Exhibit No. ___(CGK-1T)

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-14_____

DIRECT TESTIMONY OF

CLINT G. KALICH

REPRESENTING AVISTA CORPORATION

I. INTRODUCTION

Q. Please state your name, the name of your employer, and your business address.

A. My name is Clint Kalich. I am employed by Avista Corporation at 1411 East Mission Avenue, Spokane, Washington.

Q. In what capacity are you employed?

A. I am the Manager of Resource Planning & Power Supply Analyses in the Energy Resources Department of Avista Utilities.

Q. Please state your educational background and professional experience.

A. I graduated from Central Washington University in 1991 with a Bachelor of Science Degree in Business Economics. Shortly after graduation, I accepted an analyst position with Economic and Engineering Services, Inc. (now EES Consulting, Inc.), a Northwest management-consulting firm located in Bellevue, Washington. While employed by EES, I worked primarily for municipalities, public utility districts, and cooperatives in the area of electric utility management. My specific areas of focus were economic analyses of new resource development, rate case proceedings involving the Bonneville Power Administration, integrated (least-cost) resource planning, and demand-side management program development.

In late 1995, I left Economic and Engineering Services, Inc. to join Tacoma Power in Tacoma, Washington. I provided key analytical and policy support in the areas of resource development, procurement, and optimization, hydroelectric operations and re-licensing, unbundled power supply rate-making, contract negotiations, and system operations. I

helped develop, and ultimately managed, Tacoma Power's industrial market access program serving one-quarter of the company's retail load.

In mid-2000 I joined Avista Utilities and accepted my current position assisting the Company in resource analysis, dispatch modeling, resource procurement, integrated resource planning, and rate case proceedings. Much of my career has involved resource dispatch modeling of the nature described in this testimony.

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

A. My testimony will describe the Company's use of the AURORA$_{XMP}$ dispatch model, or "Dispatch Model." I will explain the key assumptions driving the Dispatch Model's market forecast of electricity prices. The discussion includes the variables of natural gas, Western Interconnect loads and resources, and hydroelectric conditions. I will describe how the model dispatches its resources and contracts to maximize customer benefit and tracks their values for use in pro forma calculations. Finally, I will present the modeling results provided to Company witness Mr. Johnson for his power supply pro forma adjustment calculations.

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes. I am sponsoring one exhibit marked Confidential Exhibit No. ___ (CGK-2C). It provides summary output from the Dispatch Model and data that are used by Company witness Mr. Johnson as input for his work. All information contained in the exhibit was prepared under my direction.

A table of the contents for my testimony is as follows:

II. THE DISPATCH MODEL

Q. What model is the Company using to dispatch its portfolio of resources and obligations?

A. The Company uses EPIS, Inc.'s AURORA$_{XMP}$ market forecasting model ("Dispatch Model") and its associated database for determining power supply costs.[1] The Dispatch Model optimizes Company-owned resource and contract dispatch during each hour of the January 1, 2015 through December 31, 2015 pro forma year.

Q. Please briefly describe the Dispatch Model.

A. The Dispatch Model was developed by EPIS, Inc. of Sandpoint, Idaho. It is a fundamentals-based tool containing demand and resource data for the entire Western Interconnect. It employs multi-area, transmission-constrained dispatch logic to simulate real market conditions. Its true economic dispatch captures the dynamics and economics of electricity markets—both short-term (hourly, daily, monthly) and long-term. On an hourly basis the Dispatch Model develops an available resource stack, sorting resources from lowest to highest cost. It then compares this resource stack with load obligations in the same hour to arrive at the least-cost market-clearing price for the hour. Once resources are

[1] The Company is using AURORA$_{XMP}$ version 11.2.1072 with a Windows 7 operating system.

dispatched and market prices are determined, the Dispatch Model singles out Avista resources and loads and values them against the marketplace.

Q. What experience does the Company have using AURORA$_{XMP}$?

A. The Company purchased a license to use the Dispatch Model in April 2002. AURORA$_{XMP}$ has been used for numerous studies, including each of its integrated resource plans and rate filings after 2001. The tool is also used for various resource evaluations, market forecasting, and requests-for-proposal evaluations. It is used in the Company's annual Commission Basis Reports.

