

# STATE OF THE UTILITY

## SHARED DATA (ED, ES, WWW)

Safety

Environmental

Regulatory

Personnel

# SHARED DATA (ED, ES, WWW)

January 2017

## Safety

## Employees

	Current Month			Year to Date		
	Near Miss	Recordable	Lost Days	Near Miss	Recordable	Lost Days
Water Treatment/Distribution	1	0	0	1	2	0
WW Collections/ Reclamation	0	1	0	0	1	0
Energy Supply	1	0	0	2	0	0
Energy Delivery - Electric	0	0	0	0	1	0
Energy Delivery - Gas	0	1	0	0	1	0

## Vehicles

	Current Month			Year to Date		
	Miles Driven	Recordable	Preventable	Miles Driven	Recordable	Preventable
Water Treatment/Distribution	28,236	0	0	105,585	1	0
WW Collections/ Reclamation	34,361	1	0	143,050	1	0
Energy Supply	1,834	0	0	6,261	0	0
Energy Delivery - Electric	45,055	0	0	187,664	1	0
Energy Delivery - Gas	14,694	0	0	70,508	0	0

## Environmental

	Current Month	Calendar Year to Date
Notices of Violation	0	0
<b>Emissions</b>		
DH1, DH2, DHCT3, JRKCC1		
CO <sub>2</sub> (tons)	41,783	41,783
NO <sub>x</sub> (tons)	25	25
SO <sub>2</sub> (tons)	0.2	0.2
DH Unit 2 (only)		
PM <sub>FILT</sub> (tons)	0	0
Hg (lbs)	0.00	0.00

## Regulatory

	Current Month	Year to Date
<b>NERC</b>		
Notice of Violations	0	0
Self Reports/Potential Violations	0	0

## Personnel

	FTE	Incumbents	Vacant
<b>Water &amp; Wastewater</b>			
MAPS	27.00	26.00	1.00
CWA	142.00	130.00	12.00
<b>Energy Supply (includes District Energy)</b>			
MAPS	38.00	33.00	5.00
CWA	122.00	119.00	3.00
<b>Energy Delivery (Electric &amp; Gas)</b>			
MAPS	49.00	38.00	11.00
CWA	217.00	199.80	17.20
<b>Total</b>	<b>595.00</b>	<b>545.80</b>	<b>49.20</b>

**STATE OF THE UTILITY**

**CUSTOMER OPERATIONS**

**Operations Data**

# Customer Operations Metrics Summary January 2017

<b>Active Accounts</b>	Jan-17	YTD Gain/Loss	FY16
<i>Residential Contract Accounts</i>			
Total	89,221	356	88,865
Electric	82,944	270	82,674
Gas	33,038	239	32,799
Water	62,331	162	62,169
Wastewater	58,327	176	58,151
Telecomm	145	(8)	153

<b>Active Accounts</b>	Jan-17	YTD Gain/Loss	FY16
<i>Nonresidential Contract Accounts</i>			
Total	13,641	48	13,593
Electric	11,088	54	11,034
Gas	1,650	30	1,620
Water	5,837	(16)	5,853
Wastewater	4,597	(7)	4,604
Telecomm	326	12	314

<b>New Installations</b>	Jan-17	FY17 To Date	FY16
Electric	49	371	1,638
Gas	40	162	589
Water	34	157	756
Wastewater	36	150	485
Telecomm	17	69	248

<b>Residential Disconnects</b>	Jan-17	FY17 To Date	FY16
Volume	1,306	5,161	14,593
Average Balance	\$234.67	\$252.30	\$247.00

<b>Call Center Volume</b>	Jan-17	FY17 To Date	FY16
Average Speed of Answer	0:03:53	0:05:47	0:07:04
CSR Calls	13,942	50,631	251,522
IVR Self Service	21,301	87,675	318,483
Total	35,243	138,306	570,005
IVR/Total	60%	63%	56%

<b>Revenue Assurance</b>	Jan-17	FY17 To Date	FY16
Referred to Collections	\$176,481.07	\$893,651.41	\$1,461,488.40
Recovered	\$8,483.26	\$48,194.12	\$361,420.79

<b>Bills Generated</b>	Jan-17	FY17 To Date	FY16
Paper Bills	104,795	414,048	1,300,894
eBills	15,311	69,091	179,960
Total	120,106	483,139	1,480,854
eBill/Total	13%	14%	12%

<b>Service Orders</b>	Jan-17	FY17 To Date	FY16
Move Ins	7,231	28,055	137,265
Move Outs	7,691	27,853	132,836

