

# STATE OF THE UTILITY

## SHARED DATA (ED, ES, WWW)

Safety  
Environmental  
Regulatory  
Personnel

March 2017

**Safety**

**Employees**

	Current Month			Year to Date		
	First Aid	Recordable	DART	First Aid	Recordable	DART
Administration	0	0	0	0	0	0
W/WW Systems	0	0	0	0	4	0
Energy Supply	0	0	0	2	1	1
Energy Delivery - Electric/Gas	0	3	1	0	7	4
GRUCom	0	0	0	0	0	0
Totals		3			12	

**Vehicles**

	Current Month			Year to Date		
	Miles Driven	Recordable	Preventable	Miles Driven	Recordable	Preventable
Administration	26,733	0	0	96,662	1	1
W/WW Systems	88,482	0	0	440,432	3	1
Energy Supply	1,675	0	0	11,447	0	0
Energy Delivery - Electric/Gas	119,761	2	1	651,939	5	2
GRUCom	10,716	0	0	57,361	0	0
Totals	247,367	2		1,257,841	9	

**Environmental**

		Current Month	Calendar Year to Date
Notices of Violation		0	0
Emissions			
DH1, DH2, DHCT3, JRKCC1			
CO <sub>2</sub> (tons)		38,564	124,629
NO <sub>x</sub> (tons)		23	69
SO <sub>2</sub> (tons)		0.2	0.6
DH Unit 2 (only)			
PM <sub>FILT</sub> (tons)		0	0
Hg (lbs)		0.00	0.00

**Regulatory**

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

**Personnel**

	FTE	Incumbents	Vacant
Water & Wastewater			
MAPS	27.00	25.00	2.00
CWA	142.00	126.00	16.00
Energy Supply (includes District Energy)			
MAPS	38.00	36.00	2.00
CWA	122.00	117.00	5.00
Energy Delivery (Electric & Gas)			
MAPS	50.00	40.00	10.00
CWA	215.00	201.80	13.20
Total	594.00	545.80	48.20

STATE OF THE UTILITY

CUSTOMER OPERATIONS

Operations Data

# Customer Operations Metrics Summary March 2017

Active Accounts	Mar-17	YTD Gain/Loss	FY16
<i>Residential Contract Accounts</i>			
Total	89,399	534	88,865
Electric	83,092	418	82,674
Gas	33,083	284	32,799
Water	62,505	336	62,169
Wastewater	58,481	330	58,151
Telecomm	142	(11)	153

New Installations	Mar-17	FY17 To Date	FY16
Electric	69	492	1,638
Gas	46	222	589
Water	58	257	756
Wastewater	52	242	485
Telecomm	19	117	248

Call Center Volume	Mar-17	FY17 To Date	FY16
Average Speed of Answer	0:02:18	0:04:50	0:07:04
CSR Calls	15,202	79,006	251,522
IVR Self Service	18,540	123,661	318,483
Total	33,742	202,667	570,005
IVR/Total	55%	61%	56%

Bills Generated	Mar-17	FY17 To Date	FY16
Paper Bills	96,385	607,781	1,300,894
eBills	15,363	99,115	179,960
Total	111,748	706,896	1,480,854
eBill/Total	14%	14%	12%

Payment Arrangements	Mar-17	FY17 To Date	FY16
Total	7,566	47,565	97,287

Active Accounts	Mar-17	YTD Gain/Loss	FY16
<i>Nonresidential Contract Accounts</i>			
Total	13,653	60	13,593
Electric	11,099	65	11,034
Gas	1,628	8	1,620
Water	5,862	9	5,853
Wastewater	4,615	11	4,604
Telecomm	329	15	314

Residential Disconnects	Mar-17	FY17 To Date	FY16
Volume	1,115	7,321	14,593
Average Balance	\$253.09	\$249.70	\$247.00

Revenue Assurance	Mar-17	FY17 To Date	FY16
Referred to Collections	\$123,007.16	\$1,449,460.42	\$1,461,488.40
Recovered	\$58,267.27	\$267,835.26	\$361,420.79

Service Orders	Mar-17	FY17 To Date	FY16
Move Ins	7,744	42,669	137,265
Move Outs	7,482	42,038	132,836

Average Res Bill Amounts	Mar-17	FY17 To Date	FY16
Electric (kWh)	571	683	840
Electric (\$)	\$88.13	\$103.10	\$126.96
Gas (Therms)	19	21	18
Gas (\$)	\$32.37	\$33.56	\$29.61
Water (kGals)	4	5	4
Water (\$)	\$28.47	\$30.50	\$27.47
Wastewater (kGals)	4	5	6
Wastewater(\$)	\$36.98	\$38.49	\$41.13

