Exh. DCG-33
Dockets UE-200900, UG-200901, UE-200894
Witness: David C. Gomez

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **AVISTA CORPORATION, d/b/a AVISTA UTILITIES,** **Respondent.**	**DOCKETS UE-200900, UG-200901, UE-200894 (*Consolidated*)**

EXHIBIT TO
TESTIMONY OF

David C. Gomez

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

UTC Staff Testimony (Gomez) & Exh. No. DCG-6, UE-190334

April 21, 2021

Exh. DCG-1CT
Dockets UE-190334/UG-190335,
and UE-190222 *(Consolidated)*
Witness: David C. Gomez
REDACTED VERSION

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **AVISTA CORPORATION, d/b/a AVISTA UTILITIES,** **Respondent.**	**DOCKETS UE-190334, UG-190335 and, UE-190222 (*Consolidated*)**

TESTIMONY OF

David C. Gomez

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

Production Plant, Power Cost Workshops & SmartBurn

October 3, 2019

CONFIDENTIAL PER PROTECTIVE ORDER
REDACTED VERSION

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is David C. Gomez. My business address is 621 Woodland Square Loop SE, Lacey, WA 98503. My business email address is dagomez@utc.wa.gov.

Q. By whom are you employed and in what capacity?

A. I am employed by the Washington Utilities and Transportation Commission ("Commission") as the Assistant Power Supply Manager in the Energy Section of the Regulatory Services Division. I attained this position on July 1, 2012. Prior to my current position, I was the Deputy Assistant Director in the Solid Waste and Water Section of the Regulatory Services Division.

Q. How long have you been employed by the Commission?

A. I have been employed by the Commission since May 2007.

Q. Please state your educational and professional background.

A. I hold a Bachelor of Arts degree in Business from Hamline University and a Masters of Business Administration from the University of Saint Thomas; both universities are located in Saint Paul, Minnesota.

Before joining the Commission, my relevant professional experience consisted of 25 years in a variety of fields, including management, contracting, supply chain, procurement, operations, and engineering. I hold professional certifications from: The Institute for Supply Management (ISM); APICS – The

Association for Operations Management; Universal Public Procurement Council (UPPC); and QAI Global Institute (Software Testing).

Q. What are your duties with the Commission?

A. I perform accounting and financial analysis of regulated utility companies, as well as legislative and policy analysis. I presented testimony on behalf of Commission Staff in Docket UE-121373, regarding the Coal Transition Power Purchase Agreement between Puget Sound Energy ("PSE") and TransAlta Centralia Generation LLC; Dockets UE-130043 and UE-140762, PacifiCorp's 2013 and 2014 general rate cases ("GRC"); Docket UE-130617, PSE's 2013, 2014, and 2016 Power Cost Only Rate Cases; and Dockets UE-140188, UE-150204, and UE-160228, Avista Corporation's ("Avista" or "Company") last three GRCs. Most recently, I provided testimony on power supply issues in PSE's 2017 GRC, Dockets UE-170033 and UG-170034 and Avista's 2017 GRC, Dockets UE-170485 and UG-170486. I have provided Staff's recommendations to the Commission at numerous open meetings, and worked on various Commission rulemakings.

II. SCOPE AND SUMMARY OF TESTIMONY

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

A. My testimony addresses three distinct areas.[1] First, I address both test year and pro forma capital additions to <u>production</u> rate base.[2] As such, I respond directly to the prefiled direct testimony and exhibits of Avista's witness Mr. Jason Thackston.

Second, I discuss the 2018 annual Energy Recovery Mechanism ("ERM") review to determine the prudency of the Company's power costs during the deferral year. This is in response to the direct testimony and exhibits of Mr. Thomas C. Dempsey.

Third, I respond to Mr. Clint Kalich's update on efforts of Staff, the Company and other parties in remedying "…the repeated, unbalanced outcomes" associated with the ERM's "directionally biased results."[3] The objective of this effort is to improve the power cost baseline forecast in the ERM to ensure a more appropriate sharing of risk between shareholders and ratepayers.

Q. Can you summarize your recommendation regarding production related rate base?

A. Yes. For the 2017-2018 test year, I recommend the Commission reject the Company's test year capital additions and expenses for the 2018 outage and derate of

[1] Because Avista represents that the Company "is not proposing changes in this filing related to the commodity cost of natural gas or upstream pipeline transportation resource costs," Staff is not contesting this aspect of the filing. Morehouse, Exh. JM-1T at 2:8-9. However, Staff reserves the right to raise issues if different information becomes available.

[2] My colleague, Ms. Aimee Higby will be addressing both the Company's test year and pro forma non-production capital additions in her testimony and exhibits.

[3] *Wash. Utils. & Transp. Comm'n v. Avista Corp.*, Dockets UE-170485 & UG-170486, Order 07, pp. 53-54, ¶ 156 (Apr. 26, 2018).

both Colstrip Units 3 and 4 and Coyote Springs 2 ("CS2"). Additionally, I recommend that the Commission disallow costs of the installation of SmartBurn in Colstrip Units 3 and 4. My adjustments to test year capital additions are summarized in the table below:

Staff Adjustment to Test Year Production Ratebase (millions)						
Thackston Exh. JRT-4 (test year capital)				Staff (test year capital)		
ER No.[4]	2017	2018	Total	2017	2018	Total
4116	$10.4	$4.5	$14.9	$7.8	$4.3	$12.1
4133	$0	$0.7	$0.7	$0	$0	$0.0
4149	$2.7	$2.2	$4.9	$2.7	$2.2	$4.9
		Total	$20.5			$17.0
					Difference Staff vs. Company	-$3.5

Besides my adjustments to test year production capital above, I also recommend the following adjustment to test year Production and Transmission Operating Expense:

Staff Adjustment to Test Year Production and Transmission O&M	
Remove Colstrip Units 3 & 4 Outage and Derate O&M Expense	-$0.3 million

Staff is not contesting Avista's proposed pro forma additions for both the Nine Mile redevelopment and the Little Falls Powerhouse redevelopment. In total, my proposed adjustments reduce test year ratebase by $3.49 million and expense by $311,860.

[4] ER No. 4116 – Colstrip (includes SmartBurn and outage capital), ER No. 4133 – CS2 (Outage & Derate capital only), and ER No. 4149 – Baseload Thermal (Reliability) CS2, Colstrip, Kettle Falls, and Lancaster.

III. COYOTE SPRINGS 2 OUTAGE AND DERATE

A. Background and Impacts.

Q. Please describe the CS2 plant.

A. CS2 is a natural-gas fired combined cycle combustion turbine located in Boardman, Oregon. Portland General Electric ("PGE"), who owns Coyote Springs 1 ("CS1"), operates both units. The plant, completed in 2003, has a maximum capacity of 317.5 megawatts in the winter, 285 megawatts in the summer, and has a nameplate rating of 287.3 megawatts.[5]

CS2 operates with a single, three-phase Generator Step-Up ("GSU") transformer which increases voltage to 500,000 volts in order to connect the generator to Bonneville Power Administration's transmission system.[6] The transformer in service at the time of the outage is identified by Avista as CS2 GSU Transformer #3 ("T#3"). A spare was also located on site and is referred to by the Company as CS2 GSU Transformer #4 ("T#4").

