# AVISTA REBUTTAL 2016 WASHINGTON NATURAL GAS ATTRITION STUDY

#### Edited from Staff Filed Attrition Study Exhibit No. \_(CRM-3)

# Twelve Months Ended December 31, 2014 (000's of Dollars)

Line No.	Description	(a) Attrition Balances	(b) Revenue Growth Factor	(c) Attrition Study Results
1	2016 Rate Base	\$287,745	1.011566	\$284,455
2	Settlement Rate of Return			7.29%
3	Net Operating Income Requirement			\$20,737
4	2016 Net Operating Income (at 2015 rates)	\$ 14,594	1.01157	\$14,427
5	2016 Rate of Return (at 2015 rates)			5.07%
6	2016 Net Operating Income Deficiency (Surplus)			\$6,310
7	Gross-up Conversion Factor			0.62032
8	2016 Attrition Revenue Deficiency (Surplus)		M - including 2007-	
9	2016 Total General Business Revenues (at 2015 rates)	20	14 Trend per BR17)	\$ 170,914
10	Attrition-based 2016 revenue requirement			\$ 181,085
11	Percent Revenue Requirement Change (vs. 2015)			5.95%

### 2016 NATURAL GAS ATTRITION REVENUE REQUIREMENT

	\$000s			Dete	rmine Base C	Cost	and Revenue	to I	Escalate				Es	calate No	n-Er	nergy Cost	0	ther Cost &	Rev	enue A	djustments				
CBR Line	DESCRIPTION	Cor Bas	2.2014 nmission is Report ted Totals <sup>1</sup>		Regulatory morts Adjs	No	Pro Forma Revenue ormalization	No Gas	Exclude ormalized s Costs and Revenue	Esc	ecember 2014 calation Base	Escalation Factor	A	scalation Amount [E] :[F]=[G]	20 Ene	rended 16 Non- ergy Cost +[G]=[H]	Pro	s) 12.2014 o-Formed Gas t/Revenue	Re	plus) venue rowth	After Attrition Adj - Project Compass	After Attrition - Atmo	Adj s	an [H]-	Revenue ad Cost +[I]+[J]+ -[L] = [M]
NO.	<u>DESCRIPTION</u>	Resta	[A]	A	[B]	А	[C]	г	[D]		[E]	[F]		[G]		[H]		[I]		[J]	[K]	[L]			[M]
	REVENUES				. ,		. ,		. ,					. ,		. ,						. ,			
1	Total General Business	\$	154,546	\$	-	\$	12,185	\$	(92,072)	\$	74,659	1.19%				74,659	\$	92,072	\$	1,983				\$	168,714
2	Total Transportation	\$	3,960	\$	-	\$	223			\$	4,183	-0.14%				4,183			\$	(6)					4,177
3	Other Revenues	\$		\$	-	\$	-			\$	332	0.00%				332			\$	-					332
4	Total Gas Revenues	\$	158,838	\$	-	\$	12,408	\$	(92,072)	\$	79,174		\$	-	\$	79,174	\$	92,072	\$	1,977				\$	173,223
	EXPENSES																								
	Production Expenses																								
5	City Gate Purchases	\$	84,187	\$	-	\$	3,680	\$	(87,867)	\$	-					-	\$	87,867		950					88,817
6	Purchased Gas Expense	\$	779	\$	-	\$	3			\$	782	4.84%		38		820		•			•				820
7	Net Nat Gas Storage Trans	\$	-	\$	-	\$	-			\$	-			-		-									-
8	Total Production	\$	84,966	\$	-	\$	3,683	\$	(87,867)	\$	782	•	\$	38	\$	820	\$	87,867	\$	950				\$	89,637
	Underground Storage																								
9	Operating Expenses	\$	893	\$	-	\$	_			\$	893	4.84%		43		936									936
10	Depreciation/Amortization	\$	402	\$	-	\$	-			\$	402	25.86%	1	104		506									506
11	Taxes	\$	184	\$	-	\$	-			\$	184	21.00%	ĺ	39		223									223
12	Total Underground Storage	\$	1,479	\$	-	\$	-	\$	-	\$	1,479		\$	186	\$	1,665	\$	-	\$	-				\$	1,665
	Distribution																								
13	Operating Expenses	\$	10,704	\$	-	\$	-			\$	10,704	4.84%		518		11,222						7	07		11,929
14	Depreciation/Amortization	\$	8,513		-	\$	-			\$	8,513	25.86%		2,201		10,714						_	-		10,714
15	Taxes	\$	8,719	\$		\$	475		(3,528)		5,666	21.00%		1,190		6,856	\$	3,528	\$	76					10,460
16	Total Distribution	\$	27,936	\$	-	\$	475	\$	(3,528)	\$	24,883		\$	3,909	\$	28,792	\$	3,528	\$	76		\$ 7	07	\$	33,103
17	Customer Accounting	\$	6,108	\$	-	\$	66	\$	(493)	\$	5,681	4.84%		275		5,956	\$	493	\$	11					6,460
18	Customer Service & Information	\$	865	\$	_	\$	-			\$	865	4.84%		42		907									907
19	Sales Expenses	\$	-	\$	-	\$	-			\$	-	4.84%		-		-									-
	Administrative & General																								
20	Operating Expenses	\$	12,777	\$	-	\$	25	\$	(184)	\$	12,618	4.84%		610		13,228	\$	184	\$	4					13,416
21	Depreciation/Amortization	\$	4,389	\$	-	\$	-			\$	4,389	25.86%		1,135		5,524					1,119	1			6,643
22	Regulatory Amortizations	\$	(91)	\$	1,143	\$	91			\$	1,143	0.00%		-		1,143						•			1,143
23	Taxes	\$	<u> </u>	\$		\$				\$	-	21.00%	_	-											
24	Total Admin. & General	\$	17,075	\$	1,143		116	\$	(184)		18,150		\$	1,745	\$	19,895	\$	184	\$	4			-	\$	21,202
25	Total Gas Expense	\$	138,429	\$	1,143	\$	4,341	\$	(92,072)	\$	51,841		\$	6,194	\$	58,035	\$	92,072	\$	1,041	\$ 1,119	\$ 7	07	\$	152,974
26	OPERATING INCOME BEFORE FIT	\$	20,409	\$	(1,143)	) \$	8,067		- DD 100	\$	27,333		\$	(6,194)	\$	21,139	\$	-	\$	936	\$ (1,119)	(7	(07)	\$	20,249

<sup>&</sup>lt;sup>1</sup>Workpapers for 12.2014 Commission Basis Reports provided with Avista's Response to Staff\_DR\_130.