STATE OF THE UTILITY

ENERGY DELIVERY

Operations Data & Projects

## ENERGY DELIVERY - UAB REPORT - MARCH 2017

### Durations Reliability Report Between 3/01/2017 and 3/31/2017

CUSTOMER DATA		RELIABILITY INDICIES		MONTHLY AVG GOAL
Monthly Average Customers Served(C)	94256	Average Service Availability Index (ASAI)	99.9987 %	
Total Hours of Customer Demand	67,864,320	System Average Interruption Duration Index (SAIDI)	0.58 Mins	4.5 Mins
Total Number of Outages	27	Customer Average Interruption Duration Index (CAIDI)	54.94 Mins	55 Mins
Total Number of Customers Affected (CI)	999	System average Interruption Frequency Index (SAIFI)	0.01	.08
Total Customer Minutes Interrupted (CMI)	54890			
Total Customer "Out Minutes"	3218	Average Length of a Service Interruption (L-Bar)	119.19 Mins	
Tot Cust Momentary Interruption Events (CME)	11,194			

[Guide for Power Distribution Reliability Indices](#)

#### Outage Duration Times

Average Hours	1
Maximum Hours	6
Minimum Hours	0

#### Cause of Outages

Cause	Overhead	Underground	Undetermined	Total
1. Weather	0	0	0	0
1. Vegetation	3	5	0	8
1. Animals	3	0	0	3
1. Foreign Interference	0	0	0	0
1. Human Cause	0	1	0	1
1. Undetermined	2	3	0	5
1. Equipment Failure	1	5	4	10
1. All Remaining Outages	0	0	0	0
Total	9	14	4	27

## **ENERGY DELIVERY - UAB REPORT - MARCH 2017**

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

#### **Major Electric Design Projects underway:**

- > Butler Plaza Town Center
- > Blues Creek Unit 7 – 16 residential units
- > Relocate Switchgear [at Holiday Inn] for roadway re-construction SW 43/32nd Street
- > The Windsor of Gainesville NW 83 St & 39th Ave – (Nursing Home)
- > Fairfield Inn & Suites 3700 SSW 37th Blvd.
- > 43rd/53rd - Retail Development - Old System Control Building

#### **Major Electric Design Projects expected to start within 30 days:**

- > Drury Inn & Suites – 4000 SW 40 Blvd (Hotel)
- > Butler Plaza Town Center Lights
- > Blues Creek Unit 5 PH 2&3 (Residential S/D, 50 lots)
- > Westchester PH 4B – 77 Single Family Lots
- > SW 4th Ave OH to UG Conversion
- > One College Park (apartments)
- > CRA - NW 1st Ave (OH to UG conversion)
- > Ingenuity (office building)

## **ENERGY DELIVERY - UAB REPORT - MARCH 2017**

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

#### **Major Gas Design Projects:**

- > Provide NW 43rd St and NW 53rd Ave Retail Development project folder to T&D Gas construction for construction.
- > Prepare construction plans and estimates for Fire Stations # 1(500 Blk S. Main St) and #9 (approx. 1,000 feet of gas main on NW 34th St), Aloft Hotel, Staybridge Hotel and Gloria's Way S/D and Suburban Heights gas relocation, , Gainesville Co-housing, Ronald McDonald house.
- > Design for replacement of 3215 feet of bare steel gas main at 400-800 blocks SW 10th St
- > Provide utility work schedule for the extension 4" gas main on SW 8th Avenue from 137th St to SW 143rd St, about 3,300 feet.

#### **Gas Main Installed in March, 2017**

- 1 NW 3<sup>rd</sup> 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. We had to pull of this project temporarily to work on new customer extensions.
- 2 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. This project is nearing completion.
- 3 Finley Woods Main Ext. – 10320' – This project has been completed.
- 4 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.
- 5 One College Park. 4" Main Replacement as part of CRA project: 2000' – This is a joint trench project that will replace poorly coated main and relocate for construction.
- 6 Westchester Phase 4 Main extension: 2500' – Nearing Completion.
- 7 Oakmont Phase 2 Main Extension coming soon.
- 8 We completed several minor main relocations for North Florida Emergency Center - Billing work.

New Services installed in March: 33 – New Customer work/Not replacement work.

Maintenance Activities – Two man crew – Working on Cathodic Protection Testing and Emergency Valve surveys.