<b>Payment Arrangements</b>	Jan-17	FY17 To Date	FY16
Total	7,679	32,820	97,287

<b>Average Res Bill Amounts</b>	Jan-17	FY17 To Date	FY16
Electric (kWh)	711	719	840
Electric (\$)	\$106.95	\$107.96	\$126.96
Gas (Therms)	30	18	18
Gas (\$)	\$43.93	\$31.23	\$29.61
Water (kGals)	5	5	4
Water (\$)	\$31.03	\$31.42	\$27.47
Wastewater (kGals)	5	5	6
Wastewater(\$)	\$43.75	\$38.25	\$41.13

**STATE OF THE UTILITY**

**ENERGY DELIVERY**

**Operations Data & Projects**

**ENERGY DELIVERY**  
**UAB REPORT - JANUARY 2017**

**Durations Reliability Report Between 1/01/2017 and 1/31/2017**

Includes Extreme Weather and Generation/Transmission Disturbances



**MONTHLY  
AVG  
GOAL**

CUSTOMER DATA	RELIABILITY INDICIES			
Monthly Average Customers Served(C)	94175	Average Service Availability Index (ASAI)	99.9936 %	
Total Hours of Customer Demand	67,806,000	System Average Interruption Duration Index (SAIDI)	2.75 Mins	4.5 Mins
Total Number of Outages	56	Customer Average Interruption Duration Index (CAIDI)	42.83 Mins	55 Mins
Total Number of Customers Affected (CI)	8052	System average Interruption Frequency Index (SAIFI)	0.06	.08
Total Customer Minutes Interrupted (CMI)	259197			
Total Customer "Out Minutes"	7187	Average Length of a Service Interruption (L-Bar)	128.34 Mins	
Tot Cust Momentary Interruption Events (CME)	11,194			

Guide for Power Distribution Reliability Indices ([reliabilityguide.aspx](http://reliabilityguide.aspx))

**Outage Duration Times**

Average Hours	2
Maximum Hours	8
Minimum Hours	0

**Cause of Outages**

Cause	Overhead	Underground	Undetermined	Total
1. Weather	2	4	0	6
1. Vegetation	13	12	0	25
1. Animals	4	2	0	6
1. Foreign Interference	0	1	0	1
1. Human Cause	4	0	0	4
1. Undetermined	0	0	0	0
1. Equipment Failure	6	6	1	13
1. All Remaining Outages	0	0	0	0
<b>Total</b>	<b>29</b>	<b>25</b>	<b>1</b>	<b>55</b>

Customer Count derived from number of meters in SAP as of 1/31/17.

**ENERGY DELIVERY**  
**UAB REPORT - JANUARY 2017**

**Energy Delivery - Major Design Projects - Electric**

Major Electric Design Projects underway:

- > Butler Plaza Town Center
- > Blues Creek Unit 7 – 16 residential units
- > 43<sup>rd</sup>/53<sup>rd</sup> - Retail Development - Old System Control Building
- > Relocate Switchgear [at Holiday Inn] for roadway re-construction SW 43/32<sup>nd</sup> Street
- > The Windsor of Gainesville NW 83 St & 39<sup>th</sup> Ave – (Nursing Home)

Major Electric Design Projects expected to start within 30 days:

- > Innovation Square Storm Water Upgrade
- > SW 4th Ave OH to UG Conversion
- > CRA - NW 1st Ave (OH to UG conversion)
- > One College Park (apartments)
- > Fairfield Inn & Suites 3700 SSW 37th Blvd.
- > Drury Inn & Suites – 4000 SW 40 Blvd (Hotel)
- > Blues Creek Unit 5 PH 2&3 (Residential S/D, 50 lots)
- > Westchester PH 4B – 77 Single Family Lots
- > Alachua County Project – UG 1.5 miles of OH on SW 8<sup>th</sup> Avenue

**ENERGY DELIVERY**  
**UAB REPORT - JANUARY 2017**

## **Energy Delivery - Major Construction Projects - Gas**

### Major Gas Design Projects:

- > Prepare construction plans for Fire Station #9 (approx. 1,000 feet of gas main on NW 34th Street) , Aloft Hotel, Staybridge Hotel and Gloria's Way S/D.
- > Design for replacement of 3215 feet of bare steel gas main at 400-800 blocks SW 10th St
- > Extension of 4" gas main on SW 8th Avenue from 137th St to SW 143rd St, about 3,300 feet

### Gas Main Installed in January 2017

1. Installing main on SW 8th Ave from 122-131st as trench is available. This is a joint trench project.
2. NW 3rd St. Project. A rebuild of black plastic and bare steel. Replacing approximately 1.5 miles of main and associated services. This is a Distribution Integrity Management project. They complete approximately 1500 feet per week due to it being in an urban area with a good deal of utilities in the ROW. We had to pull of this project temporarily to work on new customer extensions.
3. Grand Preserve Substation and Apts. – ongoing project at 7700 SW Archer Rd. main being installed as necessary. In total we will install 7800' of main.
4. Finley Woods Main Ext. – 10320' – We will continue this project as the county has determined the layout of a corner they wanted to redesign.
5. We have been working on and off in the Butler Town Center and Celebration Point as construction is on-going in both of these projects.

