Exh. WOM-1T

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET UE-240006

DOCKET UG-240007

DIRECT TESTIMONY OF

WAYNE O. MANUEL

REPRESENTING AVISTA CORPORATION

I. INTRODUCTION

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

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

Q. Would you please provide information pertaining to your educational background and professional experience?

A. I am a graduate of the University of Alaska-Anchorage with a Bachelor of Business Administration (BBA), majoring in Management Information Systems, and from the University of Houston-Victoria with a Master of Business Administration, concentration in Economic Development & Entrepreneurship. I joined Avista on June 1, 2023. I have held the role of Senior Vice President, Chief Strategy Officer and Chief Information officer at UW Medicine | Valley Medical Center in Renton, Washington, the largest nonprofit healthcare provider between Seattle and Tacoma. I have held various roles at The Cleveland Clinic, Providence Health & Services and ConocoPhillips with experience through direct application and management of Information Services over the course of my 30-year information technology career. During my time at Valley Medical Center, I designed and implemented near real-time COVID-19 Operational Dashboards and facilitated and instituted a plan to handle major surges in patient volumes. In addition, I directed the implementation and operationalization of the hospital's advance cybersecurity team and framework. Beyond Information Technology, my responsibilities have also included Human Resources, Marketing, Communications, Clinical Operations, Process Improvement, Project Management, and Change Management.

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

A. I will provide an overview of, and discuss capital additions and expenses associated with, the Company's Information Service/Information Technology (IS/IT) programs, projects, and security. These costs are comprised of the capital investments for a range of IS/IT projects that support systems used by the Company, as well as cyber and physical security projects and costs. I will explain why our information technology and security investments are necessary in the time frames indicated and why investments in technology are necessary. While I discuss this plan in detail within my testimony and exhibits, Company witnesses Ms. Benjamin and Ms. Schultz incorporate the capital additions, and incremental expense associated with the Company's IS/IT costs included in the Company's request for rate relief over the Two-Year Rate Plan effective in December 2024.

A table of contents for my testimony is as follows:

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes. I am sponsoring Exh. WOM-2. Exhibit WOM-2 contains the capital business cases related to the July 1, 2023, through December 31, 2024 projects I discuss later in my testimony, as well as the business cases related to the 2025 and 2026 provisional large

or distinct, ongoing programs, mandatory and compliance and short-lived projects I support.

II. IS/IT OVERVIEW

Q. How are Avista's technology investments linked to supporting business processes?

A. Avista's technology investments fall into two major areas: (1) enabling technology and (2) business and operating application systems. Avista also takes an enterprise-wide approach to security and disaster recovery (resiliency) that links our technology investments with protecting our people, our assets, and our facilities.

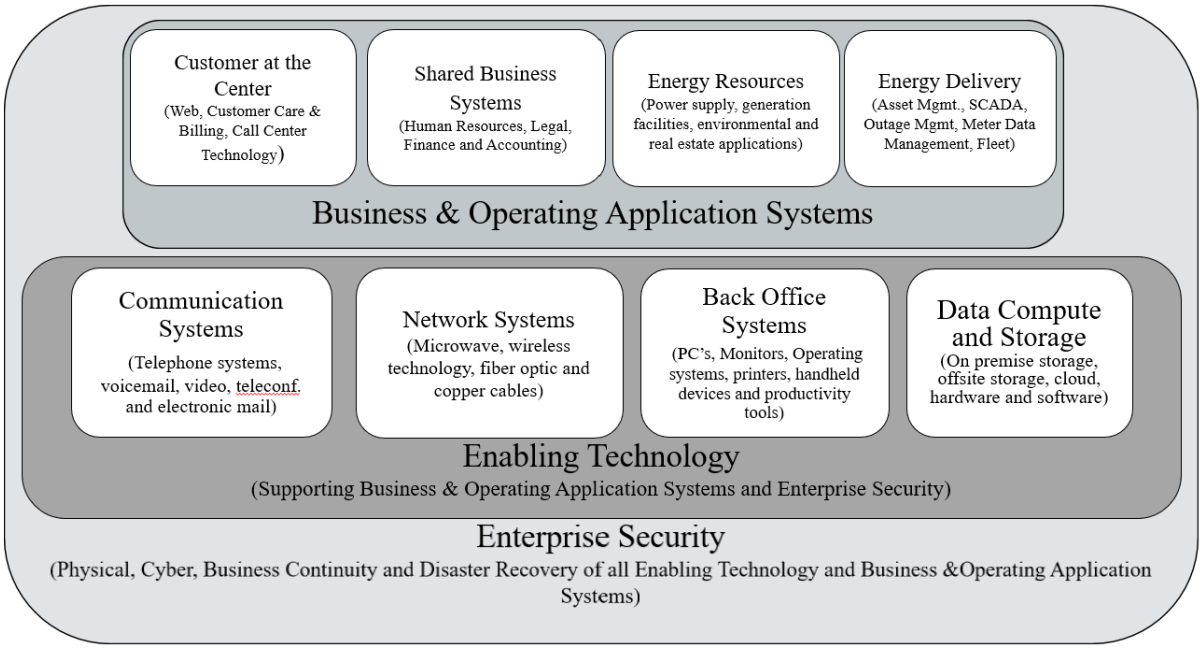
Specifically, "enabling technology" consists of the technology infrastructure such as data storage, and endpoint computing hardware, (e.g., Personal Computers (PC's), Laptops, Smartphones, and Wireless Network Access Devices). Enabling technology also includes operating systems, network transport connectivity (e.g., microwave radios, routers and switches). Additionally, enabling technology includes databases and data schemas, integration software, business intelligence tools, communication and collaboration platforms, etc., necessary to enable business capabilities through business application systems. It is the foundation on which we deliver energy safely and reliably, meet business objectives, and deliver value for our customers through business and operating application systems.

"Business and operating application systems" are dependent on a reliable infrastructure that delivers the technology foundation for meeting customer needs. Some of the business capabilities within these areas include electric and natural gas service design in the field response to customer requests for prompt installation of new electric or natural gas service. Business application systems help business capabilities by automating business processes to

optimize efficiencies and add functionality.

Illustration No. 1 below shows the relationship between the areas of Enabling Technologies, Business & Operating Application Systems, and Enterprise Security and how those fit into the different capital business cases discussed later in my testimony. Enabling technology is there to support our critical business operations along with the business applications technology, and just as importantly, neither of the two can co-exist without proper security to protect the information that is used to make business decisions and deliver energy to our customers.

Illustration No. 1- Business Technology Structure:



Q. How is Avista's technology investment landscape changing in the future?

A. Opportunities are available using existing technology and/or changes to business processes as well as new technology options. For example, a growing alternative to the traditional "buy or build" approach has been Software as a Service (SaaS), whereby the

software asset that once was in Avista's data center onsite, is now in the technology vendor's data center (cloud environment). Assessments on the feasibility of SaaS are performed by the Company on a case-by-case basis to determine how the benefits might outweigh the costs and/or other risks.

The Company is also evaluating our Enterprise Resource Planning ("ERP") strategy with application rationalization, and as discussed above, shifts in current technology from on-premise to the cloud (SaaS model). An integrated ERP system would run the entire Company's automated processes in finance, human resources, supply chain, project management and more. In addition, many of the Company's software assets will need to move to the cloud in the future, therefore the Company is weighing the cost and benefit of these assets to determine the best long-term cost-effective strategy for the Company. Ultimately, these changes will impact the Company's technology landscape in the future and may impact our overall investment planning[1].

Q. As discussed above, the software industry is shifting delivery of application technology solutions from a "buy or build" model to SaaS. Please explain how Avista is handling this transition, and what impact this has on capital and operations & maintenance (O&M) costs.

A. Onsite solutions presently run in Avista's onsite data center. They require capital investments in licensing and infrastructure, and on-premise personnel and support agreements to operate and maintain them at required levels. Vendor-managed cloud solutions range widely in what they deliver. They can range from delivering data and information only, or running

[1] The Company will update this case with capital investments associated with an ERP system, if applicable, as they become known and measurable.

applications and storing data, to fully replicating all the infrastructure, computing power and storage necessary to the point that only an internet connection is needed to make it useful. In general terms, as solutions move across the spectrum of fully on premise to fully vendor-managed cloud-based, the cost to implement and run those solutions shifts along the spectrum from capital investment to expense. This is a result of the accounting treatment of cloud-based SaaS solutions moving the Company from capital investments in licensing, infrastructure, and implementation to outsourcing those components as services, and the expenses entailed. This change will require the Company to account for this methodology change surrounding how and when we capitalize and expense these types of solutions.

Q. Does this mean that Avista will be making fewer capital investments as technology solutions shift to the cloud?

A. No. The need for technology investment will continue to increase as traditionally mechanical and manual functions within different business areas of the Company move more towards digitalization. A great example of this effort is our Outage Management System & Advanced Distribution Management System (OMS/ADMS) business case discussed in further detail, later in my testimony. The replacement of Avista's legacy Outage Management tool (OMT) and Distribution Management System (DMS) is aimed at improved field and office worker productivity, providing more accurate data and improvement of outage management and restoration times.

In addition, it is likely not all our vendors are moving to the cloud, meaning we need to continue to invest in and support on-premise solutions, as well as network infrastructure (which is part of IS/IT investment) throughout our service territory. As mentioned above, Avista will continue to evaluate SaaS on a case-by-case basis to determine how the benefits

might outweigh the costs and/or other risks.

III. IS/IT PRIORITIZATION, ALTERNATIVES AND GOVERNANCE PROCESS

Q. How are the enabling technologies and business and operating application systems business cases prioritized within IS/IT?

A. The IS/IT department uses a decision tree designed by Gartner[2] for both enabling technologies and business and operating application systems to help organize capital projects into three categories: run, grow and transform.[3] Through this method and the technology leadership team, continuous re-evaluation of prioritization in technology investments are recommended to the Technology Planning Group (TPG – comprised of Directors from each business area) for the best path forward of technology investments. As shown below in Illustration No. 2, this group resides in the middle of executive leadership and business case governance.

Q. Describe the alternatives evaluated and how the solutions were chosen.

A. Technology evolves in short cycles, as new and sometimes more improved technologies can perform more efficiently than older ones. Through our technology programs, Avista evaluates and plans the direction of its information technology portfolio. A team of IS/IT professionals guide technology programs by analyzing the benefits and costs of investing in

[2] Gartner is a research and advisory company, which delivers technology-related insights to its clients to make right decisions. It operates through the following segments: Research, Consulting and Conferences. https://www.gartner.com/smarterwithgartner/align-it-functions-with-business-strategy-using-the-run-grow-transform-model/

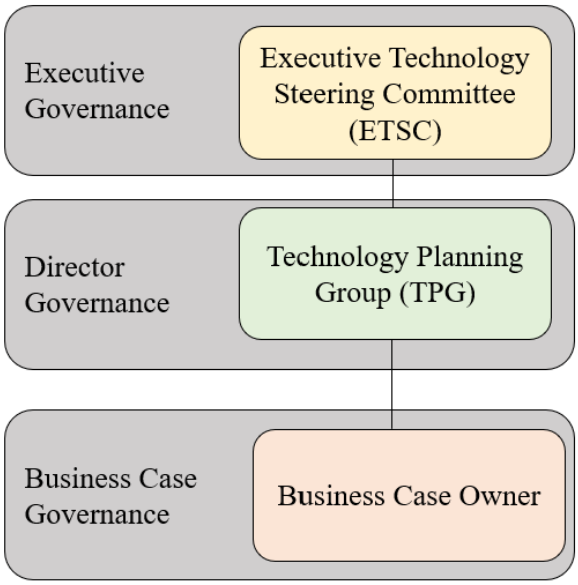
[3] The "run" category includes technology projects aimed at running the day-to-day business. The "grow" category projects are focused on developing and enhancing systems to enable business growth including new customers. Finally, the "transform" category are projects that aid the Company in addressing new customer and employee needs that recently have included remote work and mobile transactions. It also includes new operating models such as outage restoration and wildfire resiliency.

new technology verses maintaining existing technology. The team considers whether the current technology environment is stable and secure (e.g., run-the-business), so that it is in Avista's and its customers' best interests to maintain it, and if so, for how long. If not, other options that may better suit the technology needs of Avista and its customers are considered. The technology programs also evaluate the risks of not making an immediate technology change or delaying a change to a later date.

Q. What is the governance or cost controls for all business cases with technology investments?

A. There are three levels of governance that occur within technology business cases. Executive, Director, and Business case Governance detailed below in Illustration No. 2.