Q. Please describe the outage that occurred in 2018.

A. On September 21, 2018, T#3 tripped and CS2 went into forced outage. The cause of the GSU transformer trip was the presence of volatile gases in the cooling oil of the transformer. If not addressed, the presence of these gases can lead to a catastrophic failure of the transformer; a risk to both public safety and the environment. Given the long lead time to procure, ship and install a replacement GSU transformer, a

[5] UE-190222, Dempsey, Exh. TCD-1T at 8:1-5.
[6] CS1, owned and operated by PGE, utilizes single-phase transformers.

spare (T#4) is kept on site in the event of failure.[7] Given the condition of T#3, Avista decided to commission and place into service its spare, T#4, on October 28, 2018.

Q. Did Mr. Dempsey quantify the impact to ERM power costs as a result of the CS2 outage?

A. Yes. Avista estimates the increased power costs associated with the 2018 CS2 outage was $4.6 million.[8] This includes the results of the subsequent derate at CS2, which I discuss in the next section.

B. CS2's GSU Transformer Failures.

Q. What happened during and after the installation of the spare GSU, T#4?

A While in the process of installing T#4, Avista discovered damage to the spare transformer. One month after installation and energization, T#4 also exhibited a sharp increase in combustible gases and, in early December, the Company derated CS2 to 200 MW.

Q. Has Avista been able to get T#4's combustible gasses under control in order to allow CS2 to operate at full capacity?

A. No. According to Mr. Dempsey, analysis of T#4's combustible gases allowed for an increase to the original derate of 200 MW to 280 MW.[9] However, a February 22,

[7] In the case of CS2, an exact duplicate of T#3, T#4, was stored and maintained on-site in a ready state.
[8] UE-190222, Dempsey, Exh. TCD-1T at 15:1-4.
[9] UE-190222, Dempsey, Exh. TCD-1T at 13:9-14.

2019, email update from Mr. Mike Mecham (Thermal Operations Manager at Avista) reports CS2's derate level at 250 MW.[10] While Staff is not challenging the voracity of Mr. Dempsey's claim that CS2 is presently operating at near its capacity, we are not clear whether the plant will require additional derates or experience more forced outages as a result of T#4's degraded condition. This is especially problematic as we enter the winter heating season.

Q. Has CS2 experienced forced outages before due to failure of its GSU Transformers?

A. Yes, several. In the prefiled direct testimony of Avista witness Richard L. Storro, Idaho PUC Case No. AVU-E-03-06, the Company states that CS2's original commercial operation date of June 2002 was delayed for over a year due to the failure/damage of both the original GSU Transformer and its replacement spare.[11]

On May 6, 2002, the original GSU Transformer (T#1) catastrophically failed, resulting in an explosion, fire, and the release of more than 100,000 gallons of oil-contaminated water into the environment.[12] A second GSU Transformer (T#2) was then ordered from the same manufacturer and delivered to the CS2 site on December 15, 2002. On initial inspection, T#2 was found to be damaged and unusable.

On December 20, 2002, Avista decided to have the Original Equipment Manufacturer rebuild T#2 (T#1 was completely destroyed in the explosion and fire). T#2 was remanufactured and shipped to the CS2 site and was energized on May 30,

[10] Gomez, Exh. DCG-3, CS2 Transformer Update 2/22/2019.
[11] Gomez, Exh. DCG-7, Idaho PUC Case No. AVU-E-03-06, Testimony of Richard L. Storro at 5:5-13.
[12] Gomez, Exh. DCG-8, Idaho PUC Case No. AVU-E-04-01, Testimony of Robert J. Lafferty at 19:9-21.

2003. In less than a year, T#2 failed resulting in a forced outage at CS2 which lasted from January 16, 2004 to September 6, 2004. The impact to power supply expense was just under $2 million.

As a result of the catastrophic failure of T#1 and the damage to its replacement (T#2), Avista ordered T#3 from a different supplier (Siemens Brazil) which was delivered to CS2 in December of 2004.[13]

According to Mr. Dempsey, Siemens Brazil T#3 was placed into service in May of 2007.[14] T#4, an exact duplicate of T#3, was purchased from Siemens Brazil and transported to CS2 and placed into service as a spare in 2009.[15]

C. Plans to Address Continued Failure of CS2's GSU Transformers.

Q. Does Avista plan to keep CS2 online during the winter heating season?

A. Yes. The Company continues to monitor T#4's gas-in-oil levels and, if these gases increase to a level where it is no longer safe to operate CS2, then the plant would go into outage. Avista would then filter the transformer's oil to a point where it can bring the unit back on line.[16]

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[13] Gomez, Exh. DCG-13, UE-050492, Storro, Exh. RLS-1T at 5:15-7:12.
[14] UE-190222, Dempsey, Exh. TCD-1T at 8:12-13.
[15] UE-190222, Dempsey, Exh. TCD-1T at 11:14-16.
[16] UE-190222, Dempsey, Exh. TCD-1T at 14:11-22.

Q. What is your understanding of the plans to keep CS2 online?

A. Based on Mr. Dempsey's statements above, CS2 is at considerable risk of further forced outages and derates. This can materially impact Avista's power cost expense in future ERM deferral years.[17]

Q. Is Avista developing a long-term plan to address the multiple, persistent failures of CS2' GSU transformers?

A. Yes. Avista continues to investigate the root cause of its multiple GSU transformer failures at CS2 and is in the early process of determining next steps. There appears to be two options on the table: 1) Repair of T#3 and T#4; and 2) Redesign the plant, perhaps to a single-phase transformer configuration. Avista outlines some possible scenarios regarding CS2[18]:

> **Scenario 1:** By summer 2019 volatile gasses will have increased to a point in the transformer where CS2 would have to go into an extended outage (at least one year).
>
> > **Avista Action:** The Company would ship T#3 to Siemens Brazil to determine if it can be repaired to replace T#4 at CS2. If Siemens Brazil finds that T#3 is unrepairable, Avista would embark on a major redesign of the plant at an estimated cost of $15 million.

[17] In Exh. JRT-1T at 38:18-22, Mr. Thackston quantifies the cost of lost generation in his description of the overhaul of Colstrip Units 3 and 4's GSU transformers as follows: "…transformers are critical for the operation of the units. If they fail, the cost of lost generation is extraordinary and Avista's share can easily exceed $75,000 or more per day depending on the price of electricity at the time the outage occurs."

[18] Gomez, Exh. DCG-16, Avista Response to Staff DR No. 9, Attachment A, Thomas Dempsey CS2 Status January 3, 2019, at 2.