Note 1: Gas Operations and Maintenance Manual Updated as required by code

## ENERGY DELIVERY - UAB REPORT - MARCH 2017

### Electric System Consumption

#### MARCH 2017 BILLING SUMMARY

ELECTRIC SYSTEM	CONSUMPTION	CUSTOMERS
Feed-In-Tariff	2,111 KWH	264
Electric - GS - Demand - Regular	39,719,085 KWH	1,204
Electric - General Service Demand PV	597,098 KWH	17
GREC Startup Supplemental and Standby	525,896 KWH	1
Electric - GS - Kanapaha w Curtail Cr	872,400 KWH	1
Electric - GS - Demand - Large Power	5,679,320 KWH	8
Electric - GS - Murphree Curtail Credit	1,216,800 KWH	1
Electric - GS Large Demand PV	3,244,800 KWH	2
Electric - GS - Non Demand	11,861,915 KWH	9,676
Electric - General Service PV	45,310 KWH	51
Electric - Lighting - Rental	1,011,309 KWH	4,385 <i>n</i>
Electric - Lighting - Street - City	245,374 KWH	13 <i>n</i>
Electric - Lighting - Street - County	299,302 KWH	2 <i>n</i>
Electric - Lighting - Traffic	4,542 KWH	2 <i>n</i>
Electric - Residential - Non TOU	46,817,001 KWH	84,513
Electric - Residential PV	82,250 KWH	195
Total Retail Electric ( <i>n</i> =not included in total)	112,224,513 KWH	95,933
City of Alachua	9,570,000 KWH	23,069 KW
City of Winter Park	7,440,000 KWH	10,000 KW
Total (Native) Electric	129,234,513 KWH	

## ENERGY DELIVERY - UAB REPORT - MARCH 2017

### Gas System Consumption

#### **GAS SYSTEM**

Gas - GS - Regular Service (Firm)	775,995 THM	1,447
Gas - GS - Regular Service (Small)	16,365 THM	218
Gas - GS - Interruptible - Regular Serv	41,820 THM	1
Gas - GS - Interruptible - Large Volume	388,906 THM	6
Gas - Residential - Regular Service	623,989 THM	33,316
Total Retail Gas	1,847,075 THM	34,988
Gas - GS - UF Cogeneration Plant	3,333,181 THM	1
Gas - Residential - LP - Basic Rate	4,313 GAL	198
GREC Gas (PGA Only)	25,720 THM	1

STATE OF THE UTILITY

ENERGY SUPPLY

Operations Data & Projects

## Energy Supply

### System Statistics

	Unit Capability output - MWn
DH-2	235
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	-	-	342,878	(342,878)
DH-1	20,489	114,018	2,145	111,873
Kelly CC	45,609	387,696	249,843	137,853
CT's	-	3,320	46	3,274
Grid	30,000	261,867	38,326	223,541
GREC	34,875	101,646	242,825	(141,179)