Illustration No. 2 – Technology Governance Structure



Under each business case there are two more levels of governance depending on if it is a program or project through Program Steering Committees and Project Steering Committees.

Both have cost control responsibilities to manage and therefore meet regularly to report on scope, schedule, and budget. Governance committee responsibilities are described further below.

- **Program Steering Committee** - The Program Steering Committee consists of members in management positions that are identified and responsible for prioritizing the projects within each respective program. The Program Steering Committee is accountable for the financial performance of the program and hold regular meetings to review the progress of the program and make decisions on the following topics:
    - Project prioritization and risk
    - Approving program funding requests
    - New project initiation and sequencing

  The program is facilitated and administrated by an assigned Program Manager within the IS/IT Project Management Office (PMO). The project queue is reviewed periodically and consists of projects needed to meet program goals for technology solutions under each respective program.

- **Project Steering Committee** - Project Steering Committees act as the governing body over each individual project within a program and consist of key members in management positions that are identified as responsible for the successful completion of the scope of work identified in the Charter document for each respective project. The Project Steering Committee is responsible to provide guidance and make decisions on key issues that affect the following topics:
    - Scope
    - Schedule
    - Budget
    - Project Risks
    - Project Issues

  Project Steering Committees meet at defined intervals documented in the Charter of the project and are facilitated by an assigned Project Manager from within the IS/IT PMO. Project Steering Committees may or may not be necessary depending on the size of the project. In addition, Project Steering Committees may not meet on a monthly or regular basis if the project is on track with all the above deliverables.

IV. PRO FORMA INVESTMENTS IN TECHNOLOGY PROGRAMS AND ENTERPRISE SECURITY

Q. Are you supporting the capital additions from July 1, 2023, through

December 31, 2024 as a part of your testimony in this case?

A. Yes. Table No. 1 below provides a listing of the July 1, 2023, through December 31, 2024, pro forma capital additions by Business case type in my areas of responsibility. Please note that I have also provided where in my Exhibit WOM-2 you can find the full business case supporting each project or program.

Table No. 1: Enterprise Technology Pro Forma Capital Additions

WA GRC Plant Category	Project #	ET Business Case Type	Business Case		07.2023-12.2023 TTP (System)	2024 TTP (System)	Exh. WOM-2 Page #
Large or Distinct Projects	1	Enabling Technology	Digital Grid Network		$ 4,634,379	$ 2,064,528	3
	2	Enabling Technology	Land Mobile Radio & Real Time Communication Systems		$ 3,634,435	$ 4,597,501	13
Large or Distinct Projects Total					$ 8,268,814	$ 6,662,029	
Mandatory & Compliance	3	Security	CIP v5 Transition - Cyber Asset Electronic Access		$ 288,495	$ -	23
	4	Enabling Technology	High Voltage Protection (HVP) Refresh		$ 1,000,819	$ -	25
	5	Security	Identity and Access Governance		$ 20,943	$ 303,024	34
	6	Security	Security Compliance		$ 246,756	$ 99,683	44
Mandatory & Compliance Total					$ 1,557,012	$ 402,707	
Programs	7	Enabling Technology	Control and Safety Network Infrastructure	[3]	$ 1,026,865	$ 1,516,187	54
	8	Enabling Technology	Enterprise & Control Network Infrastructure	[3]	$ 766,494	$ -	64
	9	Enabling Technology	Enterprise Network Infrastructure	[3]	$ 2,649,590	$ 2,221,684	73
	10	Enabling Technology	Environmental Control & Monitoring Systems		$ 745,242	$ 978,615	83
	11	Enabling Technology	Fiber Network Lease Service Replacement		$ 3,244,873	$ 7,316	93
	12	Enabling Technology	Network Backbone	[3]	$ 2,775,167	$ 4,188,193	102
	13	Enabling Technology	NexGen Control System Networks		$ -	$ 5,798,065	112
	14	Enabling Technology	Technology Failed Assets		$ 470,452	$ 659,782	123
Programs Total					$ 11,678,682	$ 15,369,842	
Short-Lived Assets	15	Business & Op Applications	Atlas		$ 840,260	$ -	132
	16	Enabling Technology	Basic Workplace Technology Delivery		$ 893,649	$ 799,996	143
	17	Enabling Technology	Data Center Compute and Storage Systems		$ 2,289,663	$ 4,159,903	154
	18	Enabling Technology	Endpoint Compute and Productivity Systems		$ 1,355,237	$ 4,180,369	163
	19	Business & Op Applications	Energy Delivery Modernization & Operational Efficiency		$ 5,493,410	$ 4,656,442	173
	20	Business & Op Applications	Energy Market Modernization & Operational Efficiency		$ 159,476	$ 500,001	190
	21	Business & Op Applications	Energy Resources Modernization & Operational Efficiency		$ 2,764,124	$ 2,798,585	199
	22	Security	Enterprise Business Continuity		$ 206,475	$ 100,081	210
	23	Enabling Technology	Enterprise Communication Systems		$ 1,488,270	$ 1,786,541	218
	24	Security	Enterprise Security		$ 3,535,958	$ 1,771,645	229
	25	Enabling Technology	ET Modernization & Operational Efficiency - Technology		$ 2,089,866	$ 2,970,407	240
	26	Security	Facilities and Storage Location Security		$ 469,670	$ 380,134	251
	27	Business & Op Applications	Financial & Accounting Technology		$ 2,519,073	$ 4,260,001	262
	28	Security	Generation, Substation & Gas Location Security		$ 1,310,147	$ 3,830,156	273
	29	Business & Op Applications	Human Resources Technology		$ 328,739	$ 391,207	285
	30	Enabling Technology	Dynamic Infrastructure Platform Enhancements		$ -	$ 485,512	298
	31	Business & Op Applications	Legal & Compliance Technology		$ 159,066	$ 465,000	310
	32	Business & Op Applications	Outage Management System & Advanced Distribution Management System (OMS & ADMS)		$ 2,072,085	$ 1,364,878	321
	33	Security	Telecommunication & Network Distribution location Security		$ 139,191	$ 113,768	341
Short-Lived Assets Total					$ 28,114,360	$ 35,014,626	
Grand Total					**$ 49,618,868**	**$ 57,449,204**	

[1] Includes system profroma capital for the period July 1, 2023 through December 31, 2023.

[2] Totals exclude Idaho and Oregon direct business cases from revenue requirement in this case.

[3] The Enterprise & Control Network Infrastructure business case has been divided in to three new Business Cases: Enterprise Network Infrastructure, Control and Safety Network Infrastructure, and Network Backbone

Q. Please provide an overview of the technology programs in the pro forma year referenced above.

A. Table No. 1 above provides the listing of the ET and Security business cases

from July 1, 2023, through December 31, 2024. As explained by Ms. Benjamin, these projects are summarized by the following categories: (1) Large or Distinct Projects, (2) Mandatory & Compliance Projects, (3) Programs and (4) Short-Lived Assets. These business cases are further organized by business case type as discussed earlier in my testimony of Enabling Technology, Business and Operating Application Technology, and Enterprise Security. Business cases shown in Table No. 1 are provided in Exh.WOM-2. This grouping is consistent with past filings.

Q. Would you please explain how the capital additions for the pro forma year were decided on?

A. Yes. As discussed by Ms. Benjamin, Avista's capital witnesses, including myself, describe certain major business cases planned to be completed in the pro forma year July 1, 2023, through December 31, 2024. For these major business cases, my testimony and exhibits provide an overview of the need for the investments made, alternatives evaluated and detail how those business cases benefit our customers. Additionally, all the 2025 through 2026 business cases discussed later in my testimony are projects and programs which occurred in the test year and represent a continuation of such programs and projects. The information that supports those July 1, 2023, through December 31, 2024 business cases also help to support all the business cases that continue and will be transferred to plant in 2025 and 2026.

Q. For the pro forma capital additions for which you are responsible, is the Company seeking to include all of those investments in general rates in this case?

A. Yes, it is.

Q. Has the Company calculated and included a description of any offsetting factors to the capital additions in this case?

A. For those capital additions that have direct offsets, I have included a description of the offsets in the Business case description. Company witness Ms. Andrews provides an explanation of how the direct offsets are factored into the revenue requirement of this case, an explanation of the Company's "2% efficiency" adjustment included in this case, and a description of indirect offsets associated with the Business cases in this case.[4] Ms. Schultz incorporates the offsets adjustments within her electric and natural gas Pro Forma Studies through Adjustments 4.02 (2025 Rate Year 1) and 5.08 (2026 Rate Year 2). Again, this approach is generally consistent with how "offsets" were handled in the Company's last General Rate Case.

Q. Generally, what alternatives were considered for the above Enabling Technologies, Business & Operating Application Technology, and Enterprise Security programs?

A. Alternatives considered for each program can vary and may include the type of technology solutions available in the market, the total cost of ownership for the technology, and the option to do the work differently, such as leasing or hiring a service. In addition, running the technology asset longer by purchasing extended warranties, or "running the technology to failure" for technology assets with an available sparing model are also alternatives. Additional alternatives considered under each program include balancing the performance and capacity requirements for each respective technology investment impacted by vendor-driven technology obsolescence lifecycles. For example, how long can an upgrade be deferred before business risks become greater than the necessary upgrade? This can lead to

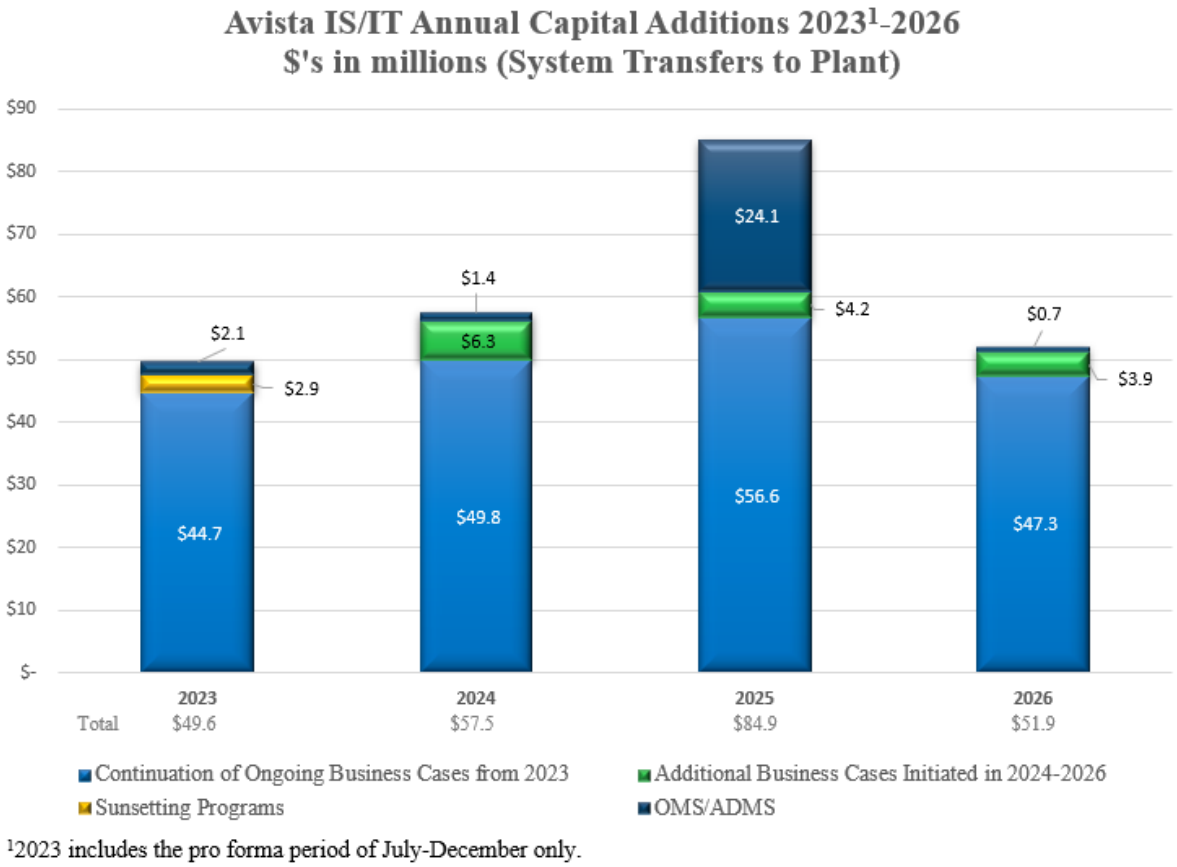
[4] See detailed direct O&M offsets, "2% efficiency" adjustment O&M offset, and indirect offsets by Business case, by witness at Exh. EMA-3.

security risks by the vendors no longer offering system patches or system reliability risks as systems can become incompatible with one another.

