SULLIVAN, MOUNTJOY, STAINBACK & MILLER PSC

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*Also Licensed in Indiana

November 4, 2015

Via Federal Express

RECEIVED

NOV 0 5 2015

PUBLIC STRAILE COMMISSION

Jeff Derouen Executive Director Public Service Commission 211 Sower Boulevard, P.O. Box 615 Frankfort, Kentucky 40602-0615

Re:

Application of Big Rivers Electric Corporation for Authority to Establish Regulatory Assets for Expenses Related to the Coal Combustion Residuals Rule;

Case No. 2015-00333

Dear Mr. Derouen:

Enclosed for filing are an original and ten (10) copies of Big Rivers Electric Corporation's responses to the Public Service Commission Staff's initial request for information in the above-referenced matter. I certify that on this date, a copy of this letter and a copy of the responses were served on all parties of record.

Sincerely,

To

Tyson Kamuf Counsel for Big Rivers Electric Corporation

TAK/lm Enclosures

Telephone (270) 926-4000 Telecopier (270) 683-6694

> 100 St. Ann Building PO Box 727 Owensboro, Kentucky 42302-0727

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ORIGINAL





Your Touchstone Energy® Cooperative

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

APPLICATION OF BIG RIVERS ELECTRIC)	
CORPORATION FOR AUTHORITY TO)	Cara Na
ESTABLISH REGULATORY ASSETS FOR)	Case No.
EXPENSES RELATED TO THE COAL)	2015-00333
COMBUSTION RESIDUALS RULE)	

Responses to Commission Staff's Initial Request for Information dated
October 26, 2015

FILED: Nove

November 5, 2015

ORIGINAL

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

VERIFICATION

I, Eric M. Robeson, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

Eric M. Robeson

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Eric M. Robeson on this the day of November, 2015.

Notary Public, Kentucky State at Large

Tu Mlh

My Commission Expires

1-12-17

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

VERIFICATION

I, Nicholas R. (Nick) Castlen, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

Nicholas R. (Nick) Castlen

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Nicholas R. (Nick) Castlen on this the 4th day of November, 2015.

Notary Public, Kentucky State at Large

aula Mitchell

My Commission Expires

1-12-17

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

1	Item 1)	Re	fer to the Application, paragraph 5.
2			
3		a.	Explain when Big Rivers expects that it will have to close
4			the ash ponds for the Green Station ("Green") and City of
5			Henderson's Station Two ("Station Two").
6		b .	Explain why there are no coal-combustion residual
7			("CCR")-related future liabilities for ash ponds at the
8			Coleman Station.
9		c.	Provide the number and size of the ash ponds located at
0			the Coleman Station.
1		d.	Explain whether Big Rivers expects that it will have to
12			close the ash ponds located at the Coleman Station, and
3			whether Big Rivers has developed a plan to address their
4			closure.
5			
6	Response)		
7		a.	Under the CCR regulations, Big Rivers must install ground
8			water monitoring wells around the ash ponds. If sampling
9			shows a significant impact to the ground water, then Big Rivers
20			must discontinue using the ponds and begin closure. Until the
21			sampling actually begins, however, Big Rivers will not know if
22			the ash ponds will have to be closed prior to the expiration of
23			their remaining lives as a result of ground water impact.
4			Therefore, Big Rivers' application in this matter utilized an

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

1		expected closure dated that was based on the remaining lives as
2		determined by the most recent depreciation study.
3		After Big Rivers prepared its application in this matter,
4		the EPA released a pre-publication version of the Effluent Limit
5		Guidelines for Steam Electric Power ("ELG"). Big Rivers
6		expects that these regulations will be published in the Federal
7		Register in official format sometime in November. The final
8		version of these regulations differed from the proposed
9		regulations in that the proposed regulations exempted power
10		plants less than 400 MW from certain requirements but the
11		final regulations do not contain that exemption. The ELG rule
12		includes a final date of operation of December 31, 2023. As a
13		result, Big Rivers now believes it must close the Green and
14		Station Two ash ponds by December 31, 2023.
15	b.	The federal CCR regulations only apply to units that were
16		generating electricity on or after the effective date of the
17		regulations. Since Coleman has been idled since before that
18		date, the CCR rule does not apply.
19	c.	There are three ash ponds at Coleman Station. The first ash
20		pond is between Coleman Station and Century Aluminum and is
21		approximately ninety-two acres. The second ash pond is on the
22		north side of the plant and is approximately forty-eight acres.
23		The third ash pond is located approximately 0.5 miles north of
24		the Station and is approximately eighty-eight acres.

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

November 5, 2015

1	$\mathbf{d}.$	At this time, Big Rivers does not believe a legal obligation exists
2		that would require the closure of the Coleman ash ponds given
3		its current idled state. As stated in the response to Item 1.b,
4		above, the federal CCR regulations do not apply to Coleman at
5		this time. In addition, Big Rivers maintains a current Kentucky
6		Pollutant Discharge Elimination System ("KPDES") permit for
7		all three of the Coleman ponds which allows continued operation
8		as a pond. The state has visited Coleman in the last two weeks
9		as part of its KPDES permit renewal process.
10		Big Rivers has taken initial steps to determine the
11		quantity and type of soils located on Big Rivers' property that
12		could be used to cover the Coleman ash ponds under the CCR
13		regulations in the event Coleman is returned to service and the
14		CCR regulations become applicable.
15		
16		

17 Witness) Eric M. Robeson

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

1	Item 2)	Rej	fer to the Application, paragraph 9.
2			
3		a.	Provide the journal entries Big Rivers made to record its
4			Asset Retirement Obligation ("ARO") liabilities for Green
5			and Station Two.
6		b .	Provide the basis for Big Rivers' determination that the
7			estimated costs to close the Green and Station Two ash
8			ponds would be \$8.233 million and \$5.134 million,
9			respectively.
10		c.	Provide a breakdown of the projected costs to close the ash
11			ponds at Green and Station Two.
12		d.	For purposes of estimating Big Rivers' share of the Station
13			Two ash pond closure costs, what was the split assumed by
14			Big Rivers to be its share of those costs?
15		e.	Provide the calculation of the projected 2015 ARO-related
16			depreciation expense of \$0.169 million by station.
17		f.	Provide the calculation of the projected 2015 ARO-related
18			accretion expense of \$0.154 million by station.
19		g.	What are the remaining lives of Green and Station Two?
20			
21	Response)		
22		a.	Big Rivers plans to make the initial journal entries to record its
23			ARO liabilities for the Green and Station Two ash ponds, and
			_

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

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November 5, 2015

	recognize the related depreciation and accretion expense for the
	months of May 2015 through December 2015, during its
	December 2015 month-end accounting close process. Please see
	Attachment No. 1 to this response for a summary of the journal
	entries to be recorded by Big Rivers during its December 2015
	month-end accounting close process to account for the ARO
	liabilities.
b.	A study of Big Rivers' obligations related to the eventual
	closures of its ash ponds was performed by Burns & McDonnell
	Engineering Co., Inc. ("Burns & McDonnell") which provided
	estimates of the current ash pond closure costs, in today's

dollars, to be \$4.653 million for the Green ash pond and \$3.346 million for Big Rivers' share of the Station Two ash pond.

The Rural Utilities Service Uniform System of Accounts ("RUS USoA") and the Financial Accounting Standards Board Accounting Standards Codification ("ASC") Topic 410-20, Asset Retirement Obligations, require AROs to be recognized at their present fair value in the period in which the obligation was incurred. Using the current cost estimates provided in the Burns & McDonnell study, the estimated retirement dates of the respective units per Big Rivers' most recently approved depreciation study (May 2039 for Green and May 2033 for

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

November 5, 2015

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Station Two¹), and an annual inflation rate of 2.38%², Big Rivers calculated the estimated future value of the costs to close the ash ponds to be \$8.233 million for Green and \$5.134 million for its share of Station Two, as provided in the application. Big Rivers then discounted the projected future costs of the AROs, using a discount rate of 4.30%³, to calculate the present fair values as of May 31, 2015, to be \$2.939 million for the Green ash pond and \$2.371 million for its share of the Station Two ash pond. These present values were then used to determine the initial amount to be recognized for the ARO liabilities as well as the related depreciation and accretion amounts provided in Big Rivers' application. Please see Attachments No. 2 and No. 3 to this response for detailed calculations of the ARO-related amounts provided in Big Rivers' application for the Green and Station Two ash ponds, respectively.

² The annual inflation rate of 2.38% is based on the historical U.S. average annual inflation rate during the preceding 20-year period (1995 – 2014). See Attachment No. 7 for support and calculation of the annual inflation rate used.

¹ Big Rivers' most recent depreciation study, dated November 2012 (the "2012 Depreciation Study"), was approved by order of the Commission dated April 25, 2014, in Case No. 2013-00199. The remaining useful lives used to calculate the future costs and present fair values of the AROs provided in Big Rivers' application were 24 years for Green and 18 years for Station Two. The estimates were based on the average remaining useful lives provided for the respective units in scenarios 1 and 2 of Big Rivers' 2012 Depreciation Study.

³ The discount rate of 4.30% is based on the effective interest rate of Big Rivers' Series 2012A CoBank Note maturing in June 2032.

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

November 5, 2015

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As described above, the original ARO-related amounts
provided in the application were calculated based on the
previously expected closure dates for the ash ponds of May 2039
for Green and May 2033 for Station Two. Subsequent to the
preparation of Big Rivers' application in this matter, the EPA
released a pre-publication version of the Effluent Limitation
Guidelines for Steam Electric Power (ELG). (Refer to the
response to Item 1a.) The ELG rule includes a final date of
operation for the ash ponds of December 31, 2023. Accordingly,
Big Rivers has revised its calculations of the ARO-related
amounts since the filing of its application in this case to account
for the change in the expected closure dates of the ash ponds.

Based on the revised calculations, which use December 31, 2023, as the expected closure date for both ash ponds and an annual inflation rate of 2.38% (see Attachment No. 7), the future values of the projected costs are now \$5.718 million for the Green ash pond and \$4.112 million for Big Rivers' share of the Station Two ash pond. Using the same discount rate of 4.30% used for the amounts provided in the application, Big Rivers calculated the revised present fair values of the ARO liabilities as of May 31, 2015, for financial accounting purposes and initial recognition of the ARO liabilities, to be \$3.942 million for the Green ash pond and \$2.835 million for Big Rivers' share of the

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

1	Station Two ash pond. Please see Attachments No. 4 and No. 5
2	to this response for detailed calculations of the revised ARO-
3	related amounts, based on the current expected closure date for
4	both ash ponds of December 2023, for Green and Station Two,
5	respectively. Also see Attachment No. 8 for a summary of the
6	revised ARO related amounts and a comparison to the original
7	ARO amounts provided in Big Rivers' application.
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APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

November 5, 2015

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Big Rivers Electric Corporation

Capital Cost Estimate for Cle	osure of Sel		IP&L Ash 1	Pond
Reid/HMP&L Pond Cap in Place General	Quantity	Unit	Unit Price	Price
Mobilization/Demobilization Demo Piping Subtotal	1 490	LS LF	\$100,000 \$27.00	\$ 100,000 13,230 \$ 113,230
Dewatering/Grading Dewatering/Pumping Ash Grading for Dewatering Subtotal	60 1,010,500	DAYS SF	\$1,250 \$0.27	\$ 75,000 268,400 \$ 343,400
Cap in Place Rough Grading Finish Grading 40-mil LLDPE Geomembrane* 18" Infiltration Layer —	10.1 112,300 1,010,500	100,000SF SY SF	\$5,250 \$0.21 \$0.60	\$ 53,100 23,600 606,300
Borrow/Loading/Spreading 18"Infiltration Layer – Hauling w/i 5 miles of Sebree**	56,200 56,200	CY CY	\$14.70 \$4.06	826,200 228,200
6" Topsoil – Borrow/Loading/Spreading 6" Topsoil –	18,800	CY	\$28.00	526,400
Hauling w/i 5 miles of Sebree** Seeding Subtotal	18,800 24	CY ACRE	\$4.06 \$2,500	76,400 60,000 \$ 2,400,200
Quality Assurance/Quality Control Quality Assurance/Quality Control Subtotal	24	ACRE	\$10,000	\$ 240,000 \$ 240,000
Total Construction and QA/QC (Only)			\$ 3,097,000
Contingency (30%) Engineering (5%) Total Cost				\$ 929,100 154,900 \$ 4,181,000

2

Case No. 2015-00333 Response to PSC 1-2

Witnesses: Nicholas R. Castlen (all except c.) and Eric M. Robeson (c. only)

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

November 5, 2015

1

Big Rivers Electric Corporation Capital Cost Estimate for Closure of Sebree Reid/HMP&L Ash Pond (continued)

Notes:

- * Geomembrane may not be required is the final cover system meets the permeability requirements of the rule. If the permeability requirements are met, the capital cost could decrease by up to \$880,000.
- ** This estimate assumes the borrow source will be within 5 miles of Sebree. If the borrow source is found up to 25 miles of Sebree, the capital cost could increase by up to \$740,000.

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APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

November 5, 2015

Big Rivers Electric Corporation

Capital Cost Estimate for	Closure of	Sebree Gree	en Ash Pone	d	
Green Pond Cap in Place General	Quantity	Unit	Unit Price		Price
Mobilization/Demobilization Pump Structure Demo	1 1	LS LS	\$100,000 \$100,000	\$	100,000 100,000
Subtotal			4,	\$	200,000
Dewatering/Grading					
Dewatering/Pumping	60	DAYS	\$1,250	\$	75,000
Ash Grading for Dewatering	1,083,600	\mathbf{SF}	\$0.27	_	287,800
Subtotal				\$	362,800
Cap in Place	10.0	100 00000	AF	•	=0.000
Rough Grading Finish Grading	10.8 120,400	100,000SF SY	\$5,250	\$	56,900
40-mil LLDPE Geomembrane*	1,083,600	SF	\$0.21 \$0.60		25,300 650,200
18" Infiltration Layer –	1,000,000	ac.	φυ.συ		000,200
Borrow/Loading/Spreading 18"Infiltration Layer –	60,200	CY	\$14.70		885,000
Hauling w/i 5 miles of Sebree** 6" Topsoil –	60,200	CY	\$4.06		244,500
Borrow/Loading/Spreading 6" Topsoil –	20,100	CY	\$28.00		562,800
Hauling w/i 5 miles of Sebree**	20,100	$\mathbf{C}\mathbf{Y}$	\$4.06		81,700
Seeding	25	ACRE	\$2,500		62,500
Subtotal				\$	2,568,900
Quality Assurance/Quality Control					
Quality Assurance/Quality Control	25	ACRE	\$10,000	_\$	250,000
Subtotal				\$	250,000
Total Construction and QA/QC (Only)			\$	3,382,000
Contingency (30%)				\$	1,014,600
Engineering (5%)					169,100
Total Cost				\$	4,565,700

1 2

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

November 5, 2015

Big Rivers Electric Corporation Capital Cost Estimate for Closure of Sebree Green Ash Pond (continued)

N	of	te	S	

- * Geomembrane may not be required is the final cover system meets the permeability requirements of the rule. If the permeability requirements are met, the capital cost could decrease by up to \$880,000.
- ** This estimate assumes the borrow source will be within 5 miles of Sebree. If the borrow source is found up to 25 miles of Sebree, the capital cost could increase by up to \$740,000.

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Case No. 2015-00333
Response to PSC 1-2
Witnesses: Nicholas R. Castlen (all except c.) and
Eric M. Robeson (c. only)
Page 9 of 13

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

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November 5, 2015

d.	Section 8 of the Amendments to Contracts Among City of
	Henderson, Kentucky, City of Henderson Utility Commission,
	and Big Rivers, dated May 1, 1993, states that "the parties shall
	bear decommissioning costs of Station Two in the proportions in
	which they shared capacity costs during the life of Station Two."
	Accordingly, Big Rivers calculated its share of the Station Two
	ash pond closure costs by multiplying the total estimated ash
	pond closure costs for Station Two by Big Rivers' percentage of
	Station Two's total capacity allocated to Big Rivers from June 1,
	1973, through May 31, 2016 (the end of the City's current fiscal
	year). See Attachment No. 6 to this response for the detailed
	calculations used to estimate Big Rivers' share of the Station
	Two ash pond closure costs.
e.	As discussed in the response to Item 2.b, above, the calculations

e. As discussed in the response to Item 2.b, above, the calculations used to determine the ARO-related amounts provided in Big Rivers' application, including the 2015 ARO-related depreciation expense of \$0.169 million, were revised to account for the change in the estimated closure dates of the ash ponds due to the recently issued ELG rule. The calculations of the ARO-related depreciation expense for the Green and Station Two ash ponds, provided in the application, are included in Attachments No. 2 and No. 3 to this response, respectively. The total 2015 ARO-related depreciation expense of \$0.169 million, provided in the

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

1		application, is equal to the sum of the 2015 Green ARO-related
2		depreciation expense of \$0.081 million (shown in Attachment
3		No. 2) and the 2015 Station Two ARO-related depreciation
4		expense of \$0.088 million (shown in Attachment No. 3).
5		The revised ARO-related depreciation expense for 2015,
6		based on the current expected closure date of December 2023 for
7		both ash ponds, is \$0.521 million, consisting of \$0.303 million
8		related to Green and \$0.218 million related to Station Two. The
9		revised calculations of the ARO-related depreciation amounts for
10		the Green and Station Two ash ponds are included in
11		Attachments No. 4 and No. 5 to this response, respectively.
12		Attachment No. 8 includes a comparison of the revised ARO
13		related calculations and the original ARO related calculations
14		provided in the application.
15	f.	As discussed in the responses to Items 2.b and e above, the
16	•	calculations used to determine the ARO-related amounts
17		provided in Big Rivers' application, including the 2015 ARO-
18		related accretion expense of \$0.154 million, were revised to
19		account for the change in the estimated closure dates of the ash
20		ponds due to the recently issued ELG rule. The calculations of
21		the ARO-related accretion expense for the Green and Station
22		Two ash ponds, provided in the application, are included in
23		Attachments No. 2 and No. 3 to this response, respectively. The

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

1		total 2015 ARO-related accretion expense of \$0.154 million,
2		provided in the application, is equal to the sum of the 2015
3		Green ARO-related accretion expense of \$0.085 million (shown
4		in Attachment No. 2) and the 2015 Station Two ARO-related
5		depreciation expense of \$0.069 million (shown in Attachment
6		No. 3).
7		The revised ARO-related accretion expense for 2015,
8		based on the current expected closure date of December 2023 for
9		both ash ponds, is \$0.197 million, consisting of \$0.115 million
10		related to Green and \$0.082 million related to Station Two. The
11		revised calculations of the ARO-related accretion amounts for
12		the Green and Station Two ash ponds are included in
13		Attachments No. 4 and No. 5 to this response, respectively.
14		Attachment No. 8 includes a comparison of the revised ARO
15		related calculations and the original ARO related calculations
16		provided in the application.
17	g.	The estimated remaining useful lives of Green and Station Two,
18		used to calculate the ARO-related amounts provided in the
19		application, were twenty-four and eighteen years, respectively.
20		These amounts were based on Big Rivers' most recent
21		depreciation study dated November 2012. As discussed in Items
22		2.b, e, and f above, the expected closure dates of the Green and
23		Station Two ash ponds have been revised since the submittal of

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

Response to Commission Staff's Initial Request for Information dated October 26, 2015

1		Big Rivers' application in this case based on the issuance of the
2		ELG rule. The expected closure date for both the Green and
3		Station Two ash ponds is currently December 2023. Please see
4		the response to Item 1 for additional information regarding the
5		change in the expected ash pond closure dates.
6		
7		
8	Witnesses)	Nicholas R. Castlen (all except c.) and
9	-	Eric M. Robeson (c. only)

Big Rivers Electric Corporation Proposed ARO-Related Journal Entries for December 2015 Case No. 2015-00333

Dr.	101.xxx Plant In Service - ARO	\$	3,941,550	 ,	
	Cr. 230.xxx ARO Liability			\$ 3,941,550	•
	To establish ARO Liability for Green ash pond based on present value of	expected future obligation as of N	1ay 2015		
Dr.		\$	2,834,619	 ·	
	Cr. 230.xxx ARO Liability			\$ 2,834,619	
	To establish ARO Liability for Station Two ash pond based on present va	alue of expected future obligation a	s of May 2015		

Entries to record ARO-related depreciation and accretion expense for 2015:

Dr.	403.8xx Depreciation Expense - ARO	\$	303,196	-	
Dr.	411.1xx Accretion Expense - ARO	\$ _	114,418		
	Cr. 108.xxx Accumulated Depreciation - ARO		•	\$	303,196
	Cr. 230.xxx ARO Liability			\$	114,418
	To record ARO-related depreciation and accretion expense for the Green ash pond for the	e months of May 2		nber 2015	
	To record ARO-related depreciation and accretion expense for the Green ash pond for th	e months of May 2	015 through Decen	nber 2015	•
	To record ARO-related depreciation and accretion expense for the Green ash pond for th 403.8xx Depreciation Expense - ARO	e months of May 2	015 through Decen 218,048	nber 2015	·
Dr.		e months of May 20 \$ \$		nber 2015 —	
Dr. Dr.	403.8xx Depreciation Expense - ARO	e months of May 20 \$ \$	218,048	nber 2015 	218,048

Entries to defer recognition of ARO-related depreciation and accretion expense for 2015 and establish regulatory assets:

Dr.	182.3xx Regulatory Asset - ARO	\$	417,615		
	Cr. 407.4xx Regulatory Credit			\$	417,615
	To defer recognition of ARO-related depreciation and accretion expense	associated with the Green ash por	d for May 2015 thre	ough Decemi	ber 2015 and establish regulate
	asset		-		3
Dr.	asset 182.3xx Regulatory Asset - ARO	\$	300,333		

Case No. 2015-00333

Attachment No. 1 of 8 for Response to Staff Item 2

Witness: Nicholas R. Castlen

Page 1 of 1

Assumptions:

May 1, 2015
December 31, 2015
May 1, 2039
Lestimated Retirement Date

24.0
S. 4,653,000
S. 4,653,000
S. 8,232,967
Lettine Value of Retirement Obligation

Sum of (1)'s = \$ 81,632 2015 Depreciation Expense Sum of (2)'s = \$ 85,309 2015 Accretion Expense

