

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-09 _____

DOCKET NO. UG-09 _____

EXHIBIT NO._____(DFK-2)

DON F. KOPCZYNSKI

REPRESENTING AVISTA CORPORATION

1 **SYSTEM IMPROVEMENTS, EFFICIENCIES & PRODUCTIVITY MEASURES**

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Avista Utilities is continually evaluating potential system improvements, additional efficiencies and productivity measures. The Company has undertaken a number of improvements throughout our utility that are focused on either increasing customer service and satisfaction, or reducing operating costs. Some examples of these initiatives are as follows:

- A. Integrated Voice Response System(IVR)
- B. Website Redesign
- C. Every Little Bit Energy Efficiency Campaign
- D. Transmission and Distribution System Efficiencies
- E. Onsite Energy Efficiency Projects
- F. Facilities and Janitorial Services
- G. Bill Print and Mail Service Outsource
- H. Design Locates
- I. Regional Infrastructure Efficiency Plan
- J. Craft Training
- K. Asset Management
- L. Transmission Outage Scheduling
- M. ARCOS Rostermonster
- N. Fleet Optimization
- O. Outage Management
- P. Mobile Dispatch

1 **A. Interactive Voice Response System (IVR)** - Avista's Interactive Voice Response
2 System (IVR) has been in service since November 1997. Currently, nearly 40% of customer
3 calls are handled by the IVR for self-service, which includes outage reporting and messaging,
4 accepting payments, making payment arrangements, hearing account information and other
5 information such as pay station, and heating assistance locations. In 2008, the IVR was updated
6 to allow customers to use the system to conduct other business, such as electronic payments
7 (over 123,406 in 2008) and obtaining account balances (over 144,526 in 2008) and payment
8 arrangements (over 80,471 in 2008).

9 Four years ago, Nortel (manufacturer of Avista's IVR) announced the end of the
10 operating system. Therefore, the technology is now obsolete and new functionality will be
11 difficult or impossible to add to the current platform. The hardware was over 10 years old.
12 Avista needs to refresh this technology as a way to guarantee the continued ability for customers
13 to self-serve. New functionality includes the ability for customers to sign up for Comfort Level
14 Billing (CLB) and Automated Payment Service (APS) along with Restoration Call Backs to
15 customers.

16 The Company has selected Intervice, a leading IVR manufacturer on a new platform
17 that will offer customers additional functionality, and will use Voice Recognition as the main
18 interface between customers and machine. Touch-tone entry will still be available, however.
19 The new IVR system is currently scheduled to be available for customers in early 2009. This
20 system will continue to allow us to have fewer customer service representatives on staff, which
21 results in lower labor costs.

22 **B. Web Site Redesign** - Web Redesign was a project launched in July 2005 to
23 rebuild the Avista Utilities website. This project included visual design and user interface,

1 customer transaction automation and technology platform reliability, scalability, flexibility.
2 The Company's primary goal is to achieve a 10% reduction in the call center's total call volume
3 while increasing customer satisfaction. Avista transformed the website to provide meaningful
4 and timely information with powerful self-service tools that will help customers make informed
5 energy management choices.

6 **C. Every Little Bit Energy Efficiency Campaign** - The Company understands that
7 rising energy costs have put added pressure on customers. With this in mind, Avista is
8 committed to increasing customer and community awareness about wise energy use. Promoting
9 the wise and efficient use of energy resources has taken on added importance locally, nationally
10 and globally, and it is our goal to build customer awareness around energy usage, energy
11 efficiency practices, and to direct them to the resources and tools we have available to assist
12 them. To ensure we did this appropriately, Avista conducted a baseline research study to
13 determine how we could best affect customer usage habits.

14 Armed with this data, Avista created the "Every Little Bit" campaign. We are able to
15 show customers that "every little bit" does add up and can make a difference in their energy
16 usage. We focused this initial campaign on low-cost and no-cost measures, with information on
17 rebates and energy efficiency. The initial campaign, launched in September 2007 is the
18 beginning of a long-term effort aimed at assisting customers to use energy more efficiency. This
19 project is funded under the Company's DSM tariff rider.

20 **D. Transmission and Distribution System Efficiencies** Avista is developing
21 innovative programs to locate and quantify energy losses across our transmission and distribution
22 system. The efficiencies programs will review the energy savings associated with a wide range
23 of system improvements from feeder balancing to conservation voltage reduction. The energy

1 savings associated with each program will be assembled into an energy portfolio identifying the
2 relative cost per kWh of savings. This portfolio will be used to prioritize projects in order to
3 focus improvements on programs with the greatest benefit.