Number of new Services installed in January: 29

Maintenance Activities – Two man crew – Beginning Cathodic Protection and Emergency Valve surveys.

Note 1: The PSC will be here March 6<sup>th</sup> and 7<sup>th</sup> to inspect Gainesville Housing Authority.

Note 2: Currently working on updates to our Gas Operations and Maintenance Manual to comply with new PHMSA code changes.

**ENERGY DELIVERY**  
**UAB REPORT - JANUARY 2017**  
**Electric System Consumption**

<b>ELECTRIC SYSTEM</b>	<b>CONSUMPTION</b>	<b>CUSTOMERS</b>
Feed-In-Tariff	1,604 KWH	258
Electric - GS - Demand - Regular	45,005,132 KWH	1,247
Electric - General Service Demand PV	717,123 KWH	20
GREC Startup Supplemental and Standby	438,596 KWH	1
Electric - GS - Kanapaha w Curtail Cr	922,800 KWH	1
Electric - GS - Demand - Large Power	6,121,800 KWH	8
Electric - GS - Murphree Curtail Credit	1,444,800 KWH	1
Electric - GS Large Demand PV	3,475,200 KWH	2
Electric - GS - Non Demand	14,079,488 KWH	10,030
Electric - General Service PV	83,840 KWH	56
Electric - Lighting - Rental	1,034,412 KWH	4,473 <i>n</i>
Electric - Lighting - Street - City	794,855 KWH	13 <i>n</i>
Electric - Lighting - Street - County	299,590 KWH	2 <i>n</i>
Electric - Lighting - Traffic	4,542 KWH	2 <i>n</i>
Electric - Residential - Non TOU	59,947,281 KWH	87,728
Electric - Residential PV	154,404 KWH	194
Total Retail Electric ( <i>n</i> =not included in total)	134,525,467 KWH	99,546
City of Alachua	9,801,000 KWH	23,329 KW
City of Winter Park	7,440,000 KWH	10,000 KW
Total (Native) Electric	151,766,467 KWH	

**ENERGY DELIVERY**  
**UAB REPORT - JANUARY 2017**  
**Gas System Consumption**

**GAS SYSTEM**

Gas - GS - Regular Service (Firm)	907,938 THM	1,644
Gas - GS - Regular Service (Small)	9,491 THM	194
Gas - GS - Interruptible - Regular Serv	31,140 THM	1
Gas - GS - Interruptible - Large Volume	405,450 THM	6
Gas - Residential - Regular Service	971,785 THM	33,730
Total Retail Gas	<u>2,325,804 THM</u>	<u>35,575</u>
Gas - GS - UF Cogeneration Plant	3,666,647 THM	1
Gas - Residential - LP - Basic Rate	6,572 GAL	196
GREC Gas (PGA Only)	0 THM	1

**STATE OF THE UTILITY**

**ENERGY SUPPLY**

**Operations Data & Projects**

# ENERGY SUPPLY OPERATIONAL DATA

## Energy Supply

### System Statistics

	Unit Capability output - MWn
DH-2	228
DH-1	75
Kelly CC	108
CT's	106
Grid	2 X 224
GREC	102.5

### Energy Supply - MWHrs Delivered

Source	Month	YTD	Budget YTD	Delta Budget
DH-2	-	-	221,908	(221,908)
DH-1	22,721	79,867	2,145	77,722
Kelly CC	47,114	273,265	104,756	168,509
CT's	512	2,267	46	2,221
Grid	46,867	196,867	30,000	166,867
GREC	24,413	56,125	242,825	(186,700)