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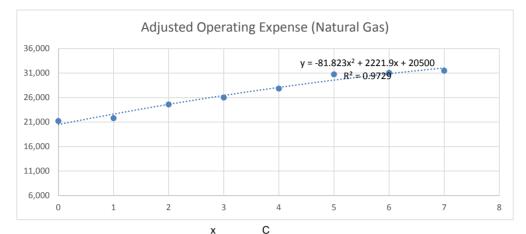
### 2016 NATURAL GAS ATTRITION REVENUE REQUIREMENT

2010 NATURAL GAS ATTRITION N									, 441										
	\$000s			Deteri	mine Base C	ost and Re	evenue	to Escalate				Escalate No	on-Energy Cost	Other Cost &	& Revenue	Adjustments			
CBR Line	DESCRIPTION	Co Bas	12.2014 mmission sis Report ated Totals <sup>1</sup>		egulatory norts Adjs	Pro For Reven Normaliz Adjustr	nue zation	Exclude Normalized Gas Costs and Revenue	Decer 201 Escala Bas	4 tion	Escalation Factor	Escalation Amount [E] *[F]=[G]	Trended 2016 Non- Energy Cost [E]+[G]=[H]	(plus) 12.2014 Pro-Formed Gas Cost/Revenue	(plus) Revenue	After Attrition Adj - Project Compass	After Attrition Ad - Atmos Testing	j a [H]	6 Revenue nd Cost  +[I]+[J]+ +[L] = [M]
	<u></u>	11000	[A]		[B]	[C]		[D]	[E	1	[F]	[G]	[H]	[I]	[J]	[K]	[L]		[M]
27 28 29	FEDERAL INCOME TAX Current Accrual Debt Interest Deferred FIT	\$ \$ \$	(6,945) (137) 13,105	\$	(400)		2,824	\$ -	\$ (4 \$	,521) (137) ,105	[-]	(2,168) (179)	(6,689)	-	327	(392)	(247	)	(7,001) (429) 13,105
30	Amort ITC	\$	(20)	\$	-	\$	-		\$	(20)			(20)						(20)
31	NET OPERATING INCOME	\$	14,406	\$	(743)	\$ 5	5,244	\$ -	\$ 18	,907		\$ (3,848)	\$ 15,059	\$ -	\$ 608	\$ (614)	\$ (460	) \$	14,594
32 33 34 35	RATE BASE PLANT IN SERVICE Underground Storage Distribution Plant General Plant Total Plant in Service	\$ \$ \$	25,235 337,894 59,169 422,298	\$	- - -	\$ \$	- -	\$ -	\$ 337 \$ 59	,235 ,894 ,169 ,298	11.24% 11.24% 11.24%	\$ 2,836 37,970 6,649 47,455	28,071 375,864 65,818 469,753			13,239 13,239	1	\$	28,071 375,864 79,057 482,992
36 37 38	ACCUMULATED DEPR/AMORT Underground Storage Distribution Plant General Plant	\$ \$ \$	(9,521) (114,795) (17,429)	\$	-	\$	-		\$ (9 \$ (114 \$ (17		11.24% 11.24% 11.24%	(1,070) (12,900) (1,959)	(10,591) (127,695) (19,388)			(559)	1		(10,591) (127,695) (19,947)
39	Total Accumulated Depr/Amort	\$	(141,745)	\$	-	\$	-	\$ -	\$ (141	,745)		(15,928)	(157,673)			(559)			(158,232)
40	NET PLANT	\$	,	\$	-	\$	-	\$ -		,		\$ 31,526	\$ 312,079			\$ 12,680	_		324,759
41	DEFERRED TAXES	\$	(54,652)		-				\$ (54		11.24%	(6,141)	(60,793)			(577)			(61,370)
42	Net Plant After DFIT	\$	225,901			\$	-	\$ -		,901	0.000/	25,385	251,286			12,103			263,389
43 44	GAS INVENTORY GAIN ON SALE OF BUILDING	\$ \$	14,762		-	\$ \$	-		\$ 14 \$	,762	0.00% 0.00%	-	14,762						14,762
45	OTHER	\$	(479)		-	\$				(479)	0.00%	-	(479)						(479)
46	WORKING CAPITAL	\$	10,073		_	\$	_			,073	0.00%	_	10,073						10,073
47	TOTAL RATE BASE	\$	250,257	\$	-	\$	-	\$ -	\$ 250	,257		\$ 25,385	\$ 275,642			\$ 12,103		\$	287,745
	<sup>1</sup> Workpapers for 12.2014 Commissio	n Basis	Reports pro	ovided	with Avista	s Respons	se to S	taff_DR_130.											
48	RATE OF RETURN		5.76%																5.07%
	ATTRITION ADJUSTED REVENUE RE	QUIRI																	
49 50	Proposed Rate of Return Net Operating Income Requirement	\$												Mr. McGuire's				¢	7.29% 20,977
51	Net Operating Income per Above	Ф												sed growth esca				\$	14,594
52	Net Operating Income Deficiency	\$	2 020											ng years 2007-2					6,383
32	The operating meonic Beneficiery	Ψ											d. Lastly, in c	olumn [K], the	Company l	nas included	total Project	Ψ	0,505
53	Conversion Factor		0.62032	Com	pass costs,	rather th	an the	discounted l	oalances	prop	osed by Sta	ıff.							0.62032
54	Revenue Requirement	\$	6,187															\$	10,289
55	Revenue Growth Factor																		1.011566
56	Attrition Adjusted Revenue Requirement	nt																\$	10,171

<sup>\*</sup>Note: Adjustment in Column [B] includes the Regulatory Amortization associated with the deferral of the Natural Gas portion of the Project Compass Customer Information System (CIS) project as this amount is not inluded in the 12.2014 Commission Basis. This amount is not escalated as shown in column [F].

