

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-10_____

DOCKET NO. UG-10_____

DIRECT TESTIMONY OF

JAMES M. KENSOK

REPRESENTING AVISTA CORPORATION

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I. INTRODUCTION

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

A. My name is James M. Kensok. I am employed by Avista Corporation as the Vice-President and Chief Information Officer (CIO). My business address is 1411 E. Mission Avenue, Spokane, Washington.

Q. Mr. Kensok, please provide information pertaining to your educational background and professional experience.

A. I am a graduate of Eastern Washington University with a Bachelor of Arts Degree in Business Administration, majoring in Management Information Systems. I have experience through direct application and management of Information Services over the course of my 31 year information technology career. I joined the Company in June of 1996. Over the past 14 years, I have spent approximately one year in Avista’s Internal Audit Department as an Information Systems Auditor with involvement in performing internal information systems compliance and technology audits. I have been in the Information Services Department for approximately 13 years in a variety of management roles directing and leading information technology and systems; planning, operations, system analysis, network advancement, telecommunications, information security, applications development, outsourcing agreements, contract negotiations, technical support, cost management, data management and strategic development. I was appointed Vice-President and CIO in January of 2007.

Q. What is the scope of your testimony?

A. My testimony will describe the increase in costs associated with Avista’s information technology, and the proposed pro forma adjustments included in this filing. These costs increases include additional expenses for supporting applications utilized by the

1 Company, additional required security and compliance requirements, and additional dollars
2 required for hosting fees, application fees, software maintenance and license fees.

3 **Q. Are you sponsoring any exhibits in this proceeding?**

4 A. Yes. I am sponsoring Exhibit No. ____ (JMK-2) consisting of templates
5 describing the major categories of expense included in the pro forma adjustments. Exhibit
6 No. ____ (JMK-3) consists of copies of invoices, contracts, and other documentation to support
7 the proposed pro forma adjustments related to information technology.

8 **Q. Please provide some background regarding Avista's Information Services**
9 **(IS) Department's operating needs.**

10 A. Avista has been, and continues to be, focused on utilizing cost-effective
11 information and operating technology to meet business and customer needs. Maintaining
12 appropriate levels of information and operating technology funding is increasingly important,
13 and Avista and its customers rely more and more on computer systems and technology to meet
14 day-to-day business operations.

15 Computer hardware, software, networks and related tools are becoming more
16 indispensable, and more complex, as the business environment and customer expectations
17 grow, and more information and transactions flow on-line. There continues to be exponential
18 growth in the use of Avista networks for customers transacting on-line and for Avista to
19 manage its delivery system and mobile workforce. For example, electronic bill presentment
20 and electronic payment provides convenience for customers to understand their bill and remit
21 payment electronically, as well as access extensive information from the Company related to
22 areas such as energy efficiency and safety. As Mr. Kopczynski explains in his testimony, our
23 automated voice response call system now handles 47.3% of incoming calls from our

1 customers. Mobile dispatch of service crews involves wireless technology in Company field
2 vehicles, and provides improved customer service for construction locates and service work, at
3 lower cost. Without these technologies, Avista could not meet customer and regulatory
4 expectations, nor achieve many of the cost savings we have accomplished through the use of
5 technology.

6 **Q. What is causing an increase in costs related to Information Systems?**

7 A. One factor driving an increase in IS costs is the life of the systems themselves.
8 Unlike other utility equipment which may have useful lives of 30 to 50 years or longer, IS
9 hardware and software is relatively short-lived, and must be enhanced or replaced more
10 frequently than other utility tools and equipment. In addition, among other things, increasing
11 requirements related to reliability and security related to our operations and communications
12 have required significant ongoing investment in our IS hardware, software and staff.

13 As an example, Avista is implementing a new compliance application necessary for
14 meeting the North American Electric Reliability Corporation (NERC) requirements. Currently,
15 the activity for documenting Avista's controls for NERC compliance is done manually which is
16 very labor intensive. By implementing the compliance application, the required documentation
17 is easily accessible for updating and for auditing. To continue to operate manually would
18 require the addition of 1-2 staff positions.

