MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

COST OF SERVICE

REVENUE REQUIREMENT

APPENDIX 3

Other Staff Schedules

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2014-0370

Jefferson City, Missouri
April 2015

**** Denotes Highly Confidential Information ****

NP

Smart Grid Solutions Employed by KCPL[1]

- **Smart Line Capacitors.** KCPL has approximately 876 distribution lines (less than 20kV) capacitors automating 304 of 429 (70%) distribution feeders and 10 subtransmission line capacitors automating 6 of the 11 (54%) subtransmission feeders (20kV to 40kV). A smart line capacitor is defined as a line capacitor outside a substation with an intelligent local control, including two-way communications. KCPL has no specific plans for expansion of these systems over the next three (3) years. Capacity or voltage needs are the main drivers for line capacitor installation and these needs are evaluated periodically and considered in the yearly budgets.[2]

- **Automatic Voltage Regulation and Control.** KCPL has deployed automatic voltage regulation and control via transformer tap changers in 92 of 92 (100%) distribution substation units and 15 of 32 (46%) subtransmission units. The tap changers are automated to adjust system voltage from commands issued by the Distribution Control offices. KCPL plans to increase the amount of distribution substation units to 22 of 32 (68%) by 2017[3].

- **Microprocessor Digital Relaying.** KCPL has 50 of 107 (46%) line terminals in transmission substations, 17 of 57 (29%) line terminals in subtransmission substations, 20 of 28 (71%) line terminals in transmission switchyards and 92 of 377 (24%) line terminals in distribution substations converted from electro-mechanical to digital relaying that provide improved operating performance and self-diagnostic checks. Future plans, by 2017, include expanding the system to 6 of 6 line terminals in transmission (over 100kV) substations and 24 of 24 line terminals in distribution substations[4].

- **Supervisory Control and Data Acquisition (SCADA).** These systems are deployed in all of the switchyards and provide real time outage notification for enhanced outage response performance, improve operating flexibility and prevent overloads.

- **Smart Line Switches**. These devices detect line disturbances and provide communication of events to system operations personnel, isolate faulted lines, and restore service via alternate paths. A smart line switch is defined as a switch outside a substation with an intelligent local control, including two-way communications. These switches include network protectors on KCP&L's three (3) underground networks in Kansas City, MO.

[1] KCPL Responses to Data Requests MPSC 0198 through and including MPSC 0219.
[2] KCPL Response to Data Request MPSC 0198.
[3] KCPL Response to Data Request MPSC 0199.
[4] KCPL Response to Data Request MPSC 0200.

There are 21 switches automating 11 of 11 (100%) subtransmission line feeders and 171 switches automating 43 of 429 (10%) distribution lines with no specific plans for expansion of these systems over the next three (3) years. Typically, smart switches are installed to solve specific reliability or operational issues and the need for these devices are evaluated periodically[5].

- **Automatic Supply Line Transfer.** These systems detect supply line disturbances and automatically reconfigure distribution substation switching to restore power following an outage. KCPL currently has 29 of 67 (43%) distribution substations deployed with this technology and will increase the deployment by 5 units by 2017[6].

- **Outage Management System (OMS).** KCP&L currently runs Oracle's Network Management System as its Outage Management System. In 2015, KCP&L plans to finish implementation of distribution automation system integrations and fault location analysis. This integration will allow the Outage Management System to receive data from certain distribution level smart devices in the field which will supplement troubleshooting efforts for dispatchers and field personnel. Additionally, intermittent bug fixes and software updates will be installed as they become available from the supplier (Oracle). In 2016, the company is considering a potential upgrade from version 1.11 to 1.12[7].

- **Transformer Insulating Oil Dissolved Gas Monitors.** This equipment provides real time monitoring of the moisture and combustible gases that are dissolved in the insulating oil of generator step-up transformers (20kV to 138 or 345kV) large power, transmission substation, subtransmission substation, and distribution substation transformers. The detection of certain combustible gases and moisture provides an early warning system of an impending transformer internal fault that will destroy the transformer and cause significant collateral damage. KCPL has currently deployed this system on 6 of 14 (42%) Generator Step-Up transformers, 3 of 3 (100%) transmission substation autotransformers, and 3 of 92 (3%) distribution substation transformers with no current plans to continue deployment[8].

- **Phase Measurement Units (PMUs).** These devices provide highly accurate voltage, current and frequency monitoring at strategic transmission points to provide wide area situational awareness to detect impending serious upset conditions and allow corrective actions to be taken to mitigate the event. Currently there are no devices installed but KCPL plans to add 1 to the transmission substation and switchyard line terminals in 2015[9].