				BALANCE SHE	ET AC	COUNTS			Г	INCO	ME STATEMENT ACCO	INTS	
						Liability -	F	Regulatory Asset -	Di	preciation Expense	Accretion Expense -		
	Acct. Description:	Plant	in Service - ARO	Accum. Deprec ARO		ARO	1	ARO		ARO	ARO	Rea	ulatory Credit
	Account No.:	1	101.xxx	108.xxx		230.000		182.3xx		403.8xx	411,10x	1109	407.4xx
			Dr./(Cr.)	DrJ(Cr.)		Dr.J(Cr.)		Dr.J(Cr.)		Dr.J(Cr.)	Dr./(Cr.)	•	Dr./(Cr.)
May-15	Entry to be Made Dec-15 for Initial ARO Balances	\$	2,938,770	\$ -	\$	(2,938,770)	\$		\$		\$	\$	
May-15	Monthly Deprec. & Accretion Exp.			(10,204)		(10,531)	1	20,735		10,204 (¹⁾	10,531 🖓	*	· I
Jun-15	Monthly Deprec. & Accretion Exp.			(10,204)		(10,568)		20,772		10,204	10,568		(20,735)
Jul-15	Monthly Deprec. & Accretion Exp.	1		(10,204)		(10,606)		20,810		10,204	10,606		(20,772) (20,810)
Aug-15	Monthly Deprec. & Accretion Exp.	1		(10,204)		(10,644)		20,848		10,204	10,644		(20,848)
Sep-15	Monthly Deprec, & Accretion Exp.			(10,204)		(10,682)		20,886		10,204	10,682		(20,886)
Oct-15	Monthly Deprec. & Accretion Exp.			(10,204)		(10,721)	1	20,925		10,204	10,721		(20,925)
Nov-15	Monthly Deprec. & Accretion Exp.		ľ	(10,204)		(10,759)		20,963		10,204	10,759		(20,963)
Dec-15	Monthly Deprec, & Accretion Exp.	!		(10,204)		(10,798)		21,002		10,204 ₩	10,798		(21,002)
Jan-16	Monthly Deprec. & Accretion Exp.	İ		(10,204)		(10,836)		21,040		10,204	10,836		(21,040)
Feb-16	Monthly Deprec. & Accretion Exp.	ľ		(10,204)		(10,875)		21,079		10,204	10,875		(21,079)
Mar-16	Monthly Deprec. & Accretion Exp.	1		(10,204)		(10,914)		21,118	Ī	10,204	10,914		(21,118)
Apr-16	Monthly Deprec, & Accretion Exp.	1.		(10,204)		(10,953)		21,157		10,204	10,953		(21,157)
May-16	Monthly Deprec, & Accretion Exp.			(10,204)		(10,992)	1	21,197		10,204	10,992		(21,197)
Jun-16	Monthly Deprec. & Accretion Exp.			(10,204)		(11,032)		21,236		10,204	11,032		(21,236)
Jul-16	Monthly Deprec. & Accretion Exp.			(10,204)		(11,071)		21,275		10,204	11,071		(21,275)
Aug-16	Monthly Deprec. & Accretion Exp.			(10,204)		(11,111)	ŀ	21,315	ľ	10,204	11,111		(21,315)
Sep-16	Monthly Deprec. & Accretion Exp.			(10,204)		(11,151)		21,355		10,204	11,151		(21,355)
Oct-16	Monthly Deprec. & Accretion Exp.]		(10,204)		(11,191)		21,395		10,204	11,191		(21,395)
Nov-16 Dec-16	Monthly Deprec. & Accretion Exp.	1		(10,204)		(11,231)	1	21,435		10,204	11,231		(21,435)
Jan-17	Monthly Deprec. & Accretion Exp.			(10,204)		(11,271)		21,475		10,204	11,271		(21,475)
Feb-17	Monthly Deprec. & Accretion Exp.			(10,204)		(11,312)		21,516		10,204	11,312		(21,516)
Mar-17	Monthly Deprec. & Accretion Exp.			(10,204)		(11,352)		21,556		10,204	11,352		(21,556)
Apr-17	Monthly Deprec. & Accretion Exp.	ļ		(10,204)		(11,393)		21,597	ı	10,204	11,393		(21,597)
Арт-17 Мау-17	Monthly Deprec. & Accretion Exp.			(10,204)		(11,434)	1	21,638		10,204	11,434		(21,638)
Jun-17	Monthly Deprec. & Accretion Exp. Monthly Deprec. & Accretion Exp.			(10,204)		(11,475)		21,679		10,204	11,475		(21,679)
Jul-17	Monthly Deprec. & Accretion Exp.			(10,204)		(11,516)		21,720	- {	10,204	11,516		(21,720)
Aug-17	Monthly Deprec. & Accretion Exp.			(10,204)		(11,557)	ľ	21,761		10,204	11,557		(21,761)
Sep-17	Monthly Deprec. & Accretion Exp.			(10,204)		(11,598)		21,802		10,204	11,598	•	(21,802)
och-11	monthly before, a Accieton Exp.	I	ŀ	(10,204)		(11,640)	1	21,844	ı	10,204	11,640		(21,844)

Case No. 2015-00333 Attachment No. 2 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 1 of 10

Assumptions:

 Sum of (1)'s = \$
 81,632
 2015 Depreciation Expense

 Sum of (2)'s = \$
 85,309
 2015 Accretion Expense

				BALANCE SHE	T ACCOUNTS		INCO	ME STATEMENT ACCOU	INTS
			1		Liability -	Regulatory Asset -	Depreciation Expense	Accretion Expense -	
		Acct. Description:		Accum. Deprec ARO	ARO	ARO	ARO	ARO	Regulatory Credit
	,	Account No.:	101.xxx	108.xxx	230 <i>3</i> 00x	182.3xx	403,8xx	411,10x	407.4xx
0447	Martha Dance & Constant Pro-		Dr.f(Cr.)	Dr.J(Cr.)	Dr.J(Cr.)	Dr.J(Cr.)	Dr./(Cr.)	DrJ(Cr.)	Dr./(Cr.)
Oct-17 Nov-17	Monthly Deprec. & Accretion Exp.			(10,204)	(11,682)	21,885	10,204	11,682	(21,886)
Dec-17	Monthly Deprec. & Accretion Exp.		, i	(10,204)	(11,723)	21,928	10,204	11,723	(21,928)
Jan-18	Monthly Deprec. & Accretion Exp.			(10,204)	(11,765)	21,970	10,204	11,765	(21,970)
Feb-18	Monthly Deprec. & Accretion Exp.		l :	(10,204)	(11,808)	22,012	10,204	11,808	(22,012)
Mar-18	Monthly Deprec. & Accretion Exp.			(10,204)	(11,850)	22,054	10,204	11,850	(22,054)
	Monthly Deprec. & Accretion Exp.			(10,204)	(11,892)	22,096	10,204	11,892	(22,096)
Apr-18	Monthly Deprec. & Accretion Exp.			(10,204)	(11,935)	22,139	10,204	11,935	(22,139)
May-18 Jun-18	Monthly Deprec. & Accretion Exp.			(10,204)	(11,978)	22,182	10,204	11,978	(22,182)
Jul-18	Monthly Deprec. & Accretion Exp.	•		(10,204)	(12,021)	22,225	10,204	12,021	(22,225)
Jul-16 Aug-18	Monthly Deprec. & Accretion Exp.			(10,204)	(12,064)	22,268	10,204	12,064	(22,268)
Sep-18	Monthly Deprec, & Accretion Exp.			(10,204)	(12,107)	22,311	10,204	12,107	(22,311)
Oct-18	Monthly Deprec, & Accretion Exp.			(10,204)	(12,150)	22,354	10,204	12,150	(22,354)
Nov-18	Monthly Deprec. & Accretion Exp. Monthly Deprec. & Accretion Exp.		1	(10,204)	(12,194)	22,398	10,204	12,194	(22,398)
Dec-18				(10,204)	(12,238)	22,442	10,204	12,238	(22,442)
Jan-19	Monthly Deprec. & Accretion Exp.			(10,204)	(12,281)	22,486	10,204	12,281	(22,486)
Feb-19	Monthly Deprec. & Accretion Exp.			(10,204)	(12,325)	22,530	10,204	12,325	(22,530)
Mar-19	Monthly Deprec. & Accretion Exp.		1	(10,204)	(12,370)	22,574	10,204	12,370	(22,574)
Apr-19	Monthly Deprec. & Accretion Exp. Monthly Deprec. & Accretion Exp.		i	(10,204)	(12,414)	22,618	10,204	12,414	(22,618)
May-19	Monthly Deprec. & Accretion Exp.			(10,204)	(12,458)	22,663	10,204	12,458	(22,663)
Jun-19	Monthly Deprec. & Accretion Exp.			(10,204)	(12,503)	22,707	10,204	12,503	(22,707)
Jul-19	Monthly Deprec. & Accretion Exp.	'		(10,204)	(12,548)	22,752	10,204	12,548	(22,752)
Aug-19	Monthly Deprec. & Accretion Exp.			(10,204)	(12,593)	22,797	10,204	12,593	(22,797)
Sep-19	Monthly Deprec. & Accretion Exp.			(10,204)	(12,638)	22,842	10,204	12,638	(22,842)
Oct-19	Monthly Deprec. & Accretion Exp.			(10,204)	(12,683)	22,887	10,204	12,683	(22,887)
Nov-19	Monthly Deprec. & Accretion Exp.			(10,204)	(12,729)	22,933	10,204	12,729	(22,933)
Dec-19	Monthly Deprec. & Accretion Exp.			(10,204)	(12,774)	22,978	10,204	12,774	(22,978)
Jan-20	Monthly Deprec, & Accretion Exp.			(10,204)	(12,820)	23,024	10,204	12,820	(23,024)
Feb-20	Monthly Deprec. & Accretion Exp.			(10,204)	(12,866)	23,070	10,204	12,866	(23,070)
Mar-20	Monthly Deprec. & Accretion Exp.			(10,204)	(12,912)	23,116	10,204	12,912	(23,116)
		1	1	(10,204)	(12,958)	23,162	10,204	12,958	(23,162)

Case No. 2015-00333 Attachment No. 2 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 2 of 10

Assumptions:

Sum of (1)'s = \$ 81,632 2015 Depreciation Expense Sum of (2)'s = \$ 85,309 2015 Accretion Expense

				BALANCE SHE	T ACCOUNTS		INCO	ME STATEMENT ACCOU	JNTS
			1		Liability -	Regulatory Asset -	Depreciation Expense	Accretion Expense -	
		Acct. Description:	Plant in Service - ARO	Accum. Deprec ARO	ARO	ARO	ARO	ARO	Regulatory Credit
		Account No.:	101.xxx	108.xxx	230.xxx	182.3xx	403.8xx	411.10x	407,4xx
			DrJ(Cr.)	Dr.J(Cr.)	DrJ(Cr.)	Dr./(Cr.)	Dr./(Cr.)	DrJ(Cr.)	DrJ(Cr.)
Apr-20	Monthly Deprec, & Accretion Exp.			(10,204)	(13,005)	23,209	10,204	13,005	(23,209)
May-20	Monthly Deprec. & Accretion Exp.			(10,204)	(13,051)	23,256	10,204	13,051	(23,256)
Jun-20	Monthly Deprec. & Accretion Exp.]	(10,204)	(13,098)	23,302	10,204	13,098	(23,302)
Jul-20	Monthly Deprec. & Accretion Exp.			(10,204)	(13,145)	23,349	10,204	13,145	(23,349)
Aug-20	Monthly Deprec, & Accretion Exp.			(10,204)	(13,192)	23,396	10,204	13,192	(23,396)
Sep-20	Monthly Deprec. & Accretion Exp.			(10,204)	(13,240)	23,444	10,204	13,240	(23,444)
Oct-20	Monthly Deprec. & Accretion Exp.			(10,204)	(13,287)	23,491	10,204	13,287	(23,491)
` Nov-20	Monthly Deprec. & Accretion Exp.			(10,204)	(13,335)	23,539	10,204	13,335	(23,539)
Dec-20	Monthly Deprec. & Accretion Exp.			(10,204)	(13,382)	23,586	10,204	13,382	(23,586)
Jan-21	Monthly Deprec. & Accretion Exp.			(10,204)	(13,430)	23,634	10,204	13,430	(23,634)
Feb-21	Monthly Deprec. & Accretion Exp.			(10,204)	(13,478)	23,683	10,204	13,478	(23,683)
Mar-21	Monthly Deprec. & Accretion Exp.			(10,204)	(13,527)	23,731	10,204	13,527	(23,731)
Apr-21	Monthly Deprec. & Accretion Exp.			(10,204)	(13,575)	23,779	10,204	13,575	(23,779)
May-21	Monthly Deprec. & Accretion Exp.			(10,204)	(13,624)	23,828	10,204	13,624	(23,828)
Jun-21	Monthly Deprec. & Accretion Exp.			(10,204)	(13,673)	23,877	10,204	13,673	(23,877)
Jul-21	Monthly Deprec. & Accretion Exp.			(10,204)	(13,722)	23,926	10,204	13,722	(23,926)
Aug-21	Monthly Deprec. & Accretion Exp.			(10,204)	(13,771)	23,975	10,204	13,771	(23,975)
Sep-21	Monthly Deprec. & Accretion Exp.			(10,204)	(13,820)	24,024	10,204	13,820	(24,024)
Oct-21	Monthly Deprec. & Accretion Exp.			(10,204)	(13,870)	24,074	10,204	13,870	(24,074)
Nov-21	Monthly Deprec. & Accretion Exp.			(10,204)	(13,919)	24,123	10,204	13,919	(24,123)
Dec-21	Monthly Deprec. & Accretion Exp.	•		(10,204)	(13,969)	24,173	10,204	13,969	(24,173)
Jan-22	Monthly Deprec. & Accretion Exp.			(10,204)	(14,019)	24,223	10,204	14,019	(24,223)
Feb-22	Monthly Deprec. & Accretion Exp.			(10,204)	(14,070)	24,274	10,204	14,070	(24,274)
Mar-22	Monthly Deprec. & Accretion Exp.			(10,204)	(14,120)	24,324	10,204	14,120	(24,324)
Apr-22	Monthly Deprec. & Accretion Exp.			(10,204)	(14,171)	24,375	10,204	14,171	(24,375)
May-22	Monthly Deprec, & Accretion Exp.			(10,204)	(14,221)	24,425	10,204	14,221	(24,425)
Jun-22	Monthly Deprec, & Accretion Exp.			(10,204)	(14,272)	24,476	10,204	14,272	(24,476)
Jul-22	Monthly Deprec. & Accretion Exp.			(10,204)	(14,323)	24,528	10,204	14,323	(24,528)
Aug-22	Monthly Deprec. & Accretion Exp.		!	(10,204)	(14,375)	24,579	10,204	14,375	(24,579)
Sep-22	Monthly Deprec. & Accretion Exp.			(10,204)	(14,426)	24,630	10,204	14,426	(24,630)
					•	•	•	, 1	(=1,000)

Case No. 2015-00333 Attachment No. 2 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 3 of 10

Assumptions:

 May 1, 2015
 Valuation Date

 December 31, 2015
 Initial Accounting Date

 May 1, 2039
 Estimated Retirement Date

 24.0
 No. of Years Until Retirement Obligation Settled

 \$ 4,653,000
 Estimated Cost of Retirement Obligation (Today's Dollars)

 2,38%
 Annual Inflation Rate (Historical Average 1995 - 2014)

 \$ 8,232,967
 Future Value of Retirement Obligation

 4,30%
 Interest/ Discount Rate

 \$ 2,938,770
 Present Value of Retirement Obligation

 4,17%
 Annual Depreciation Rate

Sum of (1)'s = \$ 81,632 2015 Depreciation Expense Sum of (2)'s = \$ 85,309 2015 Accretion Expense

			-	BALANCE SHE	T ACCOUNTS		INCO	ME STATEMENT ACCOL	INTS
					Liability -	Regulatory Asset -	Depreciation Expense	Accretion Expense -	
		Acct. Description:		Accum. Deprec ARO	ARO	ARO	ARO	ARO	Regulatory Credit
		Account No.:	101 <i>3</i> 000	108.xxx	230.xxx	182.3xx	403.8xx	411.10x	407.4xx
			Dr.J(Cr.)	Dr./(Cr.)	Dr./(Cr.)	DrJ(Cr.)	Dr./(Cr.)	DrJ(Cr.)	Dr.J(Cr.)
Oct-22	Monthly Deprec. & Accretion Exp.			(10,204)	(14,478)	24,682	10,204	14,478	(24,682)
Nov-22	Monthly Deprec. & Accretion Exp.			(10,204)	(14,530)	24,734	10,204	14,530	(24,734)
Dec-22	Monthly Deprec. & Accretion Exp.			(10,204)	(14,582)	24,786	10,204	14,582	(24,786)
Jan-23	Monthly Deprec. & Accretion Exp.			(10,204)	(14,634)	24,838	10,204	14,634	(24,838)
Feb-23	Monthly Deprec. & Accretion Exp.			(10,204)	(14,687)	24,891	10,204	14,687	(24,891)
Mar-23	Monthly Deprec. & Accretion Exp.			(10,204)	(14,739)	24,943	10,204	14,739	(24,943)
Apr-23	Monthly Deprec. & Accretion Exp.			(10,204)	(14,792)	24,996	10,204	14,792	(24,996)
May-23	Monthly Deprec. & Accretion Exp.			(10,204)	(14,845)	25,049	10,204	14,845	(25,049)
Jun-23	Monthly Deprec. & Accretion Exp.			(10,204)	(14,898)	25,102	10,204	14,898	(25,102)
Jul-23	Monthly Deprec. & Accretion Exp.			(10,204)	(14,952)	25,156	10,204	14,952	(25,156)
Aug-23	Monthly Deprec. & Accretion Exp.			(10,204)	(15,005)	25,209	10,204	15,005	(25,209)
Sep-23	Monthly Deprec. & Accretion Exp.			(10,204)	(15,059)	25,263	10,204	15,059	(25,263)
Oct-23	Monthly Deprec. & Accretion Exp.			(10,204)	(15,113)	25,317	10,204	15,113	(25,317)
Nov-23	Monthly Deprec. & Accretion Exp.			(10,204)	(15,167)	25,371	10,204	15,167	(25,371)
Dec-23	Monthly Deprec. & Accretion Exp.			(10,204)	(15,221)	25,426	10,204	15,221	(25,426)
Jan-24	Monthly Deprec. & Accretion Exp.			(10,204)	(15,276)	25,480	10,204	15,276	(25,480)
Feb-24	Monthly Deprec. & Accretion Exp.			(10,204)	(15,331)	25,535	10,204	15,331	(25,535)
Mar-24	Monthly Deprec. & Accretion Exp.			(10,204)	(15,386)	25,590	10,204	15,386	(25,590)
Apr-24	Monthly Deprec. & Accretion Exp.			(10,204)	(15,441)	25,645	10,204	15,441	(25,645)
May-24	Monthly Deprec. & Accretion Exp.			(10,204)	(15,496)	25,700	10,204	15,496	(25,700)
Jun-24	Monthly Deprec. & Accretion Exp.			(10,204)	(15,552)	25,756	10,204	15,552	(25,756)
Jul-24	Monthly Deprec. & Accretion Exp.			(10,204)	(15,607)	25,811	10,204	15,607	(25,811)
Aug-24	Monthly Deprec. & Accretion Exp.			(10,204)	(15,663)	25,867	10,204	15,663	(25,867)
Sep-24	Monthly Deprec. & Accretion Exp.			(10,204)	(15,719)	25,924	10,204	15,719	(25,924)
Oct-24	Monthly Deprec. & Accretion Exp.			(10,204)	(15,776)	25,980	10,204	15,776	(25,980)
Nov-24 Dec-24	Monthly Deprec. & Accretion Exp.			(10,204)	(15,832)	26,036	10,204	15,832	(26,036)
	Monthly Deprec. & Accretion Exp.			(10,204)	(15,889)	26,093	10,204	15,889	(26,093)
Jan-25 Feb-25	Monthly Deprec. & Accretion Exp.			(10,204)	(15,946)	26,150	10,204	15,946	(26,150)
гел-25 Маг-25	Monthly Deprec. & Accretion Exp.			(10,204)	(16,003)	26,207	10,204	16,003	(26,207)
Mar-29	Monthly Deprec. & Accretion Exp.		l	(10,204)	(16,060)	26,265	10,204	16,060	(26,265)

Case No. 2015-00333 Attachment No. 2 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 4 of 10

Assumptions:

May 1, 20	015	Valuation Date
Decembe	er 31, 2015	Initial Accounting Date
May 1, 20	39	Estimated Retirement Date
	24.0	No. of Years Until Retirement Obligation Settled
\$	4,653,000	Estimated Cost of Retirement Obligation (Today's Dollars)
	2.38%	Annual Inflation Rate (Historical Average 1995 - 2014)
\$	8,232,967	Future Value of Retirement Obligation
		Interest/ Discount Rate
\$	2,938,770	Present Value of Retirement Obligation
	4.17%	Annual Depreciation Rate

