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

A.My name is Keith D. Hessing and 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 Public Utilities Engineer.

Q.What is your educational and experience background?

A.I am a Registered Professional Engineer in the State of Idaho.  I received a Bachelor of Science Degree in Civil Engineering from the University of Idaho in 1974.  Since then, I have worked six years with the Idaho Department of Water Resources, and two years with Morrison-Knudsen.  I came to work for the Commission in August 1983.

As a member of the Commission Staff, my primary areas of responsibility have been electric utility power supply, revenue allocation and rate design.

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

A.I will provide an analysis of unbundled costs and unbundling methodology employed by Washington Water Power Company, PacifiCorp dba Utah Power and Light, and Idaho Power Company.  My analysis includes comparisons of the three utilities’ unbundled costs and some explanation of the differences.

Q.Are there any differences in the testimony you are filing in the three unbundling cases, Case No. UPL-E-98-1, Case No. WWP-E-98-1 and Case No. IPC-E-98-2?

A.No.

Q.Please provide a summary of cost unbundling in Idaho that led to this proceeding?

A.During the 1997 legislative session the Idaho Legislature passed legislation requiring the Idaho Public Utilities Commission to direct the unbundling of electric costs in Idaho.  As a result of that legislation the Commission opened Case No. GNR-E-97-1, a generic case that was the vehicle for directing Idaho’s electric utilities to unbundle their costs.  The unbundled costs were for calendar year or fiscal year 1996 with appropriate normalization and pro forma changes.  The utilities were directed to perform jurisdictional and class cost allocations in accordance with previously accepted methods.  The Commission provided the unbundled costs reported by utilities to the Governor and 1998 Legislature, and opened separate cases to review all of the information and methodology behind the unbundled numbers for Idaho’s three largest investor owned utilities.  This testimony is being filed in those cases.

Q.What is cost unbundling?

A.Cost unbundling is the categorization of costs by utility “function” and by jurisdiction or rate class.  In the broadest sense utility functions are Production, Transmission and Distribution.  These categories can be broken into sub-categories depending on the purposes of the unbundling study.

Q.In general terms, what is the cost unbundling process?

A.The cost unbundling process begins with accounting data for a specific utility for a one-year period in the FERC Uniform System of Accounts format.  The FERC accounting format organizes utility costs by function such as Production, Transmission, Distribution, Customer, Sales, and Administrative and General (A&G).  These costs are then allocated or directly assigned to jurisdictions such as Idaho.  Idaho costs are then allocated or directly assigned to customer classes while continuing to preserve functional identities.  If the intent of the unbundling study is to show all costs in Production, Transmission or Distribution functional categories, then costs functionalized as Customer, Sales, or Administrative and General must be allocated or directly assigned to those other functions.

Q.Did Utah Power, Washington Water Power and Idaho Power file unbundled costs in Case No. GNR-E-97-1?

A.Yes.  The first page of Staff Exhibit Nos. 102, 103 and 104 show their respective unbundled costs which resulted from that case and were reported to the Governor and the Legislature.  Utah Power’s and Washington Water Power’s exhibits also have a second page.  This is because both of these utilities updated their original studies and page 2 represents the updated study results.  Utah Power updated its study to correct an allocation problem affecting Account 929 - “Duplicate Charges - Credit” and Washington Water Power revised its study updating and correcting several things.

Q.Did these three utilities employ identical jurisdictional allocation methodologies as part of their studies?

A.No.  Their methodologies differed.

Q.Have you compared the results of the three jurisdictional separations studies?

A.Yes, I have.  All of the comparisons in this testimony, which start with Staff Exhibit No. 105, are based on the updated Utah Power and Washington Water Power studies and the original Idaho Power study.  Staff Exhibit No. 105, pages 1 and 2, compare the jurisdictional separation results of the three studies by utility function.  These charts show total unbundled costs that are comparable to costs shown on Staff’s Exhibit No. 102, page 2, Exhibit No. 103, page 2 and Exhibit No. 104, except for rounding error and an additional small difference for Idaho Power that has escaped Staff’s efforts to trace.  These charts show costs by utility function with most common costs such as Administrative and General costs spread to Production, Transmission, Distribution and Other.  The “Other” category consists of Metering, Meter Reading, Billing and some other customer services.

