BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-19 _____

DOCKET NO. UG-19 _____

EXHIBIT JMK-2

JAMES M. KENSOK

REPRESENTING AVISTA CORPORATION

Capital Additions Description for 2017 and 2018 IS/IT				
Project/Program Name	**Expenditure Request Number**	**Description**	**2017**	**2018**
Technology Refresh to Sustain Business Process	5005	Avista manages an ongoing program to systematically replace aging and obsolete technology under "refresh cycles" these refresh cycles are timed to optimize hardware/software system changes and industry trends. The business case program generally has over one hundred active projects each year. The scope spans technology solutions for back office, customer facing, energy operating and control systems. An example of the 2017 project scope is as follows: Oracle E-Business Suite, Enterprise Budget Tool Replacement, BizTalk Upgrade, Cognos Upgrade, Metropolitan Area Network Transport Backhaul Refresh, Spokane Field Area Network Refresh, MS Exchange 2013 Upgrade, SCCM Software Package Implementation, Virtual Server Upgrade, and Linux Operation System Upgrade. This technology investment is made at this time based on technology lifecycle planning and risk management. The decision to make this technology investment will lessen the use and maintenance of obsolete or custom technology and optimize integrations with other commercial off-the-shelf (COTS) investments. If we delay or cancel this technology investment, Avista risks various technologies that currently support automated business processes and operational efficiencies, to degrade and fall risk to technology obsolescence and security vulnerabilities due to loss of maintenance, support and patching.	$ 15,001,195	$ 8,687,848
Technology Expansion to Enable Business Process	5006	This program facilitates technology growth throughout Avista, including technology expansion for the entire workforce, business process automation and increased technology to support efficient business processes. For example, when trucks are added to the fleet, communication equipment needs to be added to the truck; as Avista hosts more customer data, disk storage needs to be expanded, as customers expand their use of the website, additional computing capacity is needed. This investment is made at this time to promote efficiencies through automated business technologies that allow Avista to gather, transmit, and analyze more information and guide sound business decisions. If we delay or cancel this technology investment, Avista risks a longer lag in business automation, which can result in longer wait times, manual business processes, and system-wide inefficiencies.	$ 15,603,232	$ 5,782,285

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Enterprise Business Continuity Plan	5010	Avista has developed and maintains an Enterprise Business Continuity Program to support Avista's emergency response, and to ensure the continuity of its critical business systems under crisis conditions. The framework includes the key areas of technology recovery, alternate facilities, and overall business processes. The effort of developing and continuously improving the program ensures the readiness of systems, procedures, processes, and people required to support our customers and our communities any time we are required to operate under critical emergency conditions. A Business Impact Assessment (BIA) typically drives the need for improvement projects, however some projects are funded based on quality issues with existing infrastructure following an annual exercise or actual event. Projects within this business case may also support regulatory requirements. The decision to make this technology investment now is based on the continued need for reliable emergency and business continuity systems to protect Avista's critical technology and ensure continued operations. If we delay or cancel this technology investment, Avista risks a potential complete shut-down of operations and communications in the event of an emergency.	$ 640,382	$ 257,515
Enterprise Security	5014	There are three primary drivers of the increasing costs for Enterprise Security: cyber security, physical security, and regulatory standards. Each plays a critical role in supporting our delivery of safe and reliable energy to our customers.	$ 2,269,036	$ 1,037,227
Endpoint Compute and Productivity Systems	5016	Endpoint Compute and Productivity Systems include end-user hardware and software assets that ensure access to and interface with all corporate applications required for employees and contractors to perform their jobs in a safe, reliable, and efficient manner. Hardware that falls under this business case includes: personal computers, virtualized app deployments, tablets, printing, scanning, monitors, touch, global positioning systems, cellular modems, scales, uninterruptable power supplies and peripherals used in all areas of the Company from corporate office users, customer service, overseas application development, remote office and mobile field workers.	$ -	$ 1,033,833