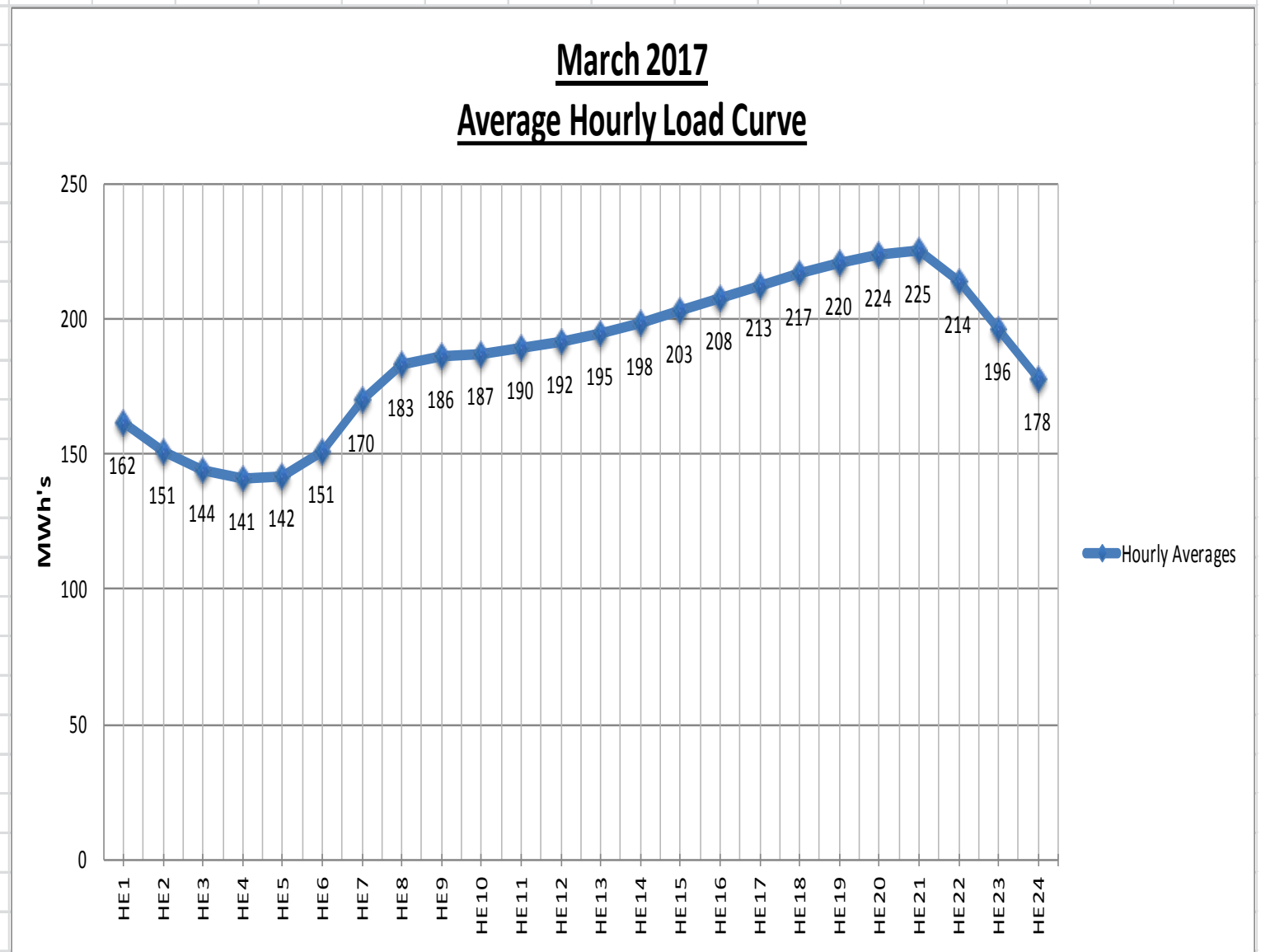
### Average Energy Distribution Curve

Curve 1 is the hourly distribution of load averages over the month  
 Curve 2 is peak load per day