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Bench Request BR_17								
	2007	2008	2009	2010	2011	2012	2013	2014
Adjusted Operating Expenses	21,205	21,797	24,600	26,009	27,852	30,759	31,057	31,478
	0	1	2	3	4	5	6	7
Adjusted Operating Expenses	21,205	21,797	24,600	26,009	27,852	30,759	31,057	31,478



 Derivative of Quadratic (below)
 -163.646
 2221.9

 x = 7 (2014 is year 7)
 -1145.52
 (Bench Request No. 17 - Attachment A)

 Sum (x and C)
 1076.378
 Using 2007-2014 non-linear trend, consistent with all other components rate (1-year)

 rate (2-year)
 3.50%
 Natural Gas trend components.

 rate (2-year)
 7.00%
 Escalation factor (to 2016)

Note: In the Company's rebuttal filing it should have noted on page 12 of Exhibit No. EMA-7 that the natural gas trending analysis used regression analysis that fit a non-linear trend line instead of linear, as the historical natural gas data was non-linear in nature. The electric trending analysis used regression analysis that fit a linear line, as the historical data was linear in nature. As noted by Mr. McGuire starting at page 38, line 15 of Exhibit No. CRM-1T, the natural gas service does not fit a linear model; therefore growth factors were calculated using "second-order polynomial functions." This creates a trend line which fits to a non-linear line. For both electric and natural gas, the regression analysis used in each study to trend data was consistently applied by both Avista on rebuttal and Staff for each escalation component, with the exception of the O&M Growth factor.

	2007	2008	2009	2010	2011	2012	2013	2014
Adj. Operating Expense (2007-2014)	21,205	21,797	24,600	26,009	27,852	30,759	31,057	31,478
Adj. Operating Expense (2013-2014)							31,057	31,478

	Slope	Rate (1yr)	Escalation	
Rate (2013-2014)	421.0	1.34%	2.67%	(Bench Request No. 17 - Attachment B)
Rate (2007-2014)	1,101.5	3.50%	7.00%	AVG Replacing 3% with 2007-2014 non-linear trend
Average		2.42%	4.84%	

#### NATURAL GAS COST AND REVENUE TREND CALCULATIONS 2001-2014

# AVISTA UTILITIES WASHINGTON NATURAL GAS RESULTS

#### **Commission Basis Results of Operations**

(000'S OF DOLLARS)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Line		Restated													
No.	DESCRIPTION	Total													
1	REVENUES	•		l .			•	!					•		
1	Total General Business	\$ 144,574	\$ 148,580	\$ 137,031	\$ 159,265	\$ 178,724	\$ 197,821	\$ 209,186	\$ 203,727	\$ 182,706	\$ 142,370	\$ 152,457	\$ 142,048	\$ 144,257	\$ 154,546
2	Total Transportation	4,274	3,878	3,392	2,842	3,440	3,111	3,263	3,369	3,275	3,155	3,448	3,627	3,915	3,960
3	Other Revenues	2,541	2,340	2,183	2,168	30,131	2,372	68,416	153,093	84,085	115,257	98,841	68,107	403	332
4	Total Gas Revenues	151,389	154,798	142,606	164,275	212,295	203,304	280,865	360,189	270,066	260,782	254,746	213,782	148,575	158,838
	EXPENSES														
	Production Expenses														
5	City Gate Purchases	106,139	109,325	96,222	114,371	167,251	149,802	222,364	310,276	194,267	197,494	188,167	139,073	76,801	84,187
6	Purchased Gas Expense	988	1,177	1,186	369	651	653	792	(9,103)	803	800	14	130	891	779
7	Net Nat Gas Storage Trans	134	128	-	-	(8,407)	-	283	2	10,720	(3,322)	(4,366)		-	-
8	Total Production	107,261	110,630	97,408	114,740	159,495	150,455	223,439	301,175	205,790	194,972	183,815	143,555	77,692	84,966
	Underground Storage														
9	Operating Expenses	322	357	342	381	450	492	451	436	403	380	585	712	820	893
10	Depreciation/Amortization	314	297	309	309	310	312	310	276	393	348	395	438	380	402
11	Taxes	108	120	118	120	115	122	95	113	121	116	19	17	158	184
12	Total Underground Storage	744	774	769	810	875	926	856	825	917	844	999	1,167	1,358	1,479
	Distribution														
13	Operating Expenses	4,655	5,482	5,762	5,958	6,084	6,359	6,467	6,123	7,700	7,696	8,854	9,511	10,820	10,704
14	Depreciation/Amortization	4,390	4,496	4,707	4,902	5,088	5,369	5,605	5,673	6,064	6,367	6,649	6,978	7,925	8,513
15	Taxes	7,315	8,070	7,205	8,213	8,573	9,457	9,844	8,941	8,746	7,223	8,051	7,825	8,116	8,719
16	Total Distribution	16,360	18,048	17,674	19,073	19,745	21,185	21,916	20,737	22,510	21,286	23,554	24,314	26,861	27,936
17	Customer Accounting	3,367	4,108	4,121	4,337	4,249	4,225	4,487	4,692	5,586	5,234	5,740	5,796	6,270	6,108
18	Customer Service & Information	1,513	2,252	2,747	480	3,523	1,061	4,658	5,169	7,609	9,505	9,777	6,955	983	865
19	Sales Expenses	445	375	492	427	320	496	516	442	497	105	3	3	3	-
	Administrative & General														
20	Operating Expenses	7,578	9,399	9,827	8,911	9,196	8,393	8,901	9,706	9,770	11,383	11,585	13,419	11,862	12,777
21	Depreciation/Amortization	1,020	1,275	1,363	1,180	1,343	1,282	1,498	1,803	1,999	2,412	2,734	3,276	3,868	4,389
22	Regulatory Amortizations	167	185	159	169	-	-	(815)	(242)	440	216	(186)	171	91	(91)
23	Taxes	21	23	24	24	23	24	20	17	19	24	-	(1)	-	-
24	Total Admin. & General	8,786	10,882	11,373	10,284	10,562	9,699	9,604	11,284	12,228	14,035	14,133	16,865	15,821	17,075
25	Total Gas Expense	138,476	147,069	134,584	150,151	198,769	188,047	265,476	344,324	255,137	245,981	238,021	198,655	128,988	138,429
26	OPERATING INCOME BEFORE FIT	12,913	7,729	8,022	14,124	13,526	15,257	15,389	15,865	14,929	14,801	16,725	15,127	19,587	20,409
	FEDERAL INCOME TAX														
27	Current Accrual	(256)	6,949	651	655	(3,110)	6,693	5,010	506	2,468	(5,811)		( ) /	4,253	(6,945)
28	Debt Interest											63	3	(56)	,
29	Deferred FIT	3,078	(6,302)	325	2,340	5,522	(3,072)	. , ,	3,320	1,238	9,594	5,691	5,033	1,403	13,105
30	Amort ITC	(30)	(31)	(31)	(31)	(30)	(30)	(31)	(31)	(30)	(29)	(27)	(25)	(24)	(20)
31	NET OPERATING INCOME	\$ 10,121	\$ 7,113	\$ 7,077	\$ 11,160	\$ 11,144	\$ 11,666	\$ 11,852	\$ 12,070	\$ 11,253	\$ 11,047	\$ 11,906	\$ 11,301	\$ 14,011	\$ 14,406

Note: The Regulatory Amortizations Category has been restated in prior years to reflect consistency with the current reporting format.

