



2015 Year in Review

Brad Lawrence
Electric Utility Director

2015 was another productive year for the small FTE electric utility. The crew worked steadfast on various projects, both construction and maintenance.

As with past years, the winter months were primarily spent accomplishing maintenance. Part of that maintenance was trimming trees. The crew also assisted the street department with their tree removal. The inventory was completed in late December. This is also the time when the service trucks are looked over closely for faults. The crew also accomplishes the deferred maintenance from the summer construction months.

The summer construction season saw the crew work on several large projects. The most prominent was the upgrade project. In total the system saw \$616,359.88 in improvements and the crew worked a total of 1511 hours on those improvements. The full description is included as an attachment to this report.

Some pertinent statistics are:

- 22 New services
- 56 Customer request disconnects
- 310 Non-requested disconnects
- 19 Outages
- 1196 Locates
- 295 New meter installs
- 497 Meter downloads
- 519 Hours of tree trimming for the department

The department continued the Load Management program with 3368 items controlled during the year. The system created a total of \$438,040.24 in energy savings and netted \$251,807.58 after paying incentives to the customers.

The gen station finished the year with 61 hours of total engine run time, consuming 6,839 gallons of fuel and generating 104,111.01 kWh's of electric energy.

In summary, it was another good year for the electric department. The department looks forward to the challenges anticipated in the coming year.

2015 Service Order Details

Business and Residential Service Upgrades		
	Total Removed Services: 2	2.25
	Total New Services (Residential & Business): 22	37.50
	Total Checks, Moves, Drop, Tests & Repairs: 14	31.67
	Total Temporary Services: 7	13.00
	Total Services Upgraded: 11	33.00
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Disconnects/Reconnects (Seasonal, Customer Request)	56	45.49
Disconnects for Finance Office	310	155.00
Electrical Outages	19	97.50
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Electrical Work / City Departments		
	Airport	49.00
	Chamber of Commerce/Depot	13.00
	Community Center	4.50
	City Hall	4.50
	Electric	16.00
	Generation	101.00
	Library	51.25
	Parks	74.00
	Police	3.50
	Public Works	20.00
	Recycling	5.00
	Restricted Use	13.00
	Sirens	16.00
	Water	20.00
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House Moves	Moves: 10	9.25
Load Management		50.75
	Check & Repair Receivers: 10	7.00
	New Installs: 27	32.25
	Box Rehooks: 5	5.00
	Added/Change Load: 4	5.00
	Removals (units): 3	1.50
Locates	(Locate Tickets) 1196	585.00
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Meters		
	New/Change Outs/Add New ERT: 295	179.67
	Downloads: 497	248.50
	Reprogram/Check/Test/Removal: 240	122.25
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Meter Reads, PCB Checks and Amperage Checks		67.05
Meter Socket - Loosen / Fasten - Siding Houses		9.75
Miscellaneous Other (Pole Removal, Customer Assistance)		2.00
Repairs (Maintenance, Damaged Lines, Transformers)		145.00
Street Light ,Stop Light, School Flasher Repairs		285.59
Tree Trimming	Electric Department	519.00
	Parks Department	13.00
	Street Department	44.50