Q.What is shown on page 1 of Staff Exhibit No. 105?

A.Page 1 shows functionalized utility costs in mills/kWh.

Q.What is shown on page 2 of Staff Exhibit No. 105?

A.Page 2 shows the same information except that the functional categories are shown as “Portion of Total” in percent instead of “Cost” in mills/kWh.

Q.Why do you show this information in two different ways?

A.Cost differences can be caused by many things.  By showing the “Portion of Total” in percent of Idaho jurisdictional costs, the cost differences caused by differing investments per kWh are removed.  What remains are differences caused by methodology and the characteristics of the individual utilities.  Individual utility characteristics such as peak demand, energy consumption and number of customers are used to develop allocation factors for jurisdictional and class studies.

Q.You said that differences in class costs among utilities can be caused by many things.  Please list these things.

A.Class costs can differ due to:  higher booked costs per kWh on one system than on another; differences in jurisdictional allocation methodology; differences in the jurisdictional and/or class characteristics; differences in class cost-of-service methodologies, etc.

Q.Do pages 1 and 2 of Staff Exhibit No. 105 capture all of these differences?

A.Page 1 captures all of these differences, and page 2 captures all of the differences cited except for the differences caused by the difference in cost per kWh.  Staff Exhibit No. 105 provides a comparison of Idaho specific costs separated by function before costs are allocated to individual customer classes.  While page 1 shows differences in allocation results caused by booked cost, allocation methodology and company characteristics, page 2 shows only differences in allocation results caused by allocation methodology and company characteristics.

Q.What does page 1 of Staff Exhibit No. 106 show?

A.Page 1 of Staff Exhibit No. 106 compares utility costs in “Mills/kWh” of total revenue requirement for nine different categories for each utility.  The categories are: RET - Return; DE - Depreciation Expense; OM - Operation and Maintenance Expense;

NIT - Non-Income Tax Expense; AG - Administrative and General Expense; UC - Uncollectible Accounts Expense; IT - Income Taxes Expense; SS - Secondary Sales Revenues; and OS - Other Sales Revenues.

Q.What is shown on page 2 of Staff Exhibit

No. 106?

A.Page 2 shows the same information as page 1 of Staff Exhibit No. 106, except it shows “Portion of Total” in percent instead of “Cost” in mills/kWh.

Q.What does page 1 show that differs from

page 2?

A.As with the previous exhibit, showing costs as “Portions of Total” instead of “Mills/kWh” removes differences in costs per kWh as a factor that can cause differences in allocated electric utility costs.  A very substantial part of the difference in allocated utility costs is shown to be associated with the total cost per kWh of each utility before the allocation process begins.

Q.What is the most significant thing that you observe on both pages of Staff Exhibit No. 106?

A.I observe that both Utah Power and Washington Water Power have Operation and Maintenance costs much higher than Idaho Power and that Utah Power and Washington Water Power also have Secondary Sales Revenue much higher than Idaho Power.

Q.Do you have a plausible explanation for the differences?

A.I think so.  I believe that the differences are a function of generation resources that are available for energy sales on the secondary market.  PacifiCorp, Utah Power’s parent company, and Washington Water Power both plan new resource additions based on critical water conditions.  Idaho Power plans new resource additions based on median water conditions.  This difference in planning criteria would cause Utah Power and Washington Water Power to have more resources available to sell into the secondary market than Idaho Power.  Thus, Utah Power and Washington Water Power would generate more secondary sales revenue and incur higher fuel costs directly associated with those sales.

Q.Energy from what type of generation resource would most commonly be sold on the secondary market?

A.Hydro power generated energy, being the least cost energy in terms of variable costs, goes to meet native customer load.  Only in good water conditions and during high runoff months is there hydro generation available for off-system sale from any of Idaho’s three large investor owned utilities.  Therefore, secondary energy sales are generally made from thermal resources with higher variable operation and maintenance costs due to fuel costs.

Q.In a deregulated environment which functionalized costs would remain the responsibility of the Idaho Public Utilities Commission for ratemaking purposes?

A.In the most common scenario, generation costs are deregulated, FERC claims the right to regulate transmission pricing and state regulatory commissions are left to establish rates for distribution.

Q.Given the scenario that you have just described, have you focused your analysis on a particular utility function?