#### NATURAL GAS COST AND REVENUE TREND CALCULATIONS 2001-2014

AVISTA UTILITIES WASHINGTON NATURAL GAS RESULTS (000'S OF DOLLARS)

#### **Commission Basis Results of Operations**

			2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Line			Restated													
No.	DESCRIPTION		Total													
	RATE BASE															
	PLANT IN SERVICE															
32	Underground Storage		\$ 13,533	\$ 13,439	\$ 13,712	\$ 13,632	\$ 13,708	\$ 13,854	\$ 13,758	\$ 15,260	\$ 21,798	\$ 20,047	\$ 22,008	\$ 24,365	\$ 24,711	\$ 25,235
33	Distribution Plant		178,943	185,314	191,970	200,079	208,396	219,287	229,417	240,778	255,976	269,469	281,279	296,152	313,469	337,894
34	General Plant		15,060	15,368	16,112	16,499	17,878	20,791	21,708	24,256	27,747	33,401	38,971	44,809	52,223	59,169
35	Total Plant in Service	_	207,536	214,121	221,794	230,210	239,982	253,932	264,883	280,294	305,521	322,917	342,258	365,326	390,403	422,298
	ACCUMULATED DEPRECIATION/AMORT															
36	Underground Storage		6,220	6,115	6,495	6,659	6,924	7,249	7,427	7,581	7,807	7,912	8,286	8,677	9,088	9,521
37	Distribution Plant		51,645	55,845	60,239	64,817	69,428	74,019	77,997	81,405	84,021	89,620	97,489	102,678	108,662	114,795
38	General Plant	_	5,695	6,442	7,446	6,984	7,208	7,230	7,136	8,309	8,882	10,722	10,926	12,186	14,724	17,429
39	Total Accumulated Depreciation/Amortization	_	63,560	68,402	74,180	78,460	83,560	88,498	92,560	97,295	100,710	108,254	116,701	123,541	132,474	141,745
40	NET PLANT		143,976	145,719	147,614	151,750	156,422	165,434	172,323	182,999	204,811	214,663	225,557	241,785	257,929	280,553
41	DEFERRED TAXES		(14,476)	(15,979)	(22,570)	(26,800)	(23,805)	(24,645)	(26,823)	(28,945)	(31,005)	(36,762)	(42,004)	(46,498)	(50,170)	(54,652)
42	Net Plant After DFIT		129,500	129,740	125,044	124,950	132,617	140,789	145,500	154,054	173,806	177,901	183,553	195,287	207,759	225,901
43	GAS INVENTORY		3,190	4,191	4,568	4,807	6,936	7,628	5,607	15,327	8,440	10,226	13,753	13,107	11,702	14,762
44	GAIN ON SALE OF BUILDING		(470)	(424)	(378)	(243)	(286)	(153)	(197)	(152)	(109)	(44)	(14)	-	-	-
45	OTHER		3,304	2,855	2,393	1,204	1,529	1,098	789	452	(1,359)	(1,163)	(1,012)	(816)	(332)	(479)
46	WORKING CAPITAL	_	-	-	-	-	-	-	-	-	-	-	-	-	5,695	10,073
47	TOTAL RATE BASE		\$ 135,524	\$ 136,362	\$ 131,627	\$ 130,718	\$ 140,796	\$ 149,362	\$ 151,699	\$ 169,681	\$ 180,778	\$ 186,920	\$ 196,280	\$ 207,578	\$ 224,824	\$ 250,257

Note: The Other (Deferred Debits and Credits) Category has been restated in prior years to reflect consistency with the current reporting format.