Scenario 2: T#4's volatile gases hold steady and Avista keeps the plant on line in a derated state until its scheduled outage in April of 2020.

Avista Action: Depending on Siemens Brazil assessment of T#3, the Company either replaces T#4 with a repaired T#3 or moves forward with a major redesign.

Scenario 3: T#4's volatile gases level off and CS2 is back to operating at full load.

Avista Action: T#4 is replaced by a repaired T#3 in the April 2020 scheduled outage.

D. Capital Costs Associated with the 2018 CS2 Outage and Derate.

Q. Is Avista seeking recovery of capital costs associated with the 2018 CS2 outage and derate in this case?

A. Yes. These costs are included as ER No. 4133; Coyote Springs 2 – Failed Plant:

> "Aging assets will have replacement need at end of life or early failure. This business case supports replacement of failed plant equipment at Coyote Springs 2. Upon failure, the failed equipment must be replaced immediately or else plant operations will likely be curtailed or suspended indefinitely. The most significant cost of deferring this work upon failure is the market price of energy to replace the lost production at this plant. Past plant failures include faults on the last three generation step-up transformers, and this issue illustrates an ongoing need for this business case."[19]

Also, ER No. 4149; Base Load Thermal Plant, is described as follows:

> "The Base Load Thermal Plant program is an ongoing program necessary to sustain or improve the operation of base load thermal generating plants, including <u>Coyote Springs 2</u>, Colstrip, Kettle Falls, and Lancaster. Capital projects include replacement of items identified through asset management

[19] Thackston, Exh. JRT-4 at 1.

> decisions and programs necessary to maintain reliable operations of these plants. As this asset maintenance program matures, it is expected to decrease forced outage rates and forced de-ratings of these facilities by one standard deviation less than the current average. As these plants continue to age and are called upon to ramp more frequently to meet variations associated with renewable energy integration, their operating performance begins to degrade over time resulting in increased forced outage rates, which increases exposure to the acquisition of replacement energy and capacity from the market. Having a mature asset management program for these thermal facilities helps minimize plant degradation and market exposure. The program also includes initiatives associated with regulatory mandates for air emissions and monitoring, and projects to meet NERC compliance requirements."[20]

Q. Do you agree with these characterizations of capital investments related to CS2?

A. No. First, while Mr. Thackston's brief description of ER No. 4133 is generally accurate, it does not come close to fully representing the facts surrounding the current and past outages at CS2. The $668,298 in capital costs contained in Avista's 2018 test year represents only a fraction of the millions the Company will need to expend in the next few years in order to finally address the persistent failures of CS2's GSU transformers, the second most expensive end item at the plant.

Second, ER-4149 appears to contain additional capital amounts for CS2 and other plants, but Mr. Thackston does not itemize these capital costs by plant.

Third, Mr. Thackston's description of ER-4149 implies the existence of an asset management program for CS2 and the Company's other thermal generation plants. Mr. Thackston describes how this is necessary to maintain reliability and reduce forced outages and derates.

[20] Thackston, Exh. JRT-4 at 3 (emphasis added).

Q. Was Staff able to examine any asset management programs?

A. No. Avista did not provide any asset management program as evidentiary support for these expenditures. Instead, Staff had to refer to Avista's 2015 GRC, in which the Company produced its 2014 Electric Generation Annual Update.[21] This update described the asset management process that the Company uses to determine the optimal level of capital investment, maintenance and replacement practices for its generation assets. According to the 2014 Electric Generation Annual Update, its stated purpose is to:

> "[redacted]" [22]

The 2014 Electric Generation Annual Update, states that [redacted]."[23]

Q. Is the Electric Generation Annual Update still being produced?

A. No. According to the Company, the Electric Generation Annual Update was produced for one year only, 2014. Avista goes on to explain that "[t]he foundational concepts of the Electric Generation Reports were migrated into the Company's

[21] Gomez, Exh. DCG-4C.
[22] Gomez, Exh. DCG-4C at 9.
[23] Gomez, Exh. DCG-4C at 76.

Infrastructure Plans, a more broad-based approach focused on each business unit, including budgets and expenditures. The first report of this kind for Generation was produced in 2019."[24]

Q. Did the Company provide its Asset Management Plans for the Company's GSU Transformers, including T#3 and T#4 at CS2?

A. No. Exh. DCG-4C contains the Company's response to a discovery request for the asset management plans for CS2's GSU transformers:

> "With regard to Coyote Springs 2, Portland General Electric [PGE] performs GSU rounds at least twice in each 24-hour period to identify changes in noise, leaks, excessive heat, or other abnormal conditions. Dissolved gas oil samples are taken manually at least biannually. The results of the dissolved gas oil samples are reviewed by Avista's Generation Engineering and tracked in a Transformer Oil Analyst program. Additionally there is an on-line Gas Chromatograph (Serveron) that samples and records the dissolved gas in oil every four hours."[25]

Based on Avista's response, it appears that PGE may conduct inspections of the facility, including the GSU transformers.

Q. Is this response adequate?

A. No. A document specifying twice daily inspections does not equate to an asset management plan which is generally defined as the plan, process, and technology that work together to implement strategies for managing assets. By their nature, asset management plans identify the optimal level of capital investment, maintenance and replacements necessary to maintain the output of the asset. Without that type of

[24] Gomez, Exh. DCG-4C at 1.
[25] Gomez, Exh. DCG-4C at 2.

detail, Staff concludes that no asset management plans exist for CS2's GSU transformers.

Q. Is there any evidence on the progress Avista has made in reducing its thermal plant facility forced outage rates and forced derates?

A. No. In response to Staff DR No. 1 (ERM), Mr. Dempsey provides Avista's Equivalent Availability Factor ("EAF") statistics for its thermal plants reported to the North American Electric Reliability Corporation ("NERC") via the Generating Availability Data System ("GADS").[26] The table below shows EAF values[27] for Avista's thermal resources for the years 2014 through 2018.

Avista Thermal Plant Equivalent Availability Factor (EAF)					
Unit	**2014**	**2015**	**2016**	**2017**	**2018**
Colstrip 3	76.84	94.46	90.18	79.26	84.72
Colstrip 4	87.72	92.53	81.41	93.56	79.45
Lancaster	95.02	93.19	84.31	90.88	92.07
Kettle Falls	79.52	85.2	89.04	79.18	81.23
Coyote Springs 2	94.20	95.22	90.65	91.14	79.43

This data shows that, in the period between 2014 through 2017, there was not a material increase in availability, with the possible exception of Colstrip 4 (5.84%). Therefore, without considering the impacts of the 2018 outages and derates for Colstrip and CS2, which only serves to decrease availability, Staff concludes that ER-4149 has not had a measurable impact in improving the availability and reliability of Avista's thermal resources.