A.Yes, I have.  This analysis is focused on the distribution function.

Q.Is there a need to allocate costs classified as distribution related by the Uniform System of Accounts among the jurisdictions in which a utility serves?

A.No.  Distribution costs, as classified by the Uniform System of Accounts, are known for each jurisdiction in which the utility serves.

Q.Have you analyzed unbundled distribution costs for this proceeding?

A.Yes, I have.  Staff Exhibit No. 107 shows seven components of Distribution Revenue Requirement.  The components are; RET - Return, DE - Depreciation Expense, OM - Operation and Maintenance Expense, NIT - Non-income Taxes Expense, AG - Administrative and General Expense, UC - Uncollectible Accounts Expense, and IT - Income Tax Expense.

Q.How have costs functionalized as “Other” on Staff Exhibit No. 105 been treated for the purpose of this analysis?

A.They have been included with distribution costs on Staff Exhibit No. 107.  The Administrative and General accounts are included under “AG” and the other 900 level accounts including meter reading and billing are included in “OM”, Operation and Maintenance Expense.

Q.How does page 1 differ from page 2 of Staff Exhibit No. 107?

A.As in previous exhibits, page 1 shows revenue requirement component “Costs” in mills/kWh and page 2 shows the same revenue requirement components as a “Portion of Total” revenue requirement.  This is done for the reasons previously cited.

Q.What is the most striking observation that you can make about pages 1 and 2 of this exhibit?

A.Utah Power’s distribution costs in mills/kWh are higher than Washington Water Power’s and Idaho Power’s distribution costs in almost every component category.  However, on a “Portion of Total” basis, Utah Power’s revenue requirement is significantly higher than the other utilities only in the Administrative and General category.

Q.What group of accounts is subject to the most discretion with regard to functional allocation or assignment?

A.The Administrative and General accounts.

Q.What portion of each utilities’ revenue requirement is made up of Administrative and General costs?

A.From Staff Exhibit No. 106, page 2 of 2, A&G makes up 10.0% of Utah Power’s revenue requirement, 14.7% of Washington Water Power’s and 10.6% of Idaho Power’s.

Q.Please explain Staff Exhibit No. 108.

A.Staff Exhibit No. 108 shows how the different utilities allocated or assigned A&G expense to the different utility functions.

Q.What do pages 1 and 2 of Staff Exhibit

No. 108 show?

A.Once again page 1 shows the “Cost” spread in mills/kWh and page 2 shows the spread as a “Portion of Total” in percent.

Q.What do you observe from pages 1 and 2 of this exhibit?

A.The results of the three utilities’ allocation of A&G costs among utility functions are very different.  Utah Power allocated 49% of its A&G costs to the Distribution function, Washington Water Power allocated 54% of its A&G costs to the Production function, and Idaho Power allocated 41% of A&G costs to “Other” and 35% to the Distribution function.

Q.What is shown on Staff Exhibit No. 109?

A.The table at the top of Staff Exhibit

No. 109 shows Idaho Jurisdictional and Administrative and General cost distributions by function.  This table shows that functionalized Administrative and General costs do not follow overall jurisdictional costs for any of the three utilities.

The lower table on Staff Exhibit No. 109 identifies allocation methods applied to Administrative and General costs and the functionalized results of the application of each individual method by utility.  For example, the first allocation method listed under Utah Power is Labor.  The table is read as follows:  Utah Power’s Administrative and General costs allocated using the labor allocator went 48.9% to generation, 5.5% to transmission, 41.3% to distribution and 4.3% to other.  The labor allocator was applied to 73.4% of the Company’s total Administrative and General costs.

Q.What is the purpose of Staff Exhibit

No. 109?

A.It provides insight into the wide variety of results shown on Staff Exhibit No. 108 and previously discussed.  More specifically, the three utilities applied different allocation methods to differing portions of Administrative and General costs and obtained substantially different results.  Further discussion of the impact of these differences is presented later in this testimony.

Q.Your testimony to this point discusses jurisdictionally functionalized unbundled costs.  How do jurisdictional costs relate to class costs?

A.Class costs are a further breakdown or subdivision of jurisdictional costs.

Q.What class divisions were used for the purposes of these studies?