19 The need for additional development and support of Avista's outage management and
20 construction design applications is growing. The value of these applications is measured in
21 efficiency through improved customer response time for outage restoration. Further, it
22 provides the customer with real-time access via the telephone or Web on estimated restoration
23 times. The construction design system is a tool used by Avista engineers to design electric and

1 natural gas infrastructure. The tool reduces the amount of time the design engineer spends in
 2 the field, as most all of the existing facility and geographic information they need is contained
 3 within the application. As a result, they are able to design construction jobs more quickly and
 4 accurately for the customer, which reduces the overall cost of the project and on-going support.
 5 These systems are expanding, and as a result require additional hours for maintenance and
 6 support.

7 **Q. As IS requirements change over time, is there also opportunity to reduce**
 8 **costs associated with these tools?**

9 A. Yes. In 2009, Avista worked to reduce the overall technology expenditures by
 10 nearly one-million dollars. This was done through a focus on reducing many costs: from as
 11 little as a \$111 reduction for OATI (open access transmission information system) web hosting
 12 fees, to as high as a \$179,872 reduction through a renegotiated AT&T contract. Table 1 below
 13 summarizes the cost reductions in IS of nearly \$1 million.

14

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Table 1

2009 Operating Cost Reductions	
Description	Amount
Communication Infrastructure	\$ 437,791
Data Storage	\$ 74,282
Services (helpdesk, web hosting, asset management, etc.)	\$ 380,124
General Office Technology (software, printer, fax, keyboards, etc.)	\$ 36,000
Operating Systems (Linux, UNIX, Virtual Server, etc.)	\$ 37,306
Total Reductions:	\$ 965,503

16

17 In addition, to these cost reductions in 2009 that will carry forward to 2010, we have
 18 also identified other reductions in the 2011 pro forma period. Telecommunications

1 maintenance & repair is anticipated to be reduced by approximately \$115,000 in 2011, and
 2 professional services are anticipated to be lower by \$87,000. These reductions were included
 3 in the development of the pro forma adjustment for the 2009 test period.

4 While Avista diligently works to reduce technology costs resulting in significant
 5 reductions, there are net cost increases of \$4,437,375 related to operations in 2010, and an
 6 additional \$657,000 for 2011.

7 **Q. Please summarize the 2010 pro forma cost increases?**

8 A. Table 2 below summarizes the net increase in IS costs for the year 2010, which
 9 continue into the 2011 pro forma rate year.

10

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Table 2

2010 Net Operating Cost Increases	
Description	Amount
Information Technology Operations	\$ 380,205
General Expenses	\$ 232,512
Software/Hardware Operating and License Fees	\$ 908,545
Professional Services - Customer and Operating Applications	\$ 1,427,356
Professional Services - Network Engineering/Support – Security & Compliance Support	<u>\$ 1,488,757</u>
TOTAL	<u>\$ 4,437,375</u>

12

13 **Q. Please explain the increase in costs associated with Information Technology**
 14 **Operations of \$380,205 shown in Table 2.**

15 A. Avista has experienced significant increases in property lease costs for mountain
 16 top communication facilities. For the year 2010, the lease for the Mt. Spokane communication
 17 facilities has increased from approximately \$5,000 per year to approximately \$73,759 per year.
 18 Other mountain top facilities are also experiencing increases in lease costs totaling
 19 approximately \$10,548 per year. These facilities are the core communication sites for all

1 network traffic that support the electric distribution system, protection and relay circuits, field
2 communication devices, and mobile communications for natural gas and electric crews.
3 Without these communication sites; Avista would not be able to dispatch service work, provide
4 a safe working environment for the crews, and operate the electric and gas infrastructure.

