  Developers will lose the $1200 per lot refund which they now receive; however, they will receive a transformer refund for each lot as new customers are connected.  I would expect the transformer refund to be in the range of $200-$800 per home, and be about $450 for a typical home in an average subdivision.  Because developers advance the cost of transformers to the Company but transformer costs are eventually refunded, in effect, developers receive transformers free, just as under the current rule.  However, because transformer costs will be included in the work order cost estimate, work order costs will exceed average unit costs by at least the cost of transformers.

I agree with Dr. Slaughter that it is possible that the actual costs could exceed $1200 per lot, but only if the work order cost charged to the customer is higher than the average unit cost.  It is not clear whether this would, in fact, be the case.  Staff’s position is that customers should only be charged amounts that accurately reflect the actual cost of the work specific to each individual customer’s line extension.

Q.Before continuing further, please define some of the terminology you intend to use when discussing work order costs and average unit costs.

A.I will use terminology defined as follows:

WorkOrderCost and EstimatedWorkOrder

Cost refer to the same thing and are a pre-

construction estimate performed by the

Company for a specific request for service

by an applicant.

AdjustedWorkOrderCost refers to an

estimated work order cost in which the cost

of all items to be provided free by the

Company and all Company betterment have been

subtracted.

ReconciledWorkOrderCost refers to the

post-construction costs as booked by the

Company for accounting purposes.

AverageUnitCost refers to cost estimates

made by the Company which are based on

averages of adjusted work order costs from

previous jobs.

Q.On page 3 and continuing to page 4, Dr. Slaughter implies that the true average cost has been much higher than the calculated average unit cost.  He based his conclusion on his examination of data contained in Idaho Power Attachment to Response No. 8 of the Commission Staff’s First Production Request.  Do you believe he has correctly interpreted the data?

A.By “true average cost” I am assuming that Dr. Slaughter means estimated work order cost, since those are the costs represented in Response No. 8 of the Commission Staff’s First Production Request.  While it may be true that estimated work order costs exceed average unit costs, it is probably not correct to use the information in Response No. 8 directly for comparison purposes.  My understanding of the estimated work order costs is that they are for residential line extensions, but do not include subdivisions.  They include new work as well as replacement work, and they include both overhead and underground services.  In addition, some of the estimated work orders reflect only line extension costs, others reflect only the cost of services, and some reflect the cost of both.  The estimated work order costs in Response No. 8 also include terminal facilities costs, which are provided free by the Company under the current rule.  Finally, and most importantly, they represent estimated costs, not actual costs charged to the customer.  In other words, they represent estimates for the total cost of the work to be done for each work order, without subtracting out the cost of items which will be provided at the Company’s expense.

Q.On page 5 of his testimony, Dr. Slaughter states “First, average unit costs understate true work order costs, but no one seems to know by how much.”  Can you offer any clarification to this statement or provide any additional information?

A.I can provide some additional information, but I cannot fully clarify whether simply changing from an average unit cost method to a work order method will result in an overall increase in charges to customers.  Under the proposed Rule H, the Company proposes to bill customers based on the “work order cost” which is an estimate performed by the Company for a specific request for service by an applicant.  It is not clear from the Company’s proposal whether this work order cost would include all costs necessary to complete the job, or whether the work order would be adjusted by subtracting the costs of items to be provided free by the Company.

As I stated in my direct testimony, in 1994 Staff examined the difference between estimated work order costs, adjusted work order costs and average unit costs.  This examination was done using information submitted by the Company in compliance with Order No. 25535 in Case No. IPC-E-94-8.  Work orders during a three month period during the 1994 construction season were examined.  The analysis showed that at the time, adjusted work order costs exceeded average unit costs by approximately three percent.  Estimated work order costs exceeded average unit costs by approximately 53 percent.  Part of the reason for the estimated work order costs being higher than the average unit costs is because the estimates included terminal facilities while the average unit costs did not.  Staff understands that work for Company betterment also may contribute to the difference, along with the difference associated with actual quantities versus estimated quantities.  It is not clear whether the adjustments which would be made would be consistent from one customer to the next.  In any event, adjusted work order costs still exceeded average unit costs by a small amount.  If the Company is only allowed to charge adjusted work order costs, the impact of a change from an average unit cost method to a work order cost method would appear to be minor.  For subdivisions, however, the information provided in response to Staff Production Request No. 48 and Production Request No. 1 of American Heritage, Inc. seems to indicate otherwise.  For the subdivisions examined, work order costs would significantly exceed average unit costs per lot, even when the cost of items for which the Company will provide the investment are considered.