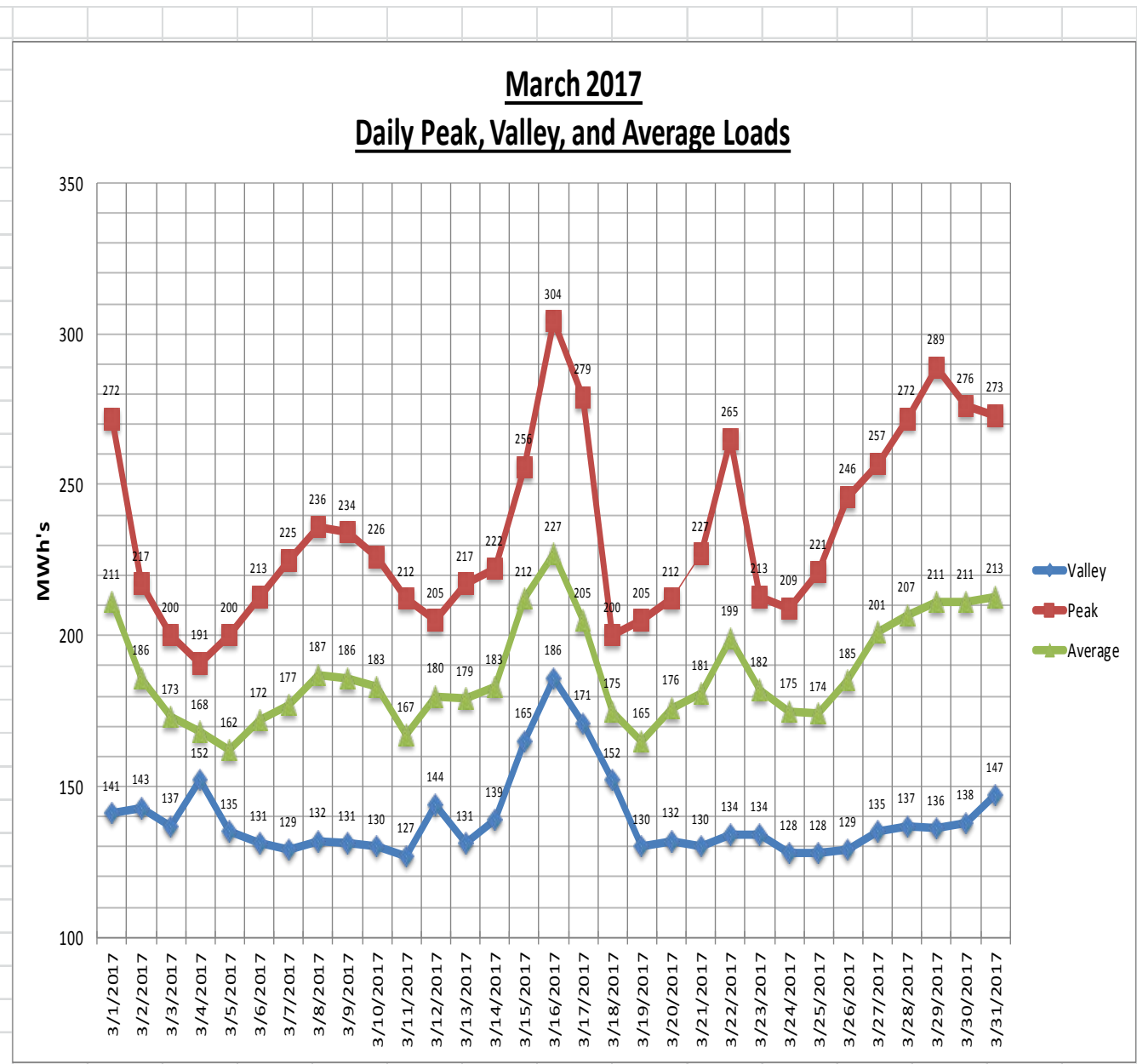
### Fuel Consumed

	Month	YTD	Budget YTD	Delta Budget
Coal - Tons	-	-	132,598	(132,598)
Gas-MCF	593,615	4,587,365	4,305,475	281,890
Fuel oil - Gal	-	2,705	-	2,705

Hour Ending	Ave. Load
HE1	162
HE2	151
HE3	144
HE4	141
HE5	142
HE6	151
HE7	170
HE8	183
HE9	186
HE10	187
HE11	190
HE12	192
HE13	195
HE14	198
HE15	203
HE16	208
HE17	213
HE18	217
HE19	220
HE20	224
HE21	225
HE22	214
HE23	196
HE24	178



Date	Valley	Peak	Ave
3/1/2017	141	272	211
3/2/2017	143	217	186
3/3/2017	137	200	173
3/4/2017	152	191	168
3/5/2017	135	200	162
3/6/2017	131	213	172
3/7/2017	129	225	177
3/8/2017	132	236	187
3/9/2017	131	234	186
3/10/2017	130	226	183
3/11/2017	127	212	167
3/12/2017	144	205	180
3/13/2017	131	217	179
3/14/2017	139	222	183
3/15/2017	165	256	212
3/16/2017	186	304	227
3/17/2017	171	279	205
3/18/2017	152	200	175
3/19/2017	130	205	165
3/20/2017	132	212	176
3/21/2017	130	227	181
3/22/2017	134	265	199
3/23/2017	134	213	182
3/24/2017	128	209	175
3/25/2017	128	221	174
3/26/2017	129	246	185
3/27/2017	135	257	201
3/28/2017	137	272	207
3/29/2017	136	289	211
3/30/2017	138	276	211
3/31/2017	147	273	213



# ENERGY SUPPLY MAJOR PROJECTS

1. Deerhaven Unit #2 has been in Forced Outage since on 9/29/2016 following the failure of the Circulating Dry Scrubber (CDS). Current status:
  - a. Lower cone section has been completely replaced
  - b. Baghouse and the CDS outlet duct has been completely coated
  - c. Fabrication of shell sections was complete, and all materials was on site 3/10/2017.
  - d. Construction of shell :
    - i. We landed first lift of sections 1-4 on 3/18/2017 (~120,000 lb. lift), Section 5-7 and the outlet duct were landed on 3/30/2017 (~167,000 lb. lift)
    - ii. We have 2 significant issues we are addressing:
      1. The first issue is at the load support ring and the second is where section 4 and 5 meet with ovality issues. We are working with both the OEM Babcock Power PE, and our third party PE from Sargent & Lundy, to come up with the support changes to ensure these issues are fully resolve.
      2. It will be Energy Supply mission to ensure the final repairs will be done is such a way that the Finite Element Analysis (FEA)Modeling demonstrates adequate margin for structural safety, and we want this done right the first time.
      3. Currently plan is to support the upper sections with the crane as it appears we will be installing a "gasket" between sections 4 and 5.
2. South Energy Center (Phase #2) Project is on track with the following milestones:
  - a. Heating Hot Water System Released for Service to Hospital 5/1/2017
  - b. Chiller CHL-003 Released for Service to Hospital 4/14/2017
  - c. Wartsilla Engine Released for Service to Hospital 6/5/2017