 Sum of (1)'s =
 \$
 81,632
 2015 Depreciation Expense

 Sum of (2)'s =
 \$
 85,309
 2015 Accretion Expense

Charles and a series are a series and a seri

				BALANCE SHEE	T ACCOUNTS		INCOME STATEMENT ACCOUNTS				
			1		Liability -	Regulatory Asset •	Depreciation Expense	Accretion Expense -			
		Acct. Description:	Plant In Service - ARO	Accum, Deprec ARO	ARO	ARO	ARO	ARO	Regulatory Credit		
		Account No.:	101.xxx	108.xxx	230.xxx	182,3xx	403.8xx	411,10x	407.4xx		
405	ta di mana ana ana		Dr.J(Cr.)	Dr.J(Cr.)	Dr./(Cr.)	Dr./(Gr.)	DrJ(Cr.)	Dr.J(Cr.)	Dr./(Cr.)		
Apr-25	Monthly Deprec. & Accretion Exp.			(10,204)	(16,118)	26,322	10,204	16,118	(26,322)		
May-25	Monthly Deprec. & Accretion Exp.			(10,204)	(16,176)	26,380	10,204	16,176	(26,380)		
Jun-25	Monthly Deprec. & Accretion Exp.			(10,204)	(16,234)	26,438	10,204	16,234	(26,438)		
Jul-25	Monthly Deprec. & Accretion Exp.			(10,204)	(16,292)	26,496	10,204	16,292	(26,496)		
Aug-25	Monthly Deprec. & Accretion Exp.			(10,204)	(16,350)	26,554	10,204	16,350	(26,554)		
Sep-25	Monthly Deprec. & Accretion Exp.			(10,204)	(16,409)	26,613	10,204	16,409	(26,613)		
Oct-25	Monthly Deprec, & Accretion Exp.			(10,204)	(16,468)	26,672	10,204	16,468	(26,672)		
Nov-25	Monthly Deprec, & Accretion Exp.			(10,204)	(16,527)	26,731	10,204	16,527	(26,731)		
Dec-25	Monthly Deprec. & Accretion Exp.			(10,204)	(16,586)	26,790	10,204	16,586	(26,790)		
Jan-26	Monthly Deprec. & Accretion Exp.			(10,204)	(16,645)	26,849	10,204	16,645	(26,849)		
Feb-26	Monthly Deprec. & Accretion Exp.			(10,204)	(16,705)	26,909	10,204	16,705			
Mar-26	Monthly Deprec. & Accretion Exp.			(10,204)	(16,765)	26,969	10,204	16,765	(26,909)		
Apr-26	Monthly Deprec. & Accretion Exp.			(10,204)	(16,825)	27,029	10,204	16,825	(26,969)		
May-26	Monthly Deprec. & Accretion Exp.			(10,204)	(16,885)	27,089	10,204	16,885	(27,029)		
Jun-26	Monthly Deprec. & Accretion Exp.			(10,204)	(16,946)	27,150	10,204	16,946	(27,089)		
Jul-26	Monthly Deprec. & Accretion Exp.			(10,204)	(17,006)	27,211	10,204	17,006	(27,150)		
Aug-26	Monthly Deprec. & Accretion Exp.			(10,204)	(17,067)	27,271	10,204	17,067	(27,211)		
Sep-26	Monthly Deprec. & Accretion Exp.			(10,204)	(17,129)	27,333	10,204	17,129	(27,271)		
Oct-26	Monthly Deprec. & Accretion Exp.			(10,204)	(17,190)	27,394	10,204	17,129	(27,333)		
Nov-26	Monthly Deprec. & Accretion Exp.			(10,204)	(17,252)	27,456	10,204	17,252	(27,394)		
Dec-26	Monthly Deprec. & Accretion Exp.			(10,204)	(17,313)	27,517	10,204	17,313	(27,456)		
Jan-27	Monthly Deprec. & Accretion Exp.			(10,204)	(17,375)	27,579	10,204	17,375	(27,517)		
Feb-27	Monthly Deprec. & Accretion Exp.			(10,204)	(17,438)	27,642	10,204	17,438	(27,579)		
Mar-27	Monthly Deprec. & Accretion Exp.		1	(10,204)	(17,500)	27,704	10,204	17,500	(27,642)		
Apr-27	Monthly Deprec. & Accretion Exp.			(10,204)	(17,563)	27,767	10,204	17,563	(27,704)		
May-27	Monthly Deprec. & Accretion Exp.		i	(10,204)	(17,626)	27,830	10,204	17,626	(27,767)		
Jun-27	Monthly Deprec. & Accretion Exp.			(10,204)	(17,689)	27,893	10,204	17,689	(27,830)		
Jul-27	Monthly Deprec. & Accretion Exp.			(10,204)	(17,752)	27,956	10,204	17,752	(27,893)		
Aug-27	Monthly Deprec. & Accretion Exp.			(10,204)	(17,816)	28,020	10,204	17,752	(27,956)		
Sep-27	Monthly Deprec. & Accretion Exp.]	(10,204)	(17,880)	28,084	10,204		(28,020)		
			•		(,/	20,004	1 10,204	17,880	(28,084)		

Case No. 2015-00333 Attachment No. 2 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 5 of 10

Assumptions:

 Sum of (1)'s =
 \$
 81,632
 2015 Depreciation Expense

 Sum of (2)'s =
 \$
 85,309
 2015 Accretion Expense

	7,11 70 Funda De	spreadon rate							
				BALANCE SHEE			INCO	ME STATEMENT ACCO	UNTS
		4. 4		Į.	Liability -	Regulatory Asset -	Depreciation Expense	Accretion Expense -	
		Acct. Description:		Accum. Deprec ARO	ARO	ARO	ARO	ARO	Regulatory Credit
		Account No.:	101.xxx	108.xxx	230.xxx	182.3xx	403.8xx	411.10x	407.4xx
0-107			DrJ(Cr.)	Dr.J(Cr.)	Dr./(Cr.)	DrJ(Cr.)	Dr./(Cr.)	Dr./(Cr.)	Dr.J(Cr.)
Oct-27	Monthly Deprec. & Accretion Exp.			(10,204)	(17,944)	28,148	10,204	17,944	(28,148)
Nov-27	Monthly Deprec. & Accretion Exp.			(10,204)	(18,008)	28,212	10,204	18,008	(28,212)
Dec-27	Monthly Deprec. & Accretion Exp.			(10,204)	(18,073)	28,277	10,204	18,073	(28,277)
Jan-28	Monthly Deprec, & Accretion Exp.			(10,204)	(18,137)	28,341	10,204	18,137	(28,341)
Feb-28	Monthly Deprec. & Accretion Exp.			(10,204)	(18,202)	28,406	10,204	18,202	
Mar-28	Monthly Deprec. & Accretion Exp.			(10,204)	(18,268)	28,472	10,204	18,268	(28,406)
Apr-28	Monthly Deprec. & Accretion Exp.		ł	(10,204)	(18,333)	28,537	10,204	18,333	(28,472)
May-28	Monthly Deprec. & Accretion Exp.			(10,204)	(18,399)	28,603	10,204	18,399	(28,537) (28,603)
Jun-28	Monthly Deprec. & Accretion Exp.			(10,204)	(18,465)	28,669	10,204	18,465	
Jul-28	Monthly Deprec. & Accretion Exp.			(10,204)	(18,531)	28,735	10,204	18,531	(28,669)
Aug-28	Monthly Deprec. & Accretion Exp.] .	(10,204)	(18,597)	28,801	10,204	18,597	(28,735)
Sep-28	Monthly Deprec. & Accretion Exp.		1	(10,204)	(18,664)	28,868	10,204	18,664	(28,801)
Oct-28	Monthly Deprec. & Accretion Exp.			(10,204)	(18,731)	28,935	10,204	18,731	(28,868)
Nov-28	Monthly Deprec. & Accretion Exp.			(10,204)	(18,798)	29,002	10,204	18,798	(28,935)
Dec-28	Monthly Deprec. & Accretion Exp.			(10,204)	(18,865)	29,069	10,204	18,865	(29,002)
Jan-29	Monthly Deprec. & Accretion Exp.			(10,204)	(18,933)	29,137	10,204	18,933	(29,069)
Feb-29	Monthly Deprec, & Accretion Exp.			(10,204)	(19,001)	29,205	10,204	19,001	(29,137)
Mar-29	Monthly Deprec. & Accretion Exp.			(10,204)	(19,069)	29,273	10,204	19,069	(29,205)
Apr-29	Monthly Deprec. & Accretion Exp.			(10,204)	(19,137)	29,341	10,204	19,137	(29,273)
May-29	Monthly Deprec. & Accretion Exp.]	(10,204)	(19,206)	29,410	10,204	19,206	(29,341)
Jun-29	Monthly Deprec. & Accretion Exp.		i	(10,204)	(19,275)	29,479	10,204	19,275	(29,410)
Jul-29	Monthly Deprec. & Accretion Exp.			(10,204)	(19,344)	29,548	10,204		(29,479)
Aug-29	Monthly Deprec. & Accretion Exp.			(10,204)	(19,413)	29,617	10,204	19,344 19,413	(29,548)
Sep-29	Monthly Deprec. & Accretion Exp.			(10,204)	(19,482)	29,687	10,204	19,482	(29,617)
Oct-29	Monthly Deprec, & Accretion Exp.		1	(10,204)	(19,552)	29,756	10,204	19,462	(29,687)
Nov-29	Monthly Deprec. & Accretion Exp.			(10,204)	(19,622)	29,826	10,204	19,622	(29,756)
Dec-29	Monthly Deprec. & Accretion Exp.			(10,204)	(19,693)	29,897	10,204	19,693	(29,826)
Jan-30	Monthly Deprec. & Accretion Exp.		[(10,204)	(19,763)	29,967	10,204		(29,897)
Feb-30	Monthly Deprec, & Accretion Exp.]	(10,204)	(19,834)	30,038	10,204	19,763	(29,967)
Mar-30	Monthly Deprec. & Accretion Exp.			(10,204)	(19,905)	30,109	10,204	19,834	(30,038)
			•		(.0,000)	00,100	1 10,204	19,905	(30,109)

Case No. 2015-00333 Attachment No. 2 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 6 of 10

Assumptions:

Sum of (1)'s = \$ 81,632 2015 Depreciation Expense Sum of (2)'s = \$ 85,309 2015 Accretion Expense

				BALANCE SHE	ET ACCOUNTS		INCOME STATEMENT ACCOUNTS			
					Llability -	Regulatory Asset -	Depreciation Expense	Accretion Expense -		
		Acct. Description:	Plant in Service - ARO	Accum. Deprec ARO	ARO	ARO	ARO	ARO	Regulatory Credit	
		Account No.:	101.xxx	108 <i>3</i> 000	230,xxx	182.3xx	403,8xx	411.10x	407.4xx	
			Dr./(Cr.)	DtJ(Ct.)	DtJ(Ct.)	DrJ(Cr.)	DrJ(Cr.)	Dr.J(Cr.)	DrJ(Cr.)	
Apr-30	Monthly Deprec. & Accretion Exp.			(10,204)	(19,976)	30,181	10,204	19,976	(30,181)	
May-30	Monthly Deprec. & Accretion Exp.			(10,204)	(20,048)	30,252	10,204	20,048	(30,252)	
Jun-30	Monthly Deprec. & Accretion Exp.			(10,204)	(20,120)	30,324	10,204	20,120	(30,324)	
Jul-30	Monthly Deprec. & Accretion Exp.			(10,204)	(20,192)	30,396	10,204	20,192	(30,396)	
Aug-30	Monthly Deprec. & Accretion Exp.			(10,204)	(20,264)	30,468	10,204	20,264	(30,468)	
Sep-30	Monthly Deprec, & Accretion Exp.			(10,204)	(20,337)	30,541	10,204	20,337	(30,541)	
Oct-30	Monthly Deprec. & Accretion Exp.			(10,204)	(20,410)	30,614	10,204	20,410	(30,614)	
Nov-30	Monthly Deprec. & Accretion Exp.			(10,204)	(20,483)	30,687	10,204	20,483	(30,687)	
Dec-30	Monthly Deprec. & Accretion Exp.			(10,204)	(20,556)	30,760	10,204	20,556	(30,760)	
Jan-31	Monthly Deprec. & Accretion Exp.			(10,204)	(20,630)	30,834	10,204	20,630	(30,834)	
Feb-31	Monthly Deprec. & Accretion Exp.			(10,204)	(20,704)	30,908	10,204	20,704	(30,908)	
Mar-31	Monthly Deprec. & Accretion Exp.			(10,204)	(20,778)	30,982	10,204	20,778	(30,982)	
Apr-31	Monthly Deprec. & Accretion Exp.			(10,204)	(20,853)	31,057	10,204	20,853	(31,057)	
May-31	Monthly Deprec, & Accretion Exp.			(10,204)	(20,927)	31,131	10,204	20,927	(31,131)	
Jun-31	Monthly Deprec. & Accretion Exp.			(10,204)	(21,002)	31,206	10,204	21,002	(31,206)	
Jul-31	Monthly Deprec, & Accretion Exp.			(10,204)	(21,078)	31,282	10,204	21,078	(31,282)	
Aug-31	Monthly Deprec, & Accretion Exp.			(10,204)	(21,153)	31,357	10,204	21,153	(31,357)	
Sep-31	Monthly Deprec. & Accretion Exp.			(10,204)	(21,229)	31,433	10,204	21,229	(31,433)	
Oct-31	Monthly Deprec. & Accretion Exp.			(10,204)	(21,305)	31,509	10,204	21,305	(31,509)	
Nov-31	Monthly Deprec. & Accretion Exp.			(10,204)	(21,381)	31,585	10,204	21,381	(31,585)	
Dec-31	Monthly Deprec. & Accretion Exp.			(10,204)	(21,458)	31,662	10,204	21,458	(31,662)	
Jan-32	Monthly Deprec. & Accretion Exp.			(10,204)	(21,535)	31,739	10,204	21,535	(31,739)	
Feb-32	Monthly Deprec. & Accretion Exp.			(10,204)	(21,612)	31,816	10,204	21,612	(31,816)	
Mar-32	Monthly Deprec. & Accretion Exp.			(10,204)	(21,689)	31,893	10,204	21,689	(31,893)	
Apr-32	Monthly Deprec. & Accretion Exp.			(10,204)	(21,767)	31,971	10,204	21,767	(31,971)	
May-32	Monthly Deprec, & Accretion Exp.			(10,204)	(21,845)	32,049	10,204	21,845	(32,049)	
Jun-32	Monthly Deprec. & Accretion Exp.			(10,204)	(21,923)	32,127	10,204	21,923	(32,127)	
Jul-32	Monthly Deprec. & Accretion Exp.			(10,204)	(22,002)	32,206	10,204	22,002	(32,206)	
Aug-32	Monthly Deprec. & Accretion Exp.			(10,204)	(22,081)	32,285	10,204	22,081	(32,285)	
Sep-32	Monthly Deprec. & Accretion Exp.			(10,204)	(22,160)	32,364	10,204	22,160	(32,364)	

Case No. 2015-00333

Attachment No. 2 of 8 for Response to Staff Item 2

Witness: Nicholas R. Castlen

Page 7 of 10

Assumptions:

Sum of (1)'s = \$ 81,632 2015 Depreciation Expense Sum of (2)'s = \$ 85,309 2015 Accretion Expense

				BALANCE SHEE	TACCOUNTS				
				DALANCE SHEE		 _		ME STATEMENT ACCO	UNTS
		Acct. Description:	Plant in Service - ARO	Accum. Deprec ARO	Liability - ARO	Regulatory Asset -	Depreciation Expense	Accretion Expense -	
		Account No.:	101.xxx	· 1		ARO	ARO	ARO	Regulatory Credit
		ACCOUNT NO.:	701,3000 Dr./(Cr.)	108.xxx	230.000	182.3xx	403.8xx	411.10x	407.4xx
Oct-32	Monthly Deprec. & Accretion Exp.		Dis(Cr.)		DrJ(Cr.)	DrJ(Cr.)	Dr.J(Cr.)	Dr./(Ce.)	Dr.f(Cr.)
Nov-32	Monthly Deprec. & Accretion Exp.			(10,204)	(22,239)	32,443	10,204	22,239	(32,443)
Dec-32	Monthly Deprec. & Accretion Exp.			(10,204)	(22,319)	32,523	10,204	22,319	(32,523)
Jan-33	Monthly Deprec. & Accretion Exp.			(10,204)	(22,399)	32,603	10,204	22,399	(32,603)
Feb-33	Monthly Deprec. & Accretion Exp.			(10,204)	(22,479)	32,683	10,204	22,479	(32,683)
Mar-33	Monthly Deprec. & Accretion Exp.			(10,204)	(22,560)	32,764	10,204	22,560	(32,764)
Apr-33	Monthly Deprec. & Accretion Exp.			(10,204)	(22,641)	32,845	10,204	22,641	(32,845)
May-33	Monthly Deprec. & Accretion Exp.			(10,204)	(22,722)	32,926	10,204	22,722	(32,926)
Jun-33	Monthly Deprec. & Accretion Exp.			(10,204)	(22,803)	33,007	10,204	22,803	(33,007)
Jul-33	Monthly Deprec. & Accretion Exp.		,	(10,204)	(22,885)	33,089	10,204	22,885	(33,089)
Aug-33	Monthly Deprec, & Accretion Exp.			(10,204)	(22,967)	33,171	10,204	22,967	(33,171)
Sep-33	Monthly Deprec. & Accretion Exp.		}	(10,204)	(23,049)	33,253	10,204	23,049	(33,253)
Oct-33				(10,204)	(23,132)	33,336	10,204	23,132	(33,336)
Nov-33	Monthly Deprec. & Accretion Exp. Monthly Deprec. & Accretion Exp.]	(10,204)	(23,215)	33,419	10,204	23,215	(33,419)
Dec-33				(10,204)	(23,298)	33,502	10,204	23,298	(33,502)
Jan-34	Monthly Deprec. & Accretion Exp.			(10,204)	(23,381)	33,585	10,204	23,381	(33,585)
Feb-34	Monthly Deprec. & Accretion Exp.			(10,204)	(23,465)	33,669	10,204	23,465	(33,669)
Mar-34	Monthly Deprec. & Accretion Exp.]	(10,204)	(23,549)	33,753	10,204	23,549	(33,753)
Apr-34	Monthly Deprec. & Accretion Exp.		Ì	(10,204)	(23,634)	33,838	10,204	23,634	(33,838)
May-34	Monthly Deprec. & Accretion Exp.			(10,204)	(23,718)	33,922	10,204	23,718	(33,922)
Jun-34	Monthly Deprec. & Accretion Exp.		l	(10,204)	(23,803)	34,007	10,204	23,803	(34,007)
Jul-34	Monthly Deprec. & Accretion Exp.			(10,204)	(23,889)	34,093	10,204	23,889	(34,093)
Aug-34	Monthly Deprec. & Accretion Exp.			(10,204)	(23,974)	34,178	10,204	23,974	(34,178)
	Monthly Deprec. & Accretion Exp.			(10,204)	(24,060)	34,264	10,204	24,060	(34,264)
Sep-34	Monthly Deprec. & Accretion Exp.			(10,204)	(24,146)	34,350	10,204	24,146	(34,350)
Oct-34 Nov-34	Monthly Deprec. & Accretion Exp.			(10,204)	(24,233)	34,437	10,204	24,233	(34,437)
Dec-34	Monthly Deprec. & Accretion Exp.		[(10,204)	(24,320)	34,524	10,204	24,320	(34,524)
Jan-35	Monthly Deprec. & Accretion Exp.			(10,204)	(24,407)	34,611	10,204	24,407	(34,611)
Feb-35	Monthly Deprec. & Accretion Exp.		: I	(10,204)	(24,494)	34,698	10,204	24,494	(34,698)
гер-ээ Mar-35	Monthly Deprec. & Accretion Exp.			(10,204)	(24,582)	34,786	10,204	24,582	(34,786)
Widi-99	Monthly Deprec, & Accretion Exp.		I í	(10,204)	(24,670)	34,874	10,204	24,670	(v), vv)

Case No. 2015-00333 Attachment No. 2 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 8 of 10

Assumptions:

May 1,	2015	Valuation Date
Decem	ber 31, 2015	Initial Accounting Date
May 1,	2039	Estimated Retirement Date
	24.0	No. of Years Until Retirement Obligation Settled
\$		Estimated Cost of Retirement Obligation (Today's Dollars)
		Annual Inflation Rate (Historical Average 1995 - 2014)
\$	8,232,967	Future Value of Retirement Obligation
		Interest/ Discount Rate
\$	2,938,770	Present Value of Retirement Obligation
	4.17%	Annual Depreciation Rate