An additional unanswered question is whether the adjusted work order cost, which is a pre-construction estimate, is close to the “reconciled work order cost”, which is a post-construction booking of costs actually incurred for each job.  No information is readily available with which to make a comparison.

Q.Also on page 5, Dr. Slaughter believes it is not clear whether all work order cost, regardless of whether the work is inside or outside of the subdivision, goes into rate base.  Can you clarify?

A.Yes.  In the case of subdivisions, the cost of all work outside of the subdivision is the responsibility of the developer.  No extension allowances are currently applied to the line extension, upgrade and/or relocation costs for a subdivision.  The subdivider is eligible for vested interest refunds if other customers connect to the same line, but these refunds originate from the customer connecting to the line, not from Idaho Power.  It is only if the subdivision becomes fully refunded for facilities inside the subdivision that additional refunds may be applied to any unrefunded construction outside the subdivision.  The Company can only put into rate base the amount of its own investment in facilities, which in the case of subdivisions consists primarily of the per lot allowances, terminal facilities and Company betterment.  Since the Company makes little or none of the investment in work outside the subdivision, it cannot include this cost in rate base.

Q.On page 6 of his testimony, Dr. Slaughter repeats a colloquy between Commissioner Smith and Idaho Power witness Greg Said during the technical hearing, and states that he believes the colloquy fundamentally mis-states the case.  Do you agree?

A.Absolutely not.  I believe Commissioner Smith precisely stated the primary issue in this case.  My view of the proposed Rule H is exactly as she stated.

Q.On page 7, lines 3-5, Dr. Slaughter states “The new customer may obtain the same rates as the old customer, but only if he/she pays an additional $1200 - $3000 for the privilege.”  He then makes an analogy using a candy bar.  Do you believe this is a fair characterization?

A.No.  First, to be correct, I would restate his comment this way: “The new customer may obtain the same rates and distribution facilities as the old customer, but only if he/she pays an additional amount for the distribution facilities to cover the incremental cost above what the Company’s embedded investment is for the existing customer.”

I also believe his candy bar analogy is seriously flawed.  If Dr. Slaughter’s logic were followed, if I bought a one ounce candy bar yesterday for fifty cents, and he buys an otherwise identical candy bar today for one dollar, I should be responsible for helping him cover his increased costs, so that ultimately we will both pay seventy-five cents each.  I would argue that whether his candy bar costs more because of inflation or some other reason, I was not responsible for his costs being higher and he alone ate his candy bar; therefore, I should not be responsible for helping him pay for it.  If I decide to buy another candy bar today, I too, will have to pay one dollar.  Thus, neither of us are shielded from inflation, and I am not responsible for paying costs caused by him or for benefits only enjoyed by him.

To relate this example directly to this case, Dr. Slaughter believes that all customers should pay equally through rates and fees, even though the cost of adding distribution facilities to serve new customers is higher than the embedded cost of serving existing customers.  I contend that the costs of serving new customers are identifiable and attributable to each specific new customer; therefore, existing customers should not be saddled with contributing more towards the cost of providing distribution facilities for which they do not directly benefit, than was contributed by other customers for their own distribution facilities.

Q.In several places in his testimony, Dr. Slaughter suggests that distribution should be no different than generation and transmission as far as all customers sharing, through higher rates, in the increased costs of adding new facilities.  Do you believe that distribution should be treated in the same manner as generation and transmission?

A.No, I do not.  In the case of generation and transmission, it is not possible to determine which portion of a plant, or even which plant, is being utilized by any one individual customer.  Furthermore, depending on conditions, the generation plant(s) serving a customer may change from one hour to the next.  Distribution is different however, in that it is possible to determine which specific customers benefit from which specific facilities.  A meter and service cable can be traced to only one customer, a transformer can be traced to one or a few customers, and a line extension can be traced to a specific group of customers.  I believe the fact that it is possible to tie specific customers to specific facilities is sufficient reason for different treatment.  In addition, generation and transmission capacity must normally be added in large increments, and until each increment is fully utilized, it is to all customers’ benefit to add additional customers who can bear a portion of the fixed costs.  With distribution facilities, however, the addition of new customers does nothing to benefit existing customers since facilities are added in increments just large enough to serve the new customers.

Q.Beginning on page 10 and continuing on page 11, Dr. Slaughter lists what he believes are the reasons why the Company’s per customer investment is rising.  Do you believe he has captured all of the reasons?

