

Exhibit No.:
Issue: Depreciation
Witness: John A. Robinett
Sponsoring Party: MoPSC Staff
Type of Exhibit: Rebuttal Testimony
Case No.: EM-2016-0213
Date Testimony Prepared: July 20, 2016

MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

ENGINEERING ANALYSIS UNIT

REBUTTAL TESTIMONY

OF

JOHN A. ROBINETT

**THE EMPIRE DISTRICT ELECTRIC COMPANY,
LIBERTY UTILITES (CENTRAL) CO., AND LIBERTY SUB CORP.**

CASE NO. EM-2016-0213

*Jefferson City, Missouri
July 2016*

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(1) Electric Assets

- a. For purposes of accruing depreciation expense, Empire shall use the ordered depreciation rates for The Empire District Electric Company that are awaiting approval by the Commission in Case No. ER-2016-0023, and those depreciation rates attached hereto that were attached to the Stipulation and Agreement in that case as Schedule JAR(DEP)-r2. Depreciation rates resulting from Case No. ER-2016-0023 are to remain in effect until they are changed in a subsequent rate proceeding.
- b. Empire shall continue to book all plant and depreciation reserve records in compliance with the format set forth in Title 18: Conservation of Power and Water Resources, Part 101—Uniform System Of Accounts Prescribed For Natural Gas Companies Subject To The Provisions Of The Federal Power Act (FERC USOA).
- c. Empire will continue to prepare and maintain its books in accordance with the FERC Uniform System of Accounts (USOA).
- d. Empire shall submit the following information in accordance with 4 CSR 240-3.175 - Submission Requirements for Electric Utility Depreciation Studies.
 - i. FERC USOA requires the following information to be recorded as part of a Continuing Plant Inventory Record (CPR).
 - ii. FERC USOA CPR Rule 8. *Continuing plant inventory record* means company plant records for retirement units and mass property that provide, as either a single record, or in separate records readily obtainable by references made in a single record, the following information:
 - 1. For each retirement unit:
 - a. The name or description of the unit, or both;
 - b. The location of the unit;

- c. The date the unit was placed in service;
- d. The cost of the unit as set forth in Plant Instructions 2 and 3 of this part; and
- e. The plant control account to which the cost of the units is charged; and

2. For each category of mass property:

- a. A general description of the property and quantity;
- b. The quantity placed in service by vintage year;
- c. The average cost as set forth in Plant Instructions 2 and 3 of this part; and
- d. The plant control account to which the costs are charged.

Q. What are Staff's recommendations related to Empire's gas utility?

A. Staff recommends the following conditions be ordered by the Commission if the merger is approved:

(2) Gas Assets

- a. For purposes of accruing depreciation expense, Empire shall ensure that The Empire District Gas Company ("EDG") uses the currently ordered depreciation rates for EDG approved by the Commission in File No. GR-2009-0434, and attached as Schedule JAR(DEP)-r3 until changed in a subsequent rate proceeding.
- b. Empire shall ensure that EDG continues to book all plant and depreciation reserve records in compliance with the format set forth in Title 18: Conservation of Power and Water Resources, Part 201—Uniform System Of Accounts Prescribed For Natural Gas Companies Subject To The Provisions Of The Natural Gas Act (FERC USOA).

- 1 c. Empire shall ensure that EDG prepares and maintains its books in
2 accordance with the FERC Uniform System of Accounts (USOA).
3 d. Empire shall ensure that EDG submits the following information in
4 accordance with 4 CSR 240-3.275 Submission Requirements for
5 Gas Utility Depreciation Studies.
6 i. FERC USOA requires the following information shall be
7 recorded as part of a Continuing Plant Inventory Record
8 (CPR).
9 ii. FERC USOA CPR Rule 8. *Continuing plant inventory*
10 *record* means company plant records for retirement units
11 and mass property that provide, as either a single record, or
12 in separate records readily obtainable by references made in
13 a single record, the following information:
14 1. For each retirement unit:
15 a. The name or description of the unit, or both;
16 b. The location of the unit;
17 c. The date the unit was placed in service;
18 d. The cost of the unit as set forth in Plant
19 Instructions 2 and 3 of this part; and
20 e. The plant control account to which the cost
21 of the units is charged; and
22 2. For each category of mass property:
23 a. A general description of the property and
24 quantity;
25 b. The quantity placed in service by vintage
26 year;
27 c. The average cost as set forth in Plant
28 Instructions 2 and 3 of this part; and
29 d. The plant control account to which the costs
30 are charged.