Sum of (1)'s = \$ 81,6

81,632 2015 Depreciation Expense

Sum of (2)'s = \$

85,309 2015 Accretion Expense

	4.17% Annual De	chiecianon vate							
				BALANCE SHE	T ACCOUNTS		INCO	ME STATEMENT ACCO	JNTS
				·	Liability -	Regulatory Asset -	Depreciation Expense	Accretion Expense -	
		Acct. Description:	Plant In Service - ARO	Accum. Deprec ARO	ARO	ARO	ARO	ARO	Regulatory Credit
		Account No.:	101.xxx	108.xxx	230.xxx	182.3xx	403.8xx	411.10x	407.4xx
			Dr.I(Cr.)	DrJ(Cr.)	DrJ(Cr.)	DrJ(Cr.)	Dr./(Cr.)	Dr.J(Cr.)	Dr.J(Cr.)
Apr-35	Monthly Deprec. & Accretion Exp.			(10,204)	(24,759)	34,963	10,204	24,759	(34,963)
May-35	Monthly Deprec. & Accretion Exp.			(10,204)	(24,847)	35,051	10,204	24,847	(35,051)
Jun-35	Monthly Deprec. & Accretion Exp.			(10,204)	(24,935)	35,140	10,204	24,936	(35,140)
Jul-35	Monthly Deprec. & Accretion Exp.		,	(10,204)	(25,026)	35,230	10,204	25,026	(35,230)
Aug-35	Monthly Deprec. & Accretion Exp.			(10,204)	(25,115)	35,319	10,204	25,115	(35,319)
Sep-35	Monthly Deprec. & Accretion Exp.			(10,204)	(25,205)	35,409	10,204	25,205	(35,409)
Oct-35	Monthly Deprec. & Accretion Exp.			(10,204)	(25,296)	35,500	10,204	25,296	(35,500)
Nov-35	Monthly Deprec. & Accretion Exp.	•		(10,204)	(25,386)	35,590	10,204	25,386	(35,590)
Dec-35	Monthly Deprec. & Accretion Exp.			(10,204)	(25,477)	35,681	10,204	25,477	(35,681)
Jan-36	Monthly Deprec, & Accretion Exp.			(10,204)	(25,569)	35,773	10,204	25,569	(35,773)
Feb-36	Monthly Deprec. & Accretion Exp.			(10,204)	(25,660)	35,864	10,204	25,660	(35,864)
Mar-36	Monthly Deprec, & Accretion Exp.			(10,204)	(25,752)	35,956	10,204	25,752	(35,956)
Apr-36	Monthly Deprec. & Accretion Exp.			(10,204)	(25,844)	36,048	10,204	25,844	(36,048)
May-36	Monthly Deprec. & Accretion Exp.			(10,204)	(25,937)	36,141	10,204	25,937	(36,141)
Jun-36	Monthly Deprec. & Accretion Exp.			(10,204)	(26,030)	36,234	10,204	26,030	(36,234)
Jul-36	Monthly Deprec. & Accretion Exp.			(10,204)	(26,123)	36,327	10,204	26,123	(36,327)
Aug-36	Monthly Deprec. & Accretion Exp.			(10,204)	(26,217)	36,421	10,204	26,217	(36,421)
Sep-36	Monthly Deprec. & Accretion Exp.			(10,204)	(26,311)	36,515	10,204	26,311	(36,515)
Oct-36	Monthly Deprec. & Accretion Exp.			(10,204)	(26,405)	36,609	10,204	26,405	(36,609)
Nov-36	Monthly Deprec. & Accretion Exp.			(10,204)	(26,500)	36,704	10,204	26,500	(36,704)
Dec-36	Monthly Deprec. & Accretion Exp.			(10,204)	(26,595)	36,799	10,204	26,595	(36,799)
Jan-37	Monthly Deprec. & Accretion Exp.			(10,204)	(26,690)	36,894	10,204	26,690	(36,894)
Feb-37	Monthly Deprec. & Accretion Exp.			(10,204)	(26,786)	36,990	10,204	26,786	(36,990)
Mar-37	Monthly Deprec. & Accretion Exp.			(10,204)	(26,882)	37,086	10,204	26,882	(37,086)
Apr-37	Monthly Deprec. & Accretion Exp.			(10,204)	(26,978)	37,182	10,204	26,978	(37,182)
May-37	Monthly Deprec. & Accretion Exp.			(10,204)	(27,075)	37,279	10,204	27,075	(37,279)
Jun-37	Monthly Deprec. & Accretion Exp.			(10,204)	(27,172)	37,376	10,204	27,172	(37,376)
Jul-37	Monthly Deprec. & Accretion Exp.			(10,204)	(27,269)	37,473	10,204	27,269	(37,473)
Aug-37	Monthly Deprec. & Accretion Exp.		1	(10,204)	(27,367)	37,571	10,204	27,367	(37,571)
Sep-37	Monthly Deprec. & Accretion Exp.		1	(10,204)	(27,465)	37,669	10,204	27,465	(37,669)

Case No. 2015-00333 Attachment No. 2 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 9 of 10

Assumptions:

May 1, 2	2015	Valuation Date
Decemb	er 31, 2015	Initial Accounting Date
May 1, 2	2039	Estimated Retirement Date
	24.0	No. of Years Until Retirement Obligation Settled
\$		Estimated Cost of Retirement Obligation (Today's Dollars)
		Annual Inflation Rate (Historical Average 1995 - 2014)
\$		Future Value of Retirement Obligation
	4.30%	Interest/ Discount Rate
\$	2,938,770	Present Value of Retirement Obligation
	4.17%	Annual Depreciation Rate

Sum of (1)'s = \$

81,632 2015 Depreciation Expense

Sum of (2)'s = \$

85,309 2015 Accretion Expense

		Acct. Description: Account No.:
Oct-37	Monthly Deprec. & Accretion Exp.	
Nov-37	Monthly Deprec. & Accretion Exp.	
Dec-37	Monthly Deprec, & Accretion Exp.	
Jan-38	Monthly Deprec. & Accretion Exp.	
Feb-38	Monthly Deprec. & Accretion Exp.	
Mar-38	Monthly Deprec. & Accretion Exp.	
Арг-38	Monthly Deprec. & Accretion Exp.	
May-38	Monthly Deprec. & Accretion Exp.	
Jun-38	Monthly Deprec. & Accretion Exp.	
Jul-38	Monthly Deprec. & Accretion Exp.	
Aug-38	Monthly Deprec. & Accretion Exp.	
Sep-38	Monthly Deprec. & Accretion Exp.	
Oct-38	Monthly Deprec. & Accretion Exp.	
Nov-38	Monthly Deprec. & Accretion Exp.	
Dec-38	Monthly Deprec. & Accretion Exp.	
Jan-39	Monthly Deprec. & Accretion Exp.	
Feb-39	Monthly Deprec. & Accretion Exp.	
Mar-39	Monthly Deprec. & Accretion Exp.	
Apr-39	Monthly Deprec. & Accretion Exp.	
	Ending Balances (before settleme	ent)

BALANCE SHEET ACCOUNTS										
		Llability -	Regulatory Asset -							
Plant in Service - ARO	Accum. Deprec ARO	ARO	ARO							
101.xxx	108.xxx	230.xxx	182.3xx							
Dr.J(Cr.)	DrJ(Gr.)	Dr.J(Cr.)	Dr.J(Cr.)							
	(10,204)	(27,563)	37,767							
	(10,204)	(27,662)	37,866							
	(10,204)	(27,761)	37,965							
	(10,204)	(27,860)	38,065							
	(10,204)	(27,960)	38,164							
	(10,204)	(28,061)	38,265							
	(10,204)	(28,161)	38,365							
	(10,204)	(28,262)	38,466							
	(10,204)	(28,363)	38,567							
	(10,204)	(28,465)	38,669							
	(10,204)	(28,567)	38,771							
	(10,204)	(28,669)	38,873							
÷	(10,204)	(28,772)	38,976							
	(10,204)	(28,875)	39,079							
	(10,204)	(28,979)	39,183							
	(10,204)	(29,082)	39,286							
	(10,204)	(29,187)	39,391							
	(10,204)	(29,291)	39,495							
	(10,204)	(29,396)	39,600							
2,938,770	\$ (2,938,770)	\$ (8,232,967)	\$ 8,232,967							

		_	STATEMENT ACCO	UNT	S	
Dep	reclation Expense	Ac	cretion Expense -	1 _		
	ARO		ARO) F	Regulatory Credit	
	403.8xx	[411,10x		407.4xx	
	Dr./(Gr.)	ᆫ	Dr.J(Cr.)	<u> </u>	DrJ(Cr.)	
	10,204	1	27,563	1	(37,767)	
	10,204		27,662	1	(37,866)	
	10,204]	27,761		(37,965)	
	10,204	1	27,860		(38,065)	
	10,204		27,960	(38,164		
	10,204		28,061		(38,265)	
	10,204		28,161		(38,365)	
	10,204		28,262		(38,466)	
	10,204		28,363	1	(38,567)	
	10,204		28,465		(38,669)	
	10,204		28,567	l	(38,771)	
	10,204	1	28,669		(38,873)	
	10,204		28,772	1	(38,976)	
	10,204		28,875	ľ	(39,079)	
	10,204		28,979		(39,183)	
	10,204	l	29,082	1	(39,286)	
	10,204		29,187		(39,391)	
	10,204		29,291		(39,495)	
	10,204		29,396		(39,600)	
\$	2,938,770	\$	5.294.197	s	(8 232 967)	

Assumptions:

Sum of (1)'s = \$ 87,805 2015 Depreciation Expense Sum of (2)'s = \$ 68,820 2015 Accretion Expense

				BALANCE SHEET ACCOUNTS						INCOME STATEMENT ACCOUNTS				
					Ė		Ře	gulatory Asset -	h	Depreciation Expense	Accretion Expense -	1		
	Acct. Description:	Plant	în Service - ARO	Accum. Deprec ARO	l	Liability - ARO	l '``	ARO		ARO	ARO	Regulatory Credit		
	Account No.:		101.xxx	108.xxx	l	230.xxx	l	182.3xx		403.8xx	411.10x	407.4xx		
			DrJ(Cr.)	DrJ(Cr.)	l	BrJ(Cr.)	l	Dr./(Cr.)	- 1	Dr./(Cr.)	Dr./(Cr.)	407.4XX DrJ(Cr.)		
May-15.	Entry to be Made Dec-15 for Initial ARO Balances	\$	2,370,746	\$.	\$	(2,370,746)	\$	-	Ī		\$ -	\$ -		
May-15	Monthly Deprec, & Accretion Exp.			(10,976)	1	(8,495)	l	19,471		10,976 (^ŋ	8,495 (²⁾	(19,471)		
Jun-15	Monthly Deprec. & Accretion Exp.			(10,976)		(8,526)	l	19,501		10,976	8,526	(19,501)		
Jul-15	Monthly Deprec. & Accretion Exp.			(10,976)		(8,556)	•	19,532		10,976	8,556	(19,532)		
Aug-15	Monthly Deprec. & Accretion Exp.			(10,976)		(8,587)	}	19,563		10,976	8,587	(19,563)		
Sep-15	Monthly Deprec. & Accretion Exp.			(10,976)		(8,618)		19,593		10,976	8,618	(19,593)		
Oct-15	Monthly Deprec. & Accretion Exp.	1		(10,976)		(8,648)		19,624		10,976	8,648	(19,624)		
Nov-15	Monthly Deprec. & Accretion Exp.			(10,976)		(8,679)		19,655		10,976	8,679	(19,655)		
Dec-15	Monthly Deprec, & Accretion Exp.			(10,976)		(8,711)		19,686		10,976 ₩	8,711 ₩	(19,686)		
Jan-16	Monthly Deprec. & Accretion Exp.			(10,976)		(8,742)		19,717	-	10,976	8,742	(19,717)		
Feb-16	Monthly Deprec. & Accretion Exp.	ļ		(10,976)		(8,773)		19,749		10,976	8,773	(19,749)		
Mar-16	Monthly Deprec. & Accretion Exp.	İ		(10,976)		(8,805)		19,780	1	10,976	8,805	(19,780)		
Apr-16	Monthly Deprec. & Accretion Exp.			(10,976)	l	(8,836)		19,812		10,976	8,836	(19,812)		
May-16	Monthly Deprec. & Accretion Exp.			(10,976)	1	(8,868)		19,843		10,976	8,868	(19,843)		
Jun-16	Monthly Deprec. & Accretion Exp.			(10,976)		(8,900)		19,875		10,976	8,900	(19,875)		
Jul-16	Monthly Deprec, & Accretion Exp.			(10,976)		(8,931)		19,907	-	10,976	8,931	(19,907)		
Aug-16	Monthly Deprec. & Accretion Exp.			(10,976)		(8,963)		19,939		10,976	8,963	(19,939)		
Sep-16	Monthly Deprec. & Accretion Exp.			(10,976)		(8,996)		19,971	1	10,976	8,996	(19,971)		
Oct-16	Monthly Deprec. & Accretion Exp.			(10,976)		(9,028)		20,003	- 1	10,976	9,028	(20,003)		
Nov-16	Monthly Deprec. & Accretion Exp.			(10,976)		(9,060)		20,036		10,976	9,060	(20,036)		
Dec-16	Monthly Deprec. & Accretion Exp.			(10,976)		(9,093)		20,068		10,976	9,093 ·	(20,068)		
Jan-17	Monthly Deprec. & Accretion Exp.			(10,976)		(9,125)		20,101		10,976	9,125	(20,101)		
Feb-17	Monthly Deprec. & Accretion Exp.			(10,976)		(9,158)		20,134		10,976	9,158	(20,134)		
Mar-17	Monthly Deprec. & Accretion Exp.	1		(10,976)		(9,191)		20,166		10,976	9,191	(20,166)		
Apr-17	Monthly Deprec. & Accretion Exp.	1		(10,976)		(9,224)		20,199	1	10,976	9,224	(20,199)		
May-17	Monthly Deprec. & Accretion Exp.			(10,976)		(9,257)		20,232		10,976	9,257	(20,232)		
Jun-17	Monthly Deprec. & Accretion Exp.	1		(10,976)		(9,290)		20,266	-1	10,976	9,290	(20,266)		
Jul-17	Monthly Deprec. & Accretion Exp.		ı	(10,976)		(9,323)		20,299		10,976	9,323	(20,299)		

Case No. 2015-00333

Attachment No. 3 of 8 for Response to Staff Item 2

Witness: Nicholas R. Castlen

Page 1 of 8

Assumptions:

May 1, 2015
December 31, 2015
Initial Accounting Date
Initial Accounting Date
Estimated Retirement Date

18.0
No. of Years Until Retirement Obligation Settled
Estimated Cost of Retirement Obligation (Today's Dollars)
2.38%
Annual Inflation Rate (Historical Average 1995 - 2014)
\$ 5,133,673
Future Value of Retirement Obligation
4.30%
Interest/ Discount Rate
\$ 2,370,746
Present Value of Retirement Obligation

5.56%
Annual Depreciation Rate

Sum of (1)'s = \$ 87,805 2015 Depreciation Expense Sum of (2)'s = \$ 68,820 2015 Accretion Expense

		BALANCE SHEET ACCOUNTS				INCOME STATEMENT ACCOUNTS			
		-			Regulatory Asset -	Depreciation Expense	Accretion Expense -		
	Acct. Description:	Plant In Service - ARO	Accum. Deprec, - ARO	Liability - ARO	ARO	ARO	ARO	Regulatory Credit	
	Account No.:	101.xxx	108.xxx	230.xxx	182.3xx	403,8xx	411.10x	407.4xx	
		DrJ(Cr.)	Dr.J(Cr.)	Dr.J(Cr.)	Dr./(Cr.)	Dr./(Cr.)	Dr./(Cr.)	Dr./(Cr.)	
Aug-17	Monthly Deprec. & Accretion Exp.		(10,976)	(9,357)	20,332	10,976	9,357	(20,332)	
Sep-17	Monthly Deprec. & Accretion Exp.		(10,976)	(9,390)	20,366	10,976	9,390	(20,366)	
Oct-17	Monthly Deprec. & Accretion Exp.		(10,976)	(9,424)	20,399	10,976	9,424	(20,399)	
Nov-17	Monthly Deprec. & Accretion Exp.		(10,976)	(9,457)	20,433	10,976	9,457	(20,433)	
Dec-17	Monthly Deprec. & Accretion Exp.		(10,976)	(9,491)	20,467	10,976	9,491	(20,467)	
Jan-18	Monthly Deprec. & Accretion Exp.		(10,976)	(9,525)	20,501	10,976	9,525	(20,501)	
Feb-18	Monthly Deprec. & Accretion Exp.		(10,976)	(9,560)	20,535	10,976	9,560	(20,535)	
Mar-18	Monthly Deprec. & Accretion Exp.		(10,976)	(9,594)	20,569	10,976	9,594	(20,569)	
Apr-18	Monthly Deprec, & Accretion Exp.		(10,976)	(9,628)	20,604	10,976	9,628	(20,604)	
May-18	Monthly Deprec. & Accretion Exp.		(10,976)	(9,663)	20,638	10,976	9,663	(20,638)	
Jun-18	Monthly Deprec. & Accretion Exp.		(10,976)	(9,697)	20,673	10,976	9,697	(20,673)	
Jul-18	Monthly Deprec. & Accretion Exp.		(10,976)	(9,732)	20,708	10,976	9,732	(20,708)	
Aug-18	Monthly Deprec. & Accretion Exp.	1	(10,976)	(9,767)	20,743	10,976	9,767	(20,743)	
Sep-18	Monthly Deprec. & Accretion Exp.		(10,976)	(9,802)	20,778	10,976	9,802	(20,778)	
Oct-18	Monthly Deprec. & Accretion Exp.		(10,976)	(9,837)	20,813	10,976	9,837	(20,813)	
Nov-18	Monthly Deprec. & Accretion Exp.		(10,976)	(9,872)	20,848	10,976	9,872	(20,848)	
Dec-18	Monthly Deprec. & Accretion Exp.		(10,976)	(9,908)	20,883	10,976	9,908	(20,883)	
Jan-19	Monthly Deprec. & Accretion Exp.		(10,976)	(9,943)	20,919	10,976	9,943	(20,919)	
Feb-19 Mar-19	Monthly Deprec. & Accretion Exp.		(10,976)	(9,979)	20,954	10,976	9,979	(20,954)	
	Monthly Deprec, & Accretion Exp.		(10,976)	(10,015)	20,990	10,976	10,015	(20,990)	
Apr-19	Monthly Deprec. & Accretion Exp.		(10,976)	(10,050)	21,026	10,976	10,050	(21,026)	
May-19	Monthly Deprec. & Accretion Exp.		(10,976)	(10,086)	21,062	10,976	10,086	(21,062)	
Jun-19	Monthly Deprec. & Accretion Exp.	<u> </u>	(10,976)	(10,123)	21,098	10,976	10,123	(21,098)	
Jul-19	Monthly Deprec. & Accretion Exp.		(10,976)	(10,159)	21,135	10,976	10,159	(21,135)	
Aug-19 Sep-19	Monthly Deprec. & Accretion Exp.		(10,976)	(10,195)	21,171	10,976	10,195	(21,171)	
Sep-19 Oct-19	Monthly Deprec. & Accretion Exp.		(10,976)	(10,232)	21,207	10,976	10,232	(21,207)	
Nov-19	Monthly Deprec. & Accretion Exp.]	(10,976)	(10,268)	21,244	10,976	10,268	(21,244)	
INDA-19	Monthly Deprec. & Accretion Exp.	. !	(10,976)	(10,305)	21,281	10,976	10,305	(21,281)	

Case No. 2015-00333 Attachment No. 3 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 2 of 8

Assumptions:

Sum of (1)'s = \$ 87,805 2015 Depreciation Expense Sum of (2)'s = \$ 68,820 2015 Accretion Expense

		BALANCE SHEET ACCOUNTS				INCOME STATEMENT ACCOUNTS			
					Regulatory Asset -	Depreciation Expense	Accretion Expense -		
	Acct. Description:	Plant In Service - ARO	Accum. Deprec ARO	Liability - ARO	ARO	ARO	ARO	Regulatory Credit	
	Account No.:	101.xxx	- 108.xxx	230.xxx	182.3xx	403.8xx	411.10x	407.4xx	
		DrJ(Cr.)	DrJ(Cr.)	DrJ(Cr.)	Dr.J(Cr.)	DrJ(Cr.)	Dr.J(Cr.)	DrJ(Cr.)	
Dec-19	Monthly Deprec. & Accretion Exp.		(10,976)	(10,342)	21,318	10,976	10,342	(21,318)	
Jan-20	Monthly Deprec. & Accretion Exp.		(10,976)	(10,379)	21,355	10,976	10,379	(21,355)	
Feb-20	Monthly Deprec. & Accretion Exp.		(10,976)	(10,416)	21,392	10,976	10,416	(21,392)	
Mar-20	Monthly Deprec. & Accretion Exp.		(10,976)	(10,454)	21,429	10,976	10,454	(21,429)	
Apr-20	Monthly Deprec, & Accretion Exp.		(10,976)	(10,491)	21,467	10,976	10,491	(21,467)	
May-20	Monthly Deprec. & Accretion Exp.		(10,976)	(10,529)	21,504	10,976	10,529	(21,504)	
Jun-20	Monthly Deprec. & Accretion Exp.		(10,976)	(10,567)	21,542	10,976	10,567	(21,542)	
Jul-20	Monthly Deprec. & Accretion Exp.		(10,976)	(10,604)	21,580	10,976	10,604	(21,580)	
Aug-20	Monthly Deprec. & Accretion Exp.		(10,976)	(10,642)	21,618	10,976	10,642	(21,618)	
Sep-20	Monthly Deprec. & Accretion Exp.		(10,976)	(10,681)	21,656	10,976	10,681	(21,656)	
Oct-20	Monthly Deprec. & Accretion Exp.		(10,976)	(10,719)	21,694	10,976	10,719	(21,694)	
Nov-20	Monthly Deprec. & Accretion Exp.		(10,976)	(10,757)	21,733	10,976	10,757	(21,733)	
Dec-20	Monthly Deprec. & Accretion Exp.		(10,976)	(10,796)	21,771	10,976	10,796	(21,771)	
Jan-21	Monthly Deprec. & Accretion Exp.		(10,976)	(10,834)	21,810	10,976	10,834	(21,810)	
Feb-21	Monthly Deprec. & Accretion Exp.		(10,976)	(10,873)	21,849	10,976	10,873	(21,849)	
Mar-21	Monthly Deprec. & Accretion Exp.		(10,976)	(10,912)	21,888	10,976	10,912	(21,888)	
Apr-21	Monthly Deprec. & Accretion Exp.		(10,976)	(10,951)	21,927	10,976	10,951	(21,927)	
May-21	Monthly Deprec. & Accretion Exp.		(10,976)	(10,991)	21,966	10,976	10,991	(21,966)	
Jun-21	Monthly Deprec. & Accretion Exp.		(10,976)	(11,030)	22,006	10,976	11,030	(22,006)	
Jul-21	Monthly Deprec. & Accretion Exp.		(10,976)	(11,069)	22,045	10,976	11,069	(22,045)	
Aug-21	Monthly Deprec. & Accretion Exp.		(10,976)	(11,109)	22,085	10,976	11,109	(22,085)	
Sep-21	Monthly Deprec. & Accretion Exp.		(10,976)	(11,149)	22,125	10,976	11,149	(22,125)	
Oct-21	Monthly Deprec. & Accretion Exp.		(10,976)	(11,189)	22,165	10,976	11,189	(22,165)	
Nov-21	Monthly Deprec. & Accretion Exp.		(10,976)	(11,229)	22,205	10,976	11,229	(22,205)	
Dec-21	Monthly Deprec. & Accretion Exp.		(10,976)	(11,269)	22,245	10,976	11,269	(22,245)	
Jan-22	Monthly Deprec. & Accretion Exp.		(10,976)	(11,310)	22,285	10,976	11,310	(22,285)	
Feb-22	Monthly Deprec. & Accretion Exp.		(10,976)	(11,350)	22,326	10,976	11,350	(22,326)	
Mar-22	Monthly Deprec. & Accretion Exp.	I	(10,976)	(11,391)	22,366	• 10,976	11,391	(22,366)	

Case No. 2015-00333 Attachment No. 3 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 3 of 8

Assumptions:

 Sum of (1)'s = \$
 87,805
 2015 Depreciation Expense

 Sum of (2)'s = \$
 68,820
 2015 Accretion Expense

		BALANCE SHEET ACCOUNTS				INCOME STATEMENT ACCOUNTS			
					Regulatory Asset -	Depreciation Expense	Accretion Expense -		
	Acct. Description:	Plant In Service - ARO	Accum, Deprec ARO	Liability - ARO	ARO	ARO	ARO	Regulatory Credit	
	Account No.;	101.xxx	108.xxx	230.xxx	182.3xx	403.8xx	411.10x	407.4xx	
		Dr /(Cr.)	DeJ(Gr.)	DrJ(Cr.)	Dr./(Cr.)	Dr./(Cr.)	Dr.J(Cr.)	Dr.J(Gr.)	
Apr-22	Monthly Deprec. & Accretion Exp.		(10,976)	(11,432)	22,407	10,976	11,432	(22,407)	
May-22	Monthly Deprec. & Accretion Exp.		(10,976)	(11,473)	22,448	10,976	11,473	(22,448)	
Jun-22	Monthly Deprec. & Accretion Exp.		(10,976)	(11,514)	22,489	10,976	11,514	(22,489)	
Jul-22	Monthly Deprec. & Accretion Exp.	ł	(10,976)	(11,555)	22,531	10,976	11,555	(22,531)	
Aug-22	Monthly Deprec. & Accretion Exp.		(10,976)	(11,596)	22,572	10,976	11,596	(22,572)	
Sep-22	Monthly Deprec. & Accretion Exp.	<u> </u>	(10,976)	(11,638)	22,614	10,976	11,638	(22,614)	
Oct-22	Monthly Deprec. & Accretion Exp.	j	(10,976)	(11,680)	22,655	10,976	11,680	(22,655)	
Nov-22	Monthly Deprec. & Accretion Exp.		(10,976)	(11,721)	22,697	10,976	11,721	(22,697)	
Dec-22	Monthly Deprec. & Accretion Exp.		(10,976)	(11,763)	22,739	10,976	11,763	(22,739)	
Jan-23	Monthly Deprec. & Accretion Exp.		(10,976)	(11,806)	22,781	10,976	11,806	(22,781)	
Feb-23	Monthly Deprec. & Accretion Exp.		(10,976)	(11,848)	22,824	10,976	11,848	(22,824)	
Mar-23	Monthly Deprec. & Accretion Exp.		(10,976)	(11,890)	22,866	10,976	11,890	(22,866)	
Apr-23	Monthly Deprec. & Accretion Exp.		(10,976)	(11,933)	22,909	10,976	11,933	(22,909)	
May-23	Monthly Deprec. & Accretion Exp.		(10,976)	(11,976)	22,951	10,976	11,976	(22,951)	
Jun-23	Monthly Deprec. & Accretion Exp.		(10,976)	(12,019)	22,994	10,976	12,019	(22,994)	
Jul-23	Monthly Deprec. & Accretion Exp.		(10,976)	(12,062)	23,037	10,976	12,062	(23,037)	
Aug-23	Monthly Deprec. & Accretion Exp.		(10,976)	(12,105)	23,081	10,976	12,105	(23,081)	
Sep-23	Monthly Deprec, & Accretion Exp.		(10,976)	(12,148)	23,124	10,976	12,148	(23,124)	
Oct-23	Monthly Deprec. & Accretion Exp.		(10,976)	(12,192)	23,168	10,976	12,192	(23,168)	
Nov-23	Monthly Deprec. & Accretion Exp.		(10,976)	(12,236)	23,211	10,976	12,236	(23,211)	
Dec-23	Monthly Deprec. & Accretion Exp.		(10,976)	(12,279)	23,255	10,976	12,279	(23,255)	
Jan-24	Monthly Deprec. & Accretion Exp.		(10,976)	(12,323)	23,299	10,976	12,323	(23,299)	
Feb-24	Monthly Deprec. & Accretion Exp.		(10,976)	(12,368)	23,343	10,976	12,368	(23,343)	
Mar-24 Apr-24	Monthly Deprec, & Accretion Exp.	, '	(10,976)	(12,412)	23,388	10,976	12,412	(23,388)	
Apr-24 May-24	Monthly Deprec. & Accretion Exp.		(10,976)	(12,456)	23,432	. 10,976	12,456	(23,432)	
Jun-24	Monthly Deprec. & Accretion Exp.		(10,976)	(12,501)	23,477	10,976	12,501	(23,477)	
Jul-24 Jul-24	Monthly Deprec. & Accretion Exp.		(10,976)	(12,546)	23,521	10,976	12,546	(23,521)	
JUI-24	Monthly Deprec. & Accretion Exp.		(10,976)	(12,591)	23,566	10,976	12,591	(23,566)	

Case No. 2015-00333 Attachment No. 3 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 4 of 8

Assumptions:

May 1	, 2015	Valuation Date
Decen	nber 31, 2015	Initial Accounting Date
May 1	, 2033	Estimated Retirement Date
	18,0	No. of Years Until Retirement Obligation Settled
\$	3,346,268	Estimated Cost of Retirement Obligation (Today's Dollars)
	2.38%	Annual Inflation Rate (Historical Average 1995 - 2014)
\$	5,133,673	Future Value of Retirement Obligation
		Interest/ Discount Rate
\$		Present Value of Retirement Obligation
	5 56%	Annual Depreciation Pate

Sum of (1)'s =	\$ 87,805	2015 Depreciation Expense
Sum of (2)'s =	\$ 68,820	2015 Accretion Expense

		BALANCE SHEET ACCOUNTS			INCOME STATEMENT ACCOUNTS			
				-	Regulatory Asset -	Depreciation Expense	Accretion Expense -	-
	Acct. Description:	Plant in Service - ARO	Accum. Deprec ARO	Llability - ARO	ARO	ARO	ARO	Regulatory Credit
	Account No.:	101.xxx	108.xxx	230.xxx	182.3xx	403.8xx	411,10x	407.4xx
		Dr.J(Cr.)	Dr./(Cr.)	DrJ(Cr.)	Dr.J(Gr.)	Dr./(Cr.)	Dr.J(Cr.)	Dr.J(Cr.)
Aug-24	Monthly Deprec. & Accretion Exp.		(10,976)	(12,636)	23,612	10,976	12,636	(23,612)
Sep-24	Monthly Deprec. & Accretion Exp.		(10,976)	(12,681)	23,657	10,976	12,681	(23,657)
Oct-24	Monthly Deprec. & Accretion Exp.		(10,976)	(12,727)	23,702	10,976	12,727	(23,702)
Nov-24	Monthly Deprec. & Accretion Exp.		(10,976)	(12,772)	23,748	10,976	12,772	
Dec-24	Monthly Deprec. & Accretion Exp.		(10,976)	(12,818)	23,794	10,976	12,818	(23,748)
Jan-25	Monthly Deprec. & Accretion Exp.		(10,976)	(12,864)	23,840	10,976	12,864	(23,794)
Feb-25	Monthly Deprec. & Accretion Exp.		(10,976)	(12,910)	23,886	10,976	12,910	(23,840)
Mar-25	Monthly Deprec. & Accretion Exp.		(10,976)	(12,956)	23,932	10,976	12,956	(23,886)
Apr-25	Monthly Deprec. & Accretion Exp.		(10,976)	(13,003)	23,978	10,976	13,003	(23,932) (23,978)
May-25	Monthly Deprec. & Accretion Exp.		(10,976)	(13,049)	24,025	10,976	13,049	(24,025)
Jun-25	Monthly Deprec. & Accretion Exp.		(10,976)	(13,096)	24,072	10,976	13,096	(24,072)
Jul-25	Monthly Deprec. & Accretion Exp.		(10,976)	(13,143)	24,119	10,976	13,143	
Aug-25	Monthly Deprec. & Accretion Exp.	•	(10,976)	(13,190)	24,166	10,976	13,190	(24,119) (24,166)
Sep-25	Monthly Deprec. & Accretion Exp.		(10,976)	(13,237)	24,213	10,976	13,237	(24,100)
Oct-25	Monthly Deprec. & Accretion Exp.		(10,976)	(13,285)	24,260	10,976	13,285	(24,260)
Nov-25	Monthly Deprec. & Accretion Exp.		(10,976)	(13,332)	24,308	10,976	13,332	(24,308)
Dec-25	Monthly Deprec. & Accretion Exp.		(10,976)	(13,380)	24,356	10,976	13,380	(24,356)
Jan-26	Monthly Deprec. & Accretion Exp.		(10,976)	(13,428)	24,404	10,976	13,428	(24,404)
Feb-26	Monthly Deprec. & Accretion Exp.		(10,976)	(13,476)	24,452	10,976	13,476	(24,452)
Mar-26	Monthly Deprec. & Accretion Exp.		(10,976)	(13,524)	24,500	10,976	13,524	(24,500)
Apr-26	Monthly Deprec. & Accretion Exp.		(10,976)	(13,573)	24,549	10,976	13,573	(24,549)
May-26	Monthly Deprec. & Accretion Exp.		(10,976)	(13,622)	24,597	10,976	13,622	
Jun-26	Monthly Deprec. & Accretion Exp.		(10,976)	(13,670)	24,646	10,976	13,670	(24,597)
Jul-26	Monthly Deprec. & Accretion Exp.		. (10,976)	(13,719)	24,695	10,976	13,719	(24,646)
Aug-26	Monthly Deprec. & Accretion Exp.		(10,976)	(13,769)	24,744	10,976	13,769	(24,695)
Sep-26	Monthly Deprec. & Accretion Exp.		(10,976)	(13,818)	24,794	10,976	13,818	(24,744)
Oct-26	Monthly Deprec. & Accretion Exp.		(10,976)	(13,867)	24,843	10,976	13,867	(24,794)
Nov-26	Monthly Deprec. & Accretion Exp.		(10,976)	(13,917)	24,893	10,976	13,917	(24,843)
			•	• • • •		1 10,010	10,017	(24,893)

STATION TWO ASH PONDS SUPERSEDED ARO CALCULATIONS (USED FOR APPLICATION)

Assumptions:

May 1,	2015	Valuation Date					
December 31, 2015		Initial Accounting Date					
May 1, 2033		Estimated Retirement Date					
	18.0	No. of Years Until Retirement Obligation Settled					
\$	3,346,268						
	2.38%	Annual Inflation Rate (Historical Average 1995 - 2014)					
\$	5,133,673	Future Value of Retirement Obligation					
		Interest/ Discount Rate					
\$	2,370,746	Present Value of Retirement Obligation					
	5.56%	Annual Depreciation Rate					

Sum of (1)'s = \$

87,805 2015 Depreciation Expense

Sum of (2)'s = \$

68,820 2015 Accretion Expense

	2.50 / Ailitidas Depreciation Rate							
			BALANCE SHEE	T ACCOUNTS		INCO	ME STATEMENT ACCO	UNTS
	Acct. Description:	Plant in Service - ARO	Accum. Deprec ARO	Liability - ARO	Regulatory Asset - ARO	Depreciation Expense -	Accretion Expense - ARO	Regulatory Credit
	Account No.:	101.xxx	108.xxx	230.xxx	182.3xx	403.8xx	411.10x	407.4xx
		DrJ(Gr.)	DrJ(Cr.)	Dr.J(Cr.)	Dr./(Cr.)	Dr./(Cr.)	DrJ(Cr.)	Dr./(Cr.)
Dec-26	Monthly Deprec. & Accretion Exp.	1	(10,976)	(13,967)	24,943	10,976	13,967	(24,943)
Jan-27	Monthly Deprec. & Accretion Exp.		(10,976)	(14,017)	24,993	10,976	14.017	
Feb-27	Monthly Deprec. & Accretion Exp.		(10,976)	(14,067)	25,043	10,976	14,067	(24,993)
Mar-27	Monthly Deprec. & Accretion Exp.		(10,976)	(14,118)	25,093	10,976	14,118	(25,043)
Apr-27	Monthly Deprec. & Accretion Exp.	1	(10,976)	(14,168)	25,144	10,976	14,168	(25,093)
May-27	Monthly Deprec. & Accretion Exp.		(10,976)	(14,219)	25,195	10,976	14,219	(25,144)
Jun-27	Monthly Deprec. & Accretion Exp.		(10,976)	(14,270)	25,246	10,976	14,270	(25,195)
Jul-27	Monthly Deprec. & Accretion Exp.	1	(10,976)	(14,321)	25,297	10,976	14,321	(25,246)
Aug-27	Monthly Deprec, & Ascretion Exp.		(10,976)	(14,372)	25,348	10,976	14,372	(25,297)
Sep-27	Monthly Deprec. & Accretion Exp.		(10,976)	(14,424)	25,400	10,976	14,424	(25,348)
Oct-27	Monthly Deprec, & Accretion Exp.		(10,976)	(14,476)	25,451	10,976	14,476	(25,400)
Nov-27	Monthly Deprec. & Accretion Exp.		(10,976)	(14,527)	25,503	10,976	14,527	(25,451)
Dec-27	Monthly Deprec. & Accretion Exp.		(10,976)	(14,579)	25,555	10,976	14,579	(25,503)
Jan-28	Monthly Deprec. & Accretion Exp.		(10,976)	(14,632)	25,607	10,976	14,632	(25,555)
Feb-28	Monthly Deprec. & Accretion Exp.		(10,976)	(14,684)	25,660	10,976	14,684	(25,607)
Mar-28	Monthly Deprec. & Accretion Exp.		(10,976)	(14,737)	25,712	10,976	14,737	(25,660)
Apr-28	Monthly Deprec. & Accretion Exp.		(10,976)	(14,790)	25,765	10,976	14,790	(25,712)
May-28	Monthly Deprec. & Accretion Exp.		(10,976)	(14,843)	25,818	10,976	14,790	(25,765)
Jun-28	Monthly Deprec. & Accretion Exp.		(10,976)	(14,896)	25,871	10,976	14,896	(25,818)
Jul-28	Monthly Deprec. & Accretion Exp.		(10,976)	(14,949)	25,925	10,976	14,949	(25,871)
Aug-28	Monthly Deprec. & Accretion Exp.		(10,976)	(15,003)	25,978	10,976	15,003	(25,925)
Sep-28	Monthly Deprec. & Accretion Exp.	į	(10,976)	(15,056)	26,032	10,976	15,056	(25,978)
Oct-28	Monthly Deprec. & Accretion Exp.		(10,976)	(15,110)	26,086	10,976		(26,032)
Nov-28	Monthly Deprec. & Accretion Exp.		(10,976)	(15,165)	26,140	10,976	15,110 15,165	(26,086)
Dec-28	Monthly Deprec. & Accretion Exp.		(10,976)	(15,219)	26,195	10,976	15,105	(26,140)
Jan-29	Monthly Deprec. & Accretion Exp.		(10,976)	(15,273)	26,249	10,976	·	(26,195)
Feb-29	Monthly Deprec. & Accretion Exp.		(10,976)	(15,328)	26,304	10,976	15,273	(26,249)
Mar-29	Monthly Deprec. & Accretion Exp.		(10,976)	(15,383)	26,359	10,976	15,328	(26,304)
	•		V	(1000)	20,000	1 10,510	15,383	(26,359)

Case No. 2015-00333 Attachment No. 3 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 6 of 8

STATION TWO ASH PONDS SUPERSEDED ARO CALCULATIONS (USED FOR APPLICATION)

Assumptions:

May 1, 2015
December 31, 2015
May 1, 2033

State of the process of

Sum of (1)'s = \$ 87,805 20

87,805 2015 Depreciation Expense

Sum of (2)'s = \$

68,820 2015 Accretion Expense

Apr-29 Monthly Deprec. & Accretion Exp. Jun-29	E STATEMENT ACCO Accretion Expense - ARO 411.10x br/(cr) 15,438 15,494 15,549 15,605	UNTS Regulatory Credit 407.4xx 07./(Cr.) (26,414) (26,469)
Apr-29 Monthly Deprec. & Accretion Exp. Jun-29	Accretion Expense - ARO 411.10x br./(cr.) 15,438 15,494 15,549	Regulatory Credit 407.4xx Dr./(cr.) (26,414)
Account No.: Plant In Service - ARO Liability - ARO ARO 108,xxx 230,xxx 182,3xx 182,3xx 101,xxx 101,xx 101,xxx 101,xxx 101,xxx 101,xxx 101,xxx 101,xxx 1	ARO 411.10x br./(cr.) 15,438 15,494 15,549	407.4xx Dr./(Cr.) (26,414)
Apr-29 Monthly Deprec. & Accretion Exp. May-29 Monthly Deprec. & Accretion Exp. Jun-29 Monthly Deprec. & Accretion Ex	15,438 15,494 15,549	407.4xx Dr./(Cr.) (26,414)
Apr-29 Monthly Deprec. & Accretion Exp. May-29 Monthly Deprec. & Accretion Exp. Jun-29 Monthly Deprec. & Accretion Exp. Jun-29 Monthly Deprec. & Accretion Exp. Jul-29 Monthly Deprec. & Accretion Exp. Jul-29 Monthly Deprec. & Accretion Exp. Monthly Deprec. & Accretion Exp. (10,976) (15,438) 26,414 10,976 (10,976) (15,549) 26,525 10,976 Aug-29 Monthly Deprec. & Accretion Exp. (10,976) (15,605) 26,580 10,976 Sep-29 Monthly Deprec. & Accretion Exp. (10,976) (15,661) 26,636 10,976 Sep-29 Monthly Deprec. & Accretion Exp. (10,976) (15,717) 26,692 10,976	15,438 15,494 15,549	0rJ(Cr.) (26,414)
May-29 Monthly Deprec. & Accretion Exp. Jun-29 Monthly Deprec. & Accretion Exp. Jul-29 Monthly Deprec. & Accretion Exp. Jul-29 Monthly Deprec. & Accretion Exp. Aug-29 Monthly Deprec. & Accretion Exp. (10,976) (15,494) 26,469 10,976 (10,976) (15,549) 26,525 10,976 (10,976) (15,605) 26,580 10,976 Aug-29 Monthly Deprec. & Accretion Exp. (10,976) (15,661) 26,636 10,976 Sep-29 Monthly Deprec. & Accretion Exp. (10,976) (15,717) 26,692 10,976	15,494 15,549	(26,414)
Jun-29 Monthly Deprec. & Accretion Exp. (10,976) (15,549) 26,525 10,976 Jul-29 Monthly Deprec. & Accretion Exp. (10,976) (15,605) 26,580 10,976 Aug-29 Monthly Deprec. & Accretion Exp. (10,976) (15,661) 26,636 10,976 Sep-29 Monthly Deprec. & Accretion Exp. (10,976) (15,717) 26,692 10,976	15,494 15,549	
Jul-29 Monthly Deprec. & Accretion Exp. (10,976) (15,605) 26,580 10,976 Aug-29 Monthly Deprec. & Accretion Exp. (10,976) (15,661) 26,636 10,976 Sep-29 Monthly Deprec. & Accretion Exp. (10,976) (15,717) 26,692 10,976	15,549	1-0,100)
Aug-29 Monthly Deprec. & Accretion Exp. (10,976) (15,661) 26,636 10,976 Sep-29 Monthly Deprec. & Accretion Exp. (10,976) (15,717) 26,692 10,976		(26,525)
Aug-29 Monthly Deprec. & Accretion Exp. (10,976) (15,661) 26,636 10,976 Sep-29 Monthly Deprec. & Accretion Exp. (10,976) (15,717) 26,692 10,976	19,000	(26,580)
Sep-29 Monthly Deprec. & Accretion Exp. (10,976) (15,717) 26,692 10,976	15,661	(26,636)
	15,717	(26,692)
Oct-29 Monthly Deprec. & Accretion Exp. (10,976) (15,773) 26,749 10,976	15,773	(26,749)
Nov-29 Monthly Deprec. & Accretion Exp. (10,976) (15,830) 26,805 10,976	15,830	(26,805)
Dec-29 Monthly Deprec. & Accretion Exp. [(10,976) (15,886) 26,862 10,976	15,886	(26,862)
Jan-30 Monthly Deprec. & Accretion Exp. (10,976) (15,943) 26,919 10,976	15,943	(26,919)
Feb-30 Monthly Deprec. & Accretion Exp. (10,976) (16,000) 26,976 10,976	16,000	(26,976)
Mar-30 Monthly Deprec, & Accretion Exp. (10,976) (16,058) 27,033 10,976	16,058	(27,033)
Apr-30 Monthly Deprec. & Accretion Exp. (10,976) (16,115) 27,091 10,976	16,115	(27,091)
May-30 Monthly Deprec. & Accretion Exp. (10,976) (16,173) 27,149 10,976	16,173	(27,149)
Jun-30 Monthly Deprec. & Accretion Exp. (10,976) (16,231) 27,207 10,976	16,231	(27,143)
Jul-30 Monthly Deprec, & Accretion Exp. (10,976) (16,289) 27,265 10,976	16,289	(27,265)
Aug-30 Monthly Deprec. & Accretion Exp. (10,976) (16,348) 27,323 (10,976)	16,348	(27,323)
Sep-30 Monthly Deprec. & Accretion Exp. (10,976) (16,406) 27,382 10,976	16,406	(27,382)
Oct-30 Monthly Deprec. & Accretion Exp. (10,976) (16,465) 27,441 10,976	16,465	(27,441)
Nov-30 Monthly Deprec, & Accretion Exp. (10,976) (16,524) 27,500 10,976	16,524	(27,500)
Dec-30 Monthly Deprec. & Accretion Exp. (10,976) (16,583) 27,559 10,976	40 500	(27,559)
Jan-31 Monthly Deprec. & Accretion Exp. (10,976) (16,643) 27,618 10,976	16,643	(27,618)
Feb-31 Monthly Deprec. & Accretion Exp. (10,976) (16,702) 27,678 10,976	16,702	(27,678)
Mar-31 Monthly Deprec. & Accretion Exp. (10,976) (16,762) 27,738 10,976	16,762	(27,738)
Apr-31 Monthly Deprec. & Accretion Exp. (10,976) (16,822) 27,798 10,976	16,822	(27,798)
May-31 Monthly Deprec. & Accretion Exp. (10,976) (16,882) 27,858 10,976	16,882	(27,858)
Jun-31 Monthly Deprec. & Accretion Exp. (10,976) (16,943) 27,919 10,976	16,943	(27,919)
Jul-31 Monthly Deprec. & Accretion Exp. (10,976) (17,004) 27,979 10,976	17,004	(27,979)