[5] KCPL Response to Data Request MPSC 0201.
[6] KCPL Response to Data Request MPSC 0203.
[7] KCPL Response to Data Request MPSC 0204
[8] KCPL Response to Data Request MPSC 0205
[9] KCPL Response to Data Request MPSC 0210

- **Faulted Circuit Indicators (FCI).** These devices provide information on subtransmission and distribution line disturbances and communicate this information to system operators in near real time. The communicating faulted circuit indicators include two-way communications. A "set" can be anywhere from one (1) to nine (9) individual line-phase indicators. There are 55 indicating sets on 17 of the 429 distribution line feeders (3%) and 3 indicating sets on 1 of the 11 (9%) subtransmission line feeders with no current plans to deploy additional indicating sets over the next three years[10].

- **Wide Area Networks (WAN).** A WAN is a high capacity communications backbone network that transports large quantities of smart field device data to the KCPL control centers. KCPL currently has 8 of 81 (9%) substations deployed with this technology and no current plans for expansion in the next three years[11].

- **Field Area Networks (FAN).** A FAN is a wireless communication network that collects transmitted data from smart field devices and relays this information via traditional radio/cellular based networks. There are 1,102 intelligent distribution line devices and 34 intelligent subtransmission line devices using two FAN networks. First is a system that leverages a portion of the legacy AMR (automated meter reading) network for two-way communications to smart capacitor bank controls. This FAN will be retired in 2015 during the implementation of the enterprise AMI (Advanced Metering Infrastructure) project. The second FAN consists of cellular two-way communications using both public and private cellular spectrum provided by Sensus (Sensus USA, Incorporated). The legacy AMR FAN and smart capacitor bank controls are currently being upgraded to the Sensus platform. Smart Capacitor controls utilizing the AMR FAN are being upgraded with cellular communications under the Sensus FAN. No other specific plans exist for expansion of these systems over the next three (3) years[12].

- **Local Area Network (LAN).** These networks aggregate data and provide communications from smart field devices to the WAN. There are LANs deployed in 5 of 76 (7%) distribution substations. KCPL does not currently plan to expand the deployment of LANs[13].

[10] KCPL Response to Data Request MPSC 0211
[11] KCPL Response to Data Request MPSC 0213
[12] KCPL Response to Data Request MPSC 0214
[13] KCPL Response to Data Request MPSC 0215

SPP
Notification to Construct

June 19, 2009 SPP-NTC-20042

Mr. Todd Fridley
Kansas City Power and Light Company
1201 Walnut Street
16th Floor
Kansas City, MO 64106

RE: Notification to Construct Approved Balanced Portfolio Network Upgrades

Dear Mr. Fridley:

Pursuant to Section 3.3 of the Southwest Power Pool, Inc. ("SPP") Membership Agreement and Attachment O, Section VIII, of the SPP Open Access Transmission Tariff ("OATT"), SPP provides this Notification to Construct ("NTC") directing Kansas City Power and Light Company ("KCPL"), as the Designated Transmission Owner, to construct the following approved Network Upgrades.

During the April 28, 2009 meeting, the SPP Board of Directors approved Balanced Portfolio 3E "adjusted" and directed the following Network Upgrades to be constructed contingent upon the approval of the Balanced Portfolio Report by the Markets and Operations Policy Committee ("MOPC"). On June 12, 2009 the MOPC approved the 2009 Balanced Portfolio Report.

Project ID: 702
Project Name: Swissvale – Stilwell Tap
Estimated In-Service Date for Project: 06/01/2012
Estimated Cost for project: $2,000,000

Network Upgrade ID: 10934
Network Upgrade Description: Tap the Swissvale to Stilwell 345 kV line at West Gardner
Network Upgrade Owner: KCPL
MOPC Representative: Todd Fridley
Categorization: Balanced Portfolio Network Upgrade
Network Upgrade Specifications: Tap the Swissvale to Stilwell 345 kV line at the West Gardner substation.
Network Upgrade Justification: Balanced Portfolio 3E "adjusted"
Estimated In-Service Date for Network Upgrade: 6/1/2012
Estimated Cost for Network Upgrade (current day dollars): $2,000,000
Source of funding for Network Upgrade: Region-wide charge as specified by Attachment J, SPP OATT
Source of Cost Estimate: KCPL
Date of Cost Estimate: April 2009

Project ID: 703
Project Name: Iatan – Nashua 345 kV line

Estimated In-Service Date for Project: 06/01/2015
Estimated Cost for project: $54,444,000