Q. Referring to the Table No. 1 above and Table No. 2 (in Section V), the overall level of Enterprise Technology additions ranges from approximately $49 million to approximately $85 million over the next four years. Would you explain why there is such a variance between years of additions?

A. Yes. The following illustration portrays the IS/IT Capital Investment from 2023 through 2026 included in this case, distinguishing between what are ongoing programs from 2023, sunsetting programs, and a large project that is estimated to transfer-to-plant in 2025 and 2026.

Illustration No. 3 – IS/IT Plant Investment (System Transfers to Plant)



[1]2023 includes the pro forma period of July-December only.

As you can see from this illustration, most of the capital investment relates to ongoing, multi-year efforts that continue over time, at various funding levels. The rationale and justification for these ongoing projects, however, does not change over time, only the funding levels. The additional business case listed in 2025 relates to the Outage Management System & Advanced Distribution Management System that is discussed later in my testimony. In addition, the 2023 investments, as noted earlier in Table No. 1, represent a partial year of additions and not a full calendar year.

Q. Do Enabling Technologies, Business & Operating Application Technology, and Enterprise Security programs have completion timelines?

A. Technology investments can fall into programs with both ongoing and defined timelines. All projects transfer to plant the total cost of each project, which at times can straddle calendar years. This includes projects that fall within a program, as well as those that are standalone projects. Quarterly forecasts capture changes in transfers-to-plant schedules and costs determined by project status.

Q. Are all the projects and programs included in the above Table No. 1, the same as the projects included in Table No. 2 below, for the provisional 2025 and 2026 capital?

A. Yes, as shown above in Table No.1 and in illustration No. 3, all of the projects and programs listed above are the same projects and programs listed in Table No. 2, with the exception of four business cases that will be sunsetting in 2024. Therefore in order to avoid duplication, I will describe the sunsetting business cases in this section and the ongoing business cases in the provisional capital section.

Q. Regarding 2023 and 2024 capital investments, when did, or will, the projects or programs receive their final review after they are put into service?

A. The Commission approved of the level of capital investments through 2024, contingent upon the provisional capital review filings in March of 2024 for 2023 capital investments and in March of 2025 for 2024 capital investments, in the Company's last general rate case.

Q. What do you mean by "provisional" capital?

A. Later in my testimony, in connection with 2025 through 2026 capital, I describe what is meant by "provisional".

Q. Please describe the four business cases that will be sunsetting in 2023.

A. Please see below for a description of these business cases:

Project #3 - CIP v5 Transition – Cyber Asset Electronic Access (*Security*) – 2023: $288,495

Avista is required to meet North American Electric Reliability Corporation ("NERC") Critical Infrastructure Protection ("CIP") Reliability Standards ("Standards"). Specifically, Avista has been complying with CIP Version.3 Standards ("CIPv3") and needs to transition to CIP Version.5 Standards (CIPv5). This Business case will support achieving compliance for Low Impact Bulk Electric System Cyber Systems by implementing electronic access controls.

Project #4 - High Voltage Protection (HVP) Refresh (*Enabling Technology*) – 2023: $1,000,819

Technology investments under the High Voltage Protection business case are needed to provide high voltage protection for communication circuits in high voltage areas in support of employee and public safety, system reliability, and business productivity throughout our service territory. Avista is required to provide high voltage protection for leased communication circuits in high voltage areas newer than September 12, 1994, under an FCC Tariff. If Avista does not meet the tariff requirements, telecommunication companies can turn off communication circuits to substations until Avista electrically isolates the copper wire coming into a substation, thereby affecting phone, modem, SCADA, and other metering and monitoring systems at substations. The supporting business case for this program can be found in Exh. WOM-2.

Q. When looking at Table No. 1 and the above programs for Control and

Safety Network Infrastructure (Project #7), Enterprise Network Infrastructure (Project #9) and Network Backbone Infrastructure (Project #12), it appears that these were <u>new</u> business cases since our last filing. Please describe if the nature of this work occurred in another business case in the Company's previous filing.

A. Projects included in Control and Safety Network Infrastructure, Enterprise Network Infrastructure, and Network Backbone Infrastructure programs were previously included as one business case in the Company's previous filing under the Enterprise & Control Network Infrastructure. The only remaining projects in Enterprise & Control Network Infrastructure in 2023 include inflight projects that have been carried over from 2022. After these projects complete, this business case will sunset going forward.

Q. Why did the Company choose to separate the Enterprise & Control Network Infrastructure business cases going forward?

A. The Company chose to break apart this large business case for several reasons. The first reason was to provide more visibility into the projects and to help prioritize the projects under each functional area. In addition, even though these three business cases have similar assets with routers, switches, microwaves communication systems, etc., they are based on functional area and align more closely with the resources completing the work. Below is a description of the Enterprise & Control Network Infrastructure business case that is sunsetting in 2023.

> **<u>Project #8 - Enterprise & Control Network Infrastructure (*Enabling Technology*) – 2023: $766,494</u>**
> This business case provides technology network solutions that support a variety of site locations and systems within each facility environment. This technology includes, but is not limited to, emergency and safety systems, control systems, customer systems, and enterprise back-office productivity systems. The technology within this program undergoes regular review to balance the asset management strategy within

predetermined budget allocations while mitigating risks of unplanned failures. Without continuous investment in the Enterprise and Control Network Infrastructure business case, Avista's telecommunication backbone would become unreliable. This, in turn, would have significant consequences for every other business process that uses various network transportation paths to move data, information or communication. The infrastructure is a necessary core capability for utility operations that requires reliable networks in conjunction with commercial carrier and private network solutions to maintain system reliability for Avista customers. This business case will sunset in 2023 after the completion of two projects. For better visibility and tracking, this business case has been divided into three new business cases for 2021-2025, consisting of Enterprise Network Infrastructure, Control and Safety Network Infrastructure, and Network Backbone Infrastructure. These 3 new business cases are discussed in detail in the 2025 and 2026 Provisional capital section of my testimony.

Q. Turning back to Table No. 1, are there any other programs that will not carry forward to 2025 and 2026?

A. Yes. The Atlas program that will also be sunsetting in 2023. Ongoing similar projects in this program will continue under the Energy Delivery Modernization & Operational Efficiency business case. Below is a brief description of this Program.

Project #15 - Atlas (*Business & Operating Applications*) – 2023: $840,260

This is a multi-year year program to strategically replace the suite of custom Geographic Information System (GIS) applications known as Avista Facility Management (AFM). AFM is the system of record for spatial electric facilities in Washington and Idaho and natural gas facility data in Washington, Idaho and Oregon, and provides the connectivity model to support GIS engineering and analysis applications. AFM is a cornerstone to Avista's ability to provide responsive service across its territory. Replacing AFM will enable Avista to take advantage of commercial GIS applications that provide improved mobile and desktop functionality, increased collaboration capabilities and increased reliability. Improvement of customer experience is at the core of the Atlas Program. The proposed next generation applications will enable Avista workers, office and field, to respond to customer requests faster; provide information to customers that is more accurate, timely and complete; and improve customer experience when interacting with Avista. By investing in new commercial solutions, Avista gains the ability to integrate with natural gas and electric planning and analysis tools more fully. This leads to a better understanding of infrastructure weaknesses that may exist and be able to proactively reinforce those areas improving reliability for the customers. This business case will be sunset in 2023 after projects included within have completed. Similar projects for 2024 and beyond will be included in the Energy Delivery Modernization & Operational Efficiency business case.

V. 2025 -2026 PROVISIONAL LARGE OR DISTINCT PROJECTS, MANDATORY AND COMPLIANCE PROJECTS, ONGOING TECHNOLOGY PROGRAMS, AND SHORT-LIVED PROJECTS

Q. Are you supporting the 2025-2026 capital additions as a part of your testimony in this case?

A. Yes. Table No. 2 below provides a listing of the 2025-2026 capital additions by major category in my areas of responsibility. As explained by Ms. Benjamin, these projects are grouped into the following categories: (1) Large Distinct Projects, (2) Mandatory and Compliance, (3) Programmatic and (4) Short-Lived Assets. Please note that I have also provided where in my Exhibit WOM-2 you can find the full business case supporting each project or program.

Table No. 2: Provisional 2025-2026 Capital Additions

WA GRC Plant Category	Project #	ET Business Case Type	Business Case		2025 TTP (System)	2026 TTP (System)	Exh. WOM-2 Page #
Large or Distinct Projects	1	Enabling Technology	Digital Grid Network		$ 2,606,425	$ 4,284,116	3
	2	Enabling Technology	Land Mobile Radio & Real Time Communication Systems		$ 1,999,046	$ 1,944,767	13
Large or Distinct Projects Total					$ 4,605,471	$ 6,228,883	
Mandatory & Compliance	5	Security	Identity and Access Governance		$ 649,022	$ 194,984	34
	6	Security	Security Compliance		$ 100,106	$ 101,654	44
Mandatory & Compliance Total					$ 749,128	$ 296,638	
Programs	7	Enabling Technology	Control and Safety Network Infrastructure	[3]	$ 941,295	$ 2,647,447	54
	9	Enabling Technology	Enterprise Network Infrastructure	[3]	$ 2,000,003	$ 1,051,084	73
	10	Enabling Technology	Environmental Control & Monitoring Systems	[3]	$ 909,147	$ 977,102	83
	11	Enabling Technology	Fiber Network Lease Service Replacement		$ 1,461,811	$ 878,940	93
	12	Enabling Technology	Network Backbone	[3]	$ 3,140,876	$ 1,844,292	102
	13	Enabling Technology	NexGen Control System Networks		$ 3,168,636	$ 2,704,701	112
	14	Enabling Technology	Technology Failed Assets		$ 660,002	$ 660,004	123
Programs Total					$ 12,281,770	$ 10,763,570	
Short-Lived Assets	16	Enabling Technology	Basic Workplace Technology Delivery		$ 799,998	$ 800,002	143
	17	Enabling Technology	Data Center Compute and Storage Systems		$ 2,299,701	$ 3,853,902	154
	18	Enabling Technology	Endpoint Compute and Productivity Systems		$ 6,154,490	$ 3,034,582	163
	19	Business & Op Applications	Energy Delivery Modernization & Operational Efficiency		$ 10,032,632	$ 7,948,051	173
	20	Business & Op Applications	Energy Market Modernization & Operational Efficiency		$ 598,920	$ 500,000	190
	21	Business & Op Applications	Energy Resources Modernization & Operational Efficiency		$ 2,429,392	$ 3,357,757	199
	22	Security	Enterprise Business Continuity		$ 100,000	$ 100,075	210
	23	Enabling Technology	Enterprise Communication Systems		$ 1,369,738	$ 2,212,730	218
	24	Security	Enterprise Security		$ 2,387,292	$ 2,000,689	229
	25	Enabling Technology	ET Modernization & Operational Efficiency - Technology		$ 2,609,026	$ 2,804,725	240
	26	Security	Facilities and Storage Location Security		$ 399,999	$ 399,999	251
	27	Business & Op Applications	Financial & Accounting Technology		$ 4,144,998	$ 3,140,001	262
	28	Security	Generation, Substation & Gas Location Security		$ 7,751,644	$ 1,449,994	273
	29	Business & Op Applications	Human Resources Technology		$ 490,344	$ 613,801	285
	30	Enabling Technology	Dynamic Infrastructure Platform Enhancements		$ 1,014,488	$ 1,220,271	298
	31	Business & Op Applications	Legal & Compliance Technology		$ 420,000	$ 405,500	310
	32	Business & Op Applications	Outage Management System & Advanced Distribution Management System (OMS & ADMS)		$ 24,099,250	$ 700,000	321
	33	Security	Telecommunication & Network Distribution location Security		$ 112,898	$ 112,592	341
Short-Lived Assets Total					$ 67,214,810	$ 34,654,671	
Grand Total					**$ 84,851,179**	**$ 51,943,762**	

[1] Includes system profroma capital for the period July 1, 2023 through December 31, 2023.

[2] Totals exclude Idaho and Oregon direct business cases from revenue requirement in this case.

[3] The Enterprise & Control Network Infrastructure business case has been divided in to three new Business Cases: Enterprise Network Infrastructure, Control and Safety Network Infrastructure, and Network Backbone Infrastructure.