Rebuttal Testimony of
John A. Robinett

1 Q. What are Staff's recommendations related to Empire's water utility?

2 A. Empire shall continue to utilize the depreciation rates ordered in Case No.
3 WR-2012-0300, attached hereto as Schedule JAR(DEP)-r4, and those depreciation rates shall
4 remain in effect until they are changed in a subsequent rate proceeding.

5 Q. Does this conclude your rebuttal testimony?

6 A. Yes.

John A. Robinett

I am employed as a Utility Engineering Specialist III for the Missouri Public Service Commission (Commission). I began employment with the Commission in April of 2010. In May of 2008, I graduated from the University of Missouri-Rolla (now Missouri University of Science and Technology) with a Bachelor of Science degree in Mechanical Engineering.

During my time as an undergraduate, I was employed as an engineering intern for the Missouri Department of Transportation (MoDOT) in their Central Laboratory located in Jefferson City, Missouri for three consecutive summers. During my time with MoDOT, I performed various qualification tests on materials for the Soil, Aggregate, and General Materials sections. A list of duties and tests performed are below:

- Compressive strength testing of 4” and 6” concrete cylinders and fracture analysis
- Graduations of soil, aggregate, and reflective glass beads
- Sample preparations of soil, aggregate, concrete, and steel
- Flat and elongated testing of aggregate
- Micro-deval and LA testing of aggregate
- Bend testing of welded wire and rebar
- Tensile testing of welded, braided cable, and rebar
- Hardness testing of fasteners (plain black and galvanized washers, nuts, and bolts)
- Proof loading and tensile testing of bolts
- Sample collection from active road constructions sites
- Set up and performed the initial testing on a new piece of equipment called a Linear Traverse / Image Analysis
- Wrote operators manual for the Linear Traverse / Image Analysis Machine
- Trained a fulltime employee on how to operate the machine prior to my return to school
- Assisted in batching concrete mixes for testing, mixing the concrete, slump cone testing, percent air testing, and specimen molding of cylinders and beams

Upon graduation, I accepted a position as an Engineer I in the Product Evaluation Group for Hughes Christensen Company, a division of Baker Hughes, Inc. (Baker), an oil field service company. During my employment with Baker, I performed failure analysis on oil field drill bits as well as composed findings reports which were forwarded to the field engineers in order for them to report to the company the conclusions of the failure causes.

JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION

Listed below are the cases in which I have supplied depreciation rates accompanied by a signed affidavit.

Company	Case Number	Issue
Empire District Electric Company	ER-2016-0023	Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony
Hillcrest Utility Operating Company, Inc.	SR-2016-0065	Depreciation Review
Hillcrest Utility Operating Company, Inc.	WR-2016-0064	Depreciation Review
Missouri American Water Company	WR-2015-0301	Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony
Bilyeu Ridge Water Company, LLC Midland Water Company, Inc. Moore Bend Water Utility, LLC Riverfork Water Company Taney County Water, LLC Valley Woods Utility, LLC(Water) Valley Woods Utility, LLC(Sewer) Consolidated into Ozark International, Inc.	WR-2015-0192 WR-2015-0193 WR-2015-0194 WR-2015-0195 WR-2015-0196 WR-2015-0197 SR-2015-0198 Consolidated into WR-2015-0192	Depreciation Review *filed depreciation rates not accompanied by signed affidavit
I. H. Utilities, Inc. sale to Indian Hills Utility Operating Company, Inc.	WO-2016-0045	Depreciation Rate Adoption CCN
Missouri American Water Company CCN City of Arnold	SA-2015-0150	Depreciation Rate Adoption CCN
Empire District Electric Company	ER-2014-0351	Direct, Rebuttal, and Surrebuttal Testimony
West 16th Street Sewer Company, W.P.C. Sewer Company, Village Water and Sewer Company, Inc. and Raccoon Creek Utility Operating Company, Inc.	SM-2015-0014	Depreciation Rate Adoption
Brandco Investments LLC and Hillcrest Utility Operating Company, Inc.	WO-2014-0340	Depreciation Rate Adoption, Rebuttal Testimony
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	GR-2014-0152	Direct, Rebuttal, Surrebuttal and Live Testimony
Summit Natural Gas of Missouri, Inc	GR-2014-0086	Depreciation Study, Direct and Rebuttal Testimony
P.C.B., Inc.	SR-2014-0068	Depreciation Review
M.P.B., Inc.	SR-2014-0067	Depreciation Review
Roy-L Utilities	WR-2013-0543	Depreciation Review
Roy-L Utilities	SR-2013-0544	Depreciation Review
Missouri Gas Energy Division of Laclede Gas Company	GR-2014-0007	Depreciation Study, Direct and Rebuttal Testimony

JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION

Company	Case Number	Issue
Central Rivers Wastewater Utility, Inc	SA-2014-00005	Depreciation Rate Adoption
Empire District Electric Company	ER-2012-0345	Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony
Empire District Electric Company	WR-2012-0300	Depreciation Review
Laclede Gas Company	GO-2012-0363	Depreciation Authority Order Rebuttal, Surrebuttal and Live Testimony
Moore Bend Water Company, Inc. sale to Moore Bend Water Utility, LLC (Water)	WM-2012-0335	Depreciation Rate Adoption
Oakbrier Water Company, Inc.	WR-2012-0267	Depreciation Review
Lakeland Heights Water Co., Inc.	WR-2012-0266	Depreciation Review
R.D. Sewer Co., L.L.C.	SR-2012-0263	Depreciation Review
Canyon Treatment Facility, LLC	SA-2010-0219	Depreciation Rate Adoption-CCN
Taney County Water, LLC	WR-2012-0163	Depreciation Review
Sale of Saddlebrooke Water and Sewer Infrastructure, LLC to Missouri American Water Company (Sewer)	SA-2012-0067	Rebuttal Testimony
Sale of Saddlebrooke Water and Sewer Infrastructure, LLC to Missouri American Water Company (Water)	WA-2012-0066	Rebuttal Testimony
Midland Water Company, Inc.	WR-2012-0031	Depreciation Review
Sale of KMB Utility Corporation to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Sewer)	SO-2011-0351	Depreciation Rate Adoption
Sale of KMB Utility Corporation to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Water)	WO-2011-0350	Depreciation Rate Adoption
Sale of Noel Water Company, Inc. to Algonquin Water Resources of Missouri, LLC, d/b/a Liberty Water (Water)	WO-2011-0328	Depreciation Rate Adoption
Sale of Taney County Utilities Corporation to Taney County Water, LLC (Water)	WM-2011-0143	Depreciation Rate Adoption
Empire District Electric Company	ER-2011-0004	Depreciation Study, Direct, Rebuttal, and Surrebuttal Testimony
Rex Deffenderfer Enterprises, Inc.	WR-2011-0056	Depreciation Review
Tri-States Utility, Inc	WR-2011-0037	Depreciation Review
Southern Missouri Gas Company, L.P.	GE-2011-0096	Depreciation Study Waiver

**JOHN A. ROBINETT
SUMMARY OF CASE PARTICIPATION**

Company	Case Number	Issue
Southern Missouri Gas Company, L.P.	GR-2010-0347	Depreciation Review
KMB Utility Corporation (Sewer)	SR-2010-0346	Depreciation Review
KMB Utility Corporation (Water)	WR-2010-0345	Depreciation Review
Middlefork Water Company	WR-2010-0309	Depreciation Review

Schedule JAR(DEP)-r2
The Empire District Electric Company
Staff Recommended Annual Depreciation Rates
EM-2016-0213

Account Number	Account Description	Remaining Life (years)	Recommended Net Salvage	Reccomended Depreciation Rate (%)
STEAM PRODUCTION PLANT				
Riverton				
311	Structures and Improvements	3	-10.00%	10.00%
312	Boiler Plant Equipment	3	-10.00%	10.00%
314	Turbogenerator Units	3	-10.00%	10.00%
315	Accessory Electric Equipment	3	-10.00%	10.00%
316	Miscellaneous Power Plant Equipment	3	-10.00%	10.00%
Asbury				
311	Structures and Improvements	20	-10.00%	4.29%
312	Boiler Plant Equipment	20	-10.00%	4.82%
314	Turbogenerator Units	20	-10.00%	4.89%
315	Accessory Electric Equipment	20	-10.00%	3.78%
316	Miscellaneous Power Plant Equipment	20	-10.00%	3.26%
Iatan 1				
311	Structures and Improvements	25	-10.00%	1.93%
312	Boiler Plant Equipment	25	-10.00%	2.78%
312	Unit Train	11	0.00%	6.67%
314	Turbogenerator Units	25	-10.00%	2.74%
315	Accessory Electric Equipment	25	-10.00%	2.81%
316	Miscellaneous Power Plant Equipment	25	-10.00%	2.80%
Iatan 2				
311	Structures and Improvements	55	-10.00%	1.53%
312	Boiler Plant Equipment	55	-10.00%	1.53%
314	Turbogenerator Units	55	-10.00%	1.53%
315	Accessory Electric Equipment	55	-10.00%	1.54%
316	Miscellaneous Power Plant Equipment	55	-10.00%	1.66%
Iatan Common				
311	Structures and Improvements	55	-10.00%	1.92%
312	Boiler Plant Equipment	55	-10.00%	1.80%
314	Turbogenerator Units	55	-10.00%	1.92%
315	Accessory Electric Equipment	55	-10.00%	1.92%
316	Miscellaneous Power Plant Equipment	55	-10.00%	1.89%
Plum Point				
311	Structures and Improvements	45	-10.00%	2.44%
312	Boiler Plant Equipment	45	-10.00%	2.26%
312	Unit Train	10	0.00%	6.67%
314	Turbogenerator Units	45	-10.00%	2.26%
315	Accessory Electric Equipment	45	-10.00%	2.20%
316	Miscellaneous Power Plant Equipment	45	-10.00%	2.15%
HYDRAULIC PRODUCTION PLANT				
331	Structures and Improvements	38	-10.00%	1.80%
332	Reservoirs, Dams and Waterways	38	-10.00%	1.82%
333	Waterwheels, Turbines and Generators	38	-10.00%	2.45%
334	Accessory Electric Equipment	38	-10.00%	2.38%
335	Miscellaneous Power Plant Equipment	38	-10.00%	1.72%