Network Upgrade ID: 10935
Network Upgrade Description: 345 kV line from Iatan substation to Nashua substation
Network Upgrade Owner: KCPL
MOPC Representative: Todd Fridley
Categorization: Balanced Portfolio Network Upgrade
Network Upgrade Specifications: Construct 30 miles of 345kV, 3000 amp or greater capacity transmission line from the KCPL Iatan substation to the KCPL Nashua substation and acquire the necessary right-of-way to accommodate the 345 kV line. Upgrade the Iatan substation to include any necessary terminal equipment.
Network Upgrade Justification: Balanced Portfolio 3E "adjusted"
Estimated In-Service Date for Network Upgrade: 6/1/2015
Estimated Cost for Network Upgrade (current day dollars): $49,824,000
Source of funding for Network Upgrade: Region-wide charge as specified by Attachment J, SPP OATT
Source of Cost Estimate: KCPL
Date of Cost Estimate: April 2009

Network Upgrade ID: 10945
Network Upgrade Description: Nashua 345/161 kV Transformer
Network Upgrade Owner: KCPL
MOPC Representative: Todd Fridley
Categorization: Balanced Portfolio Network Upgrade
Network Upgrade Specifications: Install a 345/161 kV transformer, 600 MVA at the Nashua substation. Upgrade the Nashua substation to include any other necessary terminal equipment.
Network Upgrade Justification: Balanced Portfolio 3E "adjusted"
Estimated In-Service Date for Network Upgrade: 6/1/2015
Estimated Cost for Network Upgrade (current day dollars): $4,620,000
Source of funding for Network Upgrade: Region-wide charge as specified by Attachment J, SPP OATT
Source of Cost Estimate: KCPL
Date of Cost Estimate: April 2009

Please provide to SPP a written commitment to construct the Network Upgrades within 90 days of the date of this Notification to Construct, pursuant to Attachment O, Section VIII.6 of the SPP OATT, in addition to providing a construction schedule for the Network Upgrades. Failure to provide a sufficient written commitment to construct as required by Attachment O could result in the Network Upgrades being assigned to another entity.

Please submit a notification of commercial operation for each listed Network Upgrade to SPP as soon as the Network Upgrade is complete and in-service. Please provide SPP with the actual costs of these Network Upgrades as soon as possible after completion of construction. This will facilitate the timely billing by SPP based on actual costs.

Southwest Power Pool

HELPING OUR MEMBERS WORK TOGETHER
TO KEEP THE LIGHTS ON... TODAY AND IN THE FUTURE

On an ongoing basis, please keep SPP advised of any inability on KCPL's part to complete the approved Network Upgrades. For project tracking purposes, SPP requires KCPL to submit updates on the status of the Network Upgrades on a quarterly basis in conjunction with the SPP Board of Directors meetings. However, KCPL shall also advise SPP of any inability to comply with the Project Schedule as soon as the inability becomes apparent.

All terms and conditions of the SPP OATT and the SPP Membership Agreement shall apply to this Project, and nothing in this letter shall vary such terms and conditions.

Feel free to contact me if you have questions or comments regarding these instructions. Thank you for the important role that you play in maintaining the reliability of our electric grid.

Sincerely,

Bruce A. Rew

Bruce Rew
Vice President, Engineering
Phone (501) 614-3214 • Fax: (501) 821-3198 • brew@spp.org

cc: Carl Monroe, Les Dillahunty, Pat Bourne, Jay Caspary, Keith Tynes, SPPProjecttracking@spp.org, Richard Spring, Dennis Odell, Harold Wyble