Q. These projects, taken as a whole, are all characterized as "provisional" in nature. What does that mean?

A. As explained by Ms. Benjamin, projects for 2025 through 2026 have been characterized as provisional. First, as provisional, the Company has segregated the capital investments into category designations discussed in the Commission's "Used and Useful Policy Statement," dated January 31, 2020 in Docket U-190531, including capital investments grouped as "Large or Distinct", "Programmatic", "Short-Lived" and "Mandatory and Compliance," for ease of review and audit. Second, "provisional" designates these capital

additions as subject to final "review and refund" in a future period. Ms. Benjamin discusses the Company's proposal for Provisional Reporting for capital additions, by year, for 2025 through 2026. All of this is consistent with the Company's approach in it's prior GRC.

Q. It appears that all the project or program numbers listed above in Table No. 2 are duplicative of projects and programs previously listed in Table No. 1, and which are fully described in the previous section of your testimony. Is that the case?

A. Yes, the above listed investments were either ongoing programs or projects that had investments in 2023 and 2024, and which will continue to occur in 2025 through 2026. As discussed in the prior section, four business cases will be sunsetting in 2024 and are therefore, not included in the 2025 and 2026 Table No. 2 above.

Q. Is the Company proposing that the "provisional" capital projects for 2025 through 2026 receive their final review in this case?

A. No, it is not. As discussed by Company witness Ms. Benjamin, the provisional capital for 2025 through 2026 will be finally reviewed annually, beginning in 2025, in accordance with the process outlined by her, and used in our prior case.

Q. Before describing the 2025-2026 capital projects that you sponsor in your testimony, in general, has the Company applied offsets against the projects you discuss below?

A. Yes, as discussed earlier in my testimony, the Company included an "offsets adjustment" sponsored by Ms. Andrews. This adjustment incorporates either direct offsets calculated for business cases, or an efficiency adjustment of 2%, if applicable.[5] If the business

[5] Also as noted above, Ms. Schultz incorporates the O&M and 2% efficiency Offsets Adjustments within her electric and natural gas Pro Forma Studies in Adjustments 4.02 (Rate Year 1) and 5.07 (Rate Year 2).

case has a direct offset, it is captured below within each business case description. Otherwise, the business case was given an efficiency adjustment as described earlier in my testimony.

Q. Do these programs have a target completion date?

A. Since most of these business cases are managed as a programs, it is ongoing from year to year with only a shift in capital funding based on business needs. If the program does have a specific end date, it will be noted within the descriptions below.

Q. Turning back to Table No. 1 and Table No. 2, please describe those projects which are summarized as <u>Large or Distinct Projects</u>.

A. Certainly. There are two projects listed in this section as Large or Distinct and both projects are classified as an Enabling Technology.

<u>Project #1 - Digital Grid Network (*Enabling Technology*) – 2023: $4,634,379; 2024: $2,064,528; 2025: $2,606,425; 2026: $4,284,116</u>

Q. Please describe the Company's Digital Grid Network Program.

A. This business case includes network communications technology that establishes a reliable, secure, and supportable mix of private and third-party solutions that compose the FAN (Field Area Network), including mesh devices using unlicensed wireless bands installed throughout the service territory and devices that leverage commercial Long-Term Evolution ("LTE") communications systems. With increased utility use cases such as Wildfire prevention, Advanced Distribution Management System ("ADMS"), and Electric Vehicle ("EV") charging, having a multi-tiered Field Area Network solution allows for better support of the utility demand across the entire geographic service territory.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from "do nothing"

to a reduced funding amount. The risks of these alternatives include a lack of access and/or a lack of optimization and capacity management, minimizing network capacity reducing the ability to communicate with field assets and members of our workforce at field area locations across our geographic territory. Manual interventions and field visits would be required, increasing expense costs and degrading trust between teams regarding real time data that used to be available when device communications were present.

Q. How does this program benefit Avista's customers?

A. Avista customers will benefit from the projects in this program by having a robust network that has capacity and reliability to transport real time data on system status and performance. Proactive updates to assets or timely placement of assets to locations will reduce possible service interruptions or delays. This translates to the safe and reliable delivery of energy to customers across the Avista service territory. The supporting business case for this program can be found in Exh. WOM-2 starting at page 3.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $2,606,425 in 2025 and $4,284,116 in 2026 on a system basis.

Project #2 - Land Mobile Radio & Real Time Communication Systems (*Enabling Technology*) – 2023: $3,634,435; 2024: $4,597,501; 2025: $1,999,046; 2026: $1,944,767

Q. Please describe the Company's Land Mobile Radio & Real Time Communication Systems Program.

A. This business case sponsors the tools and systems used by natural gas and electric crews to communicate. This communication is with Dispatch and System operations as well as direct communication between crews. Avista's service territory consists of urban

and rural environments with topologically difficult to reach areas. The remoteness of some locations, along with the temperature variances through the annual seasons can present additional challenges to field staff required to work under those conditions. Additionally, commercial cellular or telecommunication services are not offered in some of these locations, as they are not cost effective for commercial vendors to deploy. Finally, during unplanned emergency events, commercial telecommunication services are overloaded with the public reaching friends and family members affected by the event, thereby exacerbating the need for a separate land mobile radio and real-time communication system, much like those used by emergency service personnel.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from fully funding obsolete products, unit growth, and radio coverage area expansion, to a reduced funding amount that would remove the radio coverage area expansion. Alternatives were considered, yet not investing is not an option, as automated business process, such as radio communication could not be replicated manually, thereby crippling our workforce's ability to deliver natural gas and electric service to our customers in a safe and reliable way. This also poses risk to employees, contractors, and the public in areas where radio communications are unavailable.

Q. How does this program benefit Avista's customers?

A. The Land Mobile Radio & Real Time Communications System business case consists of mobile radio and communication technology solutions that enable our staff to communicate with each other in the field and office in real time. The investments under this program provide the communication technology that enables real time 24 x 7 x 365 communication with our natural gas and electric field staff in ever changing conditions. All

Avista customers benefit from maintaining communication systems, as this technology enables the Avista workforce to perform their day-to-day job functions in delivering natural gas and electric service to our customers. The supporting business case for this program can be found in Exh. WOM-2 starting at page 13.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $1,999,046 in 2025 and $1,944,767 in 2026 on a system basis.

Q. Turning back to Table No. 1, please describe those projects which are summarized as <u>Mandatory and Compliance projects</u>.

A. Certainly. The following projects and programs are classified as Mandatory and Compliance.

<u>Project #5 - Identity and Access Governance (IAG) Program (*Security*) – 2023: $20,943; 2024: $303,024; 2025: $649,022; 2026: $194,984</u>

Q. Please describe the Company's Identity and Access Governance (IAG) Program.

A. This business case is focused on implementing a technical solution that will monitor and create access for employees and vendors based on their roles within the Company. Currently, this process is highly manual, time consuming, cumbersome, and prone to human error. This has led to consistent failures of related controls around access to systems or facilities for individuals who have either changed roles in the Company or left the Company and should no longer have previous role access. The external audit scrutiny over the continued failures of these controls has also increased. The recommended solution will implement an IAG program that includes a technical solution, while revising and improving processes for validating,

auditing, and reporting system privileges for individuals across the Company.

Q. Did Avista consider alternatives to this investment?

A. Yes. The alternative to further implementing an IAG program, is to only onboard some applications onto the new system and continue to perform the rest manually. This approach increases human error due to the continuous permission changes required by employees newly hired or transitioning to other job functions. As stewards of critical infrastructure and customer data, appropriate permission levels are a requirement to protect our people, assets, and information.

Q. How does this program benefit Avista's customers?

A. Investment in the Company's IAG program aligns with Avista's customer-centric vision by reducing the Company's risk exposure, strengthening security, improving compliance and audit performance, and delivering fast and efficient access to all business users. This investment allows for review and validation of appropriate system permissions, which in turn improves the safety and reliability of electricity and natural gas delivery to our customers. Maintaining a culture of compliance and strong security posture allows our employees to focus on providing value to our customers and the communities we serve. The supporting business case for this program can be found in Exh. WOM-2 starting at page 34.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $649,022 in 2025 and $194,984 in 2026 on a system basis.

Project #6 - Security Compliance (*Security*) – 2023: $246,756; 2024: $99,683; 2025: $100,106; 2026: $101,654

Q. Please describe the Company's Security Compliance Program.

A. Avista, as a regulated utility, is required to meet many different security compliance requirements. These security requirements evolve to address emerging threats across the utility industry. Physical and cyber security threats have increased over the past few years from Domestic Violence Extremists (DVEs) and nation states, such as China, respectively. Therefore, various federal agencies have called for utilities to invest in stronger security requirements in both physical and cyber protections. Investments under this business case will fund new physical and cyber security improvements to achieve and maintain North American Electric Reliability Corporation Critical Infrastructure Protection (NERC CIP), Western Electricity Coordinating Council (WECC), Transportation Security Administration (TSA), Payment Card Industry (PCI), Federal Energy Regulatory Commission (FERC), Sarbanes-Oxley (SOX), and other emerging security compliance-driven requirements.

Q. Did Avista consider alternatives to this investment?

A. Since the projects within this business case are compliance driven, no alternative solutions are available, as non-compliance is not an option.

Q. How does this program benefit Avista's customers?

A. Compliance to industry standards and government agency directives benefit customers by reducing the risk of electric and natural gas service interruptions associated with physical or cyber-attacks, as well as any assessed penalties associated with noncompliance. These security compliance requirements are issued to protect critical infrastructure and customer data. The supporting business case for this program can be found in Exh. WOM-2 starting at page 44.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $100,106 in 2025 and $101,654 in 2026 on a

system basis.

Q. Turning back to Table No. 1 and Table No. 2, please describe those projects which are summarized as <u>"Programs"</u> in nature.

A. Certainly. The following projects and programs are classified as programmatic:

<u>Project #7 - Control and Safety Network Infrastructure (*Enabling Technology*) – 2023: $1,026,865; 2024: $1,516,187; 2025: $941,295; 2026: $2,647,447</u>

Q. Please describe the Company's Control and Safety Network Infrastructure Program.

A. This program administers multiple projects specifically scoped for the provisioning and expansion of network communications assets for Avista's generation, transmission, and distribution assets which support the safe and reliable energy delivery to Avista customers. It enables the ability to remotely monitor, control, and operate critical business and safety systems. If this business case did not exist or receive funding, the network communications assets that enable data transmission in control and safety environments could fail, become vulnerable to cyber-attacks from bad actors, or could become obsolete which would result in a lack of real time communication for field crews, a lack of visibility into generation, transmission, and distribution status, or even a lack of control of field assets for safety events. This business case also serves to design and deploy new communication network assets for control and safety environments as Avista's service area and business functions expand.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from "do nothing" to a reduced funding amount. The risks of these alternatives include failure of network systems

that are beyond their vendor lifecycles, causing a loss of network communications at substations and transmission or distribution poles, which results in a lack of visibility and control into critical systems that deliver natural gas and electric services to all of our service territories.

Q. How does this program benefit Avista's customers?

A. Avista customers across all jurisdictions will benefit from the projects in this program by having a robust network that has capacity and reliability to transport real-time data on system status and performance. Proactive updates to assets or timely placement of assets to locations will reduce possible service interruptions or delays. This translates to the safe and reliable delivery of energy to customers across the Avista service territory. The supporting business case for this program can be found in Exh. WOM-2 starting at page 54.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $941,295 in 2025 and $2,647,447 in 2026, on a system basis.

Project #9 - Enterprise Network Infrastructure (*Enabling Technology*) – 2023: $2,649,590; 2024: $2,221,684; 2025: $2,000,003; 2026: $1,051,084

Q. Please describe the Company's Enterprise Network Infrastructure Program.

A. This business case provides back office and customer-facing communication network access and infrastructure investments for all enterprise-wide business productivity applications and corporate systems. The network services in this technology area ensure secure and reliable access to the systems needed daily to support customer billing and call center activities, in addition to internal enterprise systems that support the delivery of electric and

natural gas services.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from "do nothing" to a reduced funding amount. The risks of these alternatives include cyber security vulnerabilities, failures of critical customer systems, and lack of access and support to back-office and customer systems that are necessary to support the delivery of natural gas and electric services throughout all of our service territories.