A.No, I believe he has omitted the most important reason.  The Company’s investment is dictated by whatever line extension policy is in place at the time.  As I pointed out in page 11 of my direct testimony, the Company’s policy has changed significantly over the years, and varied from the Company making the entire investment themselves to the Company providing smaller and smaller allowances.  Inflation has influenced the level of Company investment, but primarily because the cost of terminal facilities, which have traditionally been provided by the Company, has been subject to inflation.

In Dr. Slaughter’s testimony, I also believe he may be confusing things by using the terms “cost” and “investment” interchangeably.  As I have used the terms, “cost” refers to the price of an item, regardless of who pays.  “Investment” refers to how much of the cost someone pays, and may be totally unrelated to the item’s cost.  Cost is subject to inflation, but investment is heavily influenced by policy.  In Dr. Slaughter’s Exhibit Nos. 301 and 303, for example, I do not believe it is entirely correct to adjust the Company’s investment per customer for inflation since the level of Company investment has been dictated by policy.  The cost of distribution facilities has been subject to inflation, but cost is not what is represented in Exhibit Nos. 301 and 303.  On the other hand, some of the Company’s investment, terminal facilities for example, is directly a function of the item’s cost, which in turn, is subject to inflation.  For example, allowances are one thing that would not change, even with inflation, but meters are one thing whose cost to the Company would increase with inflation.  Consequently, Exhibit Nos. 301 and 303 are only somewhat useful, and should be viewed with caution.

Q.On page 11 of his testimony, Dr. Slaughter discounts growth as a possible cause of the Company’s increasing per customer investment in distribution facilities, and instead, concludes that inflation is a primary cause.  He also provides an example in Exhibit No. 302 which he claims demonstrates that growth cannot cause per customer cost to rise.  Do you agree with his analysis and conclusions?

A.No, I do not.  As I explained in my direct testimony beginning on page 9, line 19, I believe that the cause of upward pressure on rates is the combined effects of inflation on facilities costs, the rate of new customer growth, changes in line extension policies over time, changes in construction standards and a trend toward more underground installations.  The example which Dr. Slaughter uses to demonstrate his point is far too simplified and omits some very important components, thus, it leads to some incorrect conclusions.  The relevant issue here is whether growth causes upward pressure on rates, not whether growth causes the per customer investment to increase.  In other words, whether the annual revenue requirement per customer is higher with growth than without it.  Dr. Slaughter’s example fails to compute the annual revenue requirement, which is the foundation upon which rates are based.  Assuming operating expenses, maintenance expenses, taxes and other minor expenses remain constant, the annual revenue requirement, for comparison purposes, can be represented as the sum of the annual depreciation expenses and the return on rate base.  When the annual revenue requirement is computed, a very different conclusion is readily apparent.

Q.Have you prepared an example of your own to illustrate your point?

A.Yes, I have prepared an example very similar to Dr. Slaughter’s, but which I believe more closely represents accepted rate-of-return ratemaking practices.  This example is included as Exhibit No. 113.  I have tried to pattern my example after Dr. Slaughter’s as closely as possible, but I have included several critical elements which Dr. Slaughter omitted.  I have made assumptions consistent with his wherever possible.

In my example, Exhibit No. 113, I have computed the annual revenue requirement per customer under two conditions: without inflation, and assuming a 10 percent annual rate of inflation.  When no inflation is assumed, the annual revenue requirement per customer declines each year because rate base decreases as more plant is depreciated.  If only one customer were present on the system, the annual revenue requirement (at least the portion represented by depreciation and return on rate base) would decline to zero after four years.  In this example, with the addition of a new customer each year and replacement of plant after it becomes fully depreciated, the annual revenue requirement per customer eventually becomes constant.  The effect of growth is to cause the annual revenue requirement per customer to decline less rapidly than it otherwise would with no growth.  If actual numbers for Idaho Power were used instead of simplified hypothetical ones, the effect of growth is the same, although much less pronounced because of approximately 30-year depreciation lives and growth rates of less than about five percent.

The second part of Exhibit No. 113 demonstrates the results with inflation.  When inflation is considered, the effects on annual revenue requirement are greatly magnified.  Based on the hypothetical numbers in this example, the annual revenue requirement per customer clearly increases each year.  Again, in reality, the results are similar, but much less pronounced.  It may also be worth noting from this example that with inflation but no growth, the annual revenue requirement per customer increases at the same rate of inflation, but in a sort of stair step fashion.  When averaged over several years, inflation compounds the effects of growth.