[26] Avista's response to Staff DR No. 1 (ERM) is included as: Gomez, Exh. DCG-5.
[27] EAF is the fraction of hours in which a generating unit is available without any outages and equipment or seasonal deratings. Forced Outage Rate is the ratio of forced outage hours (due to an unexpected breakdown) to total operating hours.

Q. Are there any offsetting factors to be considered before including these costs in rates?

A. Yes. Avista's response to Staff DR No. 2 (ERM) adds more support to Staff's recommendation to exclude CS2 GSU related expenses and capital at this time.[28] For example, Mr. Thackston makes no mention of the Company's $5.2 million insurance claim on T#3 in his direct testimony, which would directly offset ratepayer costs.[29] Mr. Thackston's testimony is also silent as to the disposition (write-off) of the $2.9 million in net book value remaining on T#3 and T#4 if and when they are found to be no longer used and useful.[30]

E. Staff's Recommendation for CS2 Test Year Capital Additions.

Q. What is your recommendation regarding Avista's test year capital additions for ER-4133 and ER-4149?

A. I recommend that the capital additions in ER-4133 be rejected. It is simply too early to evaluate or include these capital costs in rates. Until Avista produces a detailed plan with cost estimates, including an evaluation of alternatives to the millions required to redesign the plant, no amounts for this ER should be included in the Company's ratebase.

As for ER-4149, my testimony highlights gaps in Avista's evidentiary support for these capital additions. These gaps directly challenge Ms. Karen K.

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[28] Gomez, Exh. DCG-6.
[29] Gomez, Exh. DCG-6 at 3.
[30] Gomez, Exh. DCG-6 at 4.

Schuh's assertion that Avista has provided "'significant auditable data' at the outset for Parties to review during the pendency of this case."[31]

IV. COLSTRIP OUTAGE AND DERATE

A. Background and Impact.

Q. Please describe the Colstrip generation outage and derate that occurred in 2018.

A. During the second quarter of 2018, Units 1 and 2 were offline. During the same quarter and the next, Units 3 and 4 were forced offline by the operator, Talen. This forced outage was due to violating emissions standards. Unit 3 was removed from service on June 28 and kept offline until July 8. Unit 4 was removed from service on June 29 and kept offline until July 17. When these units came back online during the period of non-compliance, they were derated to run only for the purposes of gathering information, preforming diagnostics, evaluating potential remedial actions, and testing.

Q. Please Describe the Emissions Standards that forced these units to be shutdown.

A. The Mercury Air Toxics Standard[32] ("MATS") requires that particulate matter ("PM") emissions be used as a surrogate for toxic emissions or non-mercury metals. MATS also requires that the Colstrip Units maintain a rolling 30-day average PM emission rate of 0.030 pounds per million British Thermal Units (1b/MMBtu). This

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[31] Schuh, Exh. KKS-1T at 10:21-22.

[32] The Colstrip Units are subject to 40 C.F.R. Part 6, Subpart UUUUU - National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—commonly referred to as the Mercury Air Toxics Standard.

means the average PM emission rate across all four Colstrip Units must be less than or equal to 0.030 1b/MMBtu. Starting in the first quarter of 2018, the PM levels at Colstrip were elevated, and were at or just below the PM limit of 0.030 lb/MMBtu limit.[33]

During the second quarter of 2018, Units 1 and 2 were offline and therefore not subject to MATS PM emission testing. On June 21, 2018, Unit 3 was tested and the results indicated a PM emission rate of 0.043 1b/MMBtu. On June 26, 2018, Unit 4 was tested and the results indicated a PM emission rate of 0.051 1b/MMBtu. These tests revealed that Colstrip Units 3 and 4 were out of compliance with the PM emission limit. Talen notified MDEQ of the non-compliant test results on June 28, 2018. Due to this violation of the PM emission limit, Units 3 and 4 went into a forced outage.

Q. When were the units brought back on line?

A. On September 4, 2018, Unit 4 demonstrated compliance with a PM emission rate of 0.021 1b/MMBtu. On September 11, 2018, Unit 3 demonstrated compliance with a PM emission rate of 0.024 1b/MMBtu.

Q. Did Avista procure power from different sources during these outages?

A. Yes. Avista estimates that it incurred $3.5 million in replacement power costs as a result of the outage and derate.[34] All three Colstrip owners are now seeking recovery

[33] Gomez, Exh. DCG-2, Colstrip Units 3 and 4 PM Levels.
[34] UE-190222, Dempsey, Exh. TCD-1T at 7:16-19.

of their replacement power costs in their respective power cost adjustment mechanisms.

B. Staff's Recommendation for Colstrip Capital and ERM Power Costs.

Q. Is Staff evaluating the prudency of the outage and derate of Units 3 and 4 in this GRC?

A. No. As a result of the consolidation of the 2018 ERM annual power cost review with the GRC, Staff conducted its initial discovery into the prudency of 2018 Colstrip outage and derate under this GRC docket. For the other two Colstrip owners, informal discovery was conducted in each of their annual power cost reviews. Staff's efforts at discovery under this regime were difficult. However, Staff was able to gather enough information to file a motion with the Commission recommending severance of Avista's 2018 ERM annual power cost review from its GRC, so that the 2018 ERM review can be consolidated with PSE's and PacifiCorp's 2018 annual power cost reviews under a single docket. Given that all three companies' power cost reviews concern the same underlying facts and principles of law, Staff believes it would promote judicial economy to consolidate all three dockets into one adjudicative proceeding for the purpose of evaluating the prudency of 2018 power cost expenses, including Avista's share of the effects caused by the Colstrip outage and derate summarized in the table below.

2018 ERM Deferral Balance Impacts; Baseload Generation Outage & Derates (Company Estimate)	
CS2 Replacement Power Costs	**\$4.6 million**
Colstrip Units 3 & 4 Replacement Power Costs	**\$3.5 million**

Q. Is Staff supporting any pro forma adjustment for capital additions related to Colstrip Units 3 and 4?

A. No. According to Ms. Schuh's exhibit, Avista is not seeking to include any pro forma capital for Colstrip Units 3 and 4 in this case. However, Mr. Thackston's testimony includes pro forma capital additions for 2019 which do not appear in Ms. Schuh's Exh. KKS-2.[35] Staff is not evaluating the amounts and projects for 2019 included in Mr. Thackston's testimony because, according to Ms. Schuh, they are not being included in this case.

However, the test year, not pro forma adjustments, includes $14.9 million in Colstrip capital additions. These costs are addressed by Mr. Thackston.