Case No. 2015-00333 Attachment No. 3 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen Page 7 of 8

STATION TWO ASH PONDS SUPERSEDED ARO CALCULATIONS (USED FOR APPLICATION)

Assumptions:

May 1, 20	15	Valuation Date
Decembe	r 31, 2015	Initial Accounting Date
May 1, 20)33	Estimated Retirement Date
	18.0	No. of Years Until Retirement Obligation Settled
\$		Estimated Cost of Retirement Obligation (Today's Dollars)
		Annual Inflation Rate (Historical Average 1995 - 2014)
\$		Future Value of Retirement Obligation
		Interest/ Discount Rate
\$	2,370,746	Present Value of Retirement Obligation
	5.56%	Annual Depreciation Rate

Sum of (1)'s =	\$ 87,805	2015 Depreciation Expense
Sum of (2)'s =	\$ 68,820	2015 Accretion Expense

	Acct. Description:
	Account No.:
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Aug-31	Monthly Deprec. & Accretion Exp.
Sep-31	Monthly Deprec. & Accretion Exp.
Oct-31	Monthly Deprec. & Accretion Exp.
Nov-31	Monthly Deprec. & Accretion Exp.
Dec-31	Monthly Deprec. & Accretion Exp.
Jan-32	Monthly Deprec. & Accretion Exp.
Feb-32	Monthly Deprec. & Accretion Exp.
Mar-32	Monthly Deprec. & Accretion Exp.
Apr-32	Monthly Deprec. & Accretion Exp.
May-32	Monthly Deprec. & Accretion Exp.
Jun-32	Monthly Deprec. & Accretion Exp.
Jul-32	Monthly Deprec. & Accretion Exp.
Aug-32	Monthly Deprec. & Accretion Exp.
Sep-32	Monthly Deprec. & Accretion Exp.
Oct-32	Monthly Deprec. & Accretion Exp.
Nov-32	Monthly Deprec. & Accretion Exp.
Dec-32	Monthly Deprec. & Accretion Exp.
Jan-33	Monthly Deprec. & Accretion Exp.
Feb-33	Monthly Deprec. & Accretion Exp.
Mar-33	Monthly Deprec, & Accretion Exp.
Apr-33	Monthly Deprec. & Accretion Exp.
	Ending Balances (before settlement)

	BALANCE SHE	ET ACCOUNTS	
Plant In Service - ARO	Accum. Deprec ARO	Liability - ARO	Regulatory Asset
101.xxx	108.xxx	230.xxx	182.3xx
Dr/(Cr.)	Dr./(Cr.)	Dr./(Cr.)	Dr.f(Gr.)
	(10,976)	(17,064)	28,040
	(10,976)	(17,126)	28,101
	(10,976)	(17,187)	28,163
	(10,976)	(17,249)	28,224
	(10,976)	(17,310)	28,286
	(10,976)	(17,372)	28,348
	(10,976)	(17,435)	28,410
	(10,976)	(17,497)	28,473
	(10,976)	(17,560)	28,536
	(10,976)	(17,623)	28,598
	(10,976)	(17,686)	28,662
	(10,976)	(17,749)	28,725
	(10,976)	(17,813)	28,789
	(10,976)	(17,877)	28,852
	(10,976)	(17,941)	28,916
	(10,976)	(18,005)	28,981
	(10,976)	(18,070)	29,045
	(10,976)	(18,134)	29,110
	(10,976)	(18,199)	29,175
	(10,976)	(18,265)	29,240
	(10,976)	(18,330)	29,306
\$ 2,370,746	\$ (2,370,746)	\$ (5,133,673)	\$ 5,133,673

	OME STATEMENT ACCO	UNTS
	Accretion Expense -	
ARO	ARO	Regulatory Credit
403.8xx	411.10x	407.4xx
Dr.J(Cr.)	Dr.J(Cr.)	Dr./(Cr.)
10,976	17,064	(28,040)
10,976	17,126	(28,101)
10,976	17,187	(28,163)
10,976	17,249	(28,224)
10,976	17,310	(28,286)
10,976	17,372	(28,348)
10,976	17,435	(28,410)
10,976	17,497	(28,473)
10,976	17,560	(28,536)
10,976	17,623	(28,598)
10,976	17,686	(28,662)
10,976	17,749	(28,725)
10,976	17,813	(28,789)
10,976	17,877	(28,852)
10,976	17,941	(28,916)
10,976	18,005	(28,981)
10,976	18,070	(29,045)
10,976	18,134	(29,110)
10,976	18,199	(29,175)
10,976	18,265	(29,240)
10,976	18,330	(29,306)
\$ 2,370,746	\$ 2,762,927	\$ (5,133,673)

Assumptions:

May 1,	2015	Valuation Date
Decen	ber 31, 2015	Initial Accounting Date
Decem	ber 31, 2023	Estimated Retirement Date
	8.7	No. of Years Until Retirement Obligation Settled
\$	4,653,000	Estimated Cost of Retirement Obligation (Today's Dollars)
	2.38%	Annual Inflation Rate (Historical Average 1995 - 2014)
\$	5,717,745	Future Value of Retirement Obligation
		Interest/ Discount Rate
\$	3,941,550	Present Value of Retirement Obligation
\Box	11.54%	Annual Depreciation Rate

 Sum of (1)'s = \$
 303,196
 2015 Depreciation Expense

 Sum of (2)'s = \$
 114,418
 2015 Accretion Expense

			BALANCE SHE	ET ACCOUNTS		INCOME STATEMENT ACCOUNTS			
	And Don't I		1		Regulatory Asset -	Depreciation Expense -	Accretion Expense -		
	Acct. Description:		Accum, Deprec, - ARO	Liability - ARO	ARO	ARO	ARO	Regulatory Credit	
	Account No.:	101.xxx	108.xxx	230.xxx	182.3xx	403.8xx	411.10x	407.4xx	
May-15	Entry to be Made Dec-15 for Initial ARO Balances	Dr./(Gr.)	DrJ(Cr.)	DrJ(Gr.)	DrJ(Gr.)	Dr.f(Cr.)	Dr./(Cr.)	DrJ(Cr.)	
=		\$ 3,941,550	\$ -	\$ (3,941,550)	\$ -	\$ -	\$ -	\$ -	
May-15	Monthly Deprec. & Accretion Exp.		(37,900)	(14,124)	52,023	37,900 (¹⁾	14,124 ⁽²⁾	(52,023)	
Jun-15	Monthly Deprec. & Accretion Exp.		(37,900)	(14,174)	52,074	37,900	14,174	(52,074)	
Jul-15	Monthly Deprec. & Accretion Exp.		(37,900)	(14,225)	52,125	37,900	14,225	(52,125)	
Aug-15	Monthly Deprec. & Accretion Exp.		(37,900)	(14,276)	52,176	37,900	14,276	. (52,176)	
Sep-15	Monthly Deprec. & Accretion Exp.	•	(37,900)	(14,327)	52,227	37,900	14,327	(52,227)	
Oct-15	Monthly Deprec. & Accretion Exp.		(37,900)	(14,379)	52,278	37,900	14,379	(52,278)	
Nov-15	Monthly Deprec. & Accretion Exp.		(37,900)	(14,430)	52,330	37,900	14,430	(52,330)	
Dec-15	Monthly Deprec. & Accretion Exp.		(37,900)	(14,482)	52,382	37,900 ₩	14,482	(52,382)	
Jan-16	Monthly Deprec. & Accretion Exp.		(37,900)	(14,534)	52,433	37,900	14,534	(52,433)	
Feb-16	Monthly Deprec. & Accretion Exp.	j.	(37,900)	(14,586)	52,485	37,900	14,586	(52,485)	
Mar-16	Monthly Deprec. & Accretion Exp.		(37,900)	(14,638)	52,538	37,900	14,638	(52,538)	
Apr-16	Monthly Deprec. & Accretion Exp.		(37,900)	(14,691)	52,590	37,900	14,691	(52,590)	
May-16	Monthly Deprec. & Accretion Exp.		(37;900)	(14,743)	52,643	37,900	14,743	(52,643)	
Jun-16	Monthly Deprec. & Accretion Exp.		(37,900)	(14,796)	52,696	. 37,900	14,796	(52,696)	
Jul-16	Monthly Deprec. & Accretion Exp.		(37,900)	(14,849)	52,749	37,900	14,849	(52,749)	
Aug-16	Monthly Deprec, & Accretion Exp.		(37,900)	(14,902)	52,802	37,900	14,902	(52,802)	
Sep-16	Monthly Deprec. & Accretion Exp.		(37,900)	(14,956)	52,855	37,900	14,956	(52,855)	
Oct-16	Monthly Deprec. & Accretion Exp.		(37,900)	(15,009)	52,909	37,900	15,009	(52,909)	
Nov-16	Monthly Deprec. & Accretion Exp.		(37,900)	(15,063)	52,963	37,900	15,063	(52,963)	
Dec-16	Monthly Deprec. & Accretion Exp.		(37,900)	(15,117)	53,017	37,900	15,117	(53,017)	
Jan-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,171)	53,071	37,900	15,171	(53,071)	
Feb-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,226)	53,125	37,900	15,226	(53,125)	
Mar-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,280)	53,180	37,900	15,280	(53,180)	
Apr-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,335)	53,235	37,900	15,335	(53,235)	
May-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,390)	53,289	37,900	15,390	(53,289)	

Assumptions:

May 1, 2015	Valuation Date
December 31, 2015	Initial Accounting Date
December 31, 2023	Estimated Retirement Date
8.7	No. of Years Until Retirement Obligation Settled
\$ 4,653,000	Estimated Cost of Retirement Obligation (Today's Dollars)
2.38%	Annual Inflation Rate (Historical Average 1995 - 2014)
\$ 5,717,745	Future Value of Retirement Obligation
4.30%	Interest/ Discount Rate
\$ 3,941,550	Present Value of Retirement Obligation
11.54%	Annual Depreciation Rate

Sum of (1)'s = \$ 303,196 2015 Depreciation Expense Sum of (2)'s = \$ 114,418 2015 Accretion Expense

			BALANCE SHEE	T ACCOUNTS		INCOME STATEMENT ACCOUNTS		
					Regulatory Asset -	Depreciation Expense	Accretion Expense -	
	Acct. Description:		Accum. Deprec ARO	Liability - ARO	ARO	ARO	ARO	Regulatory Credit
	Account No.:	101.xxx	108.xxx	230.xxx	182.3xx	403.8xx	411.10x	407.4xx
h. 47	M//	Dr./(Cr.)	DrJ(Cr.)	Dr.J(Cr.)	DrJ(Cr.)	DrJ(Cr.)	DrJ(Cr.)	DrJ(Cr.)
Jun-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,445)	53,345	37,900	15,445	(53,345)
Jul-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,500)	53,400	37,900	15,500	(53,400)
Aug-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,556)	53,455	37,900	15,556	(53,455)
Sep-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,612)	53,511	37,900	15,612	(53,511)
Oct-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,668)	53,567	37,900	15,668	(53,567)
Nov-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,724)	53,623	37,900	15,724	(53,623)
Dec-17	Monthly Deprec. & Accretion Exp.		(37,900)	(15,780)	53,680	37,900	15,780	(53,680)
Jan-18	Monthly Deprec, & Accretion Exp.		(37,900)	(15,837)	53,736 -	37,900	15,837	(53,736)
Feb-18	Monthly Deprec. & Accretion Exp.		(37,900)	(15,893)	53,793	37,900	15,893	(53,793)
Mar-18	Monthly Deprec. & Accretion Exp.	•	(37,900)	(15,950)	53,850	37,900	15,950	(53,850)
Apr-18	Monthly Deprec. & Accretion Exp.		(37,900)	(16,008)	53,907	37,900	16,008	(53,907)
May-18	Monthly Deprec. & Accretion Exp.		(37,900)	(16,065)	53,964	37,900	16,065	(53,964)
Jun-18	Monthly Deprec. & Accretion Exp.		(37,900)	(16,122)	54,022	37,900	16,122	(54,022)
Jul-18	Monthly Deprec. & Accretion Exp.	}	(37,900)	(16,180)	54,080	37,900	16,180	(54,080)
Aug-18	Monthly Deprec, & Accretion Exp.		(37,900)	(16,238)	54,138	37,900	16,238	(54,138)
Sep-18	Monthly Deprec. & Accretion Exp.		(37,900)	(16,296)	54,196	37,900	16,296	(54,196)
Oct-18	Monthly Deprec, & Accretion Exp.		(37,900)	(16,355)	54,254	37,900	16,355	(54,254)
Nov-18	Monthly Deprec, & Accretion Exp.].	(37,900)	(16,413)	54,313	37,900	16,413	(54,313)
Dec-18	Monthly Deprec. & Accretion Exp.		(37,900)	(16,472)	54,372	37,900	16,472	(54,372)
Jan-19	Monthly Deprec. & Accretion Exp.		(37,900)	(16,531)	54,431	37,900	16,531	(54,431)
Feb-19	Monthly Deprec. & Accretion Exp.		(37,900)	(16,590)	54,490	37,900	16,590	(54,490)
Mar-19	Monthly Deprec. & Accretion Exp.		(37,900)	(16,650)	54,549	37,900	16,650	(54,549)
Apr-19	Monthly Deprec. & Accretion Exp.		(37,900)	(16,710)	54,609	37,900	16,710	(54,609)
May-19	Monthly Deprec. & Accretion Exp.		(37,900)	(16,769)	54,669	37,900	16,769	(54,669)
Jun-19	Monthly Deprec, & Accretion Exp.		(37,900)	(16,830)	54,729	37,900	16,830	(54,729)
Jul-19	Monthly Deprec. & Accretion Exp.		(37,900)	(16,890)	54,789	37,900	16,890	(54,789)
		•	•	, , ,		1 0.1200	.0,050	(64,165)

Case No. 2015-00333 Attachment No. 4 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen 'age 2 of 5

Assumptions:

May 1,	2015	Valuation Date
Decemb	ber 31, 2015	Initial Accounting Date
Decemb	ber 31, 2023	Estimated Retirement Date
	8.7	No. of Years Until Retirement Obligation Settled
\$	4,653,000	Estimated Cost of Retirement Obligation (Today's Dollars)
	2.38%	Annual Inflation Rate (Historical Average 1995 - 2014)
\$	5,717,745	Future Value of Retirement Obligation
		Interest/ Discount Rate
\$		Present Value of Retirement Obligation
	11.54%	Annual Depreciation Rate

Sum of (1)'s = \$ 303,196 2015 Depreciation Expense

Sum of (2)'s = \$ 114,418 2015 Accretion Expense

			BALANCE SHEE	T ACCOUNTS		INCO	ME STATEMENT ACCOU	JNTS
	Anna Pannati etc			_	Regulatory Asset -	Depreciation Expense -	Accretion Expense -	
	Acct. Description:		Accum, Deprec ARO	Liability - ARO	ARO	ARO	ARO.	Regulatory Credit
	Account No.:	101.xxx	108.xxx	230,xxx	182.3xx	403.8xx	411.10x	407.4xx
Aug-19	Monthly Danies & Assertion Com	Dr./(Cr.)	DrJ(Cr.)	Dr./(Cr.)	Dr./(Cr.)	DrJ(Cr.)	Dr.J(Cr.)	DrJ(Cr.)
Sep-19	Monthly Deprec. & Accretion Exp.		(37,900)	(16,950)	54,850	37,900	16,950	(54,850)
Oct-19	Monthly Deprec. & Accretion Exp.		(37,900)	(17,011)	54,911	37,900	17,011	(54,911)
Nov-19	Monthly Deprec. & Accretion Exp.		(37,900)	(17,072)	54,972	37,900	17,072	(54,972)
Dec-19	Monthly Deprec. & Accretion Exp.		(37,900)	(17,133)	55,033	37,900	17,133	(55,033)
Jan-20	Monthly Deprec. & Accretion Exp.	i .	(37,900)	(17,195)	55,094	37,900	17,195	(55,094)
	Monthly Deprec. & Accretion Exp.		(37,900)	(17,256)	55,156	37,900	17,256	(55,156)
Feb-20	Monthly Deprec. & Accretion Exp.	Į.	(37,900)	(17,318)	55,218	37,900	17,318	(55,218)
Mar-20	Monthly Deprec. & Accretion Exp.		(37,900)	(17,380)	55,280	37,900	17,380	(55,280)
Apr-20	Monthly Deprec. & Accretion Exp.		(37,900)	(17,442)	55,342	37,900	17,442	(55,342)
May-20	Monthly Deprec. & Accretion Exp.		(37,900)	(17,505)	55,404	37,900	17,505	(55,404)
Jun-20	Monthly Deprec. & Accretion Exp.		(37,900)	(17,568)	55,467	37,900	17,568	(55,467)
Jul-20	Monthly Deprec. & Accretion Exp.		(37,900)	(17,631)	55,530	37,900	17,631	(55,530)
Aug-20	Monthly Deprec, & Accretion Exp.		(37,900)	(17,694)	55,593	37,900	17,694	(55,593)
Sep-20	Monthly Deprec. & Accretion Exp.		(37,900)	(17,757)	55,657	37,900	17,757	(55,657)
Oct-20	Monthly Deprec. & Accretion Exp.	l	(37,900)	(17,821)	55,720	37,900	17,821	(55,720)
Nov-20	Monthly Deprec. & Accretion Exp.		(37,900)	(17,885)	55,784	37,900	17,885	(55,784)
Dec-20	Monthly Deprec. & Accretion Exp.		(37,900)	(17,949)	55,848	37,900	17,949	(55,848)
Jan-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,013)	55,913	37,900	18,013	(55,913)
eb-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,078)	55,977	37,900	18,078	(55,977)
Var-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,142)	56,042	37,900	18,142	(56,042)
Apr-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,207)	56,107	37,900	18,207	(56,107)
Vlay-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,273)	56,172	37,900	18,273	
Jun-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,338)	56,238	37,900	18,338	(56,172)
Jul-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,404)	56,303	37,900	18,404	(56,238)
\ug-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,470)	56,369	37,900	18,470	(56,303)
3ep-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,536)	56,436	37,900	18,536	(56,369)
		•		` ' ' 1	,	1 00,000	10,030	(56,436)

Assumptions:

May 1,	2015	Valuation Date
Decem	ber 31, 2015	Initial Accounting Date
Decem	ber 31, 2023	Estimated Retirement Date
	8.7	No. of Years Until Retirement Obligation Settled
\$	4,653,000	Estimated Cost of Retirement Obligation (Today's Dollars)
	2.38%	Annual Inflation Rate (Historical Average 1995 - 2014)
\$		Future Value of Retirement Obligation
		Interest/ Discount Rate
\$	3,941,550	Present Value of Retirement Obligation
	11.54%	Annual Depreciation Rate

Sum of (1)'s = \$ 303,196 2015 Depreciation Expense Sum of (2)'s = \$ 114,418 2015 Accretion Expense

		BALANCE SHEET ACCOUNTS			INCOME STATEMENT ACCOUNTS			
					Regulatory Asset -	Depreclation Expense -	Accretion Expense -	
	Acct. Description:		Accum. Deprec ARO	Liability - ARO	ARO	ARO	ARO	Regulatory Credit
	Account No.:	101.xxx	108.xxx	230.xxx	182.3xx	403.8xx	411.10x	407.4xx
0.404		Dr.J(Cr.)	DrJ(Cr.)	DrJ(Cr.)	DrJ(Cr.)	DrJ(Cr.)	DrJ(Cr.)	DrJ(Cr.)
Oct-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,602)	56,502	37,900	18,602	(56,502)
Nov-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,669)	56,569	37,900	18,669	(56,569)
Dec-21	Monthly Deprec. & Accretion Exp.		(37,900)	(18,736)	56,635	37,900	18,736	(56,635)
Jan-22	Monthly Deprec. & Accretion Exp.		(37,900)	(18,803)	56,703	37,900	18,803	(56,703)
Feb-22	Monthly Deprec, & Accretion Exp.		(37,900)	(18,870)	56,770	37,900	18,870	(56,770)
Mar-22	Monthly Deprec. & Accretion Exp.		(37,900)	(18,938)	56,838	37,900	18,938	(56,838)
Apr-22	Monthly Deprec. & Accretion Exp.		(37,900)	(19,006)	56,905	37,900	19,006	(56,905)
May-22	Monthly Deprec. & Accretion Exp.		(37,900)	(19,074)	56,974	37,900	19,074	(56,974)
Jun-22	Monthly Deprec. & Accretion Exp.		(37,900)	(19,142)	57,042	37,900	19,142	(57,042)
Jul-22	Monthly Deprec. & Accretion Exp.		(37,900)	(19,211)	57,111	37,900	19,211	(57,111)
Aug-22	Monthly Deprec. & Accretion Exp.		(37,900)	(19,280)	57,179	37,900	19,280	(57,179)
Sep-22	Monthly Deprec. & Accretion Exp.		(37,900)	(19,349)	57,248	37,900	19,349	(57,248)
Oct-22	Monthly Deprec. & Accretion Exp.		(37,900)	(19,418)	57,318	37,900	19,418	(57,318)
Nov-22	Monthly Deprec. & Accretion Exp.		(37,900)	(19,488)	57,387	37,900	19,488	(57,387)
Dec-22	Monthly Deprec. & Accretion Exp.	i	(37,900)	(19,558)	57,457	37,900	19,558	(57,457)
Jan-23	Monthly Deprec. & Accretion Exp.		(37,900)	(19,628)	57,527	37,900	19,628	(57,527)
Feb-23	Monthly Deprec. & Accretion Exp.		(37,900)	(19,698)	57,598	37,900	19,698	(57,598)
Mar-23	Monthly Deprec. & Accretion Exp.		(37,900)	(19,769)	57,668	37,900	19,769	(57,668)
Apr-23	Monthly Deprec. & Accretion Exp.	1	(37,900)	(19,840)	57,739	37,900	19,840	(57,739)
May-23	Monthly Deprec, & Accretion Exp.		(37,900)	(19,911)	57,810	37,900	19,911	(57,810)
Jun-23	Monthly Deprec. & Accretion Exp.		(37,900)	(19,982)	57,881	37,900	19,982	(57,881)
Jul-23	Monthly Deprec. & Accretion Exp.		(37,900)	(20,054)	57,953	37,900	20,054	(57,953)
Aug-23	Monthly Deprec, & Accretion Exp.		(37,900)	(20,125)	58,025	37,900	20,125	(58,025)
Sep-23	Monthly Deprec. & Accretion Exp.	!	(37,900)	(20,198)	58,097	37,900	20,198	(58,097)
Oct-23	Monthly Deprec. & Accretion Exp.		(37,900)	(20,270)	58,169	37,900	20,270	(58,169)
Nov-23	Monthly Deprec. & Accretion Exp.	I	(37,900)	(20,343)	58,242	37,900	20,343	(58,242)

Assumptions:

May 1,	2015	Valuation Date			
Decen	nber 31, 2015	Initial Accounting Date			
Decen	nber 31, 2023	Estimated Retirement Date			
	8.7	No. of Years Until Retirement Obligation Settled			
\$	4,653,000	Estimated Cost of Retirement Obligation (Today's Dollars)			
	2.38%	Annual Inflation Rate (Historical Average 1995 - 2014)			
\$		Future Value of Retirement Obligation			
	4.30%	Interest/ Discount Rate			
\$	3,941,550	Present Value of Retirement Obligation			
	11.54%	Annual Depreciation Rate			

Sum of (1)'s = \$

303,196 2015 Depreciation Expense

Sum of (2)'s = \$

5,717,745

114,418 2015 Accretion Expense

Acct. Description:

Account No.:

t No.:

3,941,550

(5,717,745)

(3,941,550)

BALANCE SHEET ACCOUNTS

INCOME STATEMENT ACCOUNTS Depreciation Expense Accretion Expense -ARO ARO Regulatory Credit 403.8xx 411.10x 407.4xx DrJ(Cr.) Dr./(Cr.) DrJ(Cr.) 37,900 20,415 (58,315) 3,941,550 1,776,196 (5,717,745)

Dec-23 Monthly Deprec. & Accretion Exp.