STATE OF THE UTILITY

Environmental Permitting

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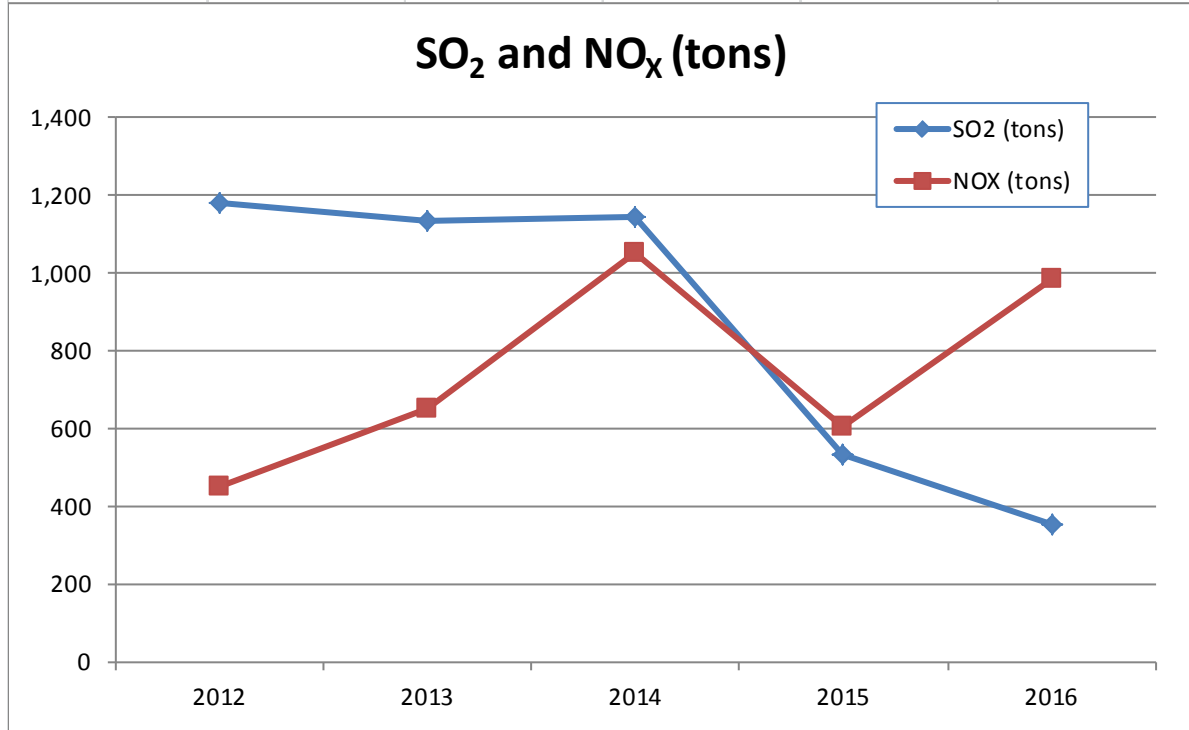
Compliance

## ENVIRONMENTAL 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.

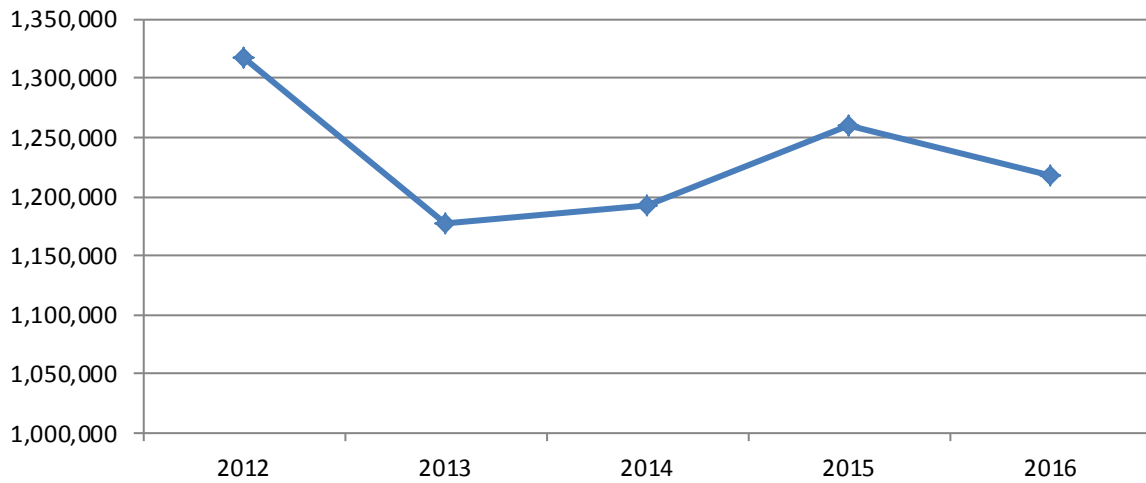


SO<sub>2</sub> was lower in 2015 and 2016 due to higher removal rate settings to assure compliance with  
 NO<sub>x</sub> was higher in 2016 since it was more cost effective to use allowances than increase SCR