Q. Does Staff address the test year capital additions for Colstrip?

A. Yes. However, Mr. Thackston's testimony provides support for $9.2 million in test year capital additions for Colstrip (out of the $14.9 million total in ER No. 4116). The remaining $5.7 million is not addressed in Mr. Thackston's testimony, as this amount is comprised of projects that are individually less than $400,000 or $500,000 in 2017 and 2018 respectively.[36] Imbedded within the $5.7 million are also capital costs associated with the 2018 Colstrip outage and derate. Avista's 15 percent share of $1.3 million ($196,502) of capital costs incurred directly as a result of the outage are included in the Company's test year.[37] As mentioned previously, this amount,

[35] *See* Mr. Thackston's amounts for 2019 in Exh. JRT-1T at 35:12-14, Table 6, and his statements in Exh. JRT-1T at 47:16-48:2 ("Projects included for 2019 Colstrip generation capital additions included in this case should be considered building block projects that support the same strategic goal – to meet our regulatory obligations and environmental compliance requirements under the AOC and CCR.") (emphasis added).
[36] Thackston, Exh. JRT-1T at 35:17-19; 36:4-7.
[37] Gomez, Exh. DCG-14 at 3.

along with Avista's approximately $3.5 million in replacement power costs, will be addressed in a separate adjudicative proceeding. As such, these amounts should be removed from the test year in the GRC. Therefore, the amount at issue in the present case is the $196,502 in test year capital associated with the outage and derate.

Q. For the relevant test year capital expenditures related to Colstrip, what is your recommendation?

A. In total, my proposed level of test year capital for ER-4116, Colstrip, is $12.1 million. This amount reflects the proposed reduction to Avista's test year capital associated with the outage and derate discussed above along with test year capital amounts for SmartBurn. Mr. Thackston's 2017 test year capital additions in ER No. 4116 include $2.0 million for the installation of SmartBurn in Units 3 and 4.[38] I recommend that Avista's test year amounts for SmartBurn be disallowed for reasons that I will discuss in the next section of my testimony.

V. COLSTRIP UNIT 3 & 4 SMARTBURN

Q. What is your recommendation related to SmartBurn?

A. I recommend the Commission disallow costs associated with SmartBurn. Avista has failed to meet its evidentiary burden that its share of SmartBurn capital costs were prudently incurred. In my review of Avista's SmartBurn investment, I employ the Commission's prudence standard and the guidance provided by the Commission in

[38] Thackston, Exh. JRT-1T at 35:23.

its final order in Avista's last GRC. In its final order, the Commission concluded that Avista had:

> "…provided insufficient information related to its investments at Colstrip Units 3 and 4. The Company presents an argument for the Smart Burn investment on rebuttal, but it does not dispel Staff's primary concern: that the investment does not appear to have been required by any state or federal laws. Any future compliance obligations that the Smart Burn investment might have helped mitigate are purely speculative, and it is unclear whether the decision by the Colstrip owners to proactively take on future assumed compliance obligations reflected that retirements of other coal units in the region might reduce any compliance obligations for Colstrip Units 3 and 4."[39]

In addition to the Commission's final order, I also examined the direct testimony of Sierra Club witness Dr. Ezra D. Hausman in Case No. AVU-E-1701 before the Idaho Public Utilities Commission.[40]

Q. What is your understanding of the prudence standard?

A. The Commission has articulated its prudence standard in a number of decisions. In one such decision, the Commission stated:

> "It is generally conceded that one cannot use the advantage of hindsight. The test this Commission applies to measure prudence is what a reasonable board of directors and company management [would] have decided given what they knew or reasonably should have known to be true at the time they made a decision. This test applies both to the question of need and the appropriateness of the expenditures."[41]

The Commission has also explained that, after a company initiates a project, that company must continue to evaluate and ensure its prudence:

> "Simply because the decision to begin a project is prudent does not mean the continuation or completion of the project is *ipso facto* prudent. The

[39] *Wash. Utils. & Transp. Comm'n v. Avista Corp.*, Dockets UE-170485 & UG-170486, Order 07, p. 68, ¶ 204 (Apr. 26, 2018).
[40] Gomez, Exh. DCG-17.
[41] *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy, Inc.*, Docket UE-031725, Order 14, p. 34, ¶ 65 (May 13, 2004) (citations omitted).

> Commission believes that a company must continually evaluate a project as it progresses to determine if the project continues to be prudent from both the need for the project and its impact on the company's ratepayers."[42]

In addition, the Commission has made it clear that the company bears the burden of demonstrating prudence.[43]

Q. Did you see any evidence to suggest SmartBurn was a factor in the 2018 Outage and Derate of Units 3 and 4?

A. No. Staff did not find anything specific to SmartBurn in the Root Cause Analysis report (RCA) commissioned by Talen and the other Colstrip owners.[44] However, among the RCA's recommended solutions to address PM control issues at Colstrip is the following statement:

> "<u>Change the objectives of furnace optimization</u>: The burners are currently tuned to minimize slagging and <u>NOX emissions</u>, while also maintaining output. Recommend including control of PM as an objective of boiler operation. Status: In process"[45]

Neither the testimony of Mr. Dempsey nor Mr. Thackston addresses the impact to NOx emissions resulting from the retuning of the Colstrip burners. As a result, Staff cannot validate if Avista's claimed improvements to NOx emissions resulting from the installation of SmartBurn on Units 3 and 4 will be completely

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[42] *Wash. Utils. & Transp. Comm'n v. The Wash. Water Power Co.*, Cause No. U-83-26, Fifth Supplemental Order, p. 13 (Jan. 19, 1984).
[43] *Id.* ("As with all issues, the company bears the burden to prove initiation, construction and continuation of the project was prudent."); *see also Petition of Puget Sound Power & Light Co. for an Order Regarding the Accounting Treatment of Residential Exchange Benefits,* Docket No. UE-920433, Eleventh Supplemental Order, p.19 (Sept 21, 1993) ("Puget must make an affirmative showing of the reasonableness and prudence of the expenses under review . . . even in the absence of a challenge by another party").
[44] Gomez, Exh. DCG-15C at 5-20.
[45] Gomez, Exh. DCG-15C at 19.

erased or even increase as a result of the actions taken to bring PM emissions back into compliance.

It is important to note here that Staff is not basing its recommendation to disallow the capital costs associated with the installation of SmartBurn on Units 3 and 4 on whether or not it contributed in any way with the outage and derate. Instead, Staff's recommendation is that SmartBurn continues to be unnecessary and provides no benefit to Avista's ratepayers.

A. Avista Failed to Demonstrate the Need for SmartBurn.

Q. Has Avista met its burden to demonstrate the need for SmartBurn?

A. No. Mr. Thackston states that Avista and the other Colstrip owners had a continuing expectation that future additional NOx reductions would be required for Colstrip Units 3 and 4 which would necessitate the installation of Selective Catalytic Reduction ("SCR") by 2027.[46] He says that this expectation arose from both the Federal Implementation Plan ("FIP") to address regional haze in the State of Montana[47] and the State of Montana's Regional Haze Progress Report dated August 2017.[48]

Q. Are there any requirements for the installation of SCR at Colstrip Units 3 and 4?

A. No. Section III - <u>Final Action</u>, of the FIP contains a table identifying the control technologies, associated costs, and emission reductions for a handful facilities

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[46] Thackston, Exh. JRT-1T at 42:14-21.
[47] Gomez, Exh. DCG-9.
[48] Gomez, Exh. DCG-10.

including Colstrip Units 1 and 2. Units 3 and 4 were also analyzed, but under a different source category than Units 1 and 2. However, the FIP applied no additional emission control requirements or limits on Units 3 and 4 at that time.