#### NATURAL GAS COST AND REVENUE TREND CALCULATIONS 2001-2014

#### AVISTA UTILITIES WASHINGTON NATURAL GAS RESULTS (000'S OF DOLLARS)

#### **Natural Gas Data for Escalators** 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 Line No. Exclude Gas Cost and Adder Schedule Expenses (DSM Tariff Rider, Decoupling Surcharge/Rebate) from O&M Underground Storage CBR Line 9 322 357 492 451 436 403 380 585 712 820 893 2 Distribution CBR Line 13 4,655 5,482 5,762 5,958 6,084 6,359 6,467 6,123 7,700 7,696 8,854 9,511 10,820 10,704 3 CBR Line 17 3,367 4.108 4.121 4.337 4.249 4.225 4,487 4,692 5,586 5.234 5,740 5,796 6.270 6,108 Customer Accounting 1.513 2.252 Customer Service and Information CBR Line 18 2,747 480 3.523 1.061 4,658 5,169 7,609 9,505 9,777 6,955 983 4 865 5 Sales CBR Line 19 445 375 492 427 320 496 516 442 497 105 3 3 0 Administrative and General CBR Line 20 7,578 9,399 9,827 8,911 9,196 8,393 8,901 9,706 9,770 11,383 11,585 13,419 11,862 12,777 Operating expenses excluding production 17,880 21,973 23,291 20,494 23,822 21,026 25,480 26,568 31,565 34,303 36,544 36,396 30,758 31,347 Add Non PGA production O&M expenses 232 261 285 369 651 653 792 783 802 800 981 928 891 779 9 Deduct Gas Cost Rev Related Expenses -823 -849 -749 -882 -1.006 -1.154 -1.202 -1.136-933 -609 -647 -577 -592 -648 10 Deduct DSM Tariff Rider Expenses -956 -1,710 -2,044 0 -2,864 0 -3,865 -6,829 -8,481 -9,022 -5,987 0 0 -4,415 Deduct Decoupling Surcharge/Rebate Expenses 11 0 0 0 0 0 0 -3 -5 0 0 0 -4 -1 **Adjusted Operating Expenses** 16,333 19,675 20,783 19,981 20,603 20,525 21,205 21,797 24,600 26,009 27,852 30,759 31,057 31,478 Annual Percentage Change -50.09% 20.46% 5.63% -0.38% 10.44% -3.86% 3.11% 3.31% 2.79% 12.86% 5.73% 7.09% 1.36% Depreciation/Amortization 314 297 309 309 310 310 276 348 395 438 380 402 13 Underground Storage CBR Line 10 312 393 14 Distribution CBR Line 14 4,390 4,496 4,707 4.902 5.088 5,369 5,605 5,673 6,064 6,367 6,649 6.978 7.925 8,513 15 Administrative & General CBR Line 21 1.020 1,275 1.363 1,180 1.343 1.282 1,498 1.803 1.999 2,412 2,734 3.276 3,868 4.389 Total Depreciation/Amortization 5,724 6,068 6,379 6,391 6,741 6,963 7,413 7,752 8,456 9,127 9,778 10,692 12,173 13,304 Annual Percentage Change 3.60% 6.01% 5.13% 0.19% 5.48% 3.29% 6.46% 4.57% 9.08% 7.94% 7.13% 9.35% 13.85% 9.29% Exclude Adder Schedule amortizations (Decoupling Surcharge/Rebate) from Regulatory Amortizations Regulatory Amortizations CBR Line 22 167 185 159 169 0 -815 -242 440 216 -186 171 91 -91 Deduct Decoupling Surcharge/Rebate Expenses -85 -432 -710 -494 -494 -184 0 **Adjusted Regulatory Amortizations** 167 185 159 169 -900 -674 -270 -278 -680 -13 -91 91 Exclude Gas Cost and Adder Schedule excise taxes (DSM Tariff Rider, Decoupling Surcharge/Rebate) from Taxes Other Than Income Tax 20 Underground Storage CBR Line 11 108 120 118 113 121 116 19 17 158 184 21 Distribution CBR Line 15 7,315 8,070 7,205 8,213 8,573 9,457 9,844 8,941 8,746 7,223 8,051 7,825 8,116 8,719 22 Administrative & General CBR Line 23 21 23 24 24 23 24 20 17 19 24 -1 0 23 Total Taxes Other Than Income 7,444 8.213 7,347 8,357 8,711 9,603 9,959 9.071 8.886 7,363 8,070 7.841 8,274 8,903 24 Deduct Gas Cost Excise Tax -4.287 -4.425 -3,899 -4.592 -5.240 -6.014 -6.261 -5.917 -4.858 -3,171 -3.374 -3.003 -3.083 -3.380 25 Deduct DSM Tariff Rider Excise Tax -38 -68 -272 -338 -359 -239 0 -81 0 -114 0 -154 -176 0 Deduct Decoupling Surcharge/Rebate Excise Tax 26 0 0 0 0 0 0 -3 -17 -28 -20 -20 -7 0 n 3,357 3,589 Adjusted Taxes Other Than Income 3,720 3,367 3,765 3,541 3,728 3,834 4,317 4,592 5,523 3,119 2,961 5,191 Annual Percentage Change 13.50% 19.27% -9.49% 11.82% -10.84% 6.91% -1.34% -16.38% 25.90% 2.84% 12.59% 6.38% 13.04% 6.40% 28 Net Plant After Deferred Income Tax CBR Line 42 129,500 129,740 125,044 124,950 132,617 140,789 145,500 154,054 173,806 177,901 183,553 195,287 207,759 225,901 Annual Percentage Change 3.70% 0.19% -3.62% -0.08% 6.14% 6.16% 3.35% 5.88% 12.82% 2.36% 6.39% 8.73% 3.18% CBR Line 47 135,524 136,362 131,627 130,718 140,796 149,362 151,699 169,681 180,778 186,920 196,280 207,578 224,824 250,257 29 Total Rate Base 0.62% -3.47% 11.31% 3.52% -0.69% 7.71% 6.08% 1.56% 11.85% 6.54% 3.40% 5.01% 5.76% 8.31% Exclude Gas Cost Deferral related and JP Storage non-recurring revenues from Other Operating Revenue Other Operating Revenue CBR Line 3 2,541 2,340 2,183 2,168 30,131 2,372 68,416 153,093 84,085 115,257 98,841 68,107 403 332 -83,992 Deduct Gas Cost Deferral related revenues -244 -144 0 0 -28,334 0 -66,686 -153,018 -115,193 -98,794 -67,822 0 0 Deduct JP Storage allocated revenue (ended 2007) -2,289 -2,187 -2,174-2,156-1,723 -2,361 -1,717 0 0 0 0 0 0 0 Adjusted Other Operating Revenue 12 74 11 13 75 93 64 47 285 403 332 Annual Percentage Change 12.50% 60.00% 33.33% -85.14% 476.92% -31.18% -26.56% 506.38%

516.67%

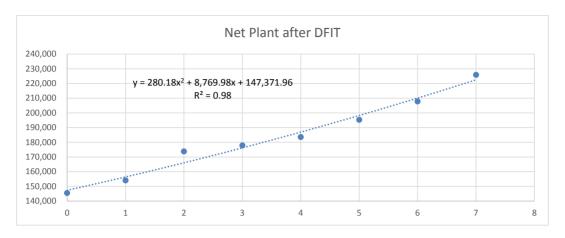
### Multiparty Settlement - Cost of Capital Washington - Natural Gas System

<b>Proposed Cap Structure</b>				
Component	Capital Structure	Cost	Weighted Cost	
Total Debt	51.50%	5.20%	2.68%	
Common	48.50%	9.50%	4.61%	
Total	100.00%	=	7.29%	

### Revenue Conversion Factor Washington -Natural Gas System Twelve Months Ended December 31, 2014

Line		
No.	Description	Factor
1	Revenues	1.000000
	Expense:	
2	Uncollectibles	0.005354
3	Commission Fees	0.002000
4	Washington Excise Tax	0.038314
5	Total Expense	0.045668
6	Net Operating Income Before FIT	0.954332
7	Federal Income Tax @ 35%	0.334016
8	REVENUE CONVERSION FACTOR	0.62032