415 NORTH MCKINLEY STREET, SUITE 140 | LITTLE ROCK, AR 72205 | 501-614-3200 | SPP.ORG

Kansas City Power & Light
Case No. ER-2014-0370

KCP&L Case No. ER-2014-0370 Staff's Recommeded Depreciation Rates, Update 3/18/2015									
Account	Description	Probable Retirement Date	Survivor Curve	Net Salvage Percent	Total Lifetime Accruals	Future Accruals	Annual Accruals	Composite Remaining Life	Depreciation Rate %
				Interim					
				Only					
311.00	**STRUCTURES AND IMPROVEMENTS**				**107,406,530**	**69,073,155**	**1,689,317**	**39.7**	**1.65**
	HAWTHORN COMMON	Jun-55	100-S0.5	(4)	7,422,929	5,579,752	141,978	39.3	
	HAWTHORN UNIT 5	Jun-55	100-S0.5	(6)	9,732,122	5,080,554	132,999	38.2	
	HAWTHORN UNIT 9	Jun-45	100-S0.5	(3)	1,339,763	811,221	26,862	30.2	
	MONTROSE COMMON	Jun-21	100-S0.5	(1)	7,457,077	718,305	95,774	7.5	
	MONTROSE UNIT 1	Jun-16	100-S0.5	0	2,007,161	0	0		
	MONTROSE UNIT 2	Jun-21	100-S0.5	0	83,944	0	0		
	MONTROSE UNIT 3	Jun-21	100-S0.5	0	201,311	0	0		
	IATAN COMMON	Jun-70	100-S0.5	(7)	55,832,153	46,788,382	899,777	52.0	
	IATAN UNIT 1	Jun-40	100-S0.5	(3)	4,077,657	2,197,439	85,172	25.8	
	LACYGNE COMMON	Jun-40	100-S0.5	(2)	5,991,865	4,097,457	158,203	25.9	
	LACYGNE UNIT 1	Jun-40	100-S0.5	(4)	10,922,748	2,825,630	110,809	25.5	
	LACYGNE UNIT 2	Jun-40	100-S0.5	(3)	2,331,683	968,432	37,682	25.7	
	MISCELLANEOUS		100-S0.5	(20)	6,117	5,983	61	98.1	
312.00	**BOILER PIANT EQUIPMENT**				**686,985,917**	**438,613,409**	**17,711,442**	**24.6**	**2.73**
	HAWTHORN COMMON	Jun-55	55-R1	(6)	1,998,827	1,881,882	52,714	35.7	
	HAWTHORN UNIT 5	Jun-55	55-R1	(8)	48,431,535	38,485,759	1,109,100	34.7	
	HAWTHORN UNIT 9	Jun-45	55-R1	(6)	24,557,913	15,700,701	573,018	27.4	
	MONTROSE COMMON	Jun-21	55-R1	(1)	15,713,093	5,193,981	711,504	7.3	
	MONTROSE UNIT 1	Jun-16	55-R1	0	23,895,587	0	0		
	MONTROSE UNIT 2	Jun-21	55-R1	(1)	23,634,312	7,351,372	1,007,037	7.3	
	MONTROSE UNIT 3	Jun-21	55-R1	(1)	25,240,959	7,533,585	1,031,998	7.3	
	IATAN COMMON	Jun-70	55-R1	(11)	122,658,537	106,662,340	2,474,764	43.1	
	IATAN UNIT 1	Jun-40	55-R1	(5)	219,070,320	152,818,758	6,394,090	23.9	
	LACYGNE COMMON	Jun-40	55-R1	(5)	4,986,402	3,160,139	132,223	23.9	
	LACYGNE UNIT 1	Jun-40	55-R1	(5)	103,378,722	66,548,568	2,784,459	23.9	
	LACYGNE UNIT 2	Jun-40	55-R1	(7)	73,419,710	33,276,324	1,440,534	23.1	
	MISCELLANEOUS		55-R1	(20)					
	LACYGNE ENVIRONMENTAL EQUIP - 2015	Jun-40	55-R1	(3)				22.8	