Q. What happened to the emission limits for Units 1 and 2 imposed by the FIP?

A. On June 9, 2015, the United States Court of Appeals for the Ninth Circuit vacated the emission limits for Colstrip Units 1 and 2.[49] By then, SmartBurn had already been installed on Unit 2.[50] In 2016, an agreement was reached between Sierra Club and the owners of the Colstrip facility to shut down Colstrip Units 1 and 2 by 2022, and the owners agreed to comply with certain emission limits for NOx and SO_2.

Q. Does the State of Montana's Regional Haze Progress Report of 2017 recommend the installation of SCR?

A. No. The Regional Haze Progress Report of 2017 (2017 Report) evaluates visibility progress in Montana since the baseline years of 2000-2004 and, more specifically, progress since the Montana FIP was published in 2012. The report provides a five-year update on the current status of visibility at the Class I Areas affected by emissions from Montana sources of air pollution and describes statewide emissions reductions. The report concluded that the Montana FIP was adequate and did not require substantive revision to achieve established visibility goals.[51]

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[49] *National Parks Conservation Ass'n v. E.P.A.*, 788 F.3d 1134, 1143 (9th Cir. 2015).
[50] Gomez, Exh. DCG-10, Ch. 2, Page 2-5.
[51] Gomez, Exh. DCG-10, p. i.

Q. Chapter 2 of the 2017 Report mentions the installation of SmartBurn on Units 3 and 4. Was the installation of SmartBurn mandated by either the FIP or the 2017 Report?

A. No. The 2017 Report's mention of the installation of SmartBurn on Units 3 and 4 describes a voluntary action on the part of the Colstrip owners.[52]

B. Avista Failed to Maintain Appropriate Documentation.

Q. Did Mr. Thackston provide any contemporaneous documents which memorialized the decisions made by Avista and the other Colstrip owners to install SmartBurn on Units 3 and 4?

A. No. Mr. Thackston's testimony and exhibits provide no such contemporaneous documents. He produces no evidence showing what "future regulatory obligation[s]"[53] were contemplated by Avista's management at that time, including analysis showing the "wide variety of NOx control solutions"[54] that were considered by the owners of Units 3 and 4 when the decision was made to install SmartBurn. It would seem that providing the required evidence would be rather easy as documentation regarding operating and capital budgets should be maintained as per Section 17(c) of the Colstrip Unit 3 and 4 Ownership and Operation Agreement. Section 17 requires the preparation and distribution, to all owners, of written minutes of the Project Committee, whose responsibilities include the approval of the annual Colstrip Unit 3 and 4 operating and capital budgets.[55] While it appears that capital

[52] Gomez, Exh. DCG-10, Ch. 2, pp. 2-8.
[53] Thackston, Exh. JRT-1T at 42:5-7.
[54] Thackston, Exh. JRT-1T at 41:4-6.
[55] Gomez, Exh. DCG-11.

decisions should be documented and then provided to Staff in the conduct of a prudence review, no evidence supporting the decision has been provided.

C. Avista Failed to Demonstrate the Benefit of Installing SmartBurn.

Q. What evidence did Mr. Thackston provide to substantiate claims about the benefits of installing SmartBurn in Units 3 and 4?

A. None, other than a reference to a six percent improvement in NOx removal.[56]

Q. Did you investigate the source of Mr. Thackston's claim of six percent improvement in NOx removal?

A. Yes. It appears that Mr. Thackston's source for this claim is on pages 2-8 of Exh. DCG-10. However, the 2017 Report states that six percent was an expected, not actual, improvement in NOx removal. Additionally, Footnote 22 identifies the source of this information as a conversation with Mr. Gordon Criswell of Talen Energy.

Q. How about Mr. Thackston's claims of lower O&M and capital costs as a result of installing SmartBurn?

A. Mr. Thackston provides no evidence for such claims.

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[56] Thackston, Exh. JRT-1T at 44:5-10.

D. The Decision to Install SmartBurn was Imprudent.

Q. You examined actual NOx emission data reported to EPA for Colstrip Units 3 and 4 before and after the installation of SmartBurn. What did you conclude as a result?

A. Both Units 3 and 4 improved very little, if at all. The observed decrease in NOx levels after the installation of SmartBurn for both units was 0.01 lbs/MMBtu.[57]

Q. How does actual emission data from Colstrip Units 3 and 4, operating with SmartBurn, impact the prudency of the decision to invest in SmartBurn?

A. The current operating status of the SmartBurn investment is not relevant to the decision by the Company to invest in SmartBurn. However, it demonstrates that SmartBurn does not, and has not, provided any benefit through reduced emissions. Therefore, based on my testimony above, both the decision to invest in SmartBurn was imprudent.

E. The SmartBurn Investment Should Be Disallowed.

Q. In summary, has Avista met its burden that the installation of SmartBurn on Units 3 and 4 was prudent?

A. No. The Company has not provided evidence supporting its investment in SmartBurn. There is no evidence that SmartBurn is required to comply with Federal law regarding NOx. There was no documentation provided that supported the investment. Further, the investment is not currently providing any benefit to

[57] Gomez, Exh. DCG-12.

ratepayers, as NOx levels were decreased by only 0.01lbs per MMBtu. Therefore, absent evidence of need, the Company's decision making process, or a substantial improvement in NOx levels, I recommend that the Commission reject $2.0 million of Avista's test year capital addition for SmartBurn.

VI. POWER COST WORKSHOPS

Q. Having reviewed the testimony of Mr. Kalich regarding the power supply modeling workshops, does Staff offer any comments?

A. Yes. Mr. Kalich has produced a good summary of the accomplishments thus far. Staff would like to acknowledge the hard work of the Avista team and participants in addressing what is a very technically demanding problem. We agree with his assessment that the parties remain committed towards achieving consensus with the goal of an improved power supply modelling methodology.

Q. Can you provide an update on next steps from what Mr. Kalich provided in his testimony?

A. Yes. Staff participated in Workshop 5 and completed a site visit to the Company's headquarters in Spokane in March. Workshop 6 is scheduled for November 2019, and the agenda will include scoping for the work of the consultant. Staff concurs with Mr. Kalich's optimism that the parties will achieve the stated goal of the workshops.

Q. Do you have any concerns regarding the current power supply baseline for the 2019 ERM deferral year?

A. Yes. As we head into the winter heating season, questions remain regarding the status of CS2's degraded GSU transformer and emission problems at Colstrip Units 3 and 4. Any outage or simultaneous outage of these two important baseload plants will materially impact the ERM deferral balance.