Q. Who else uses AURORA$_{XMP}$?

A. AURORA$_{XMP}$ is used all across North America, Europe, and the Middle East. In the Northwest specifically, AURORA$_{XMP}$ is used by the Bonneville Power Administration, the Northwest Power and Conservation Council, Puget Sound Energy, Idaho Power, Portland General Electric, PacifiCorp, Seattle City Light, Grant County PUD, Snohomish County PUD, and Tacoma Power.

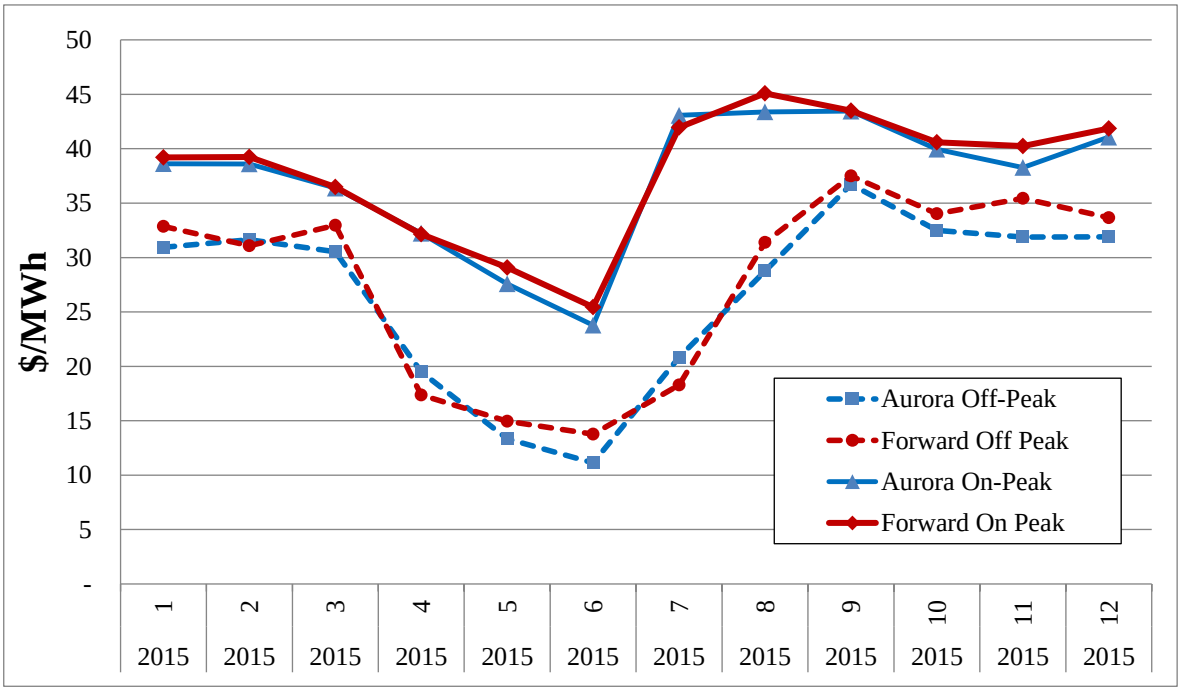
Q. What benefits does the Dispatch Model offer for this type of analysis?

A. The Dispatch Model generates hourly electricity prices across the Western Interconnect, accounting for its specific mix of resources and loads. The Dispatch Model reflects the impact of regions outside the Northwest on Northwest market prices, limited by known transfer (transmission) capabilities. Ultimately, the Dispatch Model allows the Company to generate price forecasts in-house instead of relying on exogenous forecasts.

The Company owns a number of resources, including hydroelectric plants and natural gas-fired peaking units, which serve customer loads during more valuable on-peak hours. By optimizing resource operation on an hourly basis, the Dispatch Model is able to

appropriately value the capabilities of these assets. Forward prices for the proforma 2015 period are 37% higher in the on-peak hours than off-peak hours at the time this case was prepared. The Dispatch Model forecasts on-peak prices for the pro forma period to average 40% higher than off-peak prices. A graphical representation of the differences in on- and off-peak prices over the proforma period is shown below in Illustration No. 1.