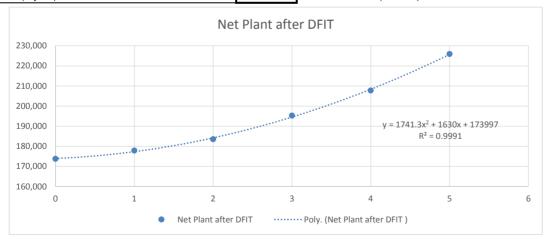
Avista Proposed Based on Staff Meth	nodology for	2007-2014						
	2007	2008	2009	2010	2011	2012	2013	2014
Net Plant after DFIT	145,500	154,054	173,806	177,901	183,553	195,287	207,759	225,901
	0	1	2	3	4	5	6	7
Net Plant after DFIT	145,500	154,054	173,806	177,901	183,553	195,287	207,759	225,901



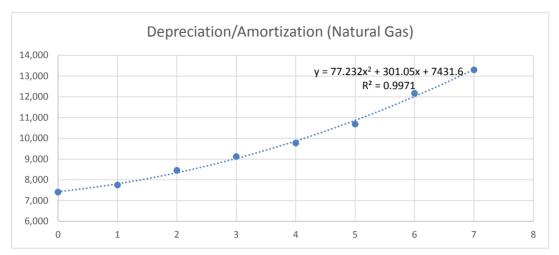
	х С		
Derivative of Quadratic (below)	560.36	8,770	
x = 7 (2014 is year 7)	3922.52	_	
Sum (x and C)		12692.5	
rate (1-year)		5.62%	
rate (2-year)		11.24%	Escalation factor (to 2016)

As Proposed by Staff per CRM-3	2009	2010	2011	2012	2013	2014
Net Plant after DFIT	173,806	177,901	183,553	195,287	207,759	225,901
	0	1	2	3	4	5
Net Plant after DFIT	173,806	177,901	183,553	195,287	207,759	225,901

	x C		
Derivative of Quadratic (below)	3482.6	1630	
x = 7 (2014 is year 7)	17413		
Sum (x and C)		19043	
rate (1-year)		8.43%	
rate (2-year)		16.86%	Escalation factor (to 2016)



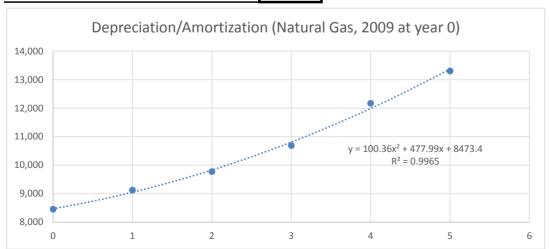
Avista Proposed Based on Staff N	lethodology fo	or 2007-201	<u>4</u>					
	2007	2008	2009	2010	2011	2012	2013	2014
Depreciation/Amortization	7,413	7,752	8,456	9,127	9,778	10,692	12,173	13,304
	0	1	2	3	4	5	6	7
Depreciation/Amortization	7,413	7,752	8,456	9,127	9,778	10,692	12,173	13,304



	X	С	
Derivative of Quadratic (below)	154.464	301.05	
x = 7 (2014 is year 7)	1081.248		
Sum (x and C)		1382.298	
rate (1-year)		0.129283	
rate (2-year)		25.86%	Escalation factor (to 2016)

As Proposed by Staff per CRM-3	2009	2010	2011	2012	2013	2014
Depreciation/Amortization	8,456	9,127	9,778	10,692	12,173	13,304
	0	1	2	3	4	5
Depreciation/Amortization	8.456	9.127	9.778	10.692	12.173	13.304

	X	С	
Derivative of Quadratic (below)	200.72	477.99	•
x = 5 (2014 is year 5)	1003.6	;	
Sum (x and C)		1481.59	
rate (1-year)		0.111364	
rate (2-year)		22.27%	Escalation factor (to 2016)

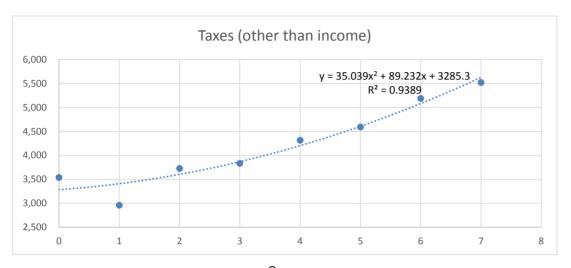


#### Avista Proposed Based on Staff Methodology for 2007-2014

Taxes (other than income)

2007	2008	2009	2010	2011	2012	2013
3,541	2,961	3,728	3,834	4,317	4,592	5,191
0	1	2	3	4	5	6

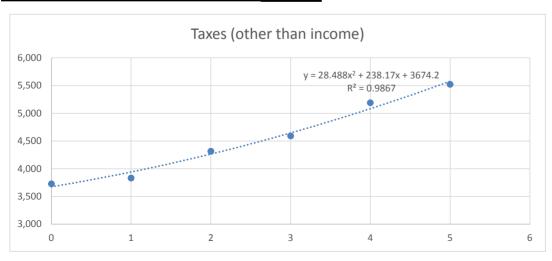
Taxes (other than income)



	Х	C	
Derivative of Quadratic (below)	70.078	89.232	
x = 7 (2014 is year 7)	490.546		
Sum (x and C)		579.778	
rate (1-year)		0.104975	
rate (2-year)		21.00%	Escalation factor (to 2016)

As Proposed by Staff per CRM-3	2009	2010	2011	2012	2013	2014
Taxes (other than income)	3,728	3,834	4,317	4,592	5,191	5,523
	^	- 4		2		
	U	1	2	3	4	Э

	Χ		С	
Derivative of Quadratic (below)		56.976	238.17	
x = 5 (2014 is year 5)		284.88		
Sum (x and C)			523.05	
rate (1-year)			0.094704	
rate (2-year)			18.94%	Escalation factor (to 2016)

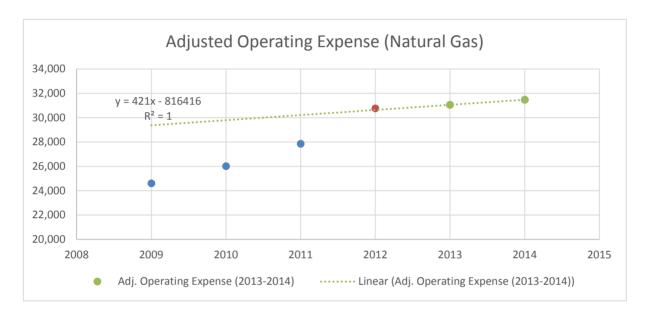


2014
5,523
7
5,523

Avista accepts UTC Staff's proposed 2.17% for natural gas operations, because that is a reasonable expectation of increases in costs for natural gas given the expectations in the 2016 rate year, and the overall operations of the natural gas business. Use of an average based on actual 2007-2014 linear trend plus revised 2013-2014 linear trend (removing impact of benefits) consistant with electric, would result in a significant increase in O&M expenses above 2014 levels.