Kansas City Power & Light
Case No. ER-2014-0370

312.01	**BOILER PlANT EQUIPMENT- UNIT TRAINS**		25-R2.5	25	**8,573,562**	**5,747,583**	**315,801**	**18.2**	**2.77**
312.02	**BOILER PlANT EQUIPMENT- AQC**				**19,753,388**	**6,381,704**	**287,459**	**22.2**	**1.56**
	HAWTHORN UNIT 5	Jun-55	55-R1	(7)	439	364	11	33.8	
	LACYGNE UNIT 1	Jun-55	55-R2	(7)	19,752,949	6,381,340	287,448	22.2	
314.00	**TURBOGENERATOR UNITS**				**151,298,571**	**74,330,919**	**3,110,683**	**23.7**	**2.14**
	HAWTHORN COMMON	Jun-55	60-R1.5	(4)	432,783	401,548	10,794	37.2	
	HAWTHORN UNIT 5	Jun-55	60-R1.5	(6)	45,538,336	28,925,392	838,417	34.5	
	HAWTHORN UNIT 9	Jun-45	60-R1.5	(3)	9,834,298	6,462,514	226,755	28.5	
	MONTROSE COMMON	Jun-21	60-R1.5	0	493,720	374,817	50,651	7.4	
	MONTROSE UNIT 1	Jun-16	60-R1.5	0	6,547,800	0	0		
	MONTROSE UNIT 2	Jun-21	60-R1.5	(1)	8,481,122	2,162,909	292,285	7.4	
	MONTROSE UNIT 3	Jun-21	60-R1.5	(1)	11,132,561	2,638,543	356,560	7.4	
	IATAN COMMON	Jun-70	60-R1.5	(7)	3,434,730	3,098,761	66,784	46.4	
	IATAN UNIT 1	Jun-40	60-R1.5	(4)	33,308,329	17,167,355	715,306	24.0	
	LACYGNE COMMON	Jun-40	60-R1.5	(3)	41,027	21,723	894	24.3	
	LACYGNE UNIT 1	Jun-40	60-R1.5	(4)	18,808,230	8,374,279	350,388	23.9	
	LACYGNE UNIT 2	Jun-40	60-R1.5	(5)	13,245,635	4,703,078	201,849	23.3	
	MISCELLANEOUS		60-R1.5	(15)					
315.00	**ACCESSORY ELECTRIC EQUIPMENT**				**101,183,049**	**68,098,831**	**2,860,492**	**21.6**	**2.96**
	HAWTHORN COMMON	Jun-55	55-S0.5	(6)	842,031	729,296	20,719	35.2	
	HAWTHORN UNIT 5	Jun-55	55-S0.5	(6)	7,262,591	5,865,312	171,500	34.2	
	HAWTHORN UNIT 9	Jun-45	55-S0.5	(5)	9,263,282	6,794,730	247,983	27.4	
	MONTROSE COMMON	Jun-21	55-S0.5	(1)	2,000,473	793,001	108,630	7.3	
	MONTROSE UNIT 1	Jun-16	55-S0.5	0	4,431,886	942,775	377,110	2.5	
	MONTROSE UNIT 2	Jun-21	55-S0.5	(1)	2,828,531	916,410	125,536	7.3	
	MONTROSE UNIT 3	Jun-21	55-S0.5	(1)	3,971,572	1,342,049	183,842	7.3	
	IATAN COMMON	Jun-70	55-S0.5	(9)	15,272,916	13,953,617	320,037	43.6	
	IATAN UNIT 1	Jun-40	55-S0.5	(4)	27,999,899	19,059,343	811,036	23.5	
	LACYGNE COMMON	Jun-40	55-S0.5	(4)	905,371	538,378	23,206	23.2	
	LACYGNE UNIT 1	Jun-40	55-S0.5	(5)	11,326,060	6,682,903	29,183	229.0	
	LACYGNE UNIT 2	Jun-40	55-S0.5	(4)	15,050,785	10,456,579	441,206	23.7	
	LACYGNE ENVIRONMENTAL EQUIP - 2015	Jul-40	55-S0.5	(2)				23.4	
	MISCELLANEOUS		55-S0.5	(10)	27,652	24,438	504	48.5	
316.00	**MISCELLANEOUS POWER PLANT EQUIP**				**23,484,766**	**14,854,469**	**536,501**	**27.3**	**2.28**

	HAWTHORN COMMON	Jun-55	55-S0.5	0	1,944,756	1,573,995	44,843	35.1	
	HAWTHORN UNIT 5	Jun-55	55-S0.5	0	3,141,562	1,697,841	54,769	31.0	
	HAWTHORN UNIT 9	Jun-45	55-S0.5	0	98,635	58,790	2,169	27.1	
	MONTROSE COMMON	Jun-21	55-S0.5	0	2,839,159	686,508	92,771	7.4	
	MONTROSE UNIT 1	Jun-16	55-S0.5	0	98,655	0	0		
	MONTROSE UNIT 2	Jun-21	55-S0.5	0	23,406	0	0		
	MONTROSE UNIT 3	Jun-21	55-S0.5	0	32,220	0	0		
	IATAN COMMON	Jun-70	55-S0.5	0	2,261,537	1,810,405	43,415	41.7	
	IATAN UNIT 1	Jun-40	55-S0.5	0	3,287,440	2,139,752	88,786	24.1	
	LACYGNE COMMON	Jun-40	55-S0.5	0	2,905,530	1,996,830	81,837	24.4	
	LACYGNE UNIT 1	Jun-40	55-S0.5	0	1,690,997	950,902	39,954	23.8	
	LACYGNE UNIT 2	Jun-40	55-S0.5	0	814,820	275,515	12,411	22.2	
	MISCELLANEOUS		55-S0.5	0	4,346,050	3,663,932	75,545	48.5	
	HAWTHORN UNIT 5 REBUILD								
311.02	**STRUCTURES AND IMPROVEMENTS**	Jun-55	100-S0.5	(5)	5,105,012	563,067	14,475	38.9	**0.30**
312.03	**BOILER PLANT EQUIPMENT**	Jun-55	55-R1	(8)	131,378,009	22,908,585	673,782	34.0	**0.56**
315.01	**ACCESSORY ELECTRIC EQUIPMENT**	Jun-55	55-S0.5	(9)	23,384,240	4,238,407	127,279	33.3	**0.59**
316.01	**MISCELLANEOUS POWER PLANT EQUIP**	Jun-55	55-S0.5	0	1,260,554	144,485	4,339	33.3	**0.34**
	IATAN UNIT 2								
311.04	**STRUCTURES AND IMPROVEMENTS**	Jun-70	100-S0.5	(6)	52,850,237	30,283,496	577,929	52.4	**1.16**
312.04	**BOILER PLANT EQUIPMENT**	Jun-70	55-R1	(10)	367,657,002	202,833,552	4,599,400	44.1	**1.38**
314.04	**TURBOGENERATOR UNITS**	Jun-70	6D-R1.5	(7)	130,680,932	106,651,582	2,283,760	46.7	**1.87**
315.04	**ACCESSORY ELECTRIC EQUIPMENT**	Jun-70	55-S0.5	(8)	32,954,761	25,044,822	567,910	44.1	**1.87**
316.04	**MISCELLANEOUS POWER PLANT EQUIP**	Jun-70	55-S0.5	0	2,066,742	1,230,970	27,913	44.1	**1.35**
	NUCLEAR PRODUCTION PLANT								
321.00	**STRUCTURES AND IMPROVEMENTS**	Jun-45	100-SO 5	(1)	243,282,777	92,149,463	3,145,033	29.3	**1.30**
322.00	**REACTOR PLANT EQUIPMENT**	Jun-45	60-R2	(2)	358,085,723	150,412,913	5,509,631	27.3	**1.58**
323.00	**TURBOGENERATOR UNITS**	Jun-45	50-S1.5	(1)	120,389,368	70,527,588	2,691,893	26.2	**2.25**
324.00	**ACCESSORY ELECTRIC EQUIPMENT**	Jun-45	50-S1.5	0	77,030,163	37,435,647	1,627,637	23.0	**2.12**
325.00	**MISCELLANEOUS POWER PLANT EQUIP**	Jun-45	40-R0.5	0	61,214,758	46,238,846	1,934,680	23.9	**3.16**
	OTHER PRODUCTION PLANT								
341.00	**STRUCTURES AND IMPROVEMENTS**				**4,165,974**	**3,283,073**	**106,166**	**30.8**	**2.56**
	NORTHEAST COMBUSTION TURBINES	Jun-40	70-R2.5	(1)	843,737	595,499	23,445	25.4	