Q. How does this program benefit Avista's customers?

A. Avista customers across all jurisdictions will benefit from the projects in this program by Avista having a robust network that has capacity and reliability to transport real-time data on system status and performance. Proactive updates to assets or timely placement of assets to locations will reduce possible service interruptions or delays. This translates to the safe and reliable delivery of energy to customers across the Avista service territory. The supporting business case for this program can be found in Exh. WOM-2 starting at page 73.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $2,000,003 in 2025; $1,051,084 in 2026, on a system basis.

Project #10 - Environmental Control & Monitoring Systems (*Enabling Technology*) – 2023: $745,242; 2024: $978,615; 2025: $909,147; 2026: $977,102

Q. Please describe the Company's Environmental Control & Monitoring Systems Program.

A. This business case addresses technology that enables Avista's safety, control, customer-facing, and back-office systems and is critical to the operations that serve our natural

gas and electric customers. It is found in many different environments from office locations to mountaintop sites to call centers across our service area to Substations and Generation Plants. Managing the facility and power environments to optimally run the systems housed in these locations is extremely important, as environmental condition changes can adversely affect them. The parameters monitored and controlled include but are not limited to temperature, humidity, fire protection, and backup power supply systems. If these parameters should fall outside of the device specification levels, it can cause damage to the technology equipment impacting business automation processes.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from asset replacement when obsolete, to asset replacement upon failure. The risks of these alternatives range from unplanned failures, which result in unplanned labor and non-labor costs, risk of delay to procure and replace the failed asset, increased safety risk to send field staff in extreme weather conditions to remote locations, and downtime to the critical operations and safety systems that it supports.

Q. How does this program benefit Avista's customers?

A. This program benefits our customers by maintaining refresh cycles ahead of the assets' obsolescence, which reduces the risk of unplanned failures to our safety and control systems that our operations personnel rely on to support customers in all our service territories. The supporting business case for this program can be found in Exh. WOM-2 starting at page 83.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is **$**909,147 in 2025 and $977,102 in 2026, on a

system basis.

Project #11 - Fiber Network Lease Service Replacement (*Enabling Technology*) – 2023: $3,244,873; 2024: $7,316; 2025: $1,461,811; 2026: $878,940

Q. Please describe the Company's Fiber Network Lease Service Replacement Program.

A. This business case is focused on transitioning Avista's control and safety network off of leased lines onto privately owned fiber optic cable. Avista utilizes leased fiber optic cable to transport primarily safety and control data between offices, substations, and generation facilities. An Indefeasible Right to Use (IRU) was established to benefit Avista with rates well below market value. The IRU expires in 2027 with an option to renew for an additional five years which Avista plans to do. For this business case, the project work identified 47 segments and a total of approximately 98 miles of leased fiber left to be replaced with Avista-owned private fiber. By owning the fiber, Avista will be able to better maintain it since they will be the only ones using the strands versus joint-use of the fiber through a leased-based contract. To reduce leasing costs and maintain control of critical infrastructure, Avista is not planning to renew the leased fiber agreement past 2032.

Q. Did Avista consider alternatives to this investment?

A. Yes, alternatives for this investment were considered and range from "do nothing" to a reduced funding amount. A "do nothing" alternative would result in continuing to lease fiber at an increased risk of outages from our vendors, affecting Avista's operations. A reduced funding amount would delay the number of segments that are able to be completed in the 2032-time frame. In addition, the risks of these alternatives would be an increase in O&M which equates to $60,000 in annual IRU lease payments lease costs on those fiber segments.

Q. How does this program benefit Avista's customers?

A. The technology improvements invested under this business case benefit all customers across our service territory by investing in privately-owned fiber optic cable segments. By owning the fiber, Avista will be able to better manage the cable segments, as we would be the only ones using the strands for critical communication paths versus joint-use of the fiber through a leased-based contract. Ownership of the fiber allows Avista to schedule maintenance and support activities in conjunction with other maintenance activities across the organization, such as in our Generation department and System Operations area, reducing the potential interruption of service to our customers. The supporting business case for this program can be found in Exh. WOM-2 starting at page 93.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $1,461,811 in 2025 and $878,940 in 2026, on a system basis. There are no offsets included for this program as the $60,000 in annual lease payment reduction would not go into effect until 2032 when all segments are complete.

Project #12 - Network Backbone Infrastructure (*Enabling Technology*) – 2023: $2,775,167; 2024: $4,188,193; 2025: $3,140,876; 2026: $1,844,292

Q. Please describe the Company's Network Backbone Infrastructure Program.

A. This program includes investments in communication network infrastructure for expansion requirements and periodic refresh of our mixed service transport backhaul solutions. Systems in this technology area include those designed to aggregate and transport substantial amounts of data across miles of geography and locations, including substations, district offices, our Spokane headquarters, and mountaintop communication sites. The risks of

not approving this business case at the level to which it can maintain the balance of meeting its asset management strategy and scale for future technology could result in unplanned failures and outages to our communication network system.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from "do nothing" to a reduced funding amount. The risks of these alternatives ranges from system failures or cyber security vulnerabilities because assets will no longer be supported by their manufacturers, to a lack of visibility and control into critical systems that deliver natural gas and electric services to our customers. Additionally, the Company would be forced back to manual on-site work and "truck rolls", instead of leveraging remote visibility and control.

Q. How does this program benefit Avista's customers?

A. Avista customers across all jurisdictions will benefit from the projects in this program by having a robust network that has capacity and reliability to transport real time data on system status and performance. Proactive updates to assets or timely placement of assets to locations will reduce possible service interruptions or delays. This translates to the safe and reliable delivery of energy to customers across the Avista service territory. The supporting business case for this program can be found in Exh. WOM-2 starting at page 102.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $3,140,876 in 2025 and $1,844,292 in 2026, on a system basis.

Project #13 - NexGen Control System Networks (*Enabling Technology*) – 2023: $0; 2024: $5,798,065; 2025: $3,168,636; 2026: $2,704,701

Q. Please describe the Company's NexGen Control System Networks Program.

A. This business case will administer projects specifically scoped to replace products and services on our control system communication networks that have been designed and provisioned over time-division-multiplexing ("TDM") methodologies. TDM based products and services are end-of-life, end-of-support and are at the end-of-manufacturing. Through a series of Declaratory Rulings and Orders from 2014 thru 2018, the FCC allowed for a local exchange carrier ("LEC") to discontinue TDM services and permitted LECs to leverage universal service funding support for investment in more modern and efficient software defined IP based networks. As vendors continue ramping down on the manufacturing and support of TDM-based products and services, LECs and other telecommunication service providers continue removing these services from their own product portfolios, recognizing that these services are no longer viable products to maintain. LECs and vendors alike have both issued notices to Avista to sunset these products and services. If we do not address the existing services before they are disconnected or out of support, we risk losing communication network services that carry control and telemetry traffic; data that is critical to our ability to operate our natural gas and electric systems.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered, but "do nothing" would cause the circuits to be disconnected without capital investment to otherwise replace the network capabilities. Also, the risks of not being able to see or control our electric system are too great to consider this alternative.

Q. How does this program benefit Avista's customers?

A. If we do not quickly implement this new architecture and the move to IP-based networks for our control communications, we run a very real risk of not being able to view,

manage or control our systems, which could negatively impact real time decisions needed to deliver safe and reliable services to our customers. The supporting business case for this program can be found in Exh. WOM-2 starting at page 112.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $3,168,636 in 2025 and $2,704,701 in 2026, on a system basis.

Q. Are there any <u>direct offsets</u> associated with this program?

A. Yes, there are direct offsets for this business case. The Company has included a $10,000 direct offset for 2024, and $20,000 per year for 2025 and 2026. These are related to MRC savings once the leased services are disconnected. The O&M adjustment for this project is sponsored by Ms. Andrews and included in Pro Forma Adjustments 4.02 and 5.08.

<u>Project #14 - Technology Failed Assets (*Enabling Technology*) – 2023: $470,452; 2024: $659,782; 2025: $660,002; 2026: $660,004</u>

Q. Please describe the Company's Technology Failed Assets Program.

A. This business case sponsors the tools and systems used by the technology teams to support business applications. These technology assets range from computers to handheld radios carried by our field staff to printers in remote offices to networking equipment. Sometimes these technology assets fail prior to being refreshed as part of a lifecycle management program. These failures can be caused by manufacture defects, human error, natural disasters, malicious actors, or age/runtime of equipment. In those cases, the failed asset can cause downtime for an employee or system resulting in significant disruption to daily operations across our service territory depending on where and to what asset the failure occurred.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from "Request funding when needed" to funding based on 5% failure rate of all technology assets. The risk with these alternatives is additional down time of our automation systems due to the time needed to request/approve funding to replace the failed asset(s).

Q. How does this program benefit Avista's customers?

A. The ability to replace failed assets in a timely manner results in decreased downtime potential for customers. To support these types of unplanned failures, rapid replacement of assets is necessary when repairs are not feasible. A technology inventory is maintained to quickly restore business functionality that includes, but is not limited to, laptops, mobile phones and tablets, printers, Field Area Network (FAN) equipment, monitors, audio-visual equipment, routers, switches, servers, and fiber cable. The supporting business case for this program can be found in Exh. WOM-2 starting at page 123.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $660,002 in 2025 and $660,004 in 2026, on a system basis.

Q. Turning back to Table No. 1, please describe those projects which are summarized as <u>Short-Lived Assets</u>.

A. Certainly. The following projects and programs are classified as Short-Lived Assets.

<u>Project #16 - Basic Workplace Technology (*Enabling Technology*) – 2023: $893,649; 2024: $799,996; 2025: $799,998; 2026: $800,002</u>

Q. Please describe the Company's Basic Workplace Technology Program.

A. This business case represents basic hardware and software that employees need to perform day-to-day job functions. This generally includes personal computers, laptops, tablets, print/copy/scan systems, digital displays, monitors, mobile phones, and the basic software productivity tools. Without Basic Workplace Technology hardware and software, productivity is significantly impacted.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from a "do nothing" option to a partial funding for the business case. The risks of these alternatives range from lack of productivity tools, to not being able to provide to new employees tools to adequately meet job function performance requirements. Both examples result in the inability to work effectively and efficiently.

Q. How does this program benefit Avista's customers?

A. In support of our customers, this program invests in technology for offices, customer service centers and in the field to allow the Avista workforce to serve our customers without extended periods of downtime. The supporting business case for this program can be found in Exh. WOM-2 starting at page 143.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $799,998 in 2025 and $800,002 in 2026, on a system basis.

Project #17 - Data Center Compute and Storage Systems (*Enabling Technology*) – 2023: $2,289,663; 2024: $4,159,903; 2025: $2,299,701; 2026: $3,853,902

Q. Please describe the Company's Data Center Compute and Storage Systems Program.

A. This business case represents investments in server and storage technology required to process and store massive amounts of data to automate and enable business processes that support our natural gas and electric customers across our service territory. The technology solutions to meet performance standards and reliability requirements can vary from hardware and software upgrades in an on-premises data center, offsite storage, or service provider (cloud) facility, or in operating technology to optimize compute and storage capacity.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from addressing a small percentage of products and capacity constraints to a large percentage. The risks of these alternatives range from a direct impact to the workforce due to inoperability and a lack of capacity, to a shift in projects to future years with a less direct impact to the workforce.

Q. How does this program benefit Avista's customers?

A. Avista's office, call center, and field staff require on-demand information to meet customer needs, when providing natural gas and electric service to customers across our service territory. The information can be critical to prevent, reduce, or optimize an outcome that benefits our customers. Data center processing and storage investment benefits all Avista customers, as it optimizes cost and productivity by not reverting to manual business processing, which would result in increased labor costs, human error, and overall processing delays. The supporting business case for this program can be found in Exh. WOM-2 starting at page 154.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $2,299,701 in 2025 and $3,853,902 in 2026, on a system basis.

Q. Are there any direct offsets associated with this program?

A. There are direct offsets for this business case. The Company has included for 2024 and 2025 $152,000 of direct offsets, as well as $350,000 for 2026. These are for corporate storage extended support required by not refreshing end of life storage. The O&M offset adjustment for this project is sponsored by Ms. Andrews and included in Pro Forma Adjustments 4.02 and 5.08.