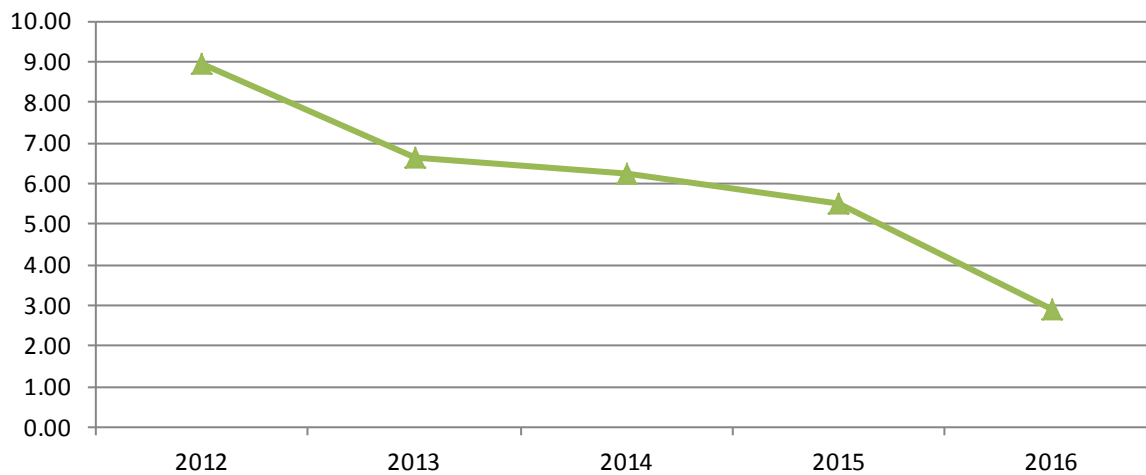
## ENVIRONMENTAL PERMITTING & COMPLIANCE

### Yearly Emissions

#### CO<sub>2</sub> (tons)

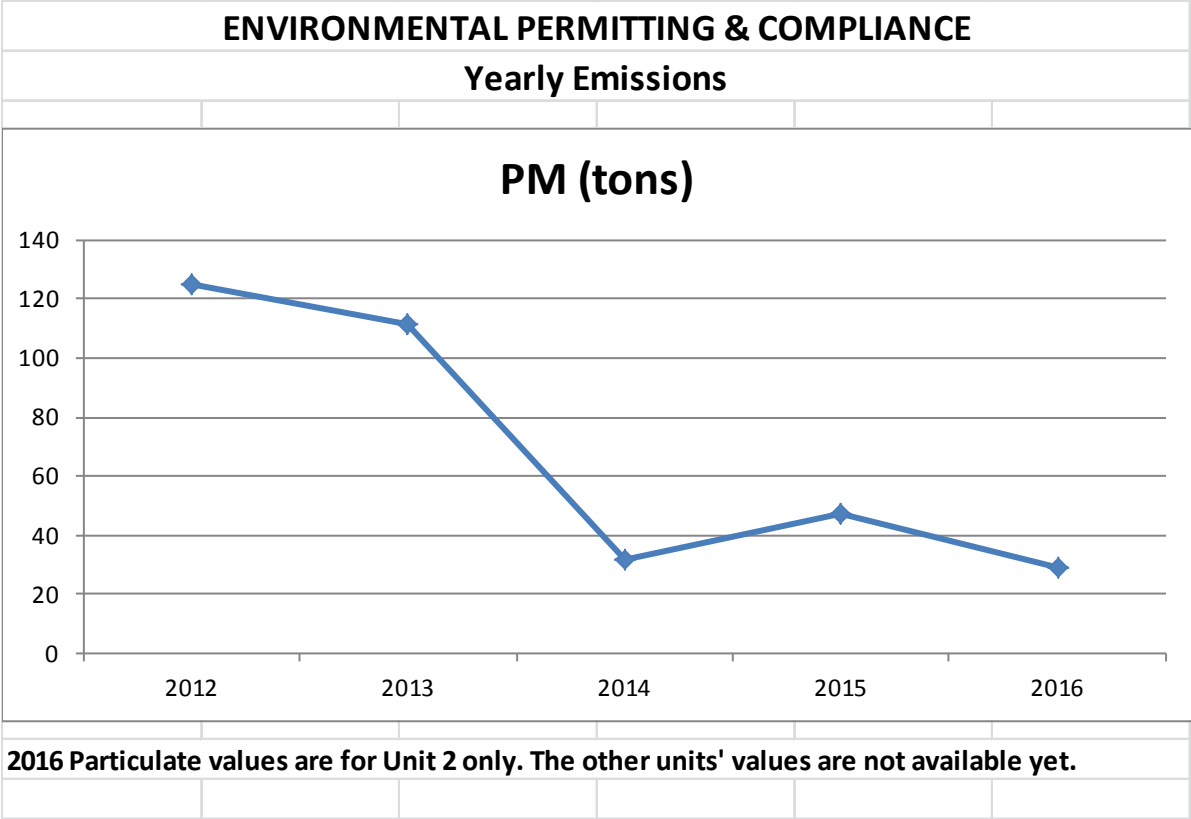


#### Mercury (lbs)



**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**



## Mass Emissions

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# **YEARLY EMISSIONS PER MWH - 5 YEAR COMPARISON**