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Energy Delivery Modernization	5017	This business case supports the ability to refresh technologies that have been enabled to meet business requirements throughout the Energy Delivery business area including: Gas Engineering and Operations, Electric Engineering and Operations, Asset Management and Supply Chain, Facilities, Fleet Operations, and Metering. The major applications in the Energy Delivery Program portfolio include: Geospatial platform environment – ArcGIS solutions (Esri), Enterprise Asset Management System – Maximo Solutions (IBM); Time Series Operational Data – Plant Intelligence (PI) Solutions (OSlsoft); Mobile Workforce Management – Mobile Dispatch solutions (ABB); Fleet Asset and Work Order Management – FASuite solutions (Asset Works); Crew Planning and Scheduling – Crew Manager Solutions (Arcos); System Operations Outage Management – CROW (Equinox); Transmission Planning – PowerWorld solutions (PowerWorld); Metering solutions which include OpenWay, OpenWay Riva, MV90, Field Collection System (FCS), Fixed Network, and TWACS (two-way automatic communication system); Flight Tracker; and Global Mapper.	$ -	$ 6,868
Energy Delivery Op Efficiency & Shared Services	5018	This business case supports the ability to expand business functionality through the use of technology throughout the Energy Delivery business area including: Gas Engineering and Operations, Electric Engineering and Operations, Asset Management and Supply Chain, Facilities, Fleet Operations, and Metering. The projects represented herein support the need to meet business requirements by enhancing existing functionality or adding brand new functionality for users across the Energy Delivery business area. Application expansion projects result from technology demand related to transformations in the utility industry and continual changes required to meet expanding customer needs, as well as the drive to achieve operational efficiencies. Recent trends in the area of mobility, scalability, and the move towards commercial off-the-shelf solutions that enhance and/or improve conventional business practices and processes also influence application expansion efforts. Key projects in this business case are: GIS Enhancements Packages 1 and 2; Maximo Enhancements Packages 1 and 2; Maximo Enhancements 2018 Package 3; CROW Enhancements, PI Enhancements Package 1; and Arcos Enhancements.	$ -	$ 1,973,649

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Project/Program Name	**Expenditure Request Number**	**Description**	**2017**	**2018**
Energy Resources Modernization & Op Efficiency	5019	This program supports the technology-related application projects required for both expansion and refresh activities required within the Energy Resources business area. This program is required to support the application-related technology initiatives for all areas of energy Resources – Power Supply, Gas Supply, and Generation Production and Substation Support (GPSS). The business program functions that require major application support include the following: Energy Risk Management and Energy Trading which includes Nucleus, Avista Decision Support System (ADSS), and Settlement Solutions; Gas Forecasting -- Nostradamus; Work Management – Maximo for GPSS; Generation Plant and Substation Operations – Wonderware, and CROW Outage Management; and Fuel Inventory Management – WeighWiz. Key projects in 2019 within this business case are: the Nucleus Enhancement Blanket, GPSS Mobile Solution – Generation, and Avista Decision Support System (ADSS) Package 2019.	$ -	$ 509,680
Enterprise & Control Network Infrastructure	5020	The Enterprise and Control Network systems business case will represent projects that are driven by performance and capacity related issues on the following technologies: Network Switching; Network Routing; Network Load balancing; Network Optimization; Network communication links; Time Delay Multiplexed (TDM) systems; Virtual Private Network (VPN) systems; Microwave and other telecommunication systems; Global Positioning Systems (GPS); Time Synchronization; Network media converters; and applications used to monitor and manage systems. Key projects within this business case are: Gas Telemetry Modem Refresh, CDA – PIN OPGW Phase 2, Data Center Patch Panels Refresh, Klamath Falls Router Refresh, Roseburg Router Refresh, Moscow to Terra View OPGW, P2P Mw Refresh Mt. Spokane to Creston Butte, Wireless Access Point Enhancements, Post Street Network Improvements, Cisco AnyConnect Client Refresh, CMS Refresh – DCR/HAT/LOL/NLW, and Bennewah Fiber Appr and Network.	$ -	$ 1,307,216