5 Costs from communication network providers such as Centurytel, Frontier, Verizon,
6 etc. will also increase in 2010. The increase in costs are related to constraints in network
7 capacity and general vendor cost increases. The network capacity, or volume of data a network
8 can move in a timely manner, is constrained. It is constrained due to an increase in volume
9 related to the number of customers contacting Avista via the internet for customer self-service.
10 This provides the customer a channel to transact business (bill payment, energy efficiency
11 information, rebates, etc.) with Avista when it is convenient for them and reduces calls to the
12 call center.

13 Increases are also due to greater usage of mobile communications. Avista utilizes
14 mobile communications to improve efficiency when serving customers. For example, rather
15 than driving back to the office for work assignments, a field-based employee is given service
16 work via their mobile laptop or cell phone. Avista's claims representatives use mobile
17 communication to work with various agencies and Avista staff when processing a claim. Prior
18 to this, the claims representative had to take pictures and notes at the scene and then return to
19 the office to re-enter those notes manually. Now, they send them via their cell phone. This
20 reduces time for claims processing and improves the efficiency of the claims representative.

21 In order to preserve these tools that enhance customer service and cost-efficiency, it is
22 reasonable and appropriate that the increased costs associated with these tools be passed on to
23 customers, who benefit directly from these tools. Additional documentation related to these

1 increased costs for 2010 is provided in Exhibit No. ____ (JMK-2), page 1, Exhibit
2 No. ____ (JMK-3), Schedule 1.

3 **Q. Please explain the cost increases related to General Expenses of \$232,512 in**
4 **Table 2 above.**

5 A. There has been a significant increase in the use of customer-focused
6 technology, i.e., Web and automated telephone transactions, outage management and
7 restoration information, etc., and an increase in staff to support the technology. Avista's
8 customers have quickly adopted the Company's new voice-based technology system that
9 allows for making credit arrangements via the telephone, which reduces calls to the call center.
10 Mr. Kopczynski explains the significant cost reductions related to call center staff, resulting
11 from this technology, which have been passed on to customers.

12 Avista must ensure that there is adequately-trained staff with proper tools to operate and
13 maintain this technology. For 2010, this requires increased staff, training and tools totaling
14 \$232,512. These costs include \$116,558 for software development tools for application
15 programming, computer monitors, and personal communication devices for on-call support and
16 web content management, as well as productivity tools such as program debugging software.
17 These systems also require additional technology training costs in 2010 of \$115,954. With a
18 lack of training, these applications and others will not be properly maintained, will not be
19 effective in serving customers and preserving the cost savings they have created. Additional
20 documentation related to these increased costs for 2010 is provided in Exhibit No. ____ (JMK-
21 2), page 2, and Exhibit No. ____ (JMK-3), Schedule 2.

22

1 **Q. Please explain the change in costs associated with Software/Hardware**
2 **Operating and License Fees of \$908,545 in Table 2 above.**

3 A. In order to meet customer needs, Avista employs numerous applications from
4 more than 85 application and hardware vendors. These applications and hardware vendors
5 (Avaya, Hewlett-Packard-hardware, Wonderware, etc.) are expected to increase the
6 software/hardware maintenance fees by \$908,545 in 2010. These applications and hardware
7 are necessary to support Avista’s customers calling in to check on system outages (Avaya), and
8 have an Avista service person dispatched to check for natural gas leaks, read meters, and to
9 protect their information, etc.

10 In addition, these applications and associated hardware are utilized for operating
11 Avista’s generation and distribution systems. For example, Wonderware software is used to
12 operate Avista’s power plants and the Hewlett-Packard hardware is used to host the computers
13 that manage the electric and natural gas infrastructure.

14 Without 85-plus primary applications, Avista would not be able to operate its natural
15 gas and electric infrastructure and power plants, and would not be able to serve its customers.
16 Additional documentation related to these increased costs for 2010 is provided in Exhibit No.
17 ____ (JMK-2), page 3, and Exhibit No. ____ (JMK-3), Schedule 3.