	2009	2010	2011	2012	2013	2014
Adj. Operating Expense (2009-2014, excl. 2012)	24,600	26,009	27,852		31,057	31,478
Adj. Operating Expense (2012)				30,759		
Adj. Operating Expense (2013-2014)					31,057	31,478

	Slope	Rate (1yr)	<b>Escalation</b>
Rate (2013-2014, linear)	421.0	1.34%	2.67%
Company-proposed (2007-2014, linear)	944.3	3.00%	6.00%
Average		2.17%	4.34%



Avista Corrections X
Staff Proposed X

Exhibit No. \_\_(EMA-7)

## BILLING DETERMINANT INDEX 09.2014 TO 2016 WEIGHTED REVENUE GROWTH

Line <u>No.</u>	Description A	Schedule B	Billing <u>Determinant</u> C	Revenue Model Sept 2014 D	Forecast 2016 E	Billing Determinant Growth F=(E-D)/D	Revenue Sept 2014 G	Weight H=G/SUM G	Weighted Growth I=FxH		Net of Gas Costs
1	General Svc	101	Basic/Min	1,787,943	1,828,182	2.25%	\$16,091,487	9.65%	0.22%	\$362,147	\$362,147
2	Lrg Gen Svc	111/112	Basic/Min	30,697	31,374	2.20%	\$2,671,867	1.60%	0.04%	\$58,902	\$58,902
3	Ex Lrg Gen Svc	121/122	Basic/Min	336	339	0.83%	\$72,321	0.04%	0.00%	\$598	\$598
4	Interruptible Svc	131/132	Basic/Min	24	24	0.00%	\$0	0.00%	0.00%	\$0	\$0
5	General Svc	101	Volumes	120,721,607	121,783,957	0.88%	\$107,498,749	64.47%	0.57%	\$945,989	\$411,340
6	Lrg Gen Svc	111/112	Volumes	47,537,282	48,026,916	1.03%	\$35,598,366	21.35%	0.22%	\$366,663	\$121,337
7	Ex Lrg Gen Svc	121/122	Volumes	5,735,037	5,958,417	3.90%	\$4,064,021	2.44%	0.09%	\$158,294	\$50,446
8	Interruptible Svc	131/132	Volumes	1,115,704	1,252,783	12.29%	\$733,819	0.44%	0.05%	\$90,159	\$27,798
9	Total		•	175,109,630	177,022,072	_	\$166,730,631	100.00%	1.19%	\$1,982,752	\$1,032,568
			<b>-</b>								
10	Transportation Svc	146	Basic/Min	456	516	13.12%	\$255,207	6.10%	0.80%	\$33,473	\$33,473
11	Special Contract	148	Basic/Min	60	66	9.50%	\$325,584	7.78%	0.74%	\$30,941	\$30,941
12	Transportation Svc	146	Volumes	30,580,202	30,484,401	-0.31%	\$2,321,589	55.50%	-0.17%	-\$7,273	-\$7,221
13	Special Contract	148	Volumes	49,497,099	47,057,044	-4.93%	\$1,280,992	30.62%	-1.51%	-\$63,149	-\$63,149
14	Total			80,077,301	77,541,445	·-	\$4,183,371	100.00%	-0.14%	-\$6,008	-\$5,956
4.5	0 10	404	T ( 1 D				<b>#</b> 400 F00 000			. 0	O 11
15	General Svc	101	Total Revenue					Impute forecas		nge from Staff %	Growth
16	Lrg Gen Svc	111/112	Total Revenue				\$38,270,233	Impute forecas	101	\$1,062,350	Growth
16 17	Lrg Gen Svc Ex Lrg Gen Svc	111/112 121/122	Total Revenue Total Revenue				\$38,270,233 \$4,136,342	Impute forecas	101 111/112	\$1,062,350 \$489,634	Growth
16 17 18	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc	111/112 121/122 131/132	Total Revenue Total Revenue Total Revenue				\$38,270,233 \$4,136,342 \$733,819	Impute forecas	101	\$1,062,350	Growth
16 17 18 19	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc	111/112 121/122 131/132 146	Total Revenue Total Revenue Total Revenue Total Revenue				\$38,270,233 \$4,136,342 \$733,819 \$2,576,796	Impute forecas	101 111/112	\$1,062,350 \$489,634	Growth
16 17 18 19 20	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract	111/112 121/122 131/132	Total Revenue Total Revenue Total Revenue			_	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576	Impute forecas	101 111/112	\$1,062,350 \$489,634	Growth
16 17 18 19	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc	111/112 121/122 131/132 146	Total Revenue Total Revenue Total Revenue Total Revenue			_	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796	Impute forecas	101 111/112	\$1,062,350 \$489,634	Growth
16 17 18 19 20	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract Total	111/112 121/122 131/132 146 148	Total Revenue Total Revenue Total Revenue Total Revenue Total Revenue			Increase	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576 \$170,914,002	Impute forecas	101 111/112	\$1,062,350 \$489,634	Growth
16 17 18 19 20	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract	111/112 121/122 131/132 146 148	Total Revenue Total Revenue Total Revenue Total Revenue Total Revenue	Sept 2014	2016	Increase (Decrease)	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576 \$170,914,002 Gas Costs		101 111/112 121/122	\$1,062,350 \$489,634 \$223,380	
16 17 18 19 20	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract Total  Change in Purchase	111/112 121/122 131/132 146 148	Total Revenue Total Revenue Total Revenue Total Revenue Total Revenue	Sept 2014 120.721.607	<u>2016</u> 121.783.957	(Decrease)	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576 \$170,914,002 Gas Costs Per Therm		101 111/112 121/122 Accept Staff	\$1,062,350 \$489,634 \$223,380 s proposed grow	th in load,
16 17 18 19 20 21	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract Total  Change in Purchase General Svc	111/112 121/122 131/132 146 148	Total Revenue Total Revenue Total Revenue Total Revenue Total Revenue	Sept 2014 120,721,607 47,537,282	121,783,957		\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576 \$170,914,002 Gas Costs	\$534,649	101 111/112 121/122 Accept Staff's	\$1,062,350 \$489,634 \$223,380 s proposed grows s costs must also	th in load, be