Ending Balances (before settlement)

Assumptions:

May 1	, 2015	Valuation Date
Decer	nber 31, 2015	Initial Accounting Date
Decer	nber 31, 2023	Estimated Retirement Date
	8.7	No. of Years Until Retirement Obligation Settled
\$	3,346,268	
	2.38%	Annual Inflation Rate (Historical Average 1995 - 2014)
\$		Future Value of Retirement Obligation
		Interest/ Discount Rate
\$		Present Value of Retirement Obligation
	11.54%	Annual Depreciation Rate

Sum of (1)'s = \$

218,048 2015 Depreciation Expense

Sum of (2)'s = \$

82,286 2015 Accretion Expense

	Allitudi Depreciation Rate											
		L	BALANCE SHEET ACCOUNTS					INCO	ME STATEMENT ACCO	UNTS		
	Aget Depositions	 	la Caralan Ano				Reg	gulatory Asset -	De	preciation Expense	Accretion Expense -	
	Acct. Description:	Plant		Accum. Deprec ARO	l	Liability - ARO		ARO		ARO	ARO T	Regulatory Credit
	Account No.:	ł	101.xxx	108.xxx	l	230.xxx	ļ	182.3xx	11	403.8xx	411.10x	407.4xx
May-15	Entry to be Made Dec-15 for Initial ARO Balances	-	Dr.J(Cr.)	DrJ(Cr.)	Ļ	DrJ(Cr.)	 	Dr.f(Cr.)	╵└	Dr./(Cr.)	Dr./(Cr.)	DrJ(Cr.)
_		3	2,834,619	\$ -	\$	(2,834,619)	\$	•	\$	•	\$ -	\$ -
Мау-15 Јил-15	Monthly Deprec. & Accretion Exp.			(27,256)		(10,157)		37,413		27,256 (¹⁾	10.157 ⁽²⁾	(37,413)
Jul-15 Jul-15	Monthly Deprec, & Accretion Exp.	1		(27,256)		(10,194)		37,450		27,256	10,194	(37,450)
Aug-15	Monthly Deprec, & Accretion Exp.	ł		(27,256)		(10,230)		37,486		27,256	10,230	(37,486)
_	Monthly Deprec. & Accretion Exp.			(27,256)		(10,267)		37,523	' !	27,256	10,267	(37,523)
Sep-15 Oct-15	Monthly Deprec. & Accretion Exp.			(27,256)		(10,304)		37,560		27,256	10,304	(37,560)
Nov-15	Monthly Deprec, & Accretion Exp.	1		(27,256)	1	(10,341)		37,597	1	27,256	10,341	(37,597)
Dec-15	Monthly Deprec. & Accretion Exp.			(27,256)		(10,378)	ł	37,634		27,256	10,378	(37,634)
Jan-16	Monthly Deprec, & Accretion Exp.			(27,256)		(10,415)		37,671	' !	27,256 ₩	10,415	(37,671)
Feb-16	Monthly Deprec. & Accretion Exp.			(27,256)		(10,452)		37,708	- i	27,256	10,452	(37,708)
Mar-16	Monthly Deprec. & Accretion Exp.			(27,256)	ĺ	(10,490)		37,746	- 1	27,256	10,490	(37,746)
	Monthly Deprec. & Accretion Exp.	1		(27,256)	l	(10,527)		37,783		27,256	10,527	(37,783)
Apr-16	Monthly Deprec. & Accretion Exp.			(27,256)	l	(10,565)		37,821		27,256	10,565	(37,821)
May-16	Monthly Deprec. & Accretion Exp.			(27,256)	Į	(10,603)		37,859		27,256	10,603	(37,859)
Jun-16 Jul-16	Monthly Deprec. & Accretion Exp.	ľ		(27,256)		(10,641)		37,897		27,256	10,641	(37,897)
	Monthly Deprec, & Accretion Exp.	İ		(27,256)		(10,679)		37,935	1	27,256	10,679	(37,935)
Aug-16	Monthly Deprec. & Accretion Exp.			(27,256)	Į	(10,717)		37,973		27,256	10,717	(37,973)
Sep-16 Oct-16	Monthly Deprec. & Accretion Exp.	1		(27,256)		(10,756)		38,012	-	27,256	10,756	(38,012)
Nov-16	Monthly Deprec. & Accretion Exp.]		(27,256)		(10,794)		38,050		27,256	10,794	(38,050)
Dec-16	Monthly Deprec. & Accretion Exp.			(27,256)		(10,833)		38,089	- 1	27,256	10,833	(38,089)
Jan-17	Monthly Deprec. & Accretion Exp.			(27,256)		(10,872)		38,128	-	27,256	10,872	(38,128)
Feb-17	Monthly Deprec. & Accretion Exp.	ľ		(27,256)		(10,911)		38,167		27,256	10,911	(38,167)
Mar-17	Monthly Depree & Accretion Exp.			(27,256)		(10,950)	1	38,206	-	27,256	10,950	(38,206)
Apr-17	Monthly Deprec. & Accretion Exp.			(27,256)		(10,989)		38,245		27,256	10,989	(38,245)
May-17	Monthly Deprec. & Accretion Exp.			(27,256)		(11,028)	•	38,284	-	27,256	11,028	(38,284)
Jun-17	Monthly Deprec. & Accretion Exp.	[(27,256)		(11,068)		38,324		27,256	11,068	(38,324)
AMIL-11	Monthly Deprec. & Accretion Exp.			(27,256)		(11,108)		38,363	1	27,256	11,108	(38,363)

Case No. 2015-00333 Attachment No. 5 of 8 for Response to Staff Item 2 Vitness: Nicholas R. Castlen 'age 1 of 4

Assumptions:

May 1	1, 2015	Valuation Date				
Dece	mber 31, 2015	Initial Accounting Date				
Dece	mber 31, 2023	Estimated Retirement Date				
	8.7	No. of Years Until Refirement Obligation Settled				
\$	3,346,268	Estimated Cost of Retirement Obligation (Today's Dollars)				
	2.38%	Annual Inflation Rate (Historical Average 1995 - 2014)				
\$		Future Value of Retirement Obligation				
		Interest/ Discount Rate				
\$		Present Value of Retirement Obligation				
	11.54%	Annual Depreciation Rate				

Sum of (1)'s = \$ 218,048

218,048 2015 Depreciation Expense

Sum of (2)'s = \$

82,286 2015 Accretion Expense

	The 170 I dilled Depresation (tage								
			BALANCE SHEE	T ACCOUNTS		INCOME STATEMENT ACCOUNTS			
	84-D1-4		1_	-	Regulatory Asset -	Depreciation Expense	Accretion Expense -		
	. Acct Description:		Accum. Deprec ARO	Llability - ARO	ARO	ARO	ARO	Regulatory Credit	
	Account No.:	101.xxx	108.xxx	230.xxx	182,3xx	403.8xx	411.10x	407.4xx	
1.4.47	Mandalan AA 4 =	Dr.J(Cr.)	Dr.J(Cr.)	DrJ(Cr.)	DrJ(Cr.)	DrJ(Cr.)	DrJ(Cr.)	DrJ(Cr.)	
Jul-17	Monthly Deprec. & Accretion Exp.		(27,256)	(11,147)	38,403	27,256	11,147	(38,403)	
Aug-17	Monthly Deprec. & Accretion Exp.		(27,256)	(11,187)	38,443	27,256	11,187	(38,443)	
Sep-17	Monthly Deprec. & Accretion Exp.		(27,256)	(11,227)	38,483	27,256	11,227	(38,483)	
Oct-17	Monthly Deprec. & Accretion Exp.		(27,256)	(11,268)	38,524	27,256	11,268	(38,524)	
Nov-17	Monthly Deprec. & Accretion Exp.		(27,256)	(11,308)	38,564	27,256	11,308	(38,564)	
Dec-17	Monthly Deprec. & Accretion Exp.		(27,256)	(11,349)	38,604	27,256	11,349	(38,604)	
Jan-18	Monthly Deprec. & Accretion Exp.		(27,256)	(11,389)	38,645	27,256	11,389	(38,645)	
Feb-18	Monthly Deprec. & Accretion Exp.		(27,256)	(11,430)	38,686	27,256	11,430	(38,686)	
Mar-18	Monthly Deprec. & Accretion Exp.		(27,256)	(11,471)	38,727	27,256	11,471	(38,727)	
Apr-18	Monthly Deprec. & Accretion Exp.		(27,256)	(11,512)	38,768	27,256	11,512	(38,768)	
May-18	Monthly Deprec. & Accretion Exp.		(27,256)	(11,553)	38,809	27,256	11,553	(38,809)	
Jun-18	Monthly Deprec. & Accretion Exp.		(27,256)	(11,595)	38,851	27,256	11,595	(38,851)	
Jui-18	Monthly Deprec. & Accretion Exp.		(27,256)	(11,636)	38,892	27,256	11,636	(38,892)	
Aug-18	Monthly Deprec. & Accretion Exp.		(27,256)	(11,678)	38,934	27,256	11,678		
Sep-18	Monthly Deprec. & Accretion Exp.	1	(27,256)	(11,720)	38,976	27,256	11,720	(38,934)	
Oct-18	Monthly Deprec, & Accretion Exp.		(27,256)	(11,762)	39,018	27,256	11,762	(38,976)	
Nov-18	Monthly Deprec. & Accretion Exp.		(27,256)	(11,804)	39,060	27,256	11,804	(39,018)	
Dec-18	Monthly Deprec. & Accretion Exp.	1	(27,256)	(11,846)	39,102	27,256	11,846	(39,060)	
Jan-19	Monthly Deprec. & Accretion Exp.		(27,256)	(11,889)	39,145	27,256	11,889	(39,102)	
Feb-19	Monthly Deprec. & Accretion Exp.		(27,256)	(11,931)	39,187	27,256	11,931	(39,145)	
Mar-19	Monthly Deprec. & Accretion Exp.		(27,256)	(11,974)	39,230	27,256	11,974	(39,187)	
Apr-19	Monthly Deprec. & Accretion Exp.		(27,256)	(12,017)	39,273	27,256	, ,	(39,230)	
May-19	Monthly Deprec. & Accretion Exp.		(27,256)	(12,060)	39,316	27,256	12,017 12,060	(39,273)	
Jun-19	Monthly Deprec. & Accretion Exp.		(27,256)	(12,103)	39,359	27,256	12,103	(39,316)	
Jul-19	Monthly Deprec. & Accretion Exp.		(27,256)	(12,147)	39,403	27,256	12,103	(39,359)	
Aug-19	Monthly Deprec. & Accretion Exp.		(27,256)	(12,190)	39,446	27,256	· ·	(39,403)	
Sep-19	Monthly Deprec. & Accretion Exp.		(27,256)	(12,234)	39,490		12,190	(39,446)	
	•	١ ١	(2.1200)	(12,207)	99,490	27,256	12,234	(39,490)	

Case No. 2015-00333 Attachment No. 5 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen 'age 2 of 4

Assumptions:

Sum of (1)'s = \$ 218,048 2015 Depreciation Expense Sum of (2)'s = \$ 82,286 2015 Accretion Expense

ation

RALANCE SHEET ACCOUNTS

			BALANCE SHEE	TACCOUNTS		INCO	ME STATEMENT ACCOU	INTS
	Agat Depariations	Diagable Compiler ADO			Regulatory Asset -	Depreciation Expense	Accretion Expense -	
	Acct. Description:		Accum, Deprec ARO	Liability - ARO	ARO	ARO	ARO	Regulatory Credit
	Account No.:	101.xxx	108.xxx	230.xxx	182.3xx	403.8xx	411.10x	407.4xx
Oct-19	Monthly Donna & Acerdian Eve	Dr.f(Cr.)	DrJ(Cr.)	DrJ(Cr.)	Dr.J(Cr.)	DrJ(Cr.)	Dr.i(Cr.)	DrJ(Cr.)
Nov-19	Monthly Deprec. & Accretion Exp.		(27,256)	(12,278)	39,534	27,256	12,278	(39,534)
Dec-19	Monthly Deprec. & Accretion Exp.	_	(27,256)	(12,322)	39,578	27,256	12,322	(39,578)
Jan-20	Monthly Deprec. & Accretion Exp.		(27,256)	(12,366)	39,622	27,256	12,366	(39,622)
Feb-20	Monthly Deprec. & Accretion Exp.		(27,256)	(12,410)	39,666	27,256	12,410	(39,666)
	Monthly Deprec. & Accretion Exp.		(27,256)	(12,455)	39,710	27,256	12,455	(39,710)
Mar-20	Monthly Deprec. & Accretion Exp.		(27,256)	(12,499)	39,755	27,256	12,499	(39,755)
Apr-20	Monthly Deprec. & Accretion Exp.		(27,256)	(12,544)	39,800	27,256	12,544	(39,800)
May-20	Monthly Deprec. & Accretion Exp.		(27,256)	(12,589)	39,845	27,256	12,589	(39,845)
Jun-20	Monthly Deprec. & Accretion Exp.		(27,256)	(12,634)	39,890	27,256	12,634	(39,890)
Jul-20	Monthly Deprec. & Accretion Exp.		(27,256)	(12,679)	39,935	27,256	12,679	(39,935)
Aug-20	Monthly Deprec. & Accretion Exp.		(27,256)	(12,725)	39,981	27,256	12,725	(39,981)
Sep-20	Monthly Deprec. & Accretion Exp.		(27,256)	(12,770)	40,026	27,256	12,770	
Oct-20	Monthly Deprec. & Accretion Exp.		(27,256)	(12,816)	40,072	27,256	12,816	(40,026) (40,072)
Nov-20	Monthly Deprec, & Accretion Exp.		(27,256)	(12,862)	40,118	27,256	12,862	
Dec-20	Monthly Deprec. & Accretion Exp.	İ	(27,256)	(12,908)	40,164	27,256	12,908	(40,118)
Jan-21	Monthly Deprec. & Accretion Exp.		(27,256)	(12,954)	40,210	27,256	12,954	(40,164)
Feb-21	Monthly Deprec. & Accretion Exp.		(27,256)	(13,001)	40,257	27,256	13,001	(40,210)
Mar-21	Monthly Deprec. & Accretion Exp.		(27,256)	(13,047)	40,303	27,256	13,047	(40,257)
Apr-21	Monthly Deprec. & Accretion Exp.		(27,256)	(13,094)	40,350	27,256	13,094	(40,303)
May-21	Monthly Deprec. & Accretion Exp.		(27,256)	(13,141)	40,397	27,256	13,141	(40,350)
Jun-21	Monthly Deprec. & Accretion Exp.		(27,256)	(13,188)	40,444	27,256	13,188	(40,397)
Jul-21	Monthly Deprec. & Accretion Exp.		(27,256)	(13,235)	40,491	27,256	· · · · · · · · · · · · · · · · · · ·	(40,444)
Aug-21	Monthly Deprec. & Accretion Exp.		(27,256)	(13,283)	40,539	27,256	13,235	(40,491)
Sep-21	Monthly Deprec. & Accretion Exp.		(27,256)	(13,330)	40,586	27,256	13,283	(40,539)
Oct-21	Monthly Deprec. & Accretion Exp.		(27,256)	(13,378)	40,634	27,256	13,330	(40,586)
Nov-21	Monthly Deprec. & Accretion Exp.		(27,256)	(13,426)	40,682	27,256	13,378	(40,634)
Dec-21	Monthly Deprec. & Accretion Exp.		(27,256)	(13,474)	40,730	27,256	13,426	(40,682)
	•	•	(,255)	(, 1)	40,100	1 21,250	13,474	(40,730)

Case No. 2015-00333 Attachment No. 5 of 8 for Response to Staff Item 2 Vitness: Nicholas R. Castlen 'age 3 of 4

Assumptions:

May 1	2015	Valuation Date
Decem	ber 31, 2015	Initial Accounting Date
Decem	ber 31, 2023	Estimated Retirement Date
	8.7	No. of Years Until Retirement Obligation Settled
\$	3,346,268	Estimated Cost of Retirement Obligation (Today's Dollars)
		Annual Inflation Rate (Historical Average 1995 - 2014)
\$		Future Value of Retirement Obligation
i		Interest/ Discount Rate
\$	2,834,619	Present Value of Retirement Obligation
	11.54%	Annual Depreciation Rate

Sum of (1)'s = \$

218,048 2015 Depreciation Expense

Sum of (2)'s = \$

82,286 2015 Accretion Expense

	Acct. Description: Account No.:
Jan-22	Monthly Deprec. & Accretion Exp.
Feb-22	Monthly Deprec. & Accretion Exp.
Mar-22	Monthly Deprec. & Accretion Exp.
Apr-22	Monthly Deprec, & Accretion Exp.
May-22	Monthly Deprec. & Accretion Exp.
Jun-22	Monthly Deprec, & Accretion Exp.
Jul-22	Monthly Deprec. & Accretion Exp.
Aug-22	Monthly Deprec. & Accretion Exp.
Sep-22	Monthly Deprec. & Accretion Exp.
Oct-22	Monthly Deprec. & Accretion Exp.
Nov-22	Monthly Deprec. & Accretion Exp.
Dec-22	Monthly Deprec. & Accretion Exp.
Jan-23	Monthly Deprec. & Accretion Exp.
Feb-23	Monthly Deprec. & Accretion Exp.
Mar-23	Monthly Deprec. & Accretion Exp.
Apr-23	Monthly Deprec. & Accretion Exp.
May-23	Monthly Deprec. & Accretion Exp.
Jun-23	Monthly Deprec, & Accretion Exp.
Jul-23	Monthly Deprec. & Accretion Exp.
Aug-23	Monthly Deprec, & Accretion Exp.
Sep-23	Monthly Deprec. & Accretion Exp.
Oct-23	Monthly Deprec. & Accretion Exp.
Nov-23	Monthly Deprec. & Accretion Exp.
Dec-23	Monthly Deprec. & Accretion Exp.
	Ending Balances (before settlement)

	BALANCE SHE	ET ACCOUNTS	·
Plant in Service - ARO	Accum. Deprec ARO	Liability - ARO	Regulatory Asset - ARO
101.xxx	108.xxx	230.xxx	182.3xx
DrJ(Cr.)	Dr./(Gr.)	DrJ(Cr.)	DrJ(Cr.)
	(27,256)	(13,523)	40,778
	(27,256)	(13,571)	40,827
	(27,256)	(13,620)	40,876
	(27,256)	(13,668)	40,924
	(27,256)	(13,717)	40,973
	(27,256)	(13,767)	41,022
	(27,256)	(13,816)	41,072
	(27,256)	(13,865)	41,121
-	(27,256)	(13,915)	41,171
	(27,256)	(13,965)	41,221
	(27,256)	(14,015)	41,271
	(27,256)	(14,065)	41,321
	(27,256)	(14,116)	41,372
	(27,256)	(14,166)	41,422
	(27,256)	(14,217)	41,473
	(27,256)	(14,268)	41,524
	(27,256)	(14,319)	41,575
	(27,256)	(14,370)	41,626
	(27,256)	(14,422)	41,678
	(27,256)	(14,473)	41,729
	(27,256)	(14,525)	41,781
	(27,256)	(14,577)	41,833
	(27,256)	(14,630)	41,886
	(27,256)	(14,682)	41,938
\$ 2,834,619	\$ (2,834,619)	\$ (4,111,994)	\$ 4,111,994

	OME STATEMENT ACCO	UNTS
	Accretion Expense -	l
ARO	ARO	Regulatory Credi
403.8xx	411.10x	407.4xx
Dr.J(Cr.)	Dr.I(Cr.)	DrJ(Cr.)
27,256	13,523	(40,778)
27,256	13,571	(40,827)
27,256	13,620	(40,876)
27,256	13,668	(40,924)
27,256	13,717	(40,973)
. 27,256	13,767	(41,022)
27,256	13,816	(41,072)
27,256	13,865	(41,121)
27,256	13,915	(41,171)
27,256	13,965	(41,221)
27,256	14,015	(41,271)
27,256	14,065	(41,321)
27,256	14,116	(41,372)
27,256	14,166	(41,422)
27,256	14,217	(41,473)
27,256	14,268	(41,524)
27,256	. 14,319	(41,575)
27,256	14,370	(41,626)
27,256	14,422	(41,678)
27,256	14,473	(41,729)
27,256	14,525	(41,781)
27,256	14,577	(41,833)
27,256	14,630	(41,886)
. 27,256	14,682	(41,938)
\$ 2,834,619	\$ 1,277,375	\$ (4,111,994)