Project #18 - Endpoint Compute and Productivity Systems (*Enabling Technology*) – 2023: $1,355,237; 2024: $4,180,369; 2025: $6,154,490; 2026: $3,034,582

Q. Please describe the Company's Endpoint Compute and Productivity Systems Program.

A. This business case sponsors the tools and systems used by the technology teams to support business application automation. Business processes require automated technology solutions to meet the overwhelming need for data and information to make decisions. Technology solutions under this program include, but are not limited to, technology required day-to-day to automate and enable business processes, such as Personal Computer (PC) hardware and their operating systems, various handheld devices, printers, configuration and management systems for all endpoints, productivity tools (e.g., Office 365, etc.). Each technology under this program undergoes regular review of utilization and performance levels to determine if expected performance standards are being met and to review the capacity requirements to maintain system reliability under the established budget constraints. These reviews can result in the periodic need for additional investments to address technology that is falling behind determined lifecycles performance standards. Instances where performance is waning or not meeting standards can pose risk to computing system reliability.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from a direct impact to the workforce due to inoperability and a lack of capacity to a shift of projects out to future years with a less direct impact to the workforce.

Q. How does this program benefit Avista's customers?

A. Avista's office, call center, and field staff require on-demand information to meet customer expectations when providing natural gas and electric service to customers across our service territory. The information can be critical to prevent, reduce, affect, or optimize an outcome that benefits our customers. The supporting business case for this program can be found in Exh. WOM-2 starting at page 163.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $6,154,490 in 2025 and $3,034,582 in 2026, on a system basis.

Project #19 - Energy Delivery Modernization & Operational Efficiency (*Business & Operating Applications*) – 2023: $5,493,410; 2024: $4,656,442; 2025: $10,032,632; 2026: $7,948,051

Q. Please describe the Company's Energy Delivery Modernization & Operational Efficiency Program.

A. This business case supports both existing and new technologies leveraged by the Energy Delivery business areas including Gas Engineering & Operations, Electric Engineering & Operations, Asset Management & Supply Chain, Facilities, Fleet Operations, and Metering. These technologies are used to automate and augment business solutions bringing efficiencies and capabilities to support the delivery of energy to customers. This support includes the following: 1) improving the performance and capacity of business

resources by implementing new functionality in existing technologies, 2) improving the performance and capacity of business resources by implementing overall new technologies, and 3) modernizing existing technologies in accordance with product lifecycles and technical roadmaps, typically through product or system upgrades. Major applications supported in this business case include Enterprise Asset Management system (Maximo), mobile workforce management, crew planning and schedules, system operations support, and metering support, among other things. In the future, this business case will also house the work that was previously completed under the Atlas business case.

Q. Did Avista consider alternatives to this investment?

A. Yes, alternatives considered range from "not funding" to a reduced funding amount. These alternatives pose productivity, operational, and cybersecurity risks due to unsupported applications, as well as potential failure to meet regulatory or compliance requirements.

Q. How does this program benefit Avista's customers?

A. These technology investments in this program enable the workers in these various teams to respond to customer requests faster; provide information to customers that is more accurate, timely and complete, and improves customer satisfaction when they interact with Avista. Other benefits for the Company and our customers include cost savings, safety, regulatory compliance and innovative customer-focused products and services. The supporting business case for this program can be found in Exh. WOM-2 starting at page 173.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $10,032,632 in 2025 and $7,948,051 in 2026, on a system basis.

Q. Are there any direct offsets associated with this program?

A. There are direct offsets for this business case. By avoiding extended support costs because of an upgrade to Maximo, would provide an O&M direct offset of $100,000 for 2024. The O&M offset adjustments for this project is sponsored by Ms. Andrews and included in Pro Forma Adjustments 4.02 and 5.08.

Project #20 - Energy Market Modernization & Operational Efficiency (*Business & Operating Applications*) – 2023: $159,476; 2024: $500,001; 2025: $598,920; 2026: $500,000

Q. Please describe the Company's Energy Market Modernization & Operational Efficiency Program.

A. This program supports the investments related to the California Independent System Operator (CAISO) and the Western Energy Imbalance Market (EIM). Avista began transacting with the CAISO in 2017 through participation in Market Redesign Technology Upgrade (MRTU), which allows entities outside the CAISO balancing authority area to submit hourly energy bids at specific transmission intertie locations. This day-ahead market gave Avista access to economically-priced solar energy, provides an opportunity to optimize internal resource flexibility by importing generation into CAISO, and provides access to additional generation during resource reliability scarcity events. The EIM is a real-time, intra-hour energy market that facilitates regional resource dispatch on a five-minute basis to dispatch the lowest cost resources across the entire market footprint, while balancing in-hour load and resource obligations. This market allows participants to lower energy costs by either dispatching less expensive resources to meet load obligations, or by increasing revenue through the bidding of excess energy into the market. With more than 80% of the western interconnection load transacting in the EIM, the liquidity of the hourly bi-lateral market has

been significantly impacted, as market rules require participants to determine resource schedules well in advance of the operating hour. As renewable generation portfolios are increasingly mandated, market participation can ease the financial pressure of integrating renewable resources, while maintaining reliability. CAISO releases annual market technology updates and they are typically applied simultaneously across multiple systems, with primary impacts to and approvals from Power Supply, System Operations, Generation Production & Substation Support (GPSS) and the EIM Settlements team.

Q. Did Avista consider alternatives to this investment?

A. Alternatives were considered and risks of not funding the investment would prevent Avista from operating in the market until the upgrade has been applied, thus keeping Avista from economically priced power and increasing potential grid risk. Avista needs to participate in the market to maintain reliability and access economically priced energy to continue as a low cost energy provider. The market also allows Avista to reduce costs associated with integrating renewable resources, while maintaining the flexibility and optimization of its hydro generation. As more renewable resources are mandated by state legislation, there will be a point where Avista's hydro flexibility cannot sufficiently or economically supply the required load following for renewable resources and must transact in an organized market to provide cost effective energy.

Q. How does this program benefit Avista's customers?

A. This program enables Avista to continue to operate in the CAISO markets and thereby continue to receive benefits and generate value for customers. These timely upgrades allow Avista to gain access to cost efficient power in the market, enabling Avista's ability to reliably operate the electric grid, and ultimately helping to control costs to our customers. The

supporting business case for this program can be found in Exh. WOM-2 starting at page 190. Additional benefits

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $598,920 in 2025 and $500,000 in 2026, on a system basis.

Project #21 - Energy Resources Modernization & Operational Efficiency (*Business & Operating Applications*) – 2023: $2,764,124; 2024: $2,798,585; 2025: $2,429,392; 2026: $3,357,757

Q. Please describe the Company's Energy Resources Modernization & Operational Efficiency Program.

A. This program supports the application-related technology initiatives for all areas within Energy Resources, which includes Power Supply, Gas Supply, Generation Production Substation Support (GPSS), and Environmental and Real Estate. Application refresh projects are necessary to maintain updates, upgrades and/or replacements to existing Energy Resource applications, to respond to changing business needs and/or technical obsolescence. These refreshes or upgrades are essential to remain current, maintain compatibility, reliability, and address security vulnerabilities. The Energy Resources programs supported in this business case include support for Avista's energy risk management and energy trading operations, including Avista's Decision Support System (ADSS), Nucleus (Avista's energy transaction book of record), and Energy Risk Management system, among other items.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered related to reduced funding for

the business case. The risks of these funding alternatives range from increased costs related to performance inefficiencies, as resources are less productive and effective, to an additional increase in O&M costs related to reverting qualified capital project expenditures to expense.

Q. How does this program benefit Avista's customers?

A. This program provides essential functions, such as energy risk management, trading, forecasting, and compliance, to our customers throughout all service territories. The technology systems and processes within this business case strengthen our ability to perform, which impacts our capacity to continuously improve the generation and delivery of safe, reliable, clean, affordable electric and natural gas services to our customers. The supporting business case for this program can be found in Exh. WOM-2 starting at page 199.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $2,429,392 in 2025 and $3,357,757 in 2026, on a system basis.

Project #22 - Enterprise Business Continuity (*Security*) – 2023: $206,475; 2024: $100,081; 2025: $100,000; 2026: $100,075

Q. Please describe the Company's Enterprise Business Continuity Program.

A. Avista has developed and maintains an Enterprise Business Continuity Program to continually enhance and improve the Company's emergency response, business continuity, and disaster recovery capabilities to ensure the continuity of its critical business process and systems under crisis conditions. Severe storms, natural disasters, and significant security events are unpredictable and, while they may have a low probability, they can have a high consequence. These types of low frequency, high consequence events can have an impact on the resources Avista depends on for its operations. Many of Avista's critical business processes

are now more than ever dependent on data, communication networks, and computer systems. Investments under this business case focus on the Company's ability to avoid, reduce downtime, and recover from an event.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered but doing nothing is not an option as our business continuity and disaster recovery capabilities must be ready to ensure critical business processes and systems continue to operate under crisis conditions.

Q. How does this program benefit Avista customers?

A. The purpose of this program is to prevent the prolonged failure of any of our resources. Avista customers benefit from investments in this program, as the solutions provide redundancy and availability of critical systems that allow the delivery of electricity and natural gas securely, safely, and reliably to our customers. The supporting business case for this program can be found in Exh. WOM-2 starting at page 210.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $100,000 in 2025 and $100,075 in 2026, on a system basis.

Project #23 - Enterprise Communication Systems (*Enabling Technology*) – 2023: $1,488,270; 2024: $1,786,541; 2025: $1,369,738; 2026: $2,212,730

Q. Please describe the Company's Enterprise Communication Systems Program.

A. This business case sponsors the tools and systems used by all areas of the Company to support business operations and delivery of safe and reliable energy. Communication enables business processes across systems that communicate and exchange

data in near-real time, such as phone calls, chats, presence indicators, work location, contact information, meetings, video calls, organization structure, job titles, and emails all accessible regardless of location. Avista requires continuous communication among our staff and customers throughout our service territory. However, to do it effectively, we require communication technology for greater agility, flexibility, and scalability to enable many business processes, such as 24 x 7 x 365 communication with our natural gas and electric customers. Additionally, email, instant messaging, text, and collaboration platforms support a digital workforce that has the ability to work from any location.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and partial funding options were identified, but not recommended. The risks of these alternatives range from system reliability to cyber-attacks or degradation that may delay communication channels and result in overall processing delays.

Q. How does this program benefit Avista customers?

A. Communications technology is critical in keeping our workforce and community connected, as many of our resources work in various locations, or are in the field. Avista customers benefit from maintaining our communication systems, as this technology enables the Avista workforce to perform their day-to-day job functions in delivering safe and reliable natural gas and electric services to our customers. The supporting business case for this program can be found in Exh. WOM-2 starting at page 218.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $1,369,738 in 2025 and $2,212,730 in 2026, on a system basis.

Project #24 - Enterprise Security Systems (*Security*) – 2023: $3,535,958; 2024: $1,771,645; 2025: $2,387,292; 2026: $2,000,689

Q. Please describe the Company's Enterprise Security Systems Program.

A. "Threat actors" continue to evolve their tactics in response to our defenses and therefore investments that were effective in the past, need to be enhanced with an upgrade or paired with another solution to help mitigate new risk. Firewalls, anti-virus, and intrusion detection systems all continue to evolve to ensure they are effective in preventing and detecting modern attacks.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and include several alternatives, such as, security as a managed service, security as a service subscription, or internal implementation or replacement of the security solution. The risks of these alternatives is the services may not always be tailored enough to meet Avista's specific needs or rigorous compliance requirements.

Q. How does this program benefit Avista's customers?

A. Investing in physical and cyber security is a direct benefit to our customers, as it is critical to the protection of the natural gas and electric infrastructure. It is also protecting the Company's sensitive customer, employee, operating, and financial information. Unable to predict when or where the next attack will occur requires a proactive security posture to identify, protect, detect, respond, and recover from any incident type. This may include a physical breach to a Company facility, such as a construction yard or substation targeted for copper wire or precious metals that can be cashed in for recycling, or a data breach to capture

sensitive customer information or operational data critical to delivering electric and natural gas service that can be used to perpetuate future attacks on the Company or its customers. In either case, theft of a physical or cyber asset can result in unanticipated costs to remediate damages, risk the safety and reliability of the energy system, or release sensitive data that the Company stewards. The supporting business case for this program can be found in Exh. WOM-2 starting at page 229.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $2,387,292 in 2025 and $2,000,689 in 2026, on a system basis.

Project #25 - ET Modernization & Operational Efficiency (*Enabling Technology*) – 2023: $2,089,866; 2024: $2,970,407; 2025: $2,609,026; 2026: $2,804,725

Q. Please describe the Company's ET Modernization & Operational Efficiency Program.

A. This business case sponsors the tools and systems used by the technology teams to support business application implementation, development, operations, support, automation, and data to deliver solutions to the rest of the organization. Avista's Enterprise technology systems are a necessity, as they provide essential functions to our employees and customers throughout all service territories. These vital systems require systematic upgrades and enhancements to maintain reliability, compatibility, and reduce security vulnerabilities.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from project elimination or delays to lifecycle management. Risks to these alternatives range from increased security liabilities, non-compliance, and significantly higher costs.