Schedule JAR(DEP)-r2
The Empire District Electric Company
Staff Recommended Annual Depreciation Rates
EM-2016-0213

Account Number	Account Description	Remaining Life (years)	Recommended Net Salvage	Reccomended Remaining Life Depreciation Rate (%)
OTHER PRODUCTION PLANT				
Riverton 10 &11				
341	Structures and Improvements	18	-5.00%	4.52%
342	Fuel Holders, Producers and Access.	18	-5.00%	2.98%
343	Prime Movers	18	5.00%	2.54%
344	Generators	18	5.00%	2.43%
345	Accessory Electric Equipment	18	-5.00%	3.56%
346	Miscellaneous Power Plant Equipment	18	-5.00%	3.31%
Riverton 12 CC				
341	Structures and Improvements	41	-5.00%	2.55%
342	Fuel Holders, Producers and Access.	41	-5.00%	2.08%
343	Prime Movers	41	5.00%	2.28%
344	Generators	41	5.00%	2.06%
345	Accessory Electric Equipment	41	-5.00%	2.41%
346	Miscellaneous Power Plant Equipment	41	-5.00%	2.20%
Energy Center 1&2				
341	Structures and Improvements	10	-5.00%	4.50%
342	Fuel Holders, Producers and Access.	10	-5.00%	4.50%
343	Prime Movers	10	5.00%	3.42%
344	Generators	10	5.00%	3.50%
345	Accessory Electric Equipment	10	-5.00%	5.47%
346	Miscellaneous Power Plant Equipment	10	-5.00%	4.50%
Energy Center 3&4 (FT8)				
341	Structures and Improvements	28	-5.00%	3.20%
342	Fuel Holders, Producers and Access.	28	-5.00%	2.87%
343	Prime Movers	28	5.00%	2.84%
344	Generators	28	5.00%	3.15%
345	Accessory Electric Equipment	28	-5.00%	2.99%
346	Miscellaneous Power Plant Equipment	28	-5.00%	2.78%
Stateline CT				
341	Structures and Improvements	25	-5.00%	1.80%
342	Fuel Holders, Producers and Access.	25	-5.00%	1.50%
343	Prime Movers	25	5.00%	1.84%
344	Generators	25	5.00%	1.30%
345	Accessory Electric Equipment	25	-5.00%	1.82%
346	Miscellaneous Power Plant Equipment	25	-5.00%	1.80%
Stateline CC				
341	Structures and Improvements	36	-5.00%	2.08%
342	Fuel Holders, Producers and Access.	36	-5.00%	2.08%
343	Prime Movers	36	5.00%	1.88%
344	Generators	36	5.00%	2.18%
345	Accessory Electric Equipment	36	-5.00%	2.01%
346	Miscellaneous Power Plant Equipment	36	-5.00%	2.43%

Schedule JAR(DEP)-r2
The Empire District Electric Company
Staff Recommended Annual Depreciation Rates
EM-2016-0213