2015 Large Projects

Description	Material	Labor	Total
Amert Construction - 310 S Union Ave Set Transformer & Basement / Remove Old Transformer	\$556.42	\$309.76	\$866.18
City of Madison - Baughman Belatti Park Wire Teener Concession Stand	\$422.44	\$1,464.32	\$1,886.76
Bus Barn - Madison Central High School New Service, Set Transformer & Basement for New Building Trenching @ \$1043.88 / May Construction Boring/Plowing Charge @ \$2676.03	\$13,785.64	\$816.64	\$18,322.19
Lloyd Construction - 1038 NE 3rd St Install New Service & Metering for Apartments	\$8,409.24	\$858.88	\$9,268.12
First Line Funding - SE 12th St Set Transformer & Basement May Construction boring/plowing charge = \$6,122.46	\$11,756.87	\$1,126.40	\$15,559.30
Madison Regional Health / SW 10th St Install New Meter & Remove Temporary / Set 9 New Street Lights	\$7,703.35	\$1,365.76	\$9,069.11
Extras on SE 4th Street Project Switch Primary Wires / Trench Wires / Remove Cutout and Wire from Pole	\$6,142.69	\$2,675.20	\$8,817.89
LAIC Spec Building / SW 12th St Install Metering, Transformer and Remove Electric Pole	\$7,803.18	\$802.56	\$8,605.74
Civil Defense Sirens / City of Madison Replace Batteries and Rewire Boxes	\$1,416.53	\$1,351.68	\$2,768.21
Complete Upgrade Project - 2014 Wreck Out Line & Remove Poles / Replace Krug Products Transformers	\$6,654.15	\$4,505.60	\$11,159.75
Upgrade Project - 2015 Install Metering, Wreck Out Line, Remove Poles \$18,996.67 Material, \$26526.72 Labor Bid Material, DGR Expense, State Wiring Certificates, Easements \$272,168.32 May Construction boring/plowing charge = \$208,757.44	\$291,164.99	\$235,284.16	\$526,449.15
Paul Allen Construction Duplex Units - 720/724 N Division New Service, Set Transformer & Basement for New Dwellings	\$2,424.12	\$549.12	\$2,973.24
Woodbury Estates Trailer Park / NW 9th St New Primary Wire to Feed Trailer Park May Construction boring/plowing charge = \$2,040.82	\$417.12	\$197.12	\$614.24