Q. How does this program benefit Avista's customers?

A. The business application technology investments in this program utilize shared platforms and management tools that increase the quality, stability, and velocity necessary to meet business goals and customers' expectations. The technology tools and systems under this program benefit Avista customers, as they support business application systems throughout the Company that produce indirect savings and/or productivity gains. The supporting business case for this program can be found in Exh. WOM-2 starting at page 240.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $2,609,026 in 2025 and $2,804,725 in 2026, on a system basis.

Project #26 - Facilities & Storage Location Security (*Security*) – 2023: $469,670; 2024: $380,134; 2025: $399,999; 2026: $399,999

Q. Please describe the Company's Facilities & Storage Location Security Program.

A. This business case maintains security at our facilities and storage locations. Security remains a concern at these locations. The locations contain people, equipment, and material that are critical to support our day-to-day operations and, in turn, the delivery of safe and reliable natural gas and electricity. A physical security incident at any of these locations may harm people, damage equipment, or even restrict our ability to respond to customers. Investments under this business case are prioritized based on risk to the people, equipment, and assets in each of the Company's facilities and storage locations. Company vehicles, tools, equipment, and spare parts often used to maintain our energy infrastructure and respond to emergencies may be affected without continuous investment in physical security protections

at our facilities and storage locations.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered from the most cost-effective solutions and alternatives to address the layered risk at each location. The risk to these alternatives is the potential impact to our people and assets that Avista depends on to conduct business and deliver safe and reliable energy.

Q. How does this program benefit Avista's customers?

A. These investments have direct benefit to our customers, as they secure and protect our people and assets required to operate and timely recover from an outage event. The reliability of Avista's electric and natural gas infrastructure is maintained and operated by people that require equipment and material readily available to respond to customer needs, conduct preventative routine maintenance, and recover from storm caused outages. The supporting business case for this program can be found in Exh. WOM-2 starting at page 251.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $399,999 in 2025 and $399,999 in 2026, on a system basis.

Project # 27 - Financial & Accounting Technology (*Business & Operating Applications*) – 2023: $2,519,073; 2024: $4,260,001; 2025: $4,144,998; 2026: $3,140,001

Q. Please describe the Company's Financial & Accounting Technology Program.

A. This program supports financial applications critical to maintaining the financial health and compliance of regulatory requirements through the completion of reoccurring business processes. The business processes change on a frequent basis, driven by

several factors and is dictated by the lifecycles of the applications governed in the business case, further requiring resources and adaptive technology solutions. Investment in this program supports Company applications including Oracle e-Business Suite, PowerPlan (for fixed assets and tax), depreciation forecasting, supply chain support, and FERC reporting, among other things.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered from partial or delayed funding based on technology lifecycle management. The risks of these alternatives range from the timing of efficiency gains, increased security vulnerabilities, to retaining functions that could impact Avista's ability to run the business.

Q. How does this program benefit Avista's customers?

A. The technology, tools, and systems under this program benefit Avista customers, as they support Company-wide business application systems that empower employees to perform at a more strategic level. All of this work is necessary to enable efficiencies, reduce risk and allow Avista to best serve our internal and external customers. Without properly managed business application lifecycles, our customers would potentially see difficulty in our ability to report Company financials, which could jeopardize our ability to access capital markets and impair customers' ability to trust our integrity, and the reliability of services that we provide. The supporting business case for this program can be found in Exh. WOM-2 starting at page 262.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $4,144,998 in 2025 and $3,140,001 in 2026, on a system basis.

Project #28 - Generation, Substation & Gas Location Security (*Security*) – 2023: $1,310,147; 2024: $3,830,156; 2025: $7,751,644; 2026: $1,449,994

Q. Please describe the Company's Generation, Substation & Gas Location Security Program.

A. This business case covers physical security at the Company's generation, substation, and natural gas locations. These locations contain equipment that is critical to the delivery of safe and reliable energy. Many of these locations are remote, unmanned, and vulnerable, which makes them difficult to protect. A physical security incident at any of these locations could deny, degrade, or disrupt the delivery of energy. In addition, physical attacks can also give intruders access to critical cyber equipment, which can lead to a cyber security event. Therefore, this creates the need for additional physical security protections, at all generation, substation, and natural gas locations. Not investing in this business case can leave gaps in how Avista secures and protects its generation, substation, and natural gas facilities, potentially impacting our ability to maintain system performance and reliability.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and are risk-based layered, considering the most cost-effective solutions and alternatives to address the cyber and physical security risk at each location. These locations contain equipment that is critical to the delivery of natural gas and electricity safely and reliably to our customers across our service territory. A security incident at any of these locations could deny, degrade, or disrupt the delivery of energy.

Q. How does this program benefit Avista's customers?

A. This program benefits Avista customers as the enhancements maintain and add

to Avista's security posture to minimize the risks associated with physical attacks at Avista Generation, Substation and Gas Locations. These locations contain equipment that is critical to the delivery of natural gas and electricity to our customers across our service territory. A security incident at any of these locations could deny, degrade, or disrupt the delivery of energy. The supporting business case for this program can be found in Exh. WOM-2 starting at page 273.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $7,751,644 in 2025 and $1,449,994 in 2026, on a system basis.

Project #29 - Human Resources Technology (*Business & Operating Applications*) – 2023: $328,739; 2024: $391,207; 2025: $490,344; 2026: $613,801

Q. Please describe the Company's Human Resources Technology Program.

A. The Human Resources Technology (HRT) Business case sponsors the technology related applications that support the Human Resources (HR) business areas strategic initiatives. The HR business area includes Benefits, Occupational Health, Avista First Care Clinic, HRIS/Payroll, Employee Relations, Leadership and Organizational Development, Corporate Training and Development, HR Shared Services, Recruiting, Equity-Inclusion-Diversity, HR Analytics and Compliance, Craft & Technical Training, Apprenticeships and Safety.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered to partially fund the business case. The risks of these alternatives range from resource attrition and system inefficiencies to hindering our ability to reduce administrative tasks, allowing resources to work on higher

priority, more strategic initiatives, and saving labor costs.

Q. How does this program benefit Avista's customers?

A. Avista's Human Resources technology program is a necessity, as it provides essential functions to all our employees and customers throughout all service territories, such as hiring, payroll, benefits, safety, personnel development, and labor compliance. Many of the applications and respective projects in this Business case indirectly support Avista customers through technology and business processes that advance the customer experience. The supporting business case for this program can be found in Exh. WOM-2 starting at page 285.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $490,344 in 2025 and $613,801 in 2026, on a system basis.

Q. Are there any direct offsets associated with this program?

A. There are direct offsets for this business case related to reducing costs of printing, copier maintenance and filing of paper documents. This would provide an O&M direct offset for 2024 through 2026 of $16,300 annually. The O&M adjustment for this project is sponsored by Ms. Andrews and included in Adjustments 4.02 and 5.08.

Project #30 – Dynamic Infrastructure Program (*Enabling Technology*) – 2023: $0; 2024: $485,512; 2025: $1,014,488; 2026: $1,220,271

Q. Please describe the Company's Dynamic Infrastructure Program.

A. The Dynamic Infrastructure Platform (DIP) is a program to invest in and maintain the necessary products and skills to facilitate the discipline of infrastructure automation within the Infrastructure Technology organization. This investment will allow the department to manage and support the growing technology infrastructure footprint and

complexity without a rapid growth of staff. This program is a necessity, as the existing technology footprint will continue to outpace the technology team's ability to maintain and respond to system issues or failures, as well as the opportunity to manage our infrastructure more efficiently and effectively.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this investment were considered and range from a "do nothing" option to a partial funding for the business case. The risks of these alternatives range from increased O&M, as we will need to hire more staff to perform manual tasks, to system outages related to lack of operational data analytics, or human error during manual changes. These alternatives all indirectly impact the ability to reliably deliver natural gas and electric services to our customers.

Q. How does this program benefit Avista's customers?

A. This solution will benefit our customers across all jurisdictions as it will drive an increase in system performance and reliability, which reduces the likelihood of an unplanned outages. The supporting business case for this program can be found in Exh. WOM-2 starting at page 298.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $1,014,488 in 2025 and $1,220,271 in 2026, on a system basis.

Project #31 - Legal & Compliance Technology (*Business & Operating Applications*) – 2023: $159,066; 2024: $465,000; 2025: $420,000; 2026: $405,500

Q. Please describe the Company's Legal & Compliance Technology Program.

A. The various business entities within Avista rely on the legal and compliance

systems to ensure business operations are done in the most efficient and cost-effective manner. The legal and compliance technology systems vary from the simple to complex and require continuous management of the enhancements needed to meet the internal and external business requirements.

Q. Did Avista consider alternatives to this investment?

A. Partial funding alternatives for this investment were considered as options for this business case. The risks of these alternatives range from reduced efficiency gains, the loss of maintenance and support, to issues related to non-compliance.

Q. How does this program benefit Avista's customers?

A. Avista customers benefit by having efficient systems in place to manage legal and compliance matters effectively and avoid penalties or legal complications related to non-compliance. Working through these components as planned reduces Avista's overall risk exposure by ensuring Avista is using funds in the most cost-efficient manner and by maintaining a culture of performance, which results in an improved downstream impact on our employee and customer experience. The supporting business case for this program can be found in Exh. WOM-2 starting at page 310.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $420,000 in 2025 and $405,500 in 2026, on a system basis.

Project #32 - Outage Management System and Advanced Distribution Management System (OMS/ADMS) (*Business & Operating Applications*) – 2023: $2,072,085; 2024: $1,364,878; 2025: $24,099,250; 2026: $700,000

Q. Please describe the Company's Outage Management System and Advanced Distribution Management System (OMS/ADMS) Program.

A. This business case has been created in support of Avista's Outage Management Tool (OMT) which is an in-house developed custom application that supports electric outage analysis, management, and restoration. OMT is a mission critical system which provides the functionality to manage the electric distribution grid, the overall life cycle of electric outages and the restoration processes for the Washington and Idaho service territories. OMT works in synchronization with Avista's Distribution Management System (DMS), in order to monitor and control Avista's electric distribution network efficiently and reliably. The DMS is a commercial application used to monitor and control the portion of the distribution grid that is equipped with "smart grid" technology that enables remote monitor and control. It relies on Geographic Information System (GIS) data to determine the current operating state of the distribution system, which is provided via an outdated, custom-built data model import tool and OMT integration.

Q. Did Avista consider alternatives to this investment?

A. Alternatives for this work have been considered including rewriting custom OMT and keep DMS which is not available or continue to utilize the custom OMT and DMS applications until OMT runs out of support in 2025.

Q. How does this program benefit Avista's customers?

A. A dependable outage management system is critical for Avista to provide safe and reliable energy to our customers. A modern Advanced DMS (ADMS) enables the ability to deliver more geographically specific Estimated Restoration Time (ERT) information to electric customers during outages. The improved ERT accuracy and restoration status for customers will improve customer confidence in the information and less dependency on our CSR's. While improved customer experience is difficult to quantify, it is perhaps the most

important business reason for justifying a new ADMS. During major outage event situation, the ability to communicate timely, accurate and consistent status of outages and estimated restoration time is of paramount importance to customers. Whether the customer hears directly from the utility, the media or a public agency, the information about the outage needs to be consistent. An ADMS is that vehicle to provide this timely, accurate and consistent information to customers. The supporting business case for this program can be found in Exh. WOM-2 starting at page 321.

Q. Does this program have a target completion date?

A. This program will be complete in 2026 as shown earlier in Illustration No. 3.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $24,099,250 in 2025 and $700,000 in 2026, on a system basis. In addition to approval for the investments discussed above (July 2023 through 2026), as further discussed by Ms. Benjamin, for specific ADMS software investments transferring to plant in 2025, the Company is seeking approval for a depreciable life of 15 years for this asset, rather than a 5-year depreciable life as typically required.