Capital Additions Description for 2017 and 2018
IS/IT

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Enterprise Communication Systems	5022	This business case enables the Company to manage technology replacement, as well as to address asset growth driven by business need for enterprise communication systems such as: instant messaging systems, contact center automatic call distribution system, contact center scheduling and quality assurance systems, customer interactive voice response (IVR), voice recording, electronic mail and calendar, voicemail, telephone, teleconferencing, video conferencing, conference room technology, media walls, enhanced 911 emergency services, electronic fax, paging and application systems to manage enterprise communication technology. The enterprise and control network technology systems provide the data communication foundation for all automated business processes.	$ -	$ 428,669
Enterprise Information Management & Analytics	5023	The VISION is to unlock additional value from Avista's data assets through Enterprise Data Science. The EIM and Analytics adoption road map facilitates Avista migrating to a data driven paradigm, where information is managed as an asset. The following are key objectives: • Close alignment of enterprise information management (EIM) strategy and business strategy; • Proactive information governance to facilitate data driven execution; • Develop processes to manage information as an integrated asset across the company; and, • The right set of integrated tools: There is a mechanism in place to enable the best choice of tools for analysis, decision making and underlying integrated data The Enterprise Information Management and Analytics Program is to be implemented one use-case at a time, setting the foundation for the program with initial efforts that show strong business justification and value. This allows for the initial efforts to prove out the value of both the individual solution as well as the program as a whole. Funding of the program will be reviewed yearly. Subsequent funding is based upon the performance of the program in the previous year.	$ -	$ 1,829,613

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Environmental Control & Monitoring Systems	5025	The Environmental Control and Monitoring systems ensure reliable operation of Telecom facilities by managing the performance and capacity of assets that support safety, control, customer facing and back office automated business processes. Assets require specific operating environments to prevent physical damage, such as temperature, humidity, and power supply voltages. Environmental Control and Monitoring systems monitor and control these environmental parameters and alert operational personnel when they fall outside of optimal conditions. The alarms allow operational personnel to respond to issues that may cause damage to other assets well in advance of any failure resulting in loss of business automation processes. This business case represents projects that are driven by performance and capacity-related issues to the following assets in Telecom facilities: emergency generation systems; DC power supply plants; fire protection systems; HVAC systems; Remote Terminal Unit (RTU) technologies; microwave towers; UPS systems support; and applications systems used to monitor and manage the environment.	$ -	$ 100,618
ET Modernization & Op Efficiency - Technology	5026	The Enterprise Technology (ET) Modernization and Operational Efficiency business case supports the technologies and processes necessary to support application implementation, application development, delivery automation, application operations, application support, and data delivery. The focus is on the tools and systems used by ET personnel to deliver solutions to the rest of the organization. These efforts can be divided into the following activities: IT Incident and Asset Management which includes the following applications: Tracker, Resource Library, and Change Management Solution; Non-production Environment and Data Management which includes Continuous Integration Workflows, Automation, Data Management, and Development Environments; ET Portfolio Management – Clarity; Application Lifecycle Management (ALM) Tools which include Microsoft Team Foundation Server (TFS), VersionOne and TaskTop, and Microsoft Visual Studio / MSDN; Shared Systems and Tooling which includes AppDynamics, BizTalk / API Management, Shared Project Licensing, and Databases. Key 2019 projects represented in this business case are: ET Content Management (ECM) Enhancements, Action Data Connect Upgrade v11, Enterprise Content Management: Taxonomy, Data and Analytics Platform – Foundations, Minor App Purchase & Licenses, Tracker and Resource Library Replacement (Phase 1), Clarity Application Upgrade 2019, and BizTalk Upgrade.	$ -	$ 1,753,393

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Financial & Accounting Technology	5028	This business case supports technologies for Finance and Accounting groups which include: Accounting, Tax, Finance Planning and Analysis, Treasury and Trust, Risk Management, and Internal Audit. The financial and accounting business processes are critical to the routine operations of Avista. Work within this business case addresses changing accounting standards and regulations that require frequent updates to the financial systems in order to support accurate and timely financial and accounting business processes, as well as the need to manage enhancements to meet internal and external business requirements. Major applications in the Financial & Accounting Technology business case are: Oracle Enterprise Business Suite; Power Plan; Impact Budget; Utilities International Planner; BancTec Systems; and a small number of commercial off-the-shelf and in-house developed applications to support various accounting requirements.	$ -	$ 1,195,280
Human Resources Technology	5029	The Human Resources Technology business case supports the technology-related application projects required for both expansion and refresh activities required within the Human Resources business area. This program is required to support the application related technology initiatives for all areas of Human Resources including Human Resources Labor and Employee Relations, Leadership and Organizational Development, Human Resources Shared Services, Craft Training, Safety, and Internal Communications. The largest applications within the Human Resources business case portfolio are the Ultimate Product Suite and Skillsoft / SumTotal Learning Management System. Key projects for 2019 include Enterprise Health & Safety System, Enterprise Performance Management (Craft/Technical), Classroom Smart Boards, and Ultipro Expansion Module 2019.	$ -	$ 135,775