	WEST GARDNER COMBUSTION TURBINES	Jun-48	70-R2.5	(1)	1,929,097	1,614,775	48,933	33.0	
	MIAMI COUNTY COMBUSTION TURBINES	Jun-48	70-R2.5	(1)	874,470	692,976	21,127	32.8	
	HAWTHORN UNIT 6	Jun-45	70-R2.5	(1)	84,747	62,766	2,092	30.0	
	HAWTHORN UNIT 7	Jun-45	70-R2.5	(1)	387,276	283,067	9,436	30.0	
	HAWTHORN UNIT 8	Jun-45	70-R2.5	(1)	46,647	33,990	1,133	30.0	
342.00	**FUEL HOLDERS, PRODUCERS & ACCESSORIES**				**6,677,316**	**3,917,957**	**136,802**	**28.4**	**2.11**
	NORTHEAST COMBUSTION TURBINES	Jun-40	50-R2.5	(4)	1,174,647	541,001	22,172	24.4	
	WEST GARDNER COMBUSTION TURBINES	Jun-48	50-R2.5	(3)	1,831,521	1,218,743	39,698	30.7	
	MIAMI COUNTY COMBUSTION TURBINES	Jun-48	50-R2.5	(3)	1,132,396	738,488	24,134	30.6	
	HAWTHORN UNIT 6	Jun-45	50-R2.5	(3)	601,095	346,711	12,338	28.1	
	HAWTHORN UNIT 7	Jun-45	50-R2.5	(3)	1,617,230	895,938	32,112	27.9	
	HAWTHORN UNIT 8	Jun-45	50-R2.5	(3)	320,427	177,076	6,347	27.9	
344.00	**GENERA TORS**				**153,948,086**	**84,520,418**	**2,972,236**	**28.4**	**2.00**
	NORTHEAST COMBUSTION TURBINES	Jun-40	50-R1.5	(5)	23,548,390	3,201,190	143,551	22.3	
	WEST GARDNER COMBUSTION TURBINES	Jun-48	50-R1.5	(3)	62,999,246	40,543,958	1,369,728	29.6	
	MIAMI COUNTY COMBUSTION TURBINES	Jun-48	50-R1.5	(3)	14,992,436	9,555,396	322,817	29.6	
	HAWTHORN UNIT 6	Jun-45	50-R1.5	(3)	26,028,021	17,096,710	614,990	27.8	
	HAWTHORN UNIT 7	Jun-45	50-R1.5	(3)	12,811,741	6,867,319	253,407	27.1	
	HAWTHORN UNIT 8	Jun-45	50-R1.5	(3)	13,568,252	7,255,845	267,743	27.1	
345.00	**ACCESSORY ELECTRIC EQUIPMENT**				**12,811,801**	**6,117,296**	**223,710**	**27.2**	**1.84**
	NORTHEAST COMBUSTION TURBINES	Jun-40	45-R3	(8)	4,303,281	629,661	33,672	18.7	
	WEST GARDNER COMBUSTION TURBINES	Jun-48	45-R3	(4)	3,932,095	2,649,084	88,598	29.9	
	MIAMI COUNTY COMBUSTION TURBINES	Jun-48	45-R3	(4)	1,024,834	684,926	22,907	29.9	
	HAWTHORN UNIT 6	Jun-45	45-R3	(4)	1,457,012	876,187	31,978	27.4	
	HAWTHORN UNIT 7	Jun-45	45-R3	(4)	1,279,981	775,669	28,309	27.4	
	HAWTHORN UNIT 8	Jun-45	45-R3	(4)	814,598	501,769	18,246	27.5	
346.00	**MISCELLANEOUS POWER PLANT EQUIPMENT**				**154,716**	**153,092**	**6,480**	**23.6**	**4.19**
	NORTHEAST COMBUSTION TURBINES	Jun-40	45-R2.5	0	146,853	145,246	6,234	23.3	
	WEST GARDNER COMBUSTION TURBINES	Jun-48	45-R2.5	0	7,863	7,846	247	31.8	
	SOLAR PRODUCTION PLANT								
344.10	**GENERATORS - SOLAR**	Jun-33	45-R2	0	**448,820**	**448,820**	**23,873**	18.80	**4.82**
341.02	**WIND PRODUCTION PLANT**								