4 Another consideration for the efficiencies programs is the development of an
5 implementation strategy which bundles efficiencies projects with operational programs. The
6 efficiencies program to replace older less efficient transformers with new more efficient
7 transformers may be bundled with the redesign or replacement of secondary districts since a
8 strong correlation exists between old transformers feeding large secondary districts. By
9 combining these two programs, Avista can accomplish the following two program goals: 1)
10 Coordinate crew time “touch the pole just once” and 2) Optimize energy savings, eliminate a
11 source of outages, thus improving reliability.

12 Finally, as efficiencies programs are implemented, Avista is interested in achieving
13 energy savings across its system. Consequently, Avista is establishing work processes and
14 information systems to track these savings when programs are implemented. For example, to
15 account for the energy savings from the replacement of an old vintage transformer with a new
16 transformer, the tracking system will capture the replacement date, the relative transformer
17 losses, and the load profile. By tracking the reduction in losses across our transmission and
18 distribution system, Avista can verify the life cycle cost benefit of the system improvement.

19 **E. Onsite Energy Efficiency Projects** - Avista has completed numerous small
20 energy efficiency projects that have resulted in energy conservation at company offices and
21 service centers. Following are some examples:

- 22 ▪ Passenger elevator upgrade
- 23 ▪ Service elevator upgrade

- 1 ▪ Appliance replacement
- 2 ▪ Compressed air system
- 3 ▪ HVAC system control valve
- 4 ▪ Various lighting improvement projects (LED, exit signs, etc.)
- 5 ▪ HVAC controls – Coeur d’Alene Service Center
- 6 ▪ Motors and Controls

7 A total of 28 projects were completed since 2005. Total kWh saved are 3,197,594 and total
8 therms saved are 47,828.

9
10 In 2007, Avista initiated a multi-year HVAC renovation at its headquarters facilities in
11 Spokane. The project is needed to replace equipment that is now 50 years old. Present estimates
12 indicate cost savings of \$432,000 per year in energy use, a 36% reduction in energy costs. The
13 project will also achieve asbestos abatement and life safety (fire sprinkler) additions. Project
14 will tentatively be completed in 2013.

15 **F. Facilities and Janitorial Services** - In 1993, Avista converted from an “in house”
16 bargaining unit janitorial crew at the Spokane facility, to a contract crew. The initial savings
17 based on 1993 rates was approximately \$134,000 per year.

18 In 2006, as a result of union negotiations, the company was able to switch to a non-
19 bargaining unit contract crew providing an additional \$51,000 per year savings.

20 **G. Bill Print and Mail Service Outsource** - Avista’s bill printing and mail services
21 were outsourced to Regulus, the second largest first class mailer in the United States. The project
22 objectives were to move bill printing, inserting and mailing offsite and to leverage core
23 competencies of the provider. It will also serve to meet disaster recovery requirements, ensure

1 daily print volume flexibility and scalability, reduce costs for bill print, inserting and mailing,
2 and serve to maximize technology.

3 Avista's primary objective was to achieve disaster recovery. Avista needed a back-up
4 system to ensure day-to-day business operations. Furthermore, customers expect to receive their
5 billing statements in a timely manner in order to avoid delayed payments, unintended collections
6 and shut-offs. Through a third-party provider, Avista has available five alternative printing sites
7 and at each site there are redundant systems for equipment breakdowns. Avista has invested in
8 dedicated data lines to both the primary print site in Napa, CA, and to the alternative site in
9 Charlotte, SC. In the event that those lines were not available, Avista would access lines at the
10 vendors other sites.

11 Avista has obtained USPS postage expertise to maximize its postage costs. Under the
12 Regulus contract, Avista expects to pay approximately 12 cents per piece. That is down from 17
13 cents under the former provider. The 12 cents per piece does not include the capital costs to
14 implement the project. Furthermore, the Vendor has USPS postal personnel onsite to ensure that
15 the mailings meet USPS requirements and can be delivered in the fastest means possible.

16 As part of the project, Avista redesigned its bills, letters and notices making them easier-
17 to-read and understand, thereby reducing call center call volumes. The bill also provides flexible
18 space for providing improved communications to customers.