Q.It appears then, that you contend that both growth and inflation are causes of higher annual revenue requirement per customer.  Is it important as far as your position on proposed changes to the current line extension policy to determine how much of the cause can be attributed to growth and how much can be attributed to inflation?

A.No, it is important to recognize that both growth and inflation are causes, but it is not critical to determine how much of the cause is attributable to growth and how much is attributable to inflation.  In fact, even if much of the upward pressure on rates is caused by inflation (Dr. Slaughter alleges all of the pressure is inflationary), most of the additions to distribution plant are made to serve new customers, not old; therefore, the new customers should be responsible for the inflationary effects.  If not for new customers, the amount of new distribution plant subject to inflationary pressure would be far less.  To the extent new distribution investment is for replacement of existing facilities, all customers are responsible for inflationary effects.  The latter will be the case under either the existing or the proposed Rule H.

Q.On page 15, beginning on line 22, Dr. Slaughter states “The proposal is a dramatic change from traditional policy; it would totally remove the impact of past inflation from existing customers, while requiring new customers to pay both full market price for their line extensions and the existing embedded cost of line extensions and terminal facilities.”  Do you agree with this statement?

A.No, I do not.  The proposal is a change from past policy, but it does not remove the impact of past inflation from existing customers.  They, along with new customers, are subject to the effects of inflation through eventual replacement of their facilities.  These effects are eventually felt through general rate increases, since no customer is billed directly for replacement of facilities.  Furthermore, under the proposed Rule H, new customers pay only the increment above embedded cost through line extension fees, and in effect, pay the remainder of the cost through rates equal to what all other customers pay.

Q.Beginning on page 16 and continuing through page 23 of his testimony, Dr. Slaughter discusses ownership of facilities and the impact of deregulation on ownership of facilities.  What is your position on these issues?

A.I do not believe they should be relevant issues in this case.  Under Section 2,A of the current Rule H and Section II,B the proposed Rule H, the tariff language regarding ownership of facilities is identical.  Furthermore, deregulation, at least in Idaho, has not yet occurred.  Any discussion of the possible impacts of deregulation is entirely speculative.  None of the details of how the electric industry might be restructured are known yet, and they may not be for some time to come.  I do not believe it would be prudent to develop a line extension policy in anticipation of something which has not yet happened and for which the details are totally unknown.

Q.Beginning on page 23, Dr. Slaughter elaborates on the consequences of increased line extension charges on the ability of home buyers to enter the market.  Do you agree with his assessment?

A.Any increase in costs to home buyers would clearly affect the ability of home buyers to enter the market; however, I believe Dr. Slaughter greatly overstates the increased costs, thus grossly magnifying the possible effects.  For example, on page 23, he states “In the longer term, a cost increase of between $1200 and $3000 to the developer will result in a price increase of the finished house of from $2000 to $4000, since both the developer and builder must mark up their costs to cover overhead and profit.” First, I contend that in most subdivisions, the cost per lot will rarely be as much as $3000.  Furthermore, there is no reason why both the builder and the developer should be forced to mark up their costs to cover overhead and profit when, in fact, there would be no additional overhead as a result of higher line extension fees, and there is absolutely no justification for builders or developers to profit from higher fees.  Developers and builders should not expect “cost plus” recovery of increased line extension fees.  They should, in fairness to the buyer, simply pass these fees on.

In another example on page 24, he begins by assuming an increased cost per lot of $3000, which I believe is much too high for most subdivisions.  He next adds an additional $500 to this amount, which I presume is to cover the developer and builder’s overhead and profit, before calculating the effect on a buyer’s monthly mortgage.

I believe these examples grossly distort what the actual effect would be for most subdivisions.

Q.Are there any other issues that you wish to address?

A.Yes.  I would like to clarify a few items on Dr. Slaughter’s Exhibit No. 304 in order to avoid confusion.  First, column 7 of the exhibit is labeled “Adjusted Work Order Cost.”  As indicated, this column represents a strictly mathematical calculation, and is not “adjusted work order costs” as I have used the term in my testimony.

A direct comparison between average unit costs and estimated work order costs is also not valid.  Average unit costs do not include the cost of terminal facilities, but work order costs do; therefore, work order costs should be expected to exceed average unit costs by at least this amount.  If this difference was properly accounted for, the percent difference column on Exhibit No. 304 would be reduced substantially.

Finally, the percent differences should not be considered for each individual phase of each subdivision, since some of the facilities installed in earlier phases is needed to serve latter phases as well.

Q.Does this conclude your rebuttal testimony in this proceeding?

A.Yes, it does.