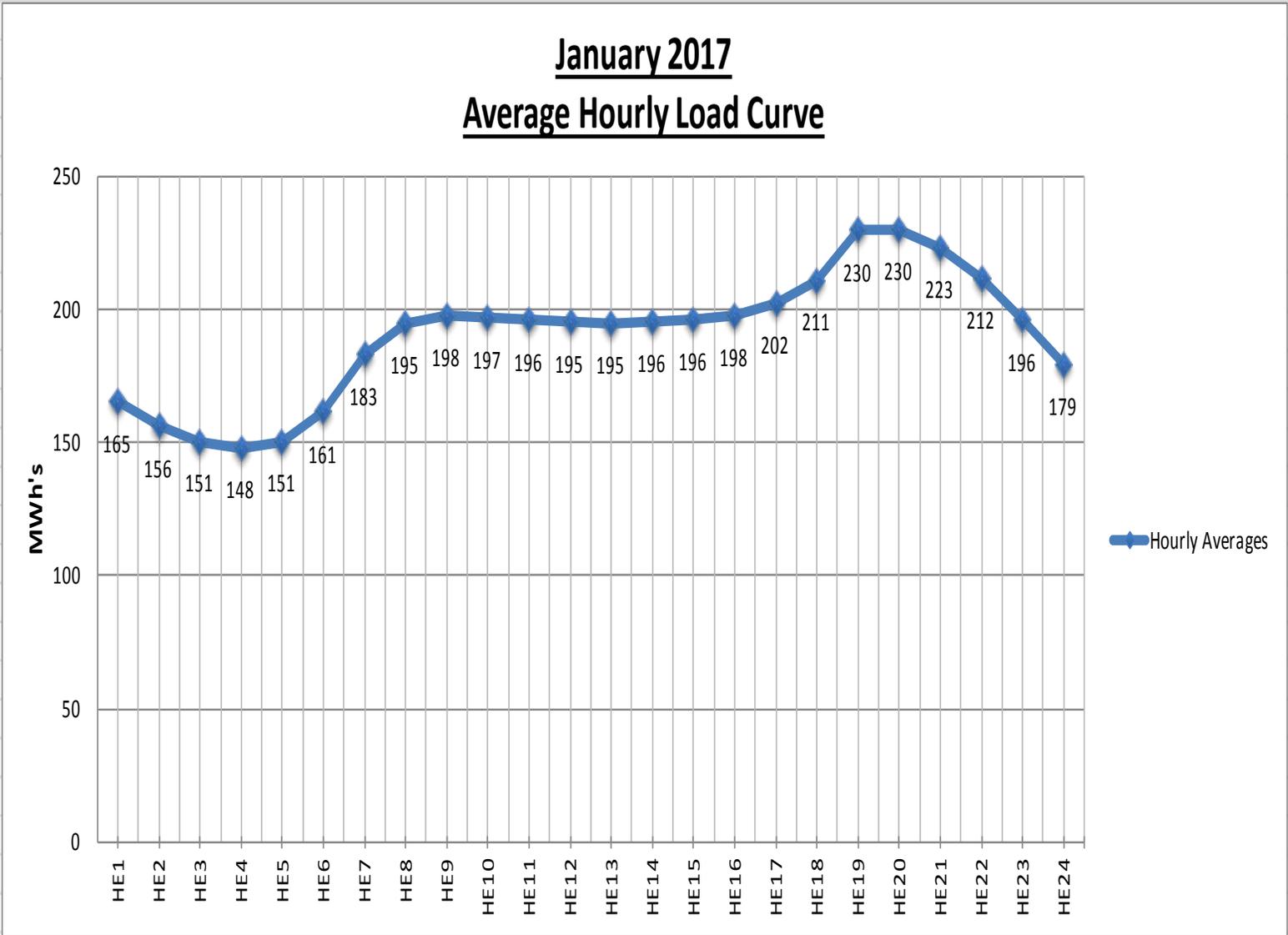
### Average Energy Distribution Curve

Curve 1 is the hourly distribution of load averages over the month (Page 13)  
 Curve 2 is peak load per day (Page 14)