Project #33 - Telecommunication & Network Distribution Security (*Security*) – 2023: $139,191; 2024: $113,768; 2025: $112,898; 2026: $112,592

Q. Please describe the Company's Telecommunication & Network Distribution Security Program.

A. This business case will investment in physical security hardening at Avista's telecommunication and network distribution locations which will reduce ongoing risk of theft, vandalism, or sabotage, as well as improve the safety of field technicians who respond to these facilities during extreme weather conditions. Federal agencies call for utilities to step up their

physical security posture and take mitigating steps that include physical protective security measures to reduce or minimize the impact of a physical attack. These measures should be risk-based and layered to deter, detect, and delay an attack or intrusion. Telecommunication and network distribution locations consist of towers and shelters found in remote, rural, and difficult to reach mountain top locations. They serve as the main line to Avista's control, customer, and back-office network connectivity and communication systems. They are critical in providing telecommunication and network connectivity to and from Avista's data center, system operations, field offices, and field staff.

Q. Did Avista consider alternatives to this investment?

A. Alternatives that were considered were higher in cost than the recommended option.

Q. How does this program benefit Avista's customers?

A. These physical security enhancements directly benefit our customers, as they allow Avista office and field staff to transmit communication and data required to operate the safe and reliable delivery of electric and natural gas services. This program also offers a proactive investment versus a reactive response following an incident, which brings great value to Avista and its customers by reducing the risk of a system outages. The supporting business case for this program can be found in Exh. WOM-2 starting at page 341.

Q. What capital additions for this project will be completed in 2025 and 2026?

A. The total capital investment is $112,898 in 2025 and $112,592 in 2026, on a system basis.

Q. Does this conclude the provisional 2025 through 2026 capital additions included in the Company's case for your areas of responsibility?

A. Yes, it does.

VI. IS/IT OPERATING AND MAINTENANCE EXPENSES

Q. Please describe the general make-up of IS/IT Operating & Maintenance (O&M) costs.

A. IS/IT O&M consists of centralized expense for labor and non-labor security, information services and technology expenses primarily driven by increasing trends of software vendors changing how they license and deliver software solutions, and by capital investment across all areas of the Company, including Energy Delivery, Energy Resources, Customer, HR, Finance, IS/IT, etc. In general, for any investment the Company makes that is enabled, supported, or secured by technology and requires ongoing licensing, maintenance and support, those expenses will be centralized in IS/IT O&M. Keeping pace with emerging technologies and taking advantage of the opportunities digital technologies provide, drive the need for the Company to convert analog information into digital form and to incorporate digital technologies into business processes, interactions with our customers and within the utility itself. Some examples of investment that support the Company's digital transformation include Project Compass, Enterprise Content Management, Customer at the Center Platform, Automated Metering Infrastructure (AMI), Human Machine Interface, Project Atlas, and Enterprise Security.

As discussed by Ms. Schultz, the Company has pro formed IS/IT expense using known and measurable expenses as of 2025 only, as reflective of the level of expenses in Rate Year 1 beginning January 2025. No incremental adjustment was included at this time within the pro formed Rate Year 2.

Q. Please summarize the incremental IS/IT O&M expenses beyond the Company's 12 months-ended June 2023 historical test period, included in this case.

A. In Ms. Schultz's Electric and Natural Gas Pro Forma Studies, she has pro formed security, information services, and technology expenses. IS/IT has narrowed the scope of incremental expenses to known and measurable items that will be in place during the rate period beginning in January 2025.

The non-labor impact of annual and multiyear agreements for products and services, licensing, and maintenance fees for a range of centralized information services drive the incremental change to IS/IT O&M. These incremental expenditures are necessary to support the Company's cyber and general security, emergency operations readiness, electric and natural gas facilities and operations support, and customer services.

Q. Would you please discuss the O&M expenses pro formed by the Company in this case?

A. Yes. Table No. 3 below includes the incremental non-labor expenses pro formed in the case, reflecting known and measurable 2025 expenses, representative of Rate Year 1. No incremental adjustment for Rate Year 2, above Rate Year 1 levels, is known at this time.

Table No. 3: Non-Labor Incremental System Expense (General Tech) for Rate Year 1:[6]

General Tech Type	Test Year	Rate Year 1	Incremental
Enabling Technology	$ 4,838,873	$ 4,313,006	$ (525,867)
General Business Systems	$ 13,698,227	$ 14,156,877	$ 458,650
Security Systems	$ 2,130,867	$ 2,376,515	$ 245,648
Grand Total	**$ 20,667,967**	**$ 20,846,398**	**$ 178,430**

Q. What is driving the increase in non-labor O&M expense of $178,430 as

[6] No incremental adjustment for Rate Year 2, above Rate Year 1 levels, is known at this time.

shown in Table No. 3?

A. As can be seen in Table No. 3, IS/IT expense remained relatively flat from the Test Year to Rate Year 1, increasing just under 1%. The incremental change can largely be attributed to the impact of standard IS/IT contract vendor pricing increases. These contracts are critical to the ongoing support and maintenance of the Company's Enabling, Business & Operating Application Systems and Enterprise Security systems. The breakdown of these costs is listed below in Table No. 4, representing the areas of incremental change in IS/IT O&M, as discussed above.

Table No. 4: Non-Labor O&M (System)

Exp Type Descr	Test Year	Rate Year 1	Incremental
Dedicated Voice and Data Circuits	$ 137,348	$ 114,042	$ (23,306)
Hardware License Support	$ 1,286,669	$ 1,236,263	$ (50,406)
Lease Expense - Equipment	$ 52,285	$ 125,555	$ 73,270
Network Maintenance	$ 12,165	$ 17,940	$ 5,775
Professional Services	$ 661,289	$ 641,864	$ (19,425)
Radio Tower Site Leases	$ 271,890	$ 279,535	$ 7,646
Rental Expense - Equipment	$ 125,982	$ 129,166	$ 3,184
Software License Support	$ 8,770,784	$ 9,109,894	$ 339,110
Software Services and Subscriptions	$ 9,329,442	$ 9,173,636	$ (155,806)
Training	$ 3,064	$ 6,129	$ 3,064
Wireless WAN	$ 17,050	$ 12,374	$ (4,676)
Grand Total	**$20,667,967**	**$20,846,398**	**$ 178,430**

As shown in Table No. 4, above, the total incremental IS/IT non-labor O&M expenses included in this general rate case above test period levels is approximately $178,430. Of this, $101,483 is allocated to Washington electric operations and $20,580 allocated to Washington natural gas operations, as discussed by Ms. Schultz in Exh. KJS-1T and shown in Exh. KJS-2 (electric) and Exh. KJS-3 (natural gas).

Q. Are IS/IT capital projects the only driver of incremental IS/IT O&M expense?

A. No. As described earlier in my testimony, information technology is prevalent throughout the utility and underpins most of the modern business and operating systems because of the digital transformation of the utility.

Q. Please describe how technology system support and maintenance service contracts provide value and benefit customers.

A. Technology systems are becoming more integrated and complex as business transactions become more integrated and automated. These technology systems require regular maintenance activities to stay current on security vulnerability patching, software defect patching, and various software functionality changes. Due to the increase in complexity of these systems, vendor support is needed to assist with root cause analysis when troubleshooting failures in the system. Without support and maintenance services for these technology systems the Company and our customers would experience longer system downtimes due to complexities of root cause analysis. In addition, the Company would be at increased risk of malicious activities in our technology systems if we did not have access to software vulnerability patches, and our ability to optimize and maintain the business value of the technology system would be degraded.

Q. How has Avista focused on managing its overall IS/IT expenses for the benefit of its customers?

A. Avista employs several approaches to regularly assess, review, and take action to manage and control IS/IT costs. One approach is through software application license acquisition, renewal, and recovery. A software analyst works in conjunction with our technical and business subject matter experts to negotiate right-sized licensing, and to review and validate the value and use of software applications to identify opportunities to reduce and

remove unused license and maintenance costs prior to any renewal of software agreements.

As an example, Avista recently entered a three-year agreement with ServiceNow to bring their IT service management platform (ITSM) into our portfolio. ITSM is replacing legacy service management applications and is expected to enrich the customer experience, internal and external, by allowing Avista to expand operational efficiencies for IT Services, adopt industry best practices, and increase process maturity. After lengthy negotiation and refinement of the product suite needed, the initial vendor cost proposal of $5.4 million for three years was reduced to $1.7 million, a decrease of $3.7 million over the three-year life of the agreement. Additionally, per GAAP guidance, contractual language providing Avista entitlement to bring the platform on premise recategorized ITSM from software as a service to a term license, significantly mitigating the impact to IS/IT expense.[7]

Q. What are other methods Avista uses to manage its overall IS/IT expenses for the benefit of its customers?

A. Another method, discussed above, is the use of digitalization, an industry-wide strategy that requires additional investment in IT's support capabilities. As services are digitalized, IT departments are experiencing a significant increase in workloads. Although these increasing workloads are expected, we actively work to decelerate the associated cost increases using automation technology and changes to our IT operating models.

Related, Avista has been able to leverage GAAP driven software accounting changes to mitigate volatility to IS/IT expense resulting from software vendors changing how they

[7]The cost of this agreement was not finalized until after the completion of the Company's proposed revenue requirement in this proceeding, and therefore was not included in Pro Forma IS/IT Expense Adjustment 3.13. During the process of the case, the Company will update it's Pro Forma IS/IT Expense Adjustment, including the approximate 20% allocated portion to expense, as ITSM is now known and measurable for Rate Year 1. The effect of this update increases IS/IT expenses approximately $147,000 per year (system).

license and deliver software solutions; examples include a shift from a perpetual license to a subscription license, or from an on-premise solution to a cloud-based solution.[8] In addition, software vendors regularly increase the cost of ongoing maintenance and support to keep up with the cost of enhancing, fixing and supporting their products, and to align with market driven forces such as annual consumer price index increases and inflation. Traditionally, perpetual licensing and on-premise solutions involve a capital asset license, whereas subscriptions and cloud-based solutions are considered ongoing expense. However, updated GAAP guidance regarding the capitalization of license components on software subscriptions and cloud-based solutions has allowed Avista to recategorize products that meet specific criteria to what is called a 'term license.' The primary difference between software subscriptions, cloud-based solutions, and term licenses is the entitlement to install and use software on premise for a period as defined in the sales contract, thereby meeting the qualifications to be treated as a capital asset license. This GAAP motivated change has allowed Avista to adapt to industry trends and reduce volatility on a subset of IS/IT expense.

Further, subscription and cloud-based solutions are often converted to term licenses when business needs align with opportunities to pursue annual and multi-year agreements with software and service vendors for the life of the agreement. In addition to treating the license as a capital asset, these agreements allow Avista to lock in pricing at or below current or expected market pricing and provide protection from adverse market conditions. For example, late in 2022, as Avista approached the upcoming renewal of our Cognos Business Intelligence suite the decision was made to transition from annual maintenance to a five-year term-license. This change aligned with business needs across the five-year duration of the agreement, reduced

[8] ASU 2015-05; Subtopic 350-40.

IS/IT expense by $109,844 annually, locked in pricing for five years, and reduced the total annual cost by $22,704.

IS/IT also launched a multi-year effort to change the way voice communications are deployed to Electric and Gas Service Centers throughout our service territory. The Session Initiation Protocol (SIP) project is replacing local phone service with Voice over Internet Protocol (VoIP) service. One result of the project is cancelling the business phone service of multiple copper-based land lines (TDM circuits) in favor of delivering phone call traffic to our service centers via our data circuits. As compared to legacy TDM circuits, VoIP is more cost effective to operate and maintain while also providing greater capacity and connectivity. The modification to VoIP from TDM circuits resulted in significant cost savings over the life of the project. From 2019-2021 during phases one and two of the SIP project, the project generated $178,117 in reduced expense. Phase three of the project is expected to reduce IS/IT O&M an additional $42,000 by end of 2023 and $72,000 per year starting early 2024.[9] These reductions are a result of the project converting 24 Service Center sites to SIP and canceling TDM circuits at 18 sites throughout our service territory. Now that these calls are delivered through a centralized service and then via data circuits to these Service Centers, we have realized improved indirect benefits, in caller ID presentation, call quality improvements, and more reliable voice mail delivery.

Finally, as yet another example of a practice used to manage and control IS/IT expense is the movement of Company cellphones from Verizon to FirstNet. After careful internal

[9] These savings, which will flow through Rate Year 1 (2025) were determined after completion of the Company's proposed revenue requirement in this proceeding, and therefore was not included in Pro Forma IS/IT Expense Adjustment 3.13. During the process of the case, the Company will update it's Pro Forma IS/IT Expense Adjustment, including these savings to IS/IT expenses. The effect of this update decreases IS/IT expenses approximately $72,000 per year (system).

evaluation, it was determined that FirstNet offered a less expensive monthly service, unlimited data, no throttling, and superior customer service, and support.

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

A. Yes.