Illustration No. 1 – Monthly AURORA modeled versus forward Mid-C Prices



Forward prices month to month are tracked very closely in the Dispatch Model, given that the AURORA model is using normalized hydro, load, and resource outages. In summary, the Dispatch Model appropriately values the energy from Avista's resources during on-peak periods in a manner similar to that recently experienced in the Northwest region for the 2015 proforma period.

Q. On a broader scale, what calculations are being performed by the Dispatch Model?

A. The Dispatch Model's goal is to minimize overall system operating costs across the Western Interconnect, including Avista's portfolio of loads and resources. The Dispatch Model generates a wholesale electricity market price forecast by evaluating all Western Interconnect resources simultaneously in a least-cost equation to meet regional loads. As the Dispatch Model progresses from hour to hour, it "operates" those least-cost resources necessary to meet load. With respect to the Company's portfolio, the Dispatch Model tracks the hourly output and fuel costs associated with portfolio generation. It also calculates hourly energy quantities and values for the Company's contractual rights and obligations. In every hour the Company's loads and obligations are compared to available resources to determine a net position. This net position is balanced using the simulated wholesale electricity market. The cost of energy purchased from or sold into the market is determined based on the electric market-clearing price for the specified hour and the amount of energy necessary to balance loads and resources.

Q. How does the Dispatch Model determine electricity market prices, and how are the prices used to calculate market purchases and sales?

A. The Dispatch Model calculates electricity prices for the entire Western Interconnect, separated into various geographical areas such as the Northwest and Northern and Southern California. The load in each area is compared to available resources, including resources available from other areas that are linked by transmission connections, to determine the electricity price in each hour. Ultimately, the market price for an hour is set based on the last resource in the stack to be dispatched. This resource is referred to as the "marginal resource." Given the prominence of natural gas-fired resources on the margin, this fuel is a key variable in the determination of wholesale electricity prices.

Q. How does the Dispatch Model operate regional hydroelectric projects?

A. The model begins by "peak shaving" loads using hydro resources with storage. When peak shaving, the Dispatch Model determines the hours with the highest loads and allocates to them as much hydroelectric energy within the constraints of the hydro system. Remaining loads are then met with other available resources.

Q. Has the Company made any modifications to the EPIS database for this case?

A. Yes. As we have in the past, Avista's resource portfolio is modified from EPIS's default database to reflect actual project operating characteristics. Also, natural gas prices are modified to match forward prices over the pro-forma period, regional resources and loads are modified where better information is made available, and Northwest hydro data are replaced with Bonneville Power Administration data. The EPIS database is modified to include various assumptions used in the Company's 2013 Integrated Resource Plan and other new resource information where available.

Q. Has the Company made any changes to the way it models hydro in this case?

A. Methodologically, no. We did update the hydro record to include ten additional years of hydrology that have become available since our last general rate case. We now model 80 years, from 1929 through 2008. Further, BPA data now is being used for the Mid-C projects because the Northwest Power Pool (NWPP), the source we have used in the past, has not updated its work to include an 80-year record. This change also provides a consistent data set across all Avista hydroelectricity projects.

Q. How does BPA data for the Mid-C projects compare to the NWPP data?

A. Because the NWPP doesn't have an 80-year record available, Avista is able only to compare the 70-year records. The BPA 70-year record provides 2.5% more generation in the proforma period than the same NWPP 70-year record. This difference decreases revenue requirement relative to continued use of NWPP data.

Q. Why did Avista modify its analysis to use an 80-year record?

A. Consistent with precedent, Avista uses the full hydro record for its rate filings.

Q. How does the AURORA$_{XMP}$ Dispatch Model Operate Company-controlled hydroelectricity generation resources?

A. The Dispatch Model treats all hydroelectricity generation plants within each river system as a single large plant. To account for the actual flexibility of Company hydroelectricity resources, Avista develops individual hydro operations logic for each of its facilities. This separation ensures that the flexibility inherent in these resources is credited to customers in the pro forma exercise.