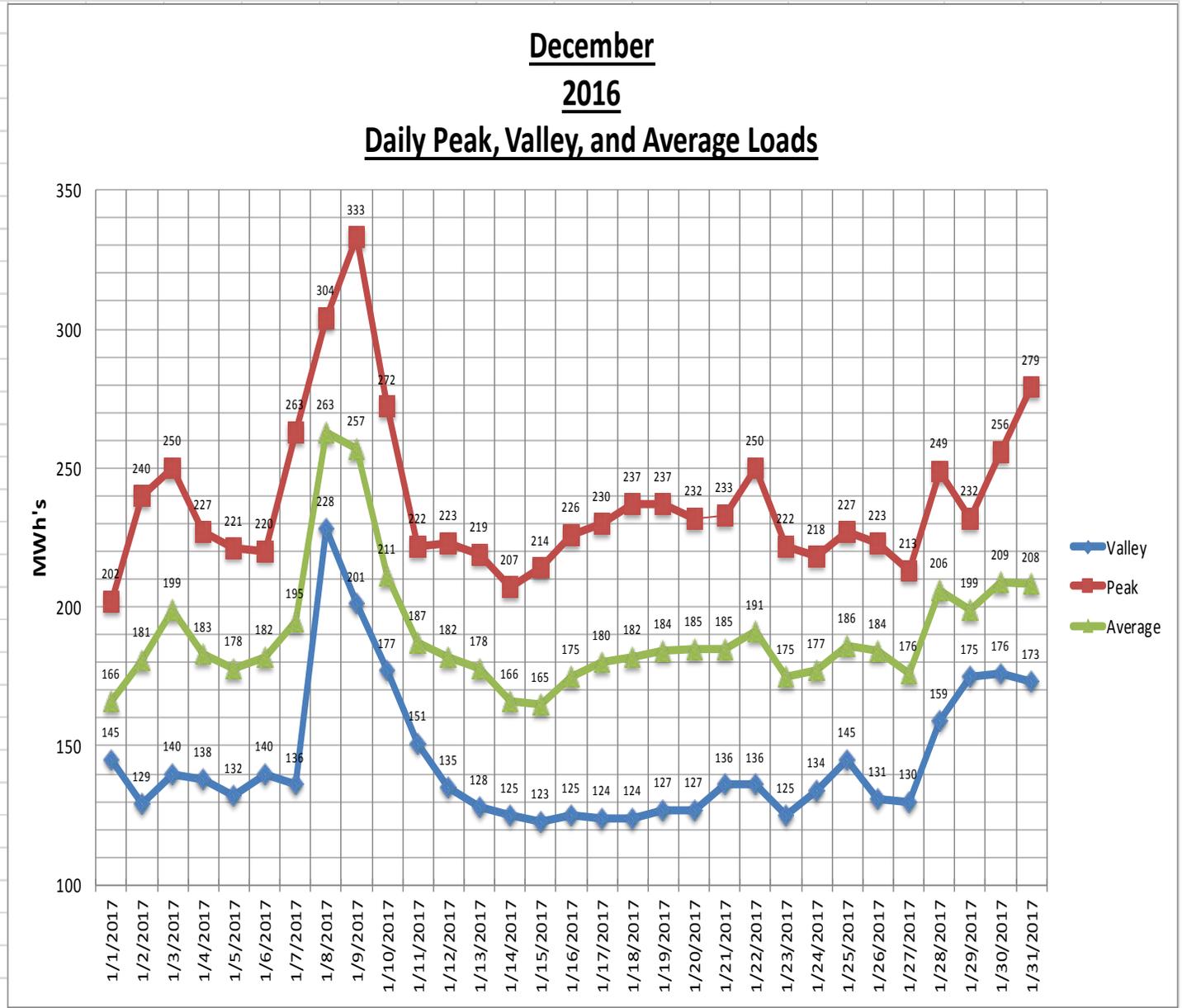
### Fuel Consumed

	Month	YTD	Budget YTD	Delta Budget
Coal - Tons	-	-	68,823	(68,823)
Gas-MCF	661,659	3,252,527	3,084,088	168,439
Fuel oil - Gal	401	2,705	-	2,705

Hour Ending	Ave. Load
HE1	165
HE2	156
HE3	151
HE4	148
HE5	151
HE6	161
HE7	183
HE8	195
HE9	198
HE10	197
HE11	196
HE12	195
HE13	195
HE14	196
HE15	196
HE16	198
HE17	202
HE18	211
HE19	230
HE20	230
HE21	223
HE22	212
HE23	196
HE24	179



Date	Valley	Peak	Ave
1/1/2017	145	202	166
1/2/2017	129	240	181
1/3/2017	140	250	199
1/4/2017	138	227	183
1/5/2017	132	221	178
1/6/2017	140	220	182
1/7/2017	136	263	195
1/8/2017	228	304	263
1/9/2017	201	333	257
1/10/2017	177	272	211
1/11/2017	151	222	187
1/12/2017	135	223	182
1/13/2017	128	219	178
1/14/2017	125	207	166
1/15/2017	123	214	165
1/16/2017	125	226	175
1/17/2017	124	230	180
1/18/2017	124	237	182
1/19/2017	127	237	184
1/20/2017	127	232	185
1/21/2017	136	233	185
1/22/2017	136	250	191
1/23/2017	125	222	175
1/24/2017	134	218	177
1/25/2017	145	227	186
1/26/2017	131	223	184
1/27/2017	130	213	176
1/28/2017	159	249	206
1/29/2017	175	232	199
1/30/2017	176	256	209
1/31/2017	173	279	208



## Energy Supply Major Projects

Deerhaven Unit #2 went into Forced Outage on 9/29/2016 following the failure of the Circulating Dry Scrubber (CDS). Current status:

1. Lower cone section has been replaced
2. Fabrication of shell sections is in progress, and parts have already been received to start construction
3. Construction of shell in progress, which will include a C-276 liner of the shell and vertical stiffeners along the entire length of the shell
4. Coating of baghouse and inlet/outlet duct is in the construction integrated plan
5. The Integrated schedule supports release of the Deerhaven Unit #2 for fire in the boiler on 5/1/2017, and Deerhaven Unit #2 on line for full load on 5/8/2017.