Total Large Project Cost 2015 : \$616,359.88

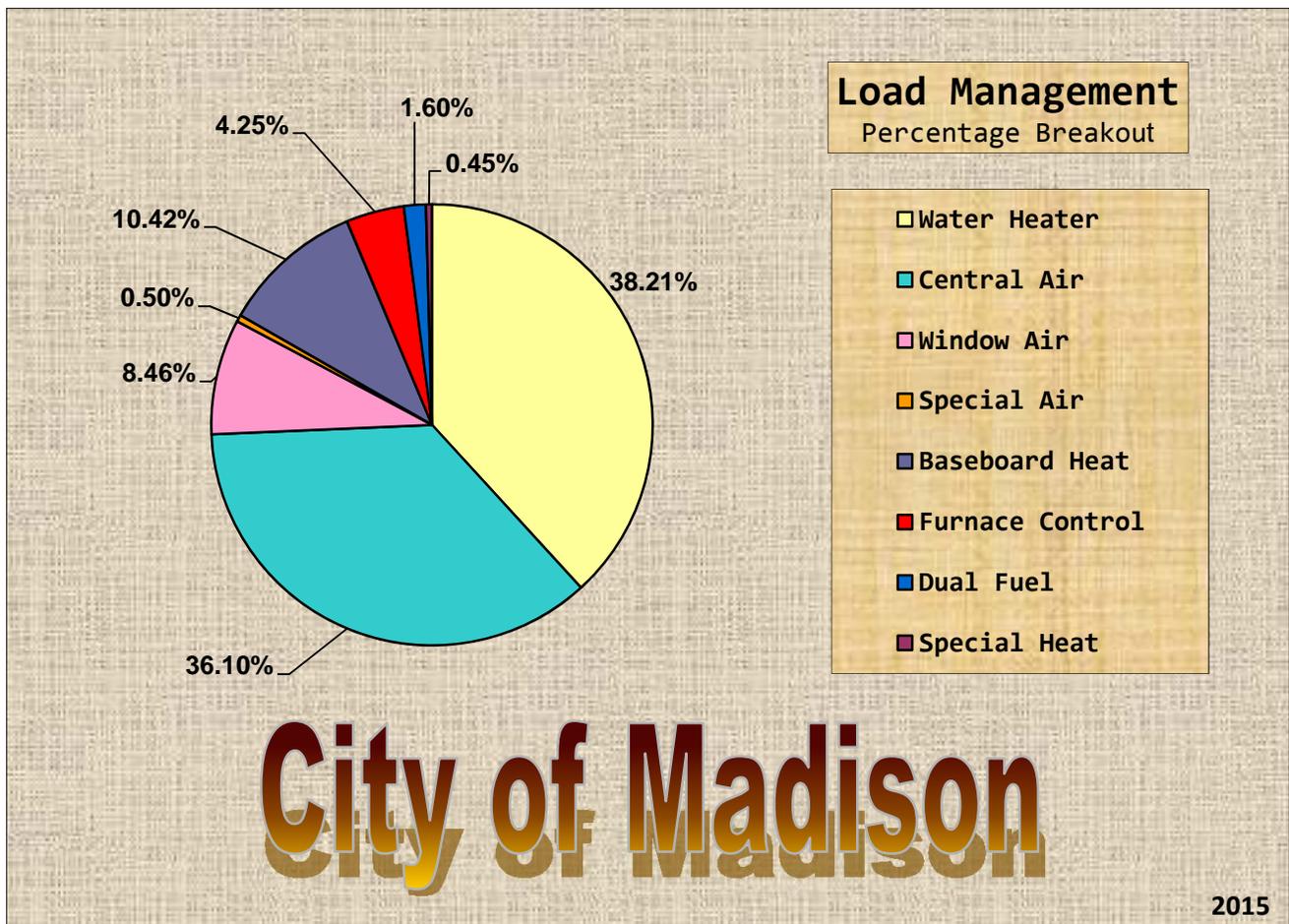
Total Project Hours: 1511.00



2015 Load Control Information

The information below shows a detailed breakout of the load we are able to control. We currently have 2003 active accounts on our load management system.

Total Items Controlled:	3368
Water Heater	1287
Central Air	1216
Window Air	285
Special Air	17
Baseboard Heat	351
Furnace Control	143
Dual Fuel	54
Special Heat	15