	STRUCTURES AND IMPROVEMENTS				**2,549,341**	**1,792,876**	**109,992**	**16.3**	**4.31**
	SPEARVILLE UNIT 1	Jun-30	70-R2.5	0	1,993,133	1,341,052	82,273	16.3	
	SPEARVILLE UNIT 2	Jun-30	70-R2.6	0	556,207	451,823	27,719	16.3	
344.02	**GENERATORS**				**2,549,341**	**1,792,876**	**109,992**	**13.6**	**5.39**
	SPEARVILLE COMMON	Jun-30	45-R2	0	487,541	398,507	25,063	15.9	
	SPEARVILLE UNIT 1	Jun-26	45-R2	(1)	85,981,885	56,589,868	4,676,849	12.1	
	SPEARVILLE UNIT 2	Jun-30	45-R2	(1)	56,065,885	46,895,814	2,930,988	16.0	
345.02	**ACCESSORY ELECTRIC EQUIPMENT**				**386,735**	**361,506**	**23,478**	**15.4**	**6.07**
	SPEARVILLE COMMON	Jun-30	40-R2.5	0	316,564	309,912	19,249	16.1	
	SPEARVILLE UNIT 1	Jun-26	40-R2.5	0	70,171	51,594	4,229	12.2	
346.20	**MISCELLANEOUS POWER PLANT EQUIPMENT**								
	SPEARVILLE COMMON	Jun-30	35-S2.5	**0**	**44,042**	**39,638**	**2,202**	**18.0**	**5.00**
TRANSMISSION PLANT									
352.00	**STRUCTURES AND IMPROVEMENTS**		60-R3	(5)	3,327,973	2,366,658	62,610	37.8	**1.98**
353.00	**STATION EQUIPMENT**		55-R1	(10)	96,502,490	72,432,198	1,638,738	44.2	**1.87**
353.03	**STATION EQUIPMENT- COMMUNICATION**		25-S2.5	0	4,383,416	2,587,040	438,481	5.9	**9.96**
354.00	**TOWERS AND FIXTURES**		70-R4	(20)	2,813,761	788,309	20,529	38.4	**0.88**
355.00	**POLES AND FIXTURES**		52-R2	(50)	97,035,547	64,988,901	1,710,234	38.0	**2.64**
356.00	**OVERHEAD CONDUCTORS AND DEVICES**		55-R2.5	(25)	69,771,957	41,288,461	992,511	41.6	**1.78**
357.00	**UNDERGROUND CONDUIT**		65-R4	0	1,995,354	901,991	28,187	32.0	**1.41**
358.00	**UNDERGROUND CONDUCTORS AND DEVICES**		55-R4	0	1,706,194	335,459	11,648	28.8	**0.68**
	DISTRIBUTION PLANT								
361.00	**STRUCTURES AND IMPROVEMENTS**		55·R2	(5)	6,537,236	3,399,079	82,302	41.3	**1.32**
362.00	**STATION EQUIPMENT**		52-R2	(5)	119,658,363	80,813,173	2,066,833	39.1	**1.81**
362.03	**STATION EQUIPMENT- COMMUNICATION**		25·S2.5	0	2,257,961	961,344	100,140	9.6	**4.45**
363.00	**STORAGE BATTERY EQUIPMENT**		10-L3	0	2,500,987	2,500,987	294,234	8.5	**11.76**
364.00	**POLES, TOWERS AND FIXTURES**		42-R2.5	(50)	245,809,454	155,834,733	5,318,592	29.3	**3.37**
365.00	**OVERHEAD CONDUCTORS AND DEVICES**		44-R1	(25)	154,421,032	119,622,062	3,809,620	31.4	**3.08**
366.00	**UNDERGROUND CONDUIT**		55-R2.5	(30)	187,698,796	159,528,988	4,198,131	38.0	**2.91**
367.00	**UNDERGROUND CONDUCTORS AND DEVICES**		51-R15	(10)	255,130,017	214,106,246	5,518,202	38.8	**2.38**
368.00	**LINE TRANSFORMERS**		37-R2	10	140,071,242	69,495,989	2,536,350	27.4	**1.63**
369.00	**SERVICES**		50-R2.5	(100)	119,584,880	90,234,461	2,653,955	34.0	**4.44**