**STATE OF THE UTILITY**

**WATER/WASTEWATER**

**Operations Data & Projects**

# Water/Wastewater Monthly Dashboard

Production						
Murphree Water Treatment Plant						
		January 2017 (mgd)	FY to Date (mgd)	Permitted Capacity (mgd)	% of Permitted Capacity	Status
	Average Daily Flow	22.1	22.8	30	76%	
	Peak Daily Flow	24.2	27.2	54	-	
Main Street Water Reclamation Facility						
		January 2017 (mgd)	FY to Date (mgd)	Permitted Capacity (mgd)		Status
	Average Daily Flow	5.3	6.8	7.5		
Kanapaha Water Reclamation Facility						
		January 2017 (mgd)	FY to Date (mgd)	Permitted Capacity (mgd)		Status
	Average Daily Flow	10.1	10.7	14.9		
Water Reclamation Facilities (Combined)						
		Jan-17	FY to Date (mgd)	Permitted Capacity (mgd)	% of Permitted Capacity	Status
	Average Daily Flow	15.4	17.5	22.4	78%	
Maintenance						
Wastewater Collections						
		Jan. 2017 (Miles)	FYTD	Monthly Goal (miles)		
	Miles of gravity mains cleaned	9.7	27.0	7.5		
	Miles of gravity mains TV inspected	10.7	27.4	7.5		
Water Distribution & Wastewater Collections						
		Jan. 2017	FYTD			
	Work orders, service orders completed	1384	4866			
Major Water/Wastewater Projects						

Electrical System Upgrade at MWTP - Bid Selected, bringing approval to UAB and City Commission

Manhole Lining

Gravity Sewer Lining

Galvanized Steel Pipe Replacements

Lift Station 93 Rehabilitation - Complete

Lift Station 40 GM and FM update

### Water/Wastewater By the Numbers

Water/Wastewater Systems serves 189,000 people by operating and maintaining the following:

- 1 water treatment plant serving the community
- 1141 miles of water distribution mains
- 24,260 water valves
- 5,800 fire hydrants
- 2 water reclamation facilities (wastewater treatment plants)
- 770 miles of wastewater collection mains
- 168 lift stations pumping wastewater
- 28 reclaimed water mains
- 15,228 manholes

STATE OF THE UTILITY

Environmental Permitting

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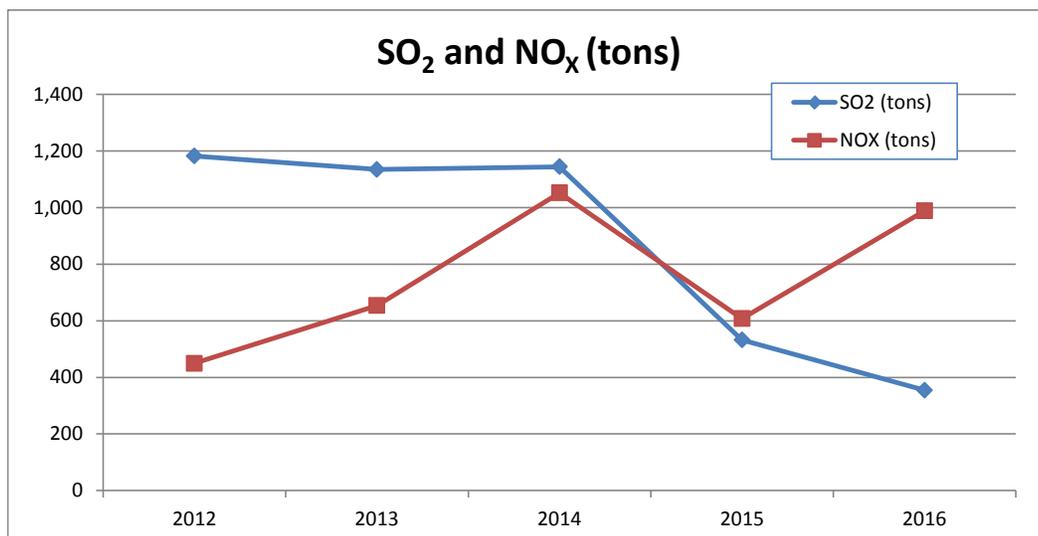
Compliance