Account Number	Account Description	Retirement Rate (%)	Recommended Net Salvage	Recommened Depreciation Rate (%)
TRANSMISSION PLANT				
352	Structures & Improvements	1.82%	-10.00%	2.00%
353	Station Equipment	1.67%	-10.00%	1.83%
354	Towers & Fixtures	1.54%	-10.00%	1.69%
355	Poles & Fixtures	1.67%	-100.00%	3.33%
356	Overhead Conductors	1.43%	-25.00%	1.79%
DISTRIBUTION PLANT				
361	Structures & Improvements	1.67%	-10.00%	1.83%
362	Station Equipment	2.00%	-10.00%	2.20%
364	Poles, Towers & Fixtures	1.82%	-100.00%	3.64%
365	Overhead Conductors	1.79%	-100.00%	3.57%
366	Underground Conduit	2.50%	-35.00%	3.38%
367	Underground Conductors	3.13%	-15.00%	3.59%
368	Transformers	2.22%	-10.00%	2.44%
369	Services	2.22%	-100.00%	4.44%
370	Meters	2.27%	0.00%	2.27%
371	Meter Installations	3.33%	-40.00%	4.67%
373	Street Lighting	2.22%	-50.00%	3.33%
GENERAL PLANT				
390	Structures & Improvements	2.38%	-10.00%	2.62%
391.1	Office Furniture and Equipment	4.17%	0.00%	4.17%
391.2	Computer Equipment	10.00%	0.00%	10.00%
392	Transportation Equipment	7.14%	10.00%	6.43%
393	Stores Equipment	2.86%	0.00%	2.86%
394	Tools, Shop & Garage Equipment	5.00%	0.00%	5.00%
395	Laboratory Equipment	2.38%	0.00%	2.38%
396	Power Operated Equipment	5.56%	5.00%	5.28%
397	Communication Equipment	4.55%	0.00%	4.55%
398	Miscellaneous Equipment	3.70%	0.00%	3.70%

The Empire District Gas Company
Annual Depreciation Rates - Stipulation Appendix C

Acct. No.	Account	Average	Net	Whole Life
		Service Life Years	Salvage %	Depreciation Rate
Transmission Plant				
366	Structures	45	0.00%	2.22%
367	Mains	65	0.00%	1.54%
369	Measuring & Reg. Stations	45	0.00%	2.22%
Distribution Plant				
375	Structures	45	0.00%	2.22%
376	Mains	45	-104.42%	4.54%
378	Measuring & Reg. Stations	50	0.00%	2.00%
379	City Gate Stations	50	0.00%	2.00%
380	Services	43	-42.47%	3.31%
381	Meters	40	-2.61%	2.57%
383	Regulators	40	-81.09%	4.53%
385	Industrial Meas./Reg. Equip.	45	-21.21%	2.69%
387	Other Equipment		0.00%	0.00%
General Plant				
390	Structures & Improvements	45	-4.24%	2.32%
391.1	Furniture & Equipment	15	0.00%	6.67%
391.2	Computer Equipment	7	0.00%	14.29%
392	Transportation Equipment	12	30.69%	5.78%
393	Stores Equipment	25	0.00%	4.00%
394	Tools Shop & Garage Equip.	30	0.00%	3.33%
395	Laboratory Equipment	30	0.00%	3.33%
396	Power Operated Equipment	16	14.35%	5.35%
397	Communication Equipment	25	0.00%	0.00%
398	Miscellaneous Equipment	23	0.00%	4.35%
Common Plant (same as Electric Company rates where assets reside)				
390	Structures & Improvements	40	-10.00%	2.75%
391.1	Furniture & Equipment	20	0.00%	5.00%
391.2	Computer Equipment	10	0.00%	10.00%
397	Communication Equipment	25	0.00%	4.00%
398	Miscellaneous Equipment	22	0.00%	4.55%

THE EMPIRE DISTRICT ELECTRIC CO. WATER COMPANY
DEPRECIATION RATES
(WATER)
WR-2012-0300

<u>ACCOUNT NUMBER</u>	<u>ACCOUNT DESCRIPTION</u>	<u>DEPRECIATION RATE</u>	<u>AVERAGE SERVICE LIFE (YEARS)</u>	<u>NET SALVAGE</u>
311	Structures & Improvements	2.5%	40	
314	Wells & Springs	2.0%	50	
325	Electric Pumping Equipment	10.0%	10	
332	Water Treatment Equipment	2.9%	35	
342	Distribution Reservoirs & Standpipes	2.5%	40	
343	Transmission & Distribution Mains	2.0%	50	
345	Services	2.5%	40	
346	Meters & Meter Installations	3.3%	30	
348	Hydrants	2.0%	50	
391	Office Furniture & Equipment	5.0%	20	
391.1	Office Computer Equipment	20.0%	5	
393	Stores Equipment	4.0%	25	
394	Tools, Shop, Garage Equipment	5.0%	20	
395	Laboratory Equipment	5.0%	20	
397	Communication Equipment	6.7%	15	