370.00	**METERS**		40-R1.5	2	22,740,477	4,884,306	141,165	34.6	**0.61**
370.10	**METERS-AMR (Auto Meter Read)**	Jun-16	40-R1.5	2	26,657,698	9,294,443	274,984	33.8	**1.01**
	UNRECOVERED AMR METER COSTS (AFTER 2015)				xfer from 364	(8,745,071)	0	10.0	**0.00**
370.20	**METERS -AMI (Advanced Meter Infrastuctr)**		20·S2.5	2	1,811,461	1,771,161	90,829	19.5	**4.91**
371.00	**INSTALLATIONS ON CUSTOMERS' PREMISES**		21-S1	(15)	9,324,437	77,544	3,783	20.5	**0.05**
373.00	STREET LIGHTING AND SIGNAL SYSTEMS		25·L0.5	(5)	12,570,828	8,250,796	448,413	18.4	**3.75**
	GENERAL PLANT								
390.00	**STRUCTURES AND IMPROVEMENTS**		45-R1.5	(20)	**48,881,235**	36,924,231	1,118,916	33.0	**2.75**
391.01	**FURNITURE AND EQUIPMENT**		20-SQ	0	5,157,772	3,704,945	257,889	11.9	**5.00**
391.01	**FURNITURE AND EQUIP- WOLF CREEK**		20-SQ	0	4,093,469	3,005,227	204,673	13.5	**5.00**
391.02	**COMPUTER EQUIPMENT**		8-SQ	0	7,144,482	6,180,286	893,061	5.3	**12.50**
	TRANSPORTATION EQUIPMENT								
392.00	**AUTOS**	See Note 1.	8-R2	25	270,311	294,743	0	0.0	**0.00**
392.01	**LIGHT TRUCKS**		7.5-L0.5	25	3,721,066	2,938,124	582,061	5.0	**11.73**
392.02	**HEAVY TRUCKS**		10-L2.5	25	15,257,713	12,322,454	2,021,774	6.1	**9.94**
392.03	**TRACTORS**		12-R2	25	241,438	89,387	18,279	4.9	**5.68**
392.04	**TRAILERS**		26-S0	25	783,782	305,304	14,224	21.5	**1.36**
393.00	**STORES EQUIPMENT**		25-SQ	0	452,972	224,263	18,119	14.1	**4.00**
394.00	**TOOLS, SHOP AND GARAGE EQUIPMENT**		30-SQ	0	2,761,781	1,853,211	91,967	17.9	**3.33**
395.00	**LABORATORY EQUIPMENT**		30-SQ	0	3,745,869	2,176,272	124,737	17.8	**3.33**
396.00	**POWER OPERATED EQUIPMENT**		12-L2	15	11,650,770	8,285,414	1,090,186	7.6	**7.94**
397.00	**COMMUNICATION EQUIPMENT**		35-SQ	0	60,555,515	46,953,129	1,731,888	22.1	**2.86**
398.00	**MISCELLANEOUS EQUIPMENT**		30-SQ	0	306,127	239,541	10,194	17.0	**3.33**
	Note 1. Reevaluate Next Rate Case, if Total Lifetime Accruals exceed Future Accruals, apply a 9.38% depreciation Rate								

SCHEDULE MLS-1

HAS BEEN DEEMED

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IN ITS ENTIRETY