## ENVIROMENTAL PERMITTING & COMPLIANCE

### Yearly Emissions

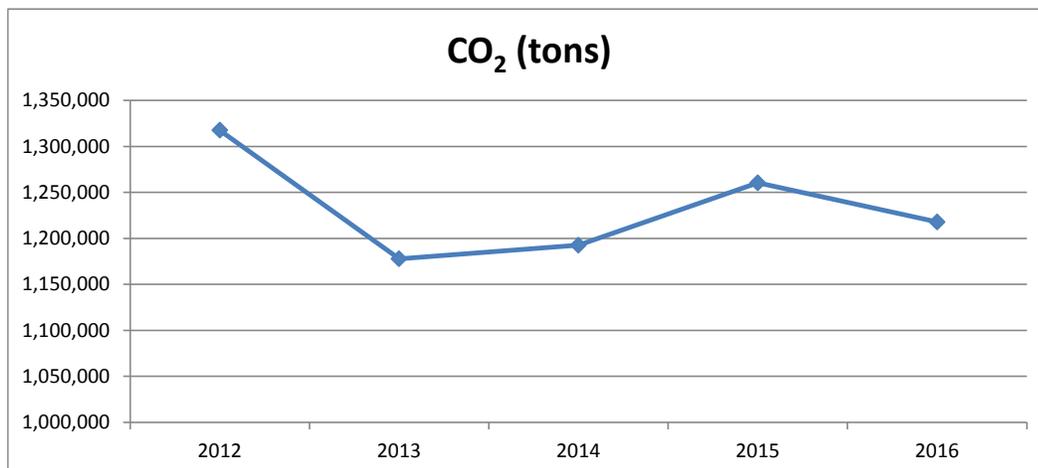
	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	Mercury (lbs)	PM (tons)	CO <sub>2</sub> (tons)
2012	1,182	450	8.95	125	1,317,603
2013	1,134	653	6.64	112	1,177,703
2014	1,144	1,052	6.23	32	1,192,647
2015	532	608	5.49	47	1,260,423
2016	354	988	2.92	29	1,217,939

2016 Mercury and particulate values are for Unit 2 only. The other units' values are not available yet.

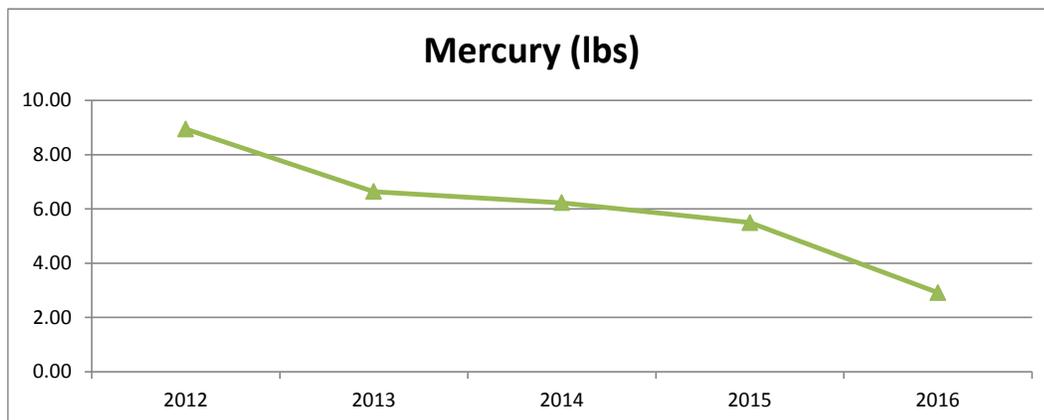


SO<sub>2</sub> was lower in 2015 and 2016 due to higher removal rate settings to assure compliance with the MATS Rule.

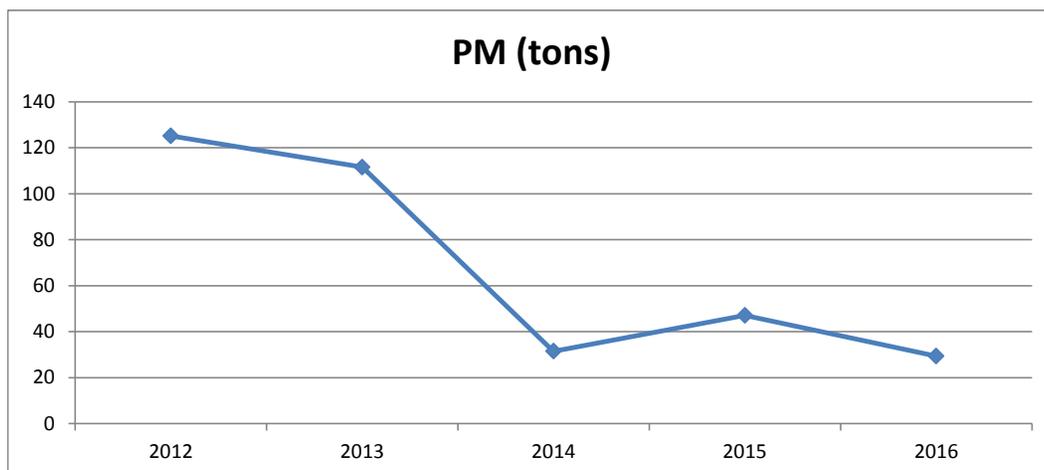
NO<sub>x</sub> was higher in 2016 since it was more cost effective to use allowances than increase SCR removal rate.



## ENVIROMENTAL PERMITTING & COMPLIANCE



2016 Mercury values are for Unit 2 only. The other units' values are not available yet. Mercury was lower in 2015 and 2016 due to higher removal rate settings to assure compliance with the MATS Rule.