18 **Q. Please explain the change in costs associated with Professional Services –**
19 **Customer and Operating Applications of \$1,427,356 shown in Table 2.**

20 A. This area includes cost changes involving four different components. Each
21 component is explained separately below.

22

1 **New Positions Already Filled [\$134,340]** - There is an increase of 1.31 positions
2 contracted with Hewlett-Packard for 2010. The purpose of the new positions is to
3 support the need for report writing and web application development.
4

5 The one full-time report writing position is needed to mine data and write reports that
6 lead to improved efficiency across the Company. For example, in order to determine
7 the main causes of electric distribution system outages, data are mined and correlated to
8 the root cause of the outage. This position produces reports for managing crew over-
9 time, crew efficiency, customer transaction efficiency, resulting in improved employee
10 efficiency and asset management.
11

12 The purpose of the partial FTE (.31 FTE) is to assist in the on-going maintenance and
13 support of Avista's Intranet site web technology based platform (SharePoint). This is a
14 site that is designed to improve efficiency for communicating across the Company. All
15 of the business unit performance metrics are managed on the internal web-site. The
16 employee self-service applications for Human Resources and Payroll are accessed
17 through the internal web-site. Through employee self-service, Avista gains efficiency
18 in productivity and reduces costs of printing and mailing internal communications.
19

20 **New Positions To Be Added in 2010 [\$324,738]** - Avista will be contracting with
21 Hewlett-Packard in the third quarter of 2010 for two positions to support a new
22 distribution automation application. The annualized cost for these positions is
23 \$324,738. The purpose of the application is to automate the management of the electric
24 distribution system. With automation, Avista has the opportunity to reduce line losses
25 and improve efficiency in the electric distribution system. With a reduction in line
26 losses and improved load balancing, the overall efficiency of the electric system
27 improves. With these improvements, costs are optimized through reduced line loss of
28 electricity, and system reliability is improved for Avista customers.
29

30 **Hewlett-Packard Annual Cost Adjustment [\$77,972]** - Avista's outsource agreement
31 with Hewlett-Packard has a contractual obligation for increases in labor rates associated
32 with all application labor-based Operating Agreements. The increase is based on the
33 Consumer Price Index as of May 2nd of the current contract year. The annualized
34 increase for 2010 is estimated to be \$77,972. Infrastructure labor as compared to
35 application labor (i.e., networks, desktop support, etc.) is also subject to adjustment on
36 an annual basis. The infrastructure adjustment is included in the overall total in the
37 Professional Services – Network Engineering Support section.
38

39 **Application Development Services [\$890,306]** - Staffing and support of applications
40 for the meter shop are necessary to accurately reflect meter inventory and meter data
41 accuracy. The addition of multiple meter platforms requires additional staffing and IS
42 applications to address meter inventory and meter read data accuracy. The meter data
43 must be validated through error checking software to ensure that the customer is
44 properly billed. There is also increased work load associated with integration
45 technology. The increase in workload is related to integrating additional customer
46 transactions, such as open/close/transfer and outage information tied to mobile

1 dispatching. These IS applications provide the platform for Avista and its customers to
2 be more efficient in managing outages, bill payments and opening, closing and
3 transferring accounts.

4
5 Additional documentation related to these increased costs for 2010 is provided in
6 Exhibit No. ____ (JMK-2), page 4, and Exhibit No. ____ (JMK-3), Schedule 4.

7 **Q. Please explain the changes in costs associated with Professional Services –**
8 **Network Engineering/Support & Security & Compliance Support of \$1,488,757 in Table**
9 **2 above.**

10 A. There are two components to this item. The first is related to security and
11 compliance support with a total increase in costs of \$906,239. Security and compliance for
12 customer data and Avista’s natural gas and electric infrastructure is mandatory.