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20 **H. Design Locates** - Avista is working through collaborative efforts with the City of
21 Spokane in a pilot program to coordinate design locates as part of the City's construction design
22 process. The goal of this pilot is to have utility locators provide locates for the Company's
23 existing facilities before the city projects are designed in order to avoid potentially costly facility

1 relocation. Cost savings will be measured throughout the construction year. The measurements
2 will be used to evaluate whether the process should be extended in conjunction with other
3 jurisdictions throughout the Avista service territory.

4 **I. Regional Infrastructure Efficiency Plan** - Spokane's Joint Utilities
5 Coordination Council was formed to bring together regional municipalities, utility companies,
6 telecommunication providers, sewer, water and railroad to coordinate construction activities on
7 an annual basis. Avista, in partnership with the City of Spokane, hosts this meeting every
8 February, just prior to the beginning of the construction project season. Municipalities and
9 utilities share their project plans and schedules so as to increase the coordination and mitigate the
10 risk of unknown projects. The Joint Utilities Coordination Council has resulted in greater
11 coordination and efficiencies across the entire Spokane region.

12 **J. Craft Training** - The craft training department has developed over 50 different
13 on-line training classes for our natural gas, electric and generation apprentice and qualification
14 programs. In 2007, the natural gas department alone was able to cut a full day from the annual
15 natural gas refresher training for 250 employees. The new learning network also gives us a
16 delivery and record keeping system that allows the Company to plan, schedule and document our
17 training programs and requirements.

18 **K. Asset Management Program** - As described by Mr. Kinney, Avista has
19 assigned two full-time engineers to the formal Asset Management program. These individuals
20 are responsible for gathering information, prioritizing work and executing efforts to best meet the
21 Asset Management mission. The engineers utilize a statistical Reliability Centered Maintenance
22 (RCM) software package to analyze data. This software allows detailed analysis of the impacts
23 of increased or decreased reliability based on system configuration and component reliability.

1 **L. Transmission Outage Scheduling** - Avista recently deployed a custom software
2 application which provides the Company with the ability to manage the scheduling of planned
3 outages for transmission lines and line segments. Previously, transmission outages were
4 requested via phone or email and were tracked via a spreadsheet. Requests for outages can now
5 be submitted electronically via a web page, which can then be either approved or rejected by the
6 system administrators. This improvement to the system has reduced operator time, streamlined
7 the scheduling process, and ameliorates any errors.

8 **M. ARCOS Rostermonster** – Previously, after-hour crew callouts were conducted
9 on a one-on-one basis. As of late 2008, all gas and electric crew callouts in all jurisdictions will
10 be handled by the ARCOS Rostermonster system. The expanded capabilities of ARCOS will
11 allow us to call out personnel from multiple lines with less delay, thereby improving restoration
12 time for after hour customer outages.

13 **N. Fleet Optimization** - The Company recently started an evaluation of the Fleet
14 Department. Company employees believe process improvements and technological upgrades
15 would increase productivity and modernize its fleet department. As part of the analysis, three
16 areas of fleet's business are being evaluated: service work, repair work, and compliance/DOT
17 work. Based on the results of this analysis, we believe process reorganization and scheduling
18 efficiencies could be achieved through specialized fleet software. The outcome of the project
19 should reflect a scheduling system and electronic filing system, as well as determine the
20 appropriate level of staffing of mechanics and clerical staff.

21 **O. Outage Management** - Avista's Outage Management System is an application
22 utilizing the Company's Geographic Information System (GIS mapping system). It allows
23 Avista's distribution facilities to be linked to individual customer service points in a computer

1 based model. The connectivity within the model allows for predictive analysis tools to
2 determine outage areas, affected system devices and customers experiencing an outage.

3 Customers can report outages quickly by calling Avista's contact center or speaking to
4 the Company's IVR. All customer calls are plotted in the GIS mapping system and tied to
5 outage incidents, dramatically reducing the chance they would be missed or forgotten.
6 Prediction of the probable outage device allows all commonly affected customers to be
7 associated with an incident tied to the outage device, dramatically reducing the number of
8 incidents that must be managed by the dispatcher. Quick identification of affected customers
9 reduces outage time.

10 Customer outages are quickly identified geographically through the GIS mapping system.
11 Crews and other resources can be assigned and managed at the incident level and can be
12 dispatched directly to the problem, reducing the outage time. Accurate outage data is collected
13 for all incidents providing feedback to improve reliability. Outage statistics such as CAIDI and
14 SAIFI are gathered in real time to indicate the severity of major events and assist in resource
15 planning. The system is also capable of handling customer callbacks to validate restoration has
16 been successful.