2016 Particulate values are for Unit 2 only. The other units' values are not available yet.

Yearly Emissions - 5 Year Comparison

	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	Mercury (lbs)	PM (tons)	CO <sub>2</sub> (tons)	HTIP (MMBtu)	GEN (MW-hours)
Jan. 2013	15.7	24.3			56,833	903,292	76,619
Jan. 2014	4.5	16.6			42,510	715,223	81,643
Jan. 2015	49.5	69.8			103,988	1,103,092	119,006
Jan. 2016	34.4	139.0	0.0	0.0	103,628	1,280,422	145,004
Jan. 2017	0.2	24.8	0.0	0.0	41,783	703,096	72,491

		SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	Mercury (lbs)	PM (tons)	CO <sub>2</sub> (tons)	HTIP (MMBtu)	GEN (MW-hours)
Jan. 2013	DH1	0.1	21.0			16,068.0	270,373.0	23,197.0
	DH2	15.4	3.0			7,712.0	76,831.0	8,530.0
	DHCT1							
	DHCT2							
	DHCT3	0.1	0.2			650.9	10,854.0	838.0
	JRK7							
	JRKCT1							
	JRKCT2							
	JRKCT3							
	JRKCC1	0.1	0.1			32,401.8	545,234.0	44,054.0
	<b>TOTAL</b>	<b>15.7</b>	<b>24.3</b>	<b>0.000</b>	<b>0.00</b>	<b>56,832.7</b>	<b>903,292.0</b>	<b>76,619.0</b>

		SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	Mercury (lbs)	PM (tons)	CO <sub>2</sub> (tons)	HTIP (MMBtu)	GEN (MW-hours)
Jan. 2014	DH1	4.1	7.6			5,915.1	99,537.0	9,318.0
	DH2	0.0	0.0			0.0	0.0	0.0
	DHCT1							
	DHCT2							
	DHCT3	0.1	0.7			2,444.4	41,070.0	3,084.0
	JRK7							
	JRKCT1							
	JRKCT2							
	JRKCT3							
	JRKCC1	0.3	8.3			34,150.8	574,616.0	69,241.0
	<b>TOTAL</b>	<b>4.5</b>	<b>16.6</b>	<b>0.000</b>	<b>0.00</b>	<b>42,510.3</b>	<b>715,223.0</b>	<b>81,643.0</b>

Yearly Emissions - 5 Year Comparison

		SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	Mercury (lbs)	PM (tons)	CO <sub>2</sub> (tons)	HTIP (MMBtu)	GEN (MW-hours)
Jan. 2015	DH1	1.9	4.9			3,420.7	56,230.0	5,128.0
	DH2	47.6	61.9			91,163.9	888,626.0	95,809.0
	DHCT1							
	DHCT2							
	DHCT3	0.0	0.1			321.0	5,399.0	383.0
	JRK7							
	JRKCT1							
	JRKCT2							
	JRKCT3							
	JRKCC1	0.0	2.9			9,082.0	152,837.0	17,686.0
<b>TOTAL</b>		<b>49.5</b>	<b>69.8</b>	<b>0.000</b>	<b>0.00</b>	<b>103,987.6</b>	<b>1,103,092.0</b>	<b>119,006.0</b>

		SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	Mercury (lbs)	PM (tons)	CO <sub>2</sub> (tons)	HTIP (MMBtu)	GEN (MW-hours)
Jan. 2016	DH1	2.1	11.9			9,158.1	152,437.0	14,504.0
	DH2	32.2	120.6			65,346.1	637,921.0	71,258.0
	DHCT1							
	DHCT2							
	DHCT3	0.0	0.1			199.3	3,353.0	258.0
	JRK7							
	JRKCT1							
	JRKCT2							
	JRKCT3							
	JRKCC1	0.1	6.4			28,924.2	486,711.0	58,984.0
<b>TOTAL</b>		<b>34.4</b>	<b>139.0</b>	<b>0.000</b>	<b>0.00</b>	<b>103,627.7</b>	<b>1,280,422.0</b>	<b>145,004.0</b>

		SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	Mercury (lbs)	PM (tons)	CO <sub>2</sub> (tons)	HTIP (MMBtu)	GEN (MW-hours)
Jan. 2017	DH1	0.1	19.0			18,117.6	304,875.0	24,905.0
	DH2	0.0	0.0	0.000	0.000	0.0	0.0	0.0
	DHCT1							
	DHCT2							
	DHCT3	0.0	0.1			475.9	8,006.0	525.0
	JRK7							
	JRKCT1							
	JRKCT2							
	JRKCT3							
	JRKCC1	0.1	5.7			23,189.1	390,215.0	47,061.0
<b>TOTAL</b>		<b>0.2</b>	<b>24.8</b>	<b>0.000</b>	<b>0.0</b>	<b>41,782.6</b>	<b>703,096.0</b>	<b>72,491.0</b>