13 By way of background, the vulnerability of electric utility operations to accidental or
14 malicious disruption has been the subject of significant concern for several years. These
15 concerns were intensified, first after the widespread blackout in the western United States in
16 1997, and then after the tragic events of September 11, 2001, and the unprecedented blackout in
17 2003 in the Northeast and portions of the Midwest. These events spurred the Federal Energy
18 Regulatory Commission (FERC) to develop actionable mandates for enhancing security over
19 bulk electricity operations. These mandates apply to all users, owners, and operators of the bulk
20 power system and primarily involve generation and transmission infrastructure. In addition to
21 this governmental mandate for increased security, the rapid evolution of information
22 technologies in the intervening years and the widespread adoption of the internet as the *defacto*
23 medium of choice for data communications, including Voice over Internet Protocol
24 communications, have added another layer of urgency to this need for mitigating vulnerabilities
25 inherent in the design, construction and operations of the country’s bulk electric system.

1 In the wake of 9/11 and the 2003 blackout, the Critical Infrastructure Protection (CIP)
2 Standards mandated were issued by NERC to protect the electric system. The “cyber security”
3 requirements contained within these Critical Infrastructure Protection mandates specifically
4 require the utilities to ensure secure operations of the information and communication
5 technology components – hardware, software and networks – that support the operation of the
6 nation’s bulk electricity system. Unlike previous NERC-driven reliability improvement efforts,
7 these mandates are not merely suggested actions, but instead, include penalties for non-
8 compliance.

9 Therefore, Avista has a legal obligation to secure its data networks beyond protecting
10 customer information. Avista must now not only provide secure access to its customer and
11 business information, it now must provide, by law, secure access to its bulk electric system.
12 This requires Avista to engineer, implement and maintain additional new network security. In
13 order to meet these new security requirements, Avista must add additional staff and systems.

14 Avista added one security position and will add a second security position to focus on
15 meeting new network security compliance requirements from NERC. The purpose of these two
16 staff positions is to design and implement systems and processes necessary to ensure that
17 Avista is able to comply with NERC’s mandated set of Cyber Security Critical Infrastructure
18 Protection communication network standards.

19 In addition to protecting Avista customer information and electric/gas and operating
20 applications, Avista must be prepared to recover from a major disaster affecting the business
21 operations. Therefore, Avista has implemented an Enterprise Business Continuity program.
22 This program provides the over-sight and direction for recovery and restoration of business

1 systems and facilities in the event of a disaster. As such, Avista has dedicated new staff to
2 manage and operate the program.

3 **Q. What is the second component of the increase in costs associated with**
4 **Professional Services – Network Engineering/Support & Security & Compliance Support**
5 **in Table 2 above?**

6 A. The second component is related to network engineering and support with a
7 total increase in costs of \$582,518. Additional communication network engineers and support
8 staff are needed to design and maintain networks that support the automation of: (1) the electric
9 distribution system, (2) customer and employee communications, and (3) electric mobile
10 dispatch networks. With the expansion of these networks, Avista has added and will add new
11 staffing. The following is an explanation of how each network supports Avista's customers,
12 employees and distribution operations:

- 13 1. The Electric distribution system network enhances the control, reliability and efficiency
14 of the electric transmission and distribution system. Traditionally, this system has been
15 managed with an industry standard network known as Supervisory Control and Data
16 Acquisition (SCADA) network.
17
- 18 2. The customer and employee communication network is used for transmitting voice, data
19 and video for day-to-day business operations to and from Avista customers and
20 employees. This network has grown and changed significantly in its complexity to
21 engineer and manage. The growth and complexity is related to increased on-line
22 automated customer transactions on both the Web and the telephone. Through the
23 automation of many customer transactions and access to data that customers request on
24 a regular basis, Avista has been able to minimize the number of staff in the call center
25 that assist customers with transactions. These transactions include: self-service
26 functionality for customers to open/close/transfer their account; report a power outage;
27 view current outages and restoration estimates; sign up for various programs such as
28 comfort level billing and automatic payment service; view their past 24 months of
29 electric and natural gas usage; and use of tools to understand options for energy
30 efficiency.
31
- 32 3. The electric mobile dispatch network is used for dispatching electric service crews.
33 Avista is broadening the use of the gas mobile dispatch network from gas only to
34 include electric service work. The success that Avista continues to experience through