Load Management Savings Report

Actual Billing Data (w/ Load Management)												
	January	February	March	April	May	June	July	August	September	October	November	December
System Demand (KW)	18,897	18,521	18,349	15,149	13,953	17,295	18,041	17,810	18,103	14,000	14,984	16,292
System Energy (KWH)	10,227,160	9,580,353	8,694,653	7,564,445	7,276,065	8,120,618	9,139,201	8,720,937	8,098,067	7,567,332	7,922,360	9,009,465
WAPA Demand (KW)	9,499	9,436	9,288	8,925	10,037	9,014	10,037	10,037	10,037	7,716	8,492	8,838
WAPA Energy (KWH)	5,416,000	5,290,000	4,530,000	4,625,000	4,569,000	4,506,000	4,545,000	4,762,000	4,263,000	3,952,000	4,525,000	4,542,000
Heartland Demand (KW)	9,398	9,085	9,061	6,224	3,916	8,281	8,004	7,773	8,066	6,284	6,492	7,454
Heartland Energy (KWH)	4,811,160	4,290,353	4,164,653	2,939,445	2,707,065	3,614,618	4,594,201	3,958,937	3,835,067	3,615,332	3,397,360	4,467,465
WAPA Demand Expense	\$72,667.35	\$72,185.40	\$71,053.20	\$68,276.25	\$76,783.05	\$68,957.10	\$76,783.05	\$76,783.05	\$76,783.05	\$59,027.40	\$64,963.80	\$67,610.70
WAPA Energy Expense	\$103,174.80	\$100,774.50	\$86,296.50	\$88,106.25	\$87,039.45	\$85,839.30	\$86,582.25	\$90,716.10	\$81,210.15	\$75,285.60	\$86,201.25	\$86,525.10
Heartland Demand Expense	\$224,142.30	\$216,677.25	\$216,104.85	\$148,442.40	\$93,396.60	\$197,501.85	\$190,895.40	\$185,386.05	\$192,374.10	\$149,873.40	\$154,834.20	\$177,777.90
Heartland Energy Expense	\$156,891.93	\$139,908.41	\$135,809.33	\$95,855.30	\$88,277.39	\$117,872.69	\$149,816.89	\$129,100.94	\$125,061.53	\$117,895.98	\$110,787.91	\$145,684.03
East River Wheeling Expense	\$44,407.95	\$43,524.35	\$43,120.15	\$35,600.15	\$32,789.55	\$40,643.25	\$42,396.35	\$41,853.50	\$42,542.05	\$32,900.00	\$35,212.40	\$38,286.20
Total Power Supply Expense	\$601,284.33	\$573,069.91	\$552,384.03	\$436,280.35	\$378,286.04	\$510,814.19	\$546,473.94	\$523,839.64	\$517,970.88	\$434,982.38	\$451,999.56	\$515,883.93
Billing Data (If NO Load Management)												
Percentage for WAPA	44%	45%	45%	55%	67%	50%	53%	52%	52%	51%	51%	54%
Percentage for Heartland	56%	55%	55%	45%	33%	50%	47%	48%	48%	49%	49%	46%
System Demand (KW)	21,815	20,966	20,531	16,222	14,977	18,119	18,981	19,127	19,297	15,002	16,783	16,292
System Energy (KWH)	10,227,160	9,580,353	8,694,653	7,564,445	7,276,065	8,120,618	9,139,201	8,720,937	8,098,067	7,567,332	7,922,360	9,009,465
WAPA Demand (KW)	9,499	9,436	9,288	8,925	10,037	9,014	10,037	10,037	10,037	7,716	8,492	8,838
WAPA Energy (KWH)	5,416,000	5,290,000	4,530,000	4,625,000	4,569,000	4,506,000	4,545,000	4,762,000	4,263,000	3,952,000	4,525,000	4,542,000
Heartland Demand (KW)	12,316	11,530	11,243	7,297	4,940	9,105	8,944	9,090	9,260	7,286	8,291	7,454
Heartland Energy (KWH)	4,811,160	4,290,353	4,164,653	2,939,445	2,707,065	3,614,618	4,594,201	3,958,937	3,835,067	3,615,332	3,397,360	4,467,465
WAPA Demand Expense	\$72,667.35	\$72,185.40	\$71,053.20	\$68,276.25	\$76,783.05	\$68,957.10	\$76,783.05	\$76,783.05	\$76,783.05	\$59,027.40	\$64,963.80	\$67,610.70
WAPA Energy Expense	\$103,174.80	\$100,774.50	\$86,296.50	\$88,106.25	\$87,039.45	\$85,839.30	\$86,582.25	\$90,716.10	\$81,210.15	\$75,285.60	\$86,201.25	\$86,525.10
Heartland Demand Expense	\$293,736.60	\$274,996.24	\$268,145.55	\$174,033.45	\$117,819.73	\$217,154.86	\$213,324.25	\$216,798.75	\$220,848.82	\$173,772.24	\$197,748.29	\$177,777.90
Heartland Energy Expense	\$156,891.93	\$139,908.41	\$135,809.33	\$95,855.30	\$88,277.39	\$117,872.69	\$149,816.89	\$129,100.94	\$125,061.53	\$117,895.98	\$110,787.91	\$145,684.03
East River Wheeling Expense	\$51,265.25	\$49,270.67	\$48,247.85	\$38,121.70	\$35,196.02	\$42,579.71	\$44,606.32	\$44,948.67	\$45,347.74	\$35,254.81	\$39,440.83	\$38,286.20
Total Power Supply Expense	\$677,735.93	\$637,135.22	\$609,552.43	\$464,392.95	\$405,115.64	\$532,403.66	\$571,112.76	\$558,347.50	\$549,251.29	\$461,236.03	\$499,142.08	\$515,883.93
Total LM Savings	\$76,451.60	\$64,065.31	\$57,168.40	\$28,112.60	\$26,829.60	\$21,589.47	\$24,638.82	\$34,507.87	\$31,280.41	\$26,253.65	\$47,142.52	\$0.00
Accumulated Savings	\$76,451.60	\$140,516.91	\$197,685.31	\$225,797.91	\$252,627.51	\$274,216.97	\$298,855.79	\$333,363.66	\$364,644.07	\$390,897.72	\$438,040.24	\$438,040.24

Total Load Management Savings: \$438,040.24
Total 2015 Credits Given To Customers (Per Karen): \$170,759.07
Total 2015 Dual Fuel Credit Given to Customer: \$15,473.59
TOTAL SAVINGS 2015: \$251,807.58



Year End Report

January 2015- December 2015

Madison Generation Plant

Month	Run Time	Fuel Used (Gallons)	KWH Generated
January	1	350	7606.12
February	1	515	7513.24
March	2	1530	21065.53
April	1	669	9845.2
May	0	0	0
June	1	699	9711.07
July	1	667	10047.92
August	1	685	10157.04
September	1	514	7207.42
October	0.75	440	5987.67
November	1	427	5694.65
December	1	593	9275.15