Q. Does Mr. Kalich's or any other Company witness share your concern?

A. No. Mr. Kalich's testimony states that there have been no extraordinary circumstances since the Commission approved the current baseline in Avista's last GRC.[58] In Avista's August 2019 ERM Deferral Report, the cumulative balance in the current deferral year is -$221,861, well within the deadband and just slightly below the baseline. However, I disagree with Mr. Kalich that there have been no extraordinary circumstances since the baseline was approved, for the reasons I explain earlier in my testimony regarding CS2 and Colstrip Units 3 and 4.

VII. STAFF'S LIST OF CONTESTED ISSUES IN UE-190222

Q. Are you providing a recommendation to the Commission regarding approval of Avista's filing in Docket UE-190222?

[58] Kalich, Exh. CGK-1T at 2:19-22.

A. No, not at this time. The Commission suspended the procedural schedule in Docket UE-190222 in Order 04 entered October 2, 2019.

Q. Does Order 04 require Staff to make any filings in Docket UE-190222 along with the response testimony in the general rate case due October 3, 2019?

A. Yes, paragraph 9 of that order states: "[W]e require Staff, Public Counsel, and the Intervenors to each file a list of contested issues regarding Docket UE-190222 identified in their responsive testimony by 5 p.m. on Thursday, October 3, 2019."

Q. Can you please list Staff's contested issues in Docket UE-190222?

A. Yes.

1. Staff's primary concern in the ERM (UE-190222), PCA (UE-190324), PCAM (UE-190458) (collectively "Power Cost Filings") revolve around the same issue. As detailed in Staff's motion, this issue is whether the actions of Talen and all three companies *leading up to* the 2018 Colstrip Outage were imprudent.[59] If the outage was caused by imprudent actions that occurred during this time period, then the costs associated with the replacement power purchases incurred and necessitated as a result of the outage would also be imprudent. Staff does *not* believe the actions by Avista, PSE, Pacific Power (collectively the "Colstrip Owners"), or Talen were imprudent *after the outage occurred*. This includes the actions to get the Colstrip Units back into MATS PM compliance and the actual procurement methods each company employed to obtain replacement power to meet their respective loads after the outage occurred. To reiterate, Staff's primary

[59] UE-190222 (*consolidated*) (Staff's response to power cost filings and motion for severance and consolidation) (filed September 26, 2019).

concern in each of the Power Cost Filings is the actions and decision making processes of each company—as joint-owners of Colstrip—and Talen—as the operator of Colstrip—in the time period leading up to 2018 Colstrip Outage. The answer to this common question will inform Staff's recommendation to the Commission on whether the replacement power costs associated with the 2018 Colstrip Outage were prudently incurred—as to each company. Because Staff's only substantive concern in each Power Cost Filing pertains to the same common factual and legal question, Staff has requested that the Commission consolidate these dockets on September 26, 2019. Staff made this request to promote judicial economy and to avoid the burden on Staff and the Commission's limited resources in adjudicating these related cost under three separate discovery orders, protective orders,[60] and procedural schedules. Staff currently *does not* have any other major concerns with Avista's 2019 ERM Filing.

2. Staff may provide a different recommendation as to the pass-back of any deferred amounts if the 2018 deferrals are approved and exceed the trigger. This issue must be resolved in Docket UE-190222. It is a small issue compared to the primary issue of the outage. It should not be a problem to address this issue in a

[60]Staff would like to reiterate its concerns about the confidentiality amongst the three dockets. To illustrate this concern, yesterday Pacific Power provided a supplementary confidential response to UTC Staff Informal Data Request No. 8 (UE-190458) that provided supplementary documents and a narrative statement pertaining to Talen's actions leading up to the 2018 Colstrip Outage. As it stands now, Staff cannot use this information in its recommendation in Docket UE-190222 because Pacific Power has marked the information in these documents as confidential. Currently, the only way Staff can use this information in Docket UE-190222 is to ask Avista for this information via data request. If Avista fails or refuses to give this information to Staff, Staff cannot use this information in its recommendation to the Commission because it is not within the administrative record. If these confidentiality issues (amongst the three Colstrip Owners) are not resolved within a consolidated adjudication, this could seriously inhibit Staff's ability to provide informed recommendations to the Commission. It further would likely result in inconsistent recommendations to the Commission as to each Colstrip Owner as to their related power costs resulting from the same outage.

case consolidating the three Power Cost Filings. It is Staff's understanding that consolidation is proper when the facts or principles of law in two or more proceedings are related. It is not Staff's understanding that filings must have identical facts and issues in order to be consolidated.

Q. Is there anything else you would like to discuss in regard to Order 04's direction?

A. Staff's investigation indicates that the replacement power costs associated with the Outage and Derate at Coyote Springs Unit 2 were prudent. Staff is not planning to dispute these. However, Staff reserves the right to pursue other issues in light of new evidence that may come to light after the filing of this testimony.

Staff would lastly like to note that, although Staff has major concerns only pertaining to the costs associated with the 2018 Colstrip Outage (described above and in Staff's motion), the Commission will ultimately have to make a ruling on the entire 2018 ERM deferral balance in Docket UE-190222—which includes the replacement power costs associated with the outages at Coyote Springs Unit 2 as well as Colstrip units 3 and 4.[61] This means that it does not make sense to try to sever individual issues and consolidate some of them in a new docket while leaving others in the general rate case. The entire Docket UE-190222 should be severed from the general rate case and consolidated with the other Power Cost Filings to enable the Commission to make a decision that addresses the entirety of each filing.

[61] *See* Docket UE-011595 (Settlement Stipulation) p.7; *see also* Docket UE-011595, Fifth Supplemental Order (Approving and adopting Settlement Stipulation). Accordingly, Staff may have to provide responsive testimony in Docket UE-190222 on other issues within the docket—even though Staff would not be contesting them.

VIII. SUMMARY AND RECOMMENDATIONS

Q. Can you summarize your recommendations in this case?

A. Yes. Staff recommends the Commission reject $3.5 million in production capital included in the Company's test year totals. This $3.5 million is comprised of capital amounts for both the outage and derates at CS2 and Colstrip Units 3 and 4 plus the Company's share of capital costs associated with the installation of SmartBurn on Colstrip Units 3 and 4. Additionally, I recommend the removal of $0.3 million in production operation and maintenance expense related to the 2018 Colstrip outage and derate.