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Land Mobile Radio & Real Time Comm Systems	5030	This business case represents projects that are driven by performance and capacity for the following technology systems: Private 2-way Land Mobile Radio (LMR) System for field operations, and Radio Telephone Command and Control System (RTCCS) used by Dispatch and System Operations to perform critical radio and telephone communication to field personnel. Key 2019 projects for this business case are: Mobile RF Repeater Expansion, LMR Coverage Enhancements – Stensgar Mountain, LMR Coverage Enhancements – Idaho Mountain, Mobile Radio Refresh 2019, DMR Transition – Mobiles and Handhelds, and DMR Transition – Base Station Refresh 2019.	$ -	$ 180,863
Legal & Compliance Technology	5031	This business case represents projects that will ensure constant management of enhancements to meet internal and external business requirements for the following business areas: Legal, Environmental Affairs, Real estate, Claims Management, Corporate Compliance, FERC Compliance, Reliability Compliance, and Ethics Compliance. The main applications are CATSWeb, Claims Management System, Valuemation, Serengeti Law, StackVision, and a small number of commercial off-the-shelf and in-house developed applications to support various legal and compliance applications. Key projects within this business case for 2019 are: CATSWeb Enhancements and Avista Claims Management (ACM) System Replacement.	$ -	$ 127,413
Infrastructure Technology Failed Assets	5037	The Infrastructure Technology Failed Assets business case represents work that is driven by asset failures. Infrastructure technology assets experience failures due to manufacture defects, human error, natural disasters, malicious actors, or age/runtime of the equipment. These failures can or may occur within or after an asset's end of life. Depending on the asset, it may be more cost effective to replace versus repairing. As there are higher failure rates related to assets used for mobility, the most common hardware covered under this business case are laptops, tablets, and mobile phones.	$ -	$ 1,695

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Next Generation Radio Refresh	5106	This project is refreshing Avista's 20-year-old Land Mobile Radio system. Avista maintains this private system because no public provider is capable of supporting communications throughout our rural service territory. Since our systems comprise a portion of our nation's critical infrastructure, Avista is required to have a communication system that will operate in the event of a disaster. This technology investment is made at this time to fulfill a mandate from the Federal Communications Commission that all licensees in the Industrial/Business Radio Pool migrate to spectrum efficient narrowband technology. If we delay or cancel this technology investment, Avista risks a less efficient and reliable critical infrastructure communication system, and potential for significant fines, penalties, and/or loss of our two-way radio license.	$ 324,237	$ -
Microwave Refresh	5121	Avista manages an ongoing program to systematically replace aging and obsolete technology under "refresh cycles". These refresh cycles are timed to optimize hardware/software system changes. This project will replace aging microwave communications technology with current technology to provide for high speed and more reliable data communications. These communication systems support relay and protection schemes of the electrical transmission system. The decision to make this technology investment at this time will reduce Avista's risk that failure of these critical communication systems will have a significant impact on Avista's transmission capacity and ability to serve our customers electrical needs. If we delay or cancel this microwave refresh technology investment, Avista risks out-of-date communications technology that could result in a shut-down of critical communications and transmissions systems.	$ 5,305,365	$ 774,919
High Voltage Protection for Substations	5142	Telecommunication facilities, including Phone, Communication Switches, SCADA, and Metering & Monitoring systems, are commonly co-located inside Avista's high voltage substations. This requires communications technicians to work in close association with our high-voltage electrical equipment. Avista has implemented new high-voltage protection and isolation standards that are designed to lower potential risks to our personnel and equipment. The decision to make this technology investment at this time will ensure implementation of the clearance changes required to meet the new standards and will result in a safer working environment for our crews who work in close proximity to high voltage electrical equipment. If we delay or cancel	$ 788,500	$ 163,122