Q. Please compare the operating statistics from the Dispatch Model to recent historical hydroelectric plant operations.

A. Over the pro forma period the Dispatch Model generates 69% of Clark Fork hydro generation during on-peak hours (based on average water). Since on-peak hours represent only 57% of the year, this demonstrates a substantial shift of hydro resources to the more expensive on-peak hours. This is identical to the five-year average of on-peak hydroelectric generation at the Clark Fork through 2012. Similar relative performance is achieved for the Spokane and Mid-Columbia projects

III. OTHER KEY MODELING ASSUMPTIONS

Q. Please describe your update to pro forma period natural gas prices.

A. Consistent with past general rate case filings, natural gas prices are based on a 3-month average from August 1, 2013 to October 31, 2013 of calendar-year 2015 monthly forward prices. Natural gas prices used in the Dispatch Model are presented below in Table No 1.

Table No. 1 – Pro Forma Natural Gas Prices

Basis	Price ($2015/dth)
AECO	3.47
Malin	3.95
Spokane	4.08
Rockies	3.84
Stanfield	3.87
Sumas	4.01
Henry Hub	4.09
S. Calif.	4.17

Q. What is the Company's assumption for rate period loads?

A. Again, consistent with prior general rate case proceedings, historical loads used in this case are weather-adjusted. For this filing we weather normalize 2012-13 loads. Table No. 2 below details data included in the case.

Table No. 2 – Pro Forma Loads

Month	Actual	Weather Adjusted	IEP Adjustment	Month	Actual	Weather Adjusted	IEP Adjustment
Jan-13	1,239.5	(36.1)	0.0	**Jul-12**	1,050.7	-33.0	6.5
Feb-13	1,139.2	12.7	0.0	**Aug-12**	1,060.7	-30.5	7.2
Mar-13	1,046.4	12.3	0.0	**Sep-12**	932.4	4.5	4.9
Apr-13	980.4	(3.0)	0.0	**Oct-12**	976.0	7.7	0.0
May-13	938.3	10.8	0.0	**Nov-12**	1,063.4	22.0	0.0
Jun-13	946.9	(0.4)	0.0	**Dec-12**	1,153.1	34.7	0.0
				Average	**1,043.8**	**0.0**	**1.6**

Q. Why are Inland Empire Paper (IEP) loads adjusted?

A. During the load test period, IEP's loads between July and September were significantly lower due to a motor failure. These months were adjusted up to account for the expectation that IEP's loads will be higher in future now that their equipment has been repaired. The adjustment was made by adding the difference between the actual monthly load versus the average load of the other nine months.

Q. Please discuss your outage assumptions for the Colstrip units.

A. As with our assumptions for other plants, and consistent with prior cases, we use the most recent available 5-year average outages to estimate long-run performance at the Colstrip plant. The 9.27% forced outage rate is based on the average outages between 2008 and 2012 and is below the 9.57% level in present rates.

Q. Are there any other significant modeling changes from the last rate filing?

A. In the past Avista has not reflected the costs of station service in its proforma power supply expenses because AURORA was unable to account for it. Station service is now tracked in AURORA. Station service is calculated using average station service load between 2009 and 2013 for each plant. The cost is determined by multiplying station service consumption by the hourly simulated Mid-Columbia market price.

IV. RESULTS

Q. Please summarize the results from the Dispatch.

A. The Dispatch Model tracks the Company's portfolio during each hour of the pro forma study. Fuel costs and generation for each resource are summarized by month.

Total market sales and purchases, and their revenues and costs, are also determined and summarized by month. These values are contained in Confidential Exhibit No. ___(CGK-2C) and were provided to Mr. Johnson for use in his calculations. Mr. Johnson adds resource and contract revenues and expenses not accounted for in the Dispatch Model (e.g., fixed costs) to determine net power supply expense.

Q. Does this conclude your pre-filed direct testimony?

A. Yes, it does.