Q. Does this conclude your testimony?

A. Yes.

Exh. DCG-6
Dockets UE-190334, UG-190335,
and UE-190222
Witness: David C. Gomez

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **AVISTA CORPORATION, d/b/a AVISTA UTILITIES,** **Respondent.**	**DOCKETS UE-190334, UG-190335, and UE-190222 (*Consolidated*)**

EXHIBIT TO
TESTIMONY OF

David C. Gomez

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

Avista's Response to Staff Data Request No. 2

October 3, 2019

AVISTA CORP.
RESPONSE TO REQUEST FOR INFORMATION

JURISDICTION:	Washington	DATE PREPARED:	05/05/2019
DOCKET NO.:	190222	WITNESS:	William Johnson
REQUESTER:	UTC Staff	RESPONDER:	William Johnson
TYPE:	Data Request	DEPT:	Power Supply
REQUEST NO.:	Staff – 002	TELEPHONE:	(509) 495-4046
		EMAIL:	bill.johnson@avistacorp.com

REQUEST:

In the pre-filed direct testimony of Mr. William G. Johnson, he states that actual net power costs were $15,544,268 below authorized net power costs for 2018.[1] He goes on to add that "Avista's natural gas generation facilities generated 7 aMW less than the authorized level in 2018."[2] Mr. Johnson states that the lower than expected gas generation in the 2018 ERM deferral year was partially due to the 2018 outage and derate of Coyote Springs 2 ("CS2") caused by the failure of the station's installed step-up transformer and the degraded performance of its spare.

UTC STAFF DATA REQUEST NO. 2:

SUBPART A: Mr. Johnson testified that the combined effect of both the outage and derate of CS2 in the 2018 ERM deferral period forced Avista to purchase additional higher-priced power to replace the lost generation. Please specify and/or allocate the amount of the 7aMW of lower gas fired generation that is due to: (1) the outage; and (2) derate of CS2. Please provide these figures, by month, in both aMW and MWh.

SUBPART B: Mr. Johnson testified that the Company estimated $4.6 million (Washington allocation) in added expense associated with procuring replacement power due to CS2's outage and derate. Please provide all documents and/or other information the Company relied on to arrive at this estimate. Please also state whether the $4.6 million in estimated added net power expense is included in the calculation of the $15.5 million credit deferral balance at the end of 2018.

SUBPART C: Please provide a list (including dollar amounts) of any capital additions and transfers to plant, O&M, and transmission expense attributable to the outage and derate of CS2 in 2018. For O&M and transmission expense related to the outage and derate at CS2, specify whether these amounts flowed through the ERM bands in the 2018 deferral period or whether the Company will seek recovery of these expenses in its 2019 general rate case.

SUBPART D: For any money spent on capital additions and transfers to plant related to the 2018 outage and derate of CS2, specify the amounts of those funds that will be included in rate base in the Company's 2019 general rate case. Include in your response the capital cost and expense of replacing CS2's step-up transformer and degraded spare.

[1] Johnson, Exhibit No. WGJ-1T at 7:2-3.
[2] *Id.* at 10:7-9.

SUBPART E: For the failed step-up transformer and the degraded spare at CS2, provide: (1) the service life; (2) original acquisition date and cost; (3) accumulated depreciation; and (4) remaining book value.

SUBPART F: List any and all insurance, manufacturer, warranty, legal, or any other claims (including dollar amounts) either made or anticipated to be made by Avista to recover costs related to the outage and derate of CS2 in 2018.

RESPONSE:

All attachments are being provided in electronic format only.

Subpart A:

Please see Staff_DR_002 Attachment A for the monthly difference between actual generation and authorized generation during 2018. Any differences related to the outage and/or the de-rate are embedded within these amounts. It is not possible to isolate the amount which is directly attributed to the issues as Colstrip and/or CS2 given the market is a combination of multiple factors (such as load and weather, etc.) that happen simultaneously.

Subpart B:

Please see Staff_DR_002 Attachment B for the calculation of the estimated expense due to the incidents at both CS2 and Colstrip. This analysis was based only on the months that were primarily affected, October and December, for CS2 and July and August for Colstrip. This analysis estimated the expense due to the issues at the plants to be $4.6 for CS2 and $3.5 million for Colstrip.

Please see Staff_DR_002 Attachment C for the calculation of the estimated expense due to the incidents at both CS2 and Colstrip using a modified analysis approach. In this analysis, the outage/deration expense was calculated in two ways. The <u>first</u> calculation looks only at the hours when the plant was completely offline. The <u>second</u> analysis looks at hours that the plant was completely offline or was de-rated (or in Colstrip's case had only one unit offline) probably as a result of the ongoing issue (transformer at CS2 and emissions at Colstrip). In this analysis, the range of expense for CS2 is estimated to be between $4.8 and $5.1 million. The range of expense for Colstrip is estimated to be between $.7 and $3.1 million.

The additional expense is embedded in the 2018 ERM calculation of the $15.5 million reduction in actual power supply expense below the authorized power supply expense.

Subpart C:

Please see Staff_DR_002 Attachment D for Avista's 2018 O&M and Capital Expenditures for 2018 for CS2. This information is provided in the method received by the Plant Operator and recorded to the general ledger, and is not specific to the step-up transformer. Expenses related to the transformer issues are embedded within these totals. O&M expenses, with the exception of Transmission Expense are not included in the Energy Recovery Mechanism (ERM), but rather are embedded within actual test period expenses in Avista's general rate case Docket No. UE-190334. Transmission expense does flow through the ERM, however, it is unknown if there was either increased or decreased transmission expense related to the issues at the plants. The primary BPA

PTP transmission contract expense for each plant did not change due to the issues at the plants, but transmission expense may have been effected by the reduced need to purchase additional transmission beyond the BPA PTP capacities (reduction in expense), or the need to purchase transmission to buy replacement power (increase in expense).

Capital costs are also not included in the Energy Recovery Mechanism. Costs related to the Generator Step-Up Transformer Swap is summarized by Expenditure Request (ER), recorded to the general ledger, and transferred to plant in the month recorded. Approximately $799,000 (system) in costs are embedded in the Company's test year Rate Base in Avista's general rate case Docket UE-190334 (Tab Capital, line 4, ER 4133).

Subpart D:
Please see part (c).

Subpart E:
Please see Staff_DR_002 Attachment E for the service life, original purchase price, accumulated depreciation and net book value of Transformer #3 and Transformer #4.

Subpart F:
Avista has not submitted any claims to date, but is anticipating filing an insurance claim on the failed Transformer #3. The expected claim is $5.2 million, which accounts for already incurred expenses of $799,000 (see part C), plus an estimated $1.2 million for transportation, testing, disassembly and inspection, plus an estimated repair cost and return to the plant of $4.1 million, less a $1 million deductible. Estimates have been provided by a third party transformer repair contractor and are subject to fluctuation pending findings during inspection.

Avista Response to Staff DR No. 2, Attachment E

T#3	**Transformer #3**					Depreciation Rate	12/2004-12/2007	4.20%
	Purchase Price	Date Delivered	Out of Service Date	Accumulated Depreciation	Net Book Value		1/2008-12/2012	3.10%
	1,734,000.00	Dec-04	Sep-18	1,045,688.70	688,311.30		1/2013-9/2018	6.14%
						Depreciation Rate		
							12/2009-12/2012	3.10%
T#4	**Trasformer #4**						1/2013-3/2019	6.14%
	4,268,000.00	Dec-09	N/A	2,034,769.00	2,233,231.00			