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		this high voltage protection upgrade investment, Avista crews, will be at a higher risk of injury or death.		
AvistaUtilities.com Redesign	5143	Like many businesses today, Avista is experiencing continued growth in the use of its customer website, AvistaUtilities.com. The website was originally built in 2006-2007, but because the technology landscape has advanced so quickly, the site does not meet current web best-practices for customer usability and security. This project updated and improved the technology, overall web usability, security and customer satisfaction. Not replacing the aging website would limit its potential for customer engagement opportunities and open it to security risks. The website is part of Avista's plan to provide customers a more effective channel to meet their expectations for self-service options, including mobile, energy efficiency education, and to drive self-service as a means to lower transaction costs. After the revenue requirement was finalized in this case, it was determined that the transfer to plant amount has increased to approximately $12 million on a system basis. The Company will update this business case throughout the process of this case. If we were to delay or cancel this technology investment, it would pose risks to customer data security on the existing website platform.	$ 11,858,541	$ -
Mobility in the field	5144	This program is designed to increase the Company's mobility in the field using mobile devices. A Mobile Road Map Team has documented at least 30 near-term opportunities, where mobile technology could be used in the field and provide substantial benefit and savings. These mobile opportunities are planned to be completed in phases over a five-year period. Phases already complete, include: 'Visibility in the Field' which enabled Gas Leak Survey and Gas Service Dispatch that provided spatial maps in the field using mobile devices. Other planned opportunities include, View GIS Layers, Multiple Maps in the Field, Gas Exposed Pipe Report, Capture Facility Data, and Damage Assessment. The many benefits would include operations improvements to reduce compliance risk, reduce duplicate effort, more timely entry of data, along with improved tools and information in the field.	$ 266,168	$ -

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Project Atlas	5147	Avista Facility Management (AFM) is the legacy custom-coded system that the Company uses to manage the location and current operating state of its critical electric and natural gas assets (e.g. pipes, poles and wires). Environmental Systems Research Institute (ESRI) GIS serves as the foundational data structure on which AFM applications are built or rely on. AFM is the system of record for spatial electric and natural gas facility data and provides the connectivity model to support the AFM applications. This program replaces legacy custom-coded systems with COTS technology common in the utility industry. Project examples include the replacement of the Electric and Gas Design tools, which are applications for the design of electric and natural gas facilities, as well as Electric and Gas Edit tools inherent in the system used for data edits prior to committing final data changes and additions. These tools also include a mobile version for in-the-field updates by field staff, resulting real time changes in the system, as well as meeting customer responsiveness expectations. For the reliability of system records and the efficiency reasons stated above, this technology investment is made at this time. If we delay or cancel this AFM technology investment, Avista risks not having up to date information on our natural gas and electric assets that could result in harm to our customers, crews, and business operations.	$ 6,493,524	$ 2,242,717
Transmission Outage Management	5148	The transmission outage management system provides additional transmission outage management functionality, streamlines current transmission outage management processes, and eliminates the current homegrown logging application. This system automates many processes that are performed in a manual fashion and brings Avista's capabilities up to industry standards.	$ 4,674	$ -

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Customer Facing Technology	5151	In an effort to keep pace with customer demands and quickly changing technologies, Avista intends to expand on the foundational technologies established during previous business cases, and offer more channels of choice including self-service options that meet customer needs and help reduce overall business cost. A primary example of a project funded under the Customer Facing Technology Program business case is the expansion of our outage mobile app to include payments, SMS messaging around payments and billing, and "pay by text" functionality. Expanding our mobile options can reduce call center volumes, resulting in reduced hold times and enhanced customer satisfaction. It can also increase adoption of electronic billing and payment transactions, which can lead to lower processing costs. Efforts like this are focused on providing tools for our customers that support general consumer preferences for mobile devices. The decision to make this technology investment now is based on industry practice and trends. If we delay or cancel this technology investment, Avista risks longer call center wait times, lower customer satisfaction and generally, less efficient and higher cost operations.	$ 2,294,461	$ 7,432,557
Data Center Compute and Storage Systems	5155	This business case represents projects that are driven by performance and capacity of the following technologies: data center compute technology, which includes both on premise servers and cloud services; remote office compute and storage; application systems to manage compute and storage technology, server operating systems (OS); data storage systems; data center racks and power distribution units (PDU); and backup and recovery systems.	$ -	$ 207,966
Digital Grid Network Expansion	5156	This business case represents work to expand network systems to support digital endpoints throughout the service territory in support of work that will be conducted within the Grid Modernization, Washington AMI, and Idaho AMI business cases.	$ -	$ 2,470,662