1 improved customer satisfaction is related to on-time service work, staffing efficiency
2 and reduced drive time.
3

4 Additional documentation related to these increased costs for 2010 is provided in
5 Exhibit No. ____ (JMK-2), page 5, and Exhibit No. ____ (JMK-3), Schedule 5.

6 **Q. How is the distribution automation network different than the SCADA**
7 **network?**

8 A. The SCADA network manages the electric transmission and distribution system
9 where communication devices signal utility system operators as to the condition or health of the
10 electric system. When there is a fault in the electric system, the system operator is notified via
11 the SCADA data network of the fault. The current SCADA network does not provide
12 comprehensive data analytics that are necessary for improving efficiency in the electric
13 distribution system. With improved efficiency, Avista can reduce line losses resulting in higher
14 distribution system reliability, and efficiency, which increases customer satisfaction. In order to
15 capture the efficiency and improved reliability, Avista has started to implement a new
16 distribution automation network that complements the existing SCADA network.

17 With the opportunity to reduce line losses in the electric distribution system, more
18 comprehensive analytical data is required than what the SCADA network has been providing.
19 In order to obtain more analytical data, additional sensing devices have been added to the
20 electric distribution system. These additional sensing devices require a “distribution
21 automation network” to move the data from the sensing devices back to a location where an
22 engineer can analyze the data. Through analytics, the engineer is then able to tune the electric
23 infrastructure to reduce line losses and more efficiently balance the electric load. With a
24 reduction of line losses and improved load balancing, the overall efficiency of the electric

1 system improves, which reduces costs related to loss of electricity and improves reliability for
2 Avista customers.

3 **Q. What are the changes in costs for 2011 that have been pro formed into this**
4 **case?**

5 A. The pro forma increases in information technology costs for 2011 are shown in
6 Table 3 below:

7 **Table 3**

2011 Operating Cost Increases	
Description	Amount
Professional services and network maintenance/growth costs	\$ 208,231
Professional services and application software maintenance	<u>\$ 448,544</u>
TOTAL	<u>\$ 656,775</u>

13

14 **Professional Services and Network Maintenance/Growth [\$208,231]** - Avista expects
15 increases in network maintenance and repair fees in 2011 of \$208,231. For each new
16 critical piece of network usage hardware that is added in 2010, Avista has an increase in
17 maintenance fees the following year. Avista pays a maintenance fee to ensure that it meets
18 system availability requirements for customers and employees. In addition, as I mentioned
19 earlier, there continues to be exponential growth in the use of Avista networks for
20 customers transacting on-line and for Avista to manage its meters and mobile workforce.
21 As a result, the capacity of the network must be expanded each year. The expansion costs
22 are related to increased costs with the telecommunication providers.

1 **Professional Services and Application Software Maintenance [\$448,544]** - Avista
2 expects one new application in 2011 that requires a recurring maintenance fee of \$174,140.
3 The Company expects increases of approximately \$274,404 in labor expense in 2011. The
4 additional labor is necessary to provide development and support services for Meter Data
5 Management System; this captures meter reads on a defined frequency and is used for
6 customer billing, usage-presentment and demand-management by the customer. Without
7 the labor to manage the new application for meter data management, the application is at
8 risk for poor performance or failure. Should the application fail or perform poorly, the
9 meter reads that are captured by the application will be lost, limiting Avista's ability to bill
10 customers and the customers' ability to know their usage of power.

11 Additional documentation related to these increased costs for 2011 is provided in
12 Exhibit No. ____ (JMK-2), page 6, and Exhibit No. ____ (JMK-3), Schedule 6.

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

14 A. Yes.