A.Early in this process Idaho Power Company convinced the Commission and participating parties that costs, especially distribution costs, more closely follow the voltage level at which customers take service than traditional class designations such as Residential, Commercial, Industrial, Irrigation, etc.  Therefore, the Commission ordered that jurisdictional utility costs be unbundled into four voltage classes:  small secondary, secondary, primary and transmission.

Q.In what ways do service voltage classes follow costs?

A.First, they are closely aligned with the equipment required to serve customers.  When more equipment is required to serve a given customer, more costs should be allocated to that customer.  The opposite is also true.  If there are parts of the power supply system that a customer does not use, costs associated with those facilities should not be allocated to that customer.  Classes identified by service voltage track these costs very well.

Second, service voltage classes follow utility costs as well as traditional classes do in the other important area of utility costs.  That area is efficient utilization of equipment installed to serve each customer.  Generation, Transmission and Distribution equipment are sized to handle peak loads.  Customers who use energy at a near constant rate all the time, make more efficient use of the equipment installed to serve them.  Customers who have high peaks relative to their average use, use the equipment installed to serve them less efficiently.  The ratio of a customers average use to peak use is called that customer’s “load factor.”  In general, high load factor customers tend to be larger and take delivery at higher voltages while low load factor customers tend to be smaller and take delivery at lower voltages.

Q.Have you prepared exhibits showing revenue requirement cost components for the different service voltage classes?

A.Yes, I have.  Staff Exhibit Nos. 110, 111 and 112 show the small secondary voltage class, the secondary voltage class and the primary voltage class, respectively.  I have chosen to not show the same information for the transmission voltage class because the information provided by the individual utilities is not comparable.

Q.In what ways are the three utilities’ transmission voltage classes not comparable?

A.Washington Water Power has no customers taking service at transmission voltage.  Idaho Power shows a transmission voltage class but excluded its “special contract” customers.  Utah Power included all of its customers served at transmission voltage including “special contract” customers.

Q.What is shown on Staff Exhibit No. 110?

A.Staff Exhibit No. 110, pages 1 and 2, shows Small Secondary Voltage Class costs by revenue requirement component.  The revenue requirement components are the same as those previously defined in this testimony in conjunction with Staff Exhibit No. 106.  Pages 1 and 2 show costs in “Mills/kWh” and “Portion of Total,” respectively.

Q.What is shown on Staff Exhibit No. 111?

A.Staff Exhibit No. 111, pages 1 and 2, shows the same information as shown on Staff Exhibit No. 110, pages 1 and 2, except that the information is for the Secondary Voltage Class.

Q.What is shown on Staff Exhibit No. 112?

A.Staff Exhibit No. 112, pages 1 and 2, shows the same information as shown on Staff Exhibit Nos. 110 and 111, pages 1 and 2, except that the information is for the Primary Voltage Class.

Q.What observations would you make after comparing Staff Exhibit Nos. 110, 111 and 112?

A.I observe that, as a general rule, the costs of serving the various voltage classes for all three utilities differ as I would expect them to.  That is, small secondary and secondary voltage class customers use all of the components of the system and use the system the most inefficiently and, therefore, impose the highest costs in mills/kWh.  Large customers use fewer of the system components and use them more efficiently and, therefore, impose lower costs in mills/kWh.

I also observe by comparing “Portion of Total” percentages, that the different allocation methodologies when combined with the difference in utility specific characteristics, cause minimal differences in the relative results of the three studies.

Q.What do you conclude concerning the cause of differences in unbundled costs among Idaho’s three largest investor-owned utilities?

A.I conclude that the single most significant factor affecting unbundled costs in Idaho is the initial cost that flows to Idaho through the jurisdictional allocation process and, in all probability, goes back even further than that to the utilities booked total company costs.  A comparison of page 1 of Staff Exhibit Nos. 106, 110, 111 and 112, clearly shows that the relationship of costs that exists at the beginning of the methodology flows all the way through to class rates.  All of the differences previously identified in the allocation methods employed and the differing results obtained for A&G expense allocations, have had little effect on the relative results of the big picture.  This is because the Uniform System of Accounts organizes the large majority of utility costs by function when they are booked.  Administrative and General expenses and other 900-level accounts that require assignment or allocation to Generation, Transmission or Distribution functions are the largest subjectively allocated category of costs but a relatively small part of total costs.

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

A.Yes, it does.