Case No. 2015-00333 Attachment No. 5 of 8 for Response to Staff Item 2 Witness: Nicholas R. Castlen 'age 4 of 4

Big Rivers' Share of Station Two Ash Pond Closure Costs

Fiscal Year	STATION	TWO MW CAPACITY R	
	Big Rivers' Share	City's Share	Total Station Two
5/01/73 - 5/31/74	162	13	175
S/01/74 - 5/31/75	283	17	300
S/01/75 - 5/31/76	271	18	289
S/01/76 - 5/31/77	267	22	289
5/01/77 - 5/31/78	262	27	289
6/01/78 - 5/31/79	262	34	296
6/01/79 - 5/31/80	- 256	41	297
5/01/80 - 5/31/81	256	40	296
6/01/81 - 5/31/82	253	43	296
6/01/82 - 5/31/83	253	43	296 •
S/01/83 - 5/31/84	270	45	315
5/01/84 - 5/31/85	268	47	315
3/01/85 - 5/31/86	271	44	315
6/01/86 - 5/31/87	271	44	315
3/01/87 - 5/3 1/ 88	270	45	315
i/01/88 - 5/31/89	269	46	315
/01/89 - 5/31/90	264	51	315
/01/90 - 5/31/91	264	51	315
/01/91 - 5/31/92	263	52	315
/01/92 - 5/31/93	262	53	315
/01/93 - 5/31/94	261	54	315
/01/94 - 5/31/95	258	57	315
/01/95 - 5/31/96	250	62	312
/01/96 - 5/31/97	250	62	312
/01/97 - 5/31/98	247	65	312
/01/98 - 5/31/99	246	66	312
/01/99 - 5/31/00	232	80	312
/01/00 - 5/31/01	225	87 ·	312
/01/01 - 5/31/02	220	92	312
/01/02 - 5/31/03	217	95	312
01/03 - 5/31/04	217	95	312
01/04 - 5/31/05	217	95	312
01/05 - 5/31/06	217	95	312
01/06 - 5/31/07	217	95	312
01/07 - 5/31/08	217	95	312
01/08 - 5/31/09	217	95	312
01/09 - 5/31/10	212	100	312
01/10 - 5/31/11	207	105	312
01/11 - 5/31/12	202	110	312
01/12 - 5/31/13	197	115	312
01/13 - 5/31/14	197		
01/14 - 5/31/15	197	115	312 313
01/14 - 0/31/13 01/15 - 5/31/16		115	312 310
	197	115	312
etal	10,314	2,841	13,155
Allocation	78.40%	21.60%	100.00%

x Total Estimated Station Two Ash Pond Closure Costs (Current \$)	\$ 4,268,000
Big Rivers' Share of Station Two Ash Pond Closure Costs	\$ 3,346,268

Note: 1993 Amendments to Contracts among City of Henderson and Big Rivers: Sec. 8 - Station Two Decommissioning Costs *parties shall bear decommissioning costs of Station Two in the proportions in which they shared capacity costs during the life of Station Two.*

Annual U.S. Inflation Rates

1995 - 2015

Source: http://www.multpl.com/inflation/table

-	Annual	7
Year	Inflation]_
2014	1.58%]_
2013	1.59%	ĺ
2012	2.93%	
2011	1.63%	
2010	2.63%	
2009	0.03%	
2008	4.28%	
2007	2.08%	
2006	3.99%	
2005	2.97%	
2004	1.93%	
2003	2.60%	
2002	1.14%	
2001	3.73%	lì
2000	2.74%	
1999	1.67%	$ \ $
1998	1.57%	
1997	3.04%	
1996	2.73%	
1995	2.80%	

2.38% Average Annual Inflation (1995 - 2014)

Big Rivers Electric Corporation Summary of ARO Related Amounts As Revised vs. Application

		Green	Station Two			Total
EVISED AMOUNTS (BASED ON CHANGE IN EXPECTED	CLOSURE DAT	<u>ES TO</u> DEC. 2023	3):	,		
Initial ARO Liability (5/1/2015):	\$	3,941,550	\$	2,834,619	\$	6,776,169
12/31/15 Regulatory Asset Balance:	\$	417,615	\$	300,333	\$	717,948
12/31/15 ARO Liability Balance;	\$	4,055,968	\$	2,916,904	\$	6,972,872
2015 Depreciation & Accretion:						
2015 - Depreciation Expense	\$	303,196	\$	218,048	\$	521,244
2015 - Accretion Expense	\$	114,418			\$	196,704
2015 - Total Depreciation & Accretion Expense	\$	417,615	\$	300,333	\$	717,948
Total Depreciation & Accretion:						
Total Depreciation Expense	\$	3,941,550	\$	2,834,619	\$	6,776,169
Total Accretion Expense	\$	1,776,196		1,277,375	•	3,053,571
Total Depreciation & Accretion Expense	\$	5,717,745	\$	4,111,994	\$	9,829,739

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Attachment No. 8 of 8 for Response to Item 2

Witness: Nicholas R. Castlen

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Big Rivers Electric Corporation Summary of ARO Related Amounts As Revised vs. Application

ORIGINAL AMOUNTS PER APPLICATION (SUPERSEDED):

Initial ARO Liability (5/1/2015):	\$	2,938,770	\$	2,370,746	ć	E 200 E40
(a. 1, 2) (b. 1, 2) (b)	Ψ	2,330,110	Ψ	2,370,740	.	5,309,516
12/31/15 Regulatory Asset Balance:	\$	166,941	\$	156,625	\$	323,567
12/31/15 ARO Liability Balance:	\$	3,024,079	\$	2,439,566	•	5,463,645
2015 Depreciation & Accretion:						÷
2015 - Depreciation Expense	\$	81,632	\$	87,805	\$	169,438
2015 - Accretion Expense	\$	85,309	\$	68,820	\$	154,129
2015 - Total Depreciation & Accretion Expense	\$	166,941	\$	156,625	\$	323,567
Total Depreciation & Accretion:			•			
Total Depreciation Expense	\$	2,938,770	\$, 2,370,746	\$	5,309,516
Total Accretion Expense	\$	5,294,197	\$	2,762,927	\$	8,057,124
Total Depreciation & Accretion Expense	\$	8,232,967	\$	5,133,673	\$	13,366,640

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Big Rivers Electric Corporation Summary of ARO Related Amounts As Revised vs. Application

CHANGE (REVISED AMOUNTS vs. ORIGINAL AMOUNTS PER APPLICATION):

Initial ARO Liability (5/1/2015):	.\$	1,002,780	\$	463,872	\$	1,466,652
12/31/15 Regulatory Asset Balance;	\$	250,673	¢	143,708	¢	004004
12/31/15 ARO Liability Balance:	\$	1,031,889	-	477,338	•	394,381
,	Ψ	1,001,000	Ψ	411,330	Þ	1,509,228
2015 Depreciation & Accretion:						
2015 - Depreciation Expense	\$	221,564	\$	130,242	\$	351,806
2015 - Accretion Expense	\$	29,109	-	13,466	,	· 42,575
2015 - Total Depreciation & Accretion Expense	\$	250,673		143,708	\$	394,381
Total Depreciation & Accretion:						
Total Depreciation Expense	\$	1,002,780	\$	463,872	\$	1,466,652
Total Accretion Expense	\$	(3,518,002)	•	(1,485,552)	•	(5,003,553)
Total Depreciation & Accretion Expense	\$	(2,515,222)		(1,021,679)		(3,536,901)

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1	Item 3)	Refer to the Application, paragraph 10.
2		
3		a. Explain how Big Rivers calculated the ARO-related
4		depreciation expense of \$5.310 million. Include any
5		relevant work papers, spreadsheets, etc., showing the
6		calculation of the \$5.310 million.
7		b. Explain how Big Rivers calculated the ARO-related
8		accretion expense of \$8.057 million. Include any relevant
9		work papers, spreadsheets, etc., showing the calculation
10		of the \$8.057 million.
11		c. Also refer to the Application, paragraph 9, where it states
12		that the "ash pond closure costs are \$8.233 million for
13		Green and \$5.134 million for Big Rivers' share of Station
14		Two." Explain the difference in these amounts and the
15		\$5.310 million ARO-related depreciation expense and
l6	•	\$8.057 ARO-related accretion expense referenced in
17		paragraph 10 of the Application. Include any relevant
18		work papers, spreadsheets, etc., showing the calculations.
19		
20	Response)	
21		a. In accordance with the RUS USoA and ASC 410-20, an ARO
22		liability is initially recognized equal to the present value of the
23		future retirement obligation at the time the obligation is
24		incurred. An amount equal to the initial ARO liability balance

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is capitalized on the company's balance sheet with the related asset and depreciated over its remaining life. The present fair values of the ARO liabilities for the Green and Station Two ash ponds provided in Big Rivers' application were \$2.939 million and \$2.371 million, respectively, totaling \$5.310 million. Based on the initial present value of the ARO liability, calculated using the information available at the time the application was prepared, an equal amount of \$5.310 million would have been capitalized and subsequently depreciated over the life of the related assets. The calculations of the ARO-related depreciation expense for the Green and Station Two ash ponds totaling \$5.310 million, as provided in the application, are included in Attachments No. 2 and No. 3 to the response for Item 2.

As discussed in the responses to Items 2.b. and 2.e. – f., the ARO-related amounts provided in Big Rivers' application in this case were revised based on changes to the expected closure dates of the Green and Station Two ash ponds due to the recently issued Effluent Limitation Guidelines for Steam Electric Power (ELG). Based on the current expected closure date of December 2023 for both ash ponds, the total ARO-related depreciation expense that will be recognized over the remaining life of the related assets is now \$6.776 million. Please see Attachments No. 4 and No. 5 to the response to Item 2 for the

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1		updated calculations of the ARO-related depreciation expense
2		for the Green and Station Two ash ponds, respectively.
3	b.	A recent study performed by Burns & McDonnell of Big Rivers'
4		obligations surrounding the eventual closures of its ash ponds
5		provided estimates of the current costs to close the Green and
6		Station Two ash ponds, in today's dollars, which were estimated
7		to be \$4.653 million for Green and \$3.346 million for Big Rivers'
8		share of Station Two.
9		Using the current cost estimates provided by the Burns
10		& McDonnell study, the estimated retirement dates for the
11		respective units per Big Rivers' 2012 Depreciation Study (May
12		2039 for Green and May 2033 for Station Two), and an annual
13		inflation rate of 2.38%4, Big Rivers calculated the estimated
14		future value of the retirement obligations for closing the ash
15		ponds to be \$13.367 million (consisting of \$8.233 million for
16		Green and \$5.134 million for its share of Station Two).
17		Using a discount rate of 4.30%, Big Rivers then
18		calculated the present value of the ARO liabilities as of May
19		2015 to be \$5.310 million (consisting of \$2.939 million for the
20		Green ash pond and \$2.371 million for the Station Two ash
21		pond). Accordingly, the initial ARO liability recognized would
22		have been \$5.310 million. The initial ARO liability of \$5.310

⁴ See Attachment No. 7 to the response to Item 2 for the calculation of the annual inflation rate used.

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million would have increased to the projected future value of the retirement costs (\$13.367 million) through the monthly accretion over the remaining life of the related asset. The \$8.057 million represents the total accretion expense that would have been recognized over the remaining life of the related asset to increase the value of the liability to the projected future costs [i.e. \$13.367 million (future value) minus \$5.310 million (present value) equals \$8.057 million (total accretion expense)].

As discussed in the responses to Items 2.b. and 2.e. -f., the ARO-related amounts provided in Big Rivers' application in this case were revised based on changes to the expected closure dates of the Green and Station Two ash ponds due to the recently issued Effluent Limitation Guidelines for Steam Electric Power (ELG). Based on the changes to the expected ash pond closure dates, the initial ARO liability balance as of May 2015 is \$6.776 million (\$3.941 for Green and \$2.835 million for Big Rivers' share of Station Two), and the future value of the Green and Station Two ash pond closure costs is \$9.830 million (\$5.718 million for Green and \$4.112 million for Big Rivers' share of Station Two). Based on the revised calculations, the total accretion expense to be recognized over the remaining life of the ash ponds is now \$3.054 million. Please see Attachments No. 4 and No. 5 to the response to Item 2 for the updated

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APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

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1		calculations of the ARO-related accretion expense for the Green
2		and Station Two ash ponds, respectively.
3	c.	The total ash pond closure costs of \$13.367 million (i.e. \$8.233
4		million for Green plus \$5.134 million for Big Rivers' share of
5	•	Station Two), provided in paragraph 9 of the application,
6		represent the future values of the AROs (i.e. the total expected
7		cost of the retirement obligations in future dollars).
8		The total projected cost, or future value, of the
9		retirement obligations are recognized over the remaining lives of
10		the related asset through the recognition of depreciation expense
11		on the capitalized balance and accretion expense on the ARO
12		liability balance. Accordingly, the sum of the ARO-related
13		depreciation expense (\$5.310 million) and the ARO-related
14		accretion expense (\$8.057 million), provided in paragraph 10 of
15		the application, equals the total ash pond closure costs of
16		\$13.367 million provided in paragraph 9 of the application.
17		Please see Attachments 2 and 3 to the response to Item 2 for the
18		calculations of the total ash pond closure costs, ARO-related
19		depreciation, and ARO-related accretion amounts provided in
20		the application for Green and Big Rivers' share of Station Two,
21		respectively.
22		As discussed in the responses to Items 2.b. and $2.e f.$,
23		the ARO-related amounts provided in Big Rivers' application in
24		this case were revised based on changes to the expected closure

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	dates of the Green and Station Two ash ponds due to the
•	recently issued Effluent Limitation Guidelines for Steam
	Electric Power (ELG). Based on the changes to the expected ash
	pond closure dates, the total projected cost (i.e. future value) of
	the AROs is now $$9.830$ million ($$5.718$ million for Green plus
	\$4.112 million for Big Rivers' share of Station Two). The total
	projected cost of $$9.830$ million will be recognized over the life of
	the related assets through depreciation expense of $$6.776$
	million and accretion expense of \$3.054 million. Please see
	Attachments No. 4 and No. 5 to the response to Item 2 for the
	revised calculations of the total ash pond closure costs, ARO-
	related depreciation, and ARO-related accretion amounts for
	Green and Big Rivers' share of Station Two, respectively.
	The electronic version of the Attachments referenced in
	this response is contained on the electronic media accompanying
	these responses.
Witness) Nich	olog P. Castlen

Witness) Nicholas R. Castlen

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APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

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1	Item 4)	Rej	fer to	the Application, paragraph 12.
2				
3		a.	Exp	lain in detail the engineering studies, estimated to
4			cost	between \$700,000 and \$1 million, that Big Rivers must
5			cond	duct on the Wilson, Green, Station Two and Coleman
6			ash	ponds and landfills.
7		b .	Desc	cribe how CCR material is currently stored at the
8			Wils	son Station.
9		c.	Desc	cribe the project to "containerize CCR piles at Wilson
10			Stat	tion."
11		d.	It is	stated that estimated cost to be incurred in 2015 for
12			the	analysis of the Green and Station Two ash ponds is
13			\$100	0,000 for each ash pond.
14			(1)	How many ponds are at each site?
15			(2)	Has the installation of the piezometers and ground
16				water wells begun, or if not, when will installation
17				occur?
18			(3)	Is this a one-time expense, or will there be on-going
19				expenses each year?
20			(4)	Is Big Rivers requesting deferral for these expenses?
21				
22				
23				
24		•		

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1	Response)		•
2		a. The	CCR rule requires the following studies to be completed for
3		land	dfills:
4		i.	Location Restrictions including placement above the
5			uppermost aquifer, wetlands, fault areas, seismic impact
6			zones and unstable areas 40 CFR 257.60 – 257.64;
7		ii.	Floodplain determination 40 CFR 257.64;
8		iii.	Endangered Species 40 CFR 257.3-1;
9		iv.	Design Requirements for Composite Liner and Leachate
10			Collection and Removal System 40 CFR 257.70 (b&c) (d);
11		v.	Groundwater monitoring and corrective action 40 CFR
12			257.90 - 257.98;
13		vi.	Annual inspections 40 CFR 257.84(a);
14		vii.	Fugitive dust controls 40 CFR 257.84(b);
15		viii.	Run-on, Run-off controls 40 CFR 257.81;
16		ix.	Surface water protection 40CFR 257.81;
17		x.	Closure Requirements 40 CFR 257.100 - 257.103; and
18		xi.	Post closure care 40 CFR 257.104.
19			
20		\mathbf{The}	CCR rule requires the following studies to be completed for
21		suri	face impoundments:
22		i.	Location restrictions 40 CFR $257.60 - 257.64$;
23		ii.	Floodplains 40 CFR 257.64;
24		iii.	Endangered species 40 CFR 257.3-2;

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1	iv	v	Design requirements 40 CFR 257.71;
2	v	v.	Groundwater monitoring and corrective action 40 CFR
3	•		257.90 – 257.98;
4	vi	i.	Structural integrity criteria 40 CFR 257.73 & 257.83;
5	vii	i. :	Hazard potential classification assessments 40 CFR 257.73
6			(a)(2);
7	viii	i.	Structural stability assessments 40 CFR 257.73 (d);
8	ix	κ.	Safety factor assessments 40 CFR 257.73 (e);
9	х	K. .	Emergency action plan 40 CFR 257.73 (a)(3);
10	xi	i	Annual inspections 40 CFR 257.83 (b);
11	xii	i	Fugitive dust controls 40 CFR 257.80;
12	xiii	i.	Hydrologic & hydraulic capacity requirements 40 CFR
13			257.82;
14	. xiv	7. i	Surface water protection 40 CFR 257.3-3;
15	xv	7.	Closure requirements $40~\mathrm{CFR}~257.100 - 257.103.$
16	b. C	CR	s are placed in the onsite Special Waste Landfill.
17	c. T	he s	stack-out area for the loading of the poz-o-tec to be trans-
18	po	orte	d to the onsite landfill did not have an impervious base as
19	de	efin	ed in the regulations. The corrective action to meet the
20	de	efin	ition of an impervious base was to construct a concrete pad
21	to	sta	ack the poz-o-tec on during the loading process.
22	d.		
23	(1	L)	There are two bottom ash ponds onsite - one for Green
24			Station and one for Henderson Station II.

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1		(2)	Big Rivers has installed the piezometers to determine the
2			ground water flow. Big Rivers expects the installation of
3			the ground water monitoring wells to be completed by the
4			end of this year.
5		(3)	Big Rivers expects the installation of piezometers and
6			ground water monitoring wells to be a one-time expense.
7		(4)	Yes.
8			
9			
0	Witness)	Eric M. R	obeson

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1	Item 5) Refer to the application, paragraph 17. Confirm that the
2	absolute latest date that the Commission could issue an Order that would
3	allow Big Rivers to record the proposed regulatory asset entries is
4	January 5, 2016.
5	
6	Response) Big Rivers strives to close its books for the prior month-end no later
7	than the 15th of each subsequent month. This allows Big Rivers' staff time to
8	prepare and distribute internal and external reports and documents, including the
9	monthly Fuel Adjustment Clause and Environmental Surcharge filings, in a
10	timely manner. While Big Rivers could meet the December 2015 month-end
11	closing target of January 15, 2016, if it receives the Commission's order by
12	January 13, 2016, Big Rivers desires to have an order by the earlier January 5
13	date to allow time (i) for any unexpected accounting entries and approvals which
14	might arise from the Commission's order, and (ii) to seek clarification from
15	Commission Staff regarding any language in that order.
16	
17	
18	Witness) Nicholas R. Castlen

Witness) Nicholas R. Castlen

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AUTHORITY TO ESTABLISH REGULATORY ASSETS FOR EXPENSES RELATED TO THE COAL COMBUSTION RESIDUALS RULE CASE NO. 2015-00333

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Have there been any citations, violations, notices, litigation,

1

Item 6)

2	etc., from/with any environmental agency regarding the ash ponds at
3	Green and Station Two over the past ten years? If so, identify and explain
4	each incident and provide any relevant information regarding each
5	incident.
6	
7	Response) Since acquiring operational control of the power plants on
8	consummation of the Unwind Transaction in 2009, Big Rivers has not received
9	any Notices of Violations ("NOVs") from the Kentucky Energy and Environment
10	Cabinet, Department for Environmental Protection, Division of Enforcement
11	("KEEC-EP"). Prior to that event, any NOVs were the responsibility of Western
12	Kentucky Energy, Inc ("WKE").
13	Three NOVs were issued to WKE in the past ten years. The predecessor of
14	the KEEC-EP issued an NOV on January 6, 2005, for exceeding the monthly Total
15	Suspended Solids ("TSS") and exceeding the pH limits on the Green Station ash
16	pond. The monthly TSS limit was 30 mg/l and the reported average was 44.7 mg/l.
17	The corrective action was to remove solids from directly in front of the discharge
18	structure. The pH issue was resolved by adjusting the sodium hydroxide feed to
19	the discharge clarifier.
20	KEEC-EP issued a second NOV on May 29, 2007, for exceeding TSS
21	average on the discharge of the Reid/Henderson ash pond. The permit limit for
22	the TSS monthly average was 30 mg/l and the reported monthly average was 46.0
23	mg/l. The corrective action was to add a polymer settling agent to increase the
24	settling rate within the ash pond and to remove approximately 30,000 yards of ash

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1	from the ash pond to increase the capacity of the pond as well as modify the					
2	current dry fly ash system.					
3	KEEC-EP issued a third NOV on February 27, 2008, for exceeding the TSS					
4	limit for the Reid/Henderson ash pond in November. The permit limit for the TSS					
5	monthly average was 30 mg/l and the reported monthly average was 38 mg/l. The					
6	corrective action was to restart the polymer feed system.					
7	These NOVs were issued during the time Big Rivers' generating units were					
8	leased to affiliates of Louisville Gas and Electric Company.					
9						
10						
11	Witness) Eric M. Robeson					