16 17 18 19 20 21	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract Total  Change in Purchase General Svc Lrg Gen Svc	111/112 121/122 131/132 146 148 ed Gas Cos	Total Revenue Total Revenue Total Revenue Total Revenue Total Revenue  St  Volumes	120,721,607	121,783,957 48,026,916	( <u>Decrease</u> ) 1,062,350 489,634	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576 \$170,914,002 Gas Costs Per Therm \$0.50327	\$534,649 \$245,326	101 111/112 121/122 Accept Staff's	\$1,062,350 \$489,634 \$223,380 s proposed grow	th in load, be
16 17 18 19 20 21 21 22 23 24	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract Total  Change in Purchase General Svc Lrg Gen Svc Ex Lrg Gen Svc	111/112 121/122 131/132 146 148 ed Gas Cos 101 111/112 121/122	Total Revenue Total Revenue Total Revenue Total Revenue Total Revenue  Volumes Volumes Volumes	120,721,607 47,537,282 5,735,037	121,783,957 48,026,916 5,958,417	( <u>Decrease</u> ) 1,062,350 489,634 223,380	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576 \$170,914,002 Gas Costs Per Therm \$0.50327 \$0.50104 \$0.48280	\$534,649 \$245,326 \$107,848	101 111/112 121/122 Accept Staff's	\$1,062,350 \$489,634 \$223,380 s proposed grows s costs must also	th in load, be
16 17 18 19 20 21 21	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract Total  Change in Purchase General Svc Lrg Gen Svc	111/112 121/122 131/132 146 148 ed Gas Cos 101 111/112 121/122	Total Revenue Total Revenue Total Revenue Total Revenue Total Revenue  Volumes Volumes	120,721,607 47,537,282 5,735,037 1,115,704	121,783,957 48,026,916 5,958,417 1,252,783	(Decrease) 1,062,350 489,634 223,380 137,079	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576 \$170,914,002 Gas Costs Per Therm \$0.50327 \$0.50104	\$534,649 \$245,326	101 111/112 121/122 Accept Staff's	\$1,062,350 \$489,634 \$223,380 s proposed grows s costs must also	th in load, be
16 17 18 19 20 21 21 22 23 24 25	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract Total  Change in Purchase General Svc Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc	111/112 121/122 131/132 146 148 ed Gas Cos 101 111/112 121/122	Total Revenue Total Revenue Total Revenue Total Revenue Total Revenue  Volumes Volumes Volumes	120,721,607 47,537,282 5,735,037	121,783,957 48,026,916 5,958,417	( <u>Decrease</u> ) 1,062,350 489,634 223,380	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576 \$170,914,002 Gas Costs Per Therm \$0.50327 \$0.50104 \$0.48280	\$534,649 \$245,326 \$107,848	101 111/112 121/122 Accept Staff's	\$1,062,350 \$489,634 \$223,380 s proposed grows s costs must also	th in load, be
16 17 18 19 20 21 21 22 23 24 25 26	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract Total  Change in Purchase General Svc Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Total	111/112 121/122 131/132 146 148 ed Gas Cos 101 111/112 121/122 131/132	Total Revenue Total Revenue Total Revenue Total Revenue Total Revenue  Volumes Volumes Volumes Volumes	120,721,607 47,537,282 5,735,037 1,115,704 175,109,630	121,783,957 48,026,916 5,958,417 1,252,783 177,022,072	(Decrease) 1,062,350 489,634 223,380 137,079 1,912,442	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576 \$170,914,002 Gas Costs Per Therm \$0.50327 \$0.50104 \$0.48280 \$0.45493	\$534,649 \$245,326 \$107,848 \$62,361	101 111/112 121/122 Accept Staff's	\$1,062,350 \$489,634 \$223,380 s proposed grows s costs must also	th in load, be
16 17 18 19 20 21 —————————————————————————————————	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract Total  Change in Purchase General Svc Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Total Transp	111/112 121/122 131/132 146 148 ed Gas Cos 101 111/112 121/122 131/132	Total Revenue Total Revenue Total Revenue Total Revenue Total Revenue  Volumes Volumes Volumes Volumes Volumes	120,721,607 47,537,282 5,735,037 1,115,704 175,109,630 30,580,202	121,783,957 48,026,916 5,958,417 1,252,783 177,022,072 30,484,401	(Decrease) 1,062,350 489,634 223,380 137,079 1,912,442 -95,801	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576 \$170,914,002 Gas Costs Per Therm \$0.50327 \$0.50104 \$0.48280 \$0.45493	\$534,649 \$245,326 \$107,848 \$62,361	101 111/112 121/122 Accept Staff's	\$1,062,350 \$489,634 \$223,380 s proposed grows s costs must also	th in load, be
16 17 18 19 20 21 	Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Transportation Svc Special Contract Total  Change in Purchase General Svc Lrg Gen Svc Ex Lrg Gen Svc Interruptible Svc Total Transp Spec Cont Trans	111/112 121/122 131/132 146 148 ed Gas Cos 101 111/112 121/122 131/132	Total Revenue Total Revenue Total Revenue Total Revenue Total Revenue  Volumes Volumes Volumes Volumes Volumes	120,721,607 47,537,282 5,735,037 1,115,704 175,109,630 30,580,202 49,497,099	121,783,957 48,026,916 5,958,417 1,252,783 177,022,072 30,484,401 47,057,044	(Decrease) 1,062,350 489,634 223,380 137,079 1,912,442 -95,801 -2,440,055	\$38,270,233 \$4,136,342 \$733,819 \$2,576,796 \$1,606,576 \$170,914,002 Gas Costs Per Therm \$0.50327 \$0.50104 \$0.48280 \$0.45493	\$534,649 \$245,326 \$107,848 \$62,361	101 111/112 121/122 Accept Staff's	\$1,062,350 \$489,634 \$223,380 s proposed grows s costs must also	th in load, be