17 The GIS model provides the data necessary to analyze system characteristics for system
18 planning studies which dictate how system modifications will proceed. Planning models are now
19 able to represent current system configurations whereas in the past it would be easy for the
20 models to become badly out-of-date, due to the large manual effort required to keep them
21 current. System planners and engineers now spend the majority of their time planning instead of
22 managing paper maps and re-creating computer models.

1 The Mobile Dispatch implementation relies on the GIS system to provide accurate
2 representations of existing facility and land features. Facility and customer information is
3 provided for routing and facility identification. Documentation is provided by automated
4 updating of the GIS model from the field which eliminates back office labor for map updates and
5 insures currency of the data.

6 Finally, the very sophisticated GIS connectivity model gives Avista a distinct advantage
7 by providing the necessary foundation for the deployment of Smart Grid technologies in the near
8 or long term future.

9 **P. Mobile Dispatch** - In June 2006, the implementation of wireless laptop
10 computers with mobile maps (Mobile Dispatch) was deployed to all Avista natural gas
11 servicemen. In 2008, the implementation of the Mobile Dispatch application for electric service
12 and meter shop processes began and is included in this filing.

13 Mobile Dispatch automatically dispatches work orders to Avista servicemen throughout
14 the day through wireless technology to laptop computers mounted in Avista service trucks. Prior
15 to Mobile Dispatch, orders were created in Avista's work management system and printed at the
16 local construction offices. Employees in each office would sort, assign and dispatch (via phone,
17 pager, fax or in person) orders each morning. The field employees would work with the orders
18 and call in the completed work periodically throughout the day or simply turn-in the stack of
19 completed orders at the end of the day. The completed orders were manually completed by
20 employees who entered the information regarding the order back into the work management
21 system.

22 The paper processes made it nearly impossible to track the status of individual orders and
23 fieldworkers throughout each day. It was also very difficult for the Dispatchers to keep up with

1 the volume of paper being sent out each morning, changes to the orders that occurred during the
2 day, and completed orders returned at the end of the shift.

3 Mobile Dispatch has automated the order creation, modification and completion process.
4 With the new technology, orders are created in the work management system and are
5 automatically dispatched to the correct field worker based on the order's Latitude/Longitude
6 position and the person assigned to work orders in that area. Once a field employee has been
7 identified, the order is sent through wireless technology to the laptop computer mounted in
8 Avista's service truck. The order is then reviewed by the employee for specific information
9 needed to complete the work. The order status is transmitted back to the dispatch center, as the
10 employee indicates they are en route, on-site, and/or have completed the work. The completed
11 order is transmitted back to the work management system where it is closed automatically.

12 Dispatchers have complete information for each order and a field employee's status.
13 They have the ability to manage and redistribute work by simply dragging and dropping orders
14 from one field employee to another. The orders instantly move from the originally-assigned
15 laptop to the newly-assigned laptop.

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EXHIBIT NO. ____ (DFK-3)

DON F. KOPCZYNSKI

REPRESENTING AVISTA CORPORATION

Customer Usage
State of Washington - Electric & Gas
As of December 31, 2008

| Electric | Schedule | No. of Customers | kwh (000s) | % of Total kwh |
|-----------------------------|-----------------|-------------------------|-----------------------|-----------------------|
| Residential Sch. 1 | | 200,097 | 2,380,896 | 44% |
| General Sch. 11&12 | | 26,994 | 416,704 | 8% |
| Lge. General Sch. 21&22 | | 3,320 | 1,575,845 | 29% |
| Ex. Lge. General Sch. 25&28 | | 22 | 931,194 | 17% |
| Pumping Sch. 30,31&32 | | 2,337 | 133,925 | 2% |
| Street & Area Lights | | 317 | 26,646 | 0% |
| | | <u>233,087</u> | <u>5,465,210</u> | <u>100%</u> |

| Natural Gas | Schedule | No. of Customers | Therms (000s) | % of Total Therms |
|--------------------------------|-----------------|-------------------------|--------------------------|--------------------------|
| General Service 101 | | 143,336 | 120,062 | 48% |
| Lg. General Service 111&112 | | 2,259 | 50,221 | 20% |
| High Annual Load 121&122 | | 29 | 6,296 | 3% |
| Interruptible Service 132 | | 1 | 627 | 0% |
| Transportation Service & Other | | 39 | 70,906 | 29% |
| | | <u>145,664</u> | <u>248,112</u> | <u>100%</u> |

Total Electric & Gas Customers System

378,751