Mass Emissions Rate								
		SO <sub>2</sub> lbs per MW-hr net	NO <sub>x</sub> lbs per MW-hr net	Hg lbs per MW-hr net	PM lbs per MW-hr net	CO <sub>2</sub> tons per MW-hr net	HTIP (MMBtu)	GEN (Net MW-hours)
Mar. 2013	DH1	0.00000	1.86150			0.75946	34,325.0	2,686.0
	DH2	2.36208	0.90467			0.91038	927,856.0	104,569.0
	DHCT3	16.66667	4.16667			1.29167	784.0	48.0
	JRKCC1	0.00000	1.92308			0.87692	1,534.0	104.0
		SO <sub>2</sub> lbs per MW-hr net	NO <sub>x</sub> lbs per MW-hr net	Hg lbs per MW-hr net	PM lbs per MW-hr net	CO <sub>2</sub> tons per MW-hr net	HTIP (MMBtu)	GEN (Net MW-hours)
Mar. 2014	DH1	0.00000	1.76211			0.64790	44,545.0	4,086.0
	DH2	3.26409	2.29049			1.00054	1,007,447.0	103,122.0
	DHCT3	5.17241	1.72414			0.96466	1,697.0	116.0
	JRKCC1	0.00000	0.00000			0.00000	0.0	0.0
		SO <sub>2</sub> lbs per MW-hr net	NO <sub>x</sub> lbs per MW-hr net	Hg lbs per MW-hr net	PM lbs per MW-hr net	CO <sub>2</sub> tons per MW-hr net	HTIP (MMBtu)	GEN (Net MW-hours)
Mar. 2015	DH1	0.00000	0.00000			0.00000	0.0	0.0
	DH2	0.65662	1.04401			0.93850	944,504.0	103,256.0
	DHCT3	0.00000	0.00000			0.00000	0.0	0.0
	JRKCC1	0.00000	0.00000			0.75849	2,704.0	212.0
		SO <sub>2</sub> lbs per MW-hr net	NO <sub>x</sub> lbs per MW-hr net	Hg lbs per MW-hr net	PM lbs per MW-hr net	CO <sub>2</sub> tons per MW-hr net	HTIP (MMBtu)	GEN (Net MW-hours)
Mar. 2016	DH1	0.00000	0.00000			0.00000	0.0	0.0
	DH2	0.73614	3.18118	0.000005	0.093	0.93842	556,623.0	60,858.0
	DHCT3	0.00000	0.00000			0.00000	0.0	0.0
	JRKCC1	0.00524	0.18592			0.49387	634,689.0	76,378.0
		SO <sub>2</sub> lbs per MW-hr net	NO <sub>x</sub> lbs per MW-hr net	Hg lbs per MW-hr net	PM lbs per MW-hr net	CO <sub>2</sub> tons per MW-hr net	HTIP (MMBtu)	GEN (Net MW-hours)
Mar. 2017	DH1	0.00882	1.59584			0.73750	281,510.0	22,684.0
	DH2	0.00000	0.00000	0.000000	0.000	0.00000	0.0	0.0
	DHCT3	0.00000	0.33670			0.85859	8,593.0	594.0
	JRKCC1	0.00440	0.22001			0.46917	358,837.0	45,453.0

PREVIOUS YEAR (2016)								
2016	Emissions							
	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	Mercury (lbs)	PM (tons)	CO <sub>2</sub> (tons)	NO <sub>x</sub> Rate (lb/mmBtu)	HTIP (mmBtu)	MW-hours
DH1	2.7	161.4	NA	NA	139,749.8	0.1340	2,349,851.0	202,123.0
DH2	349.5	737.6	5.136	24.6	683,555.8	0.2320	6,664,325.0	675,645.0
DHCT3	0.0	1.2	NA	NA	4,737.4	0.0420	79,720.0	6,062.0
JRKCC1	2.0	83.8	0.000	NA	388,646.5	0.0260	6,539,729.0	796,347.0
<b>TOTAL</b>	<b>354.2</b>	<b>984.0</b>	<b>5.136</b>	<b>24.6</b>	<b>1,216,689.5</b>	<b>0.434</b>	<b>15,633,625.0</b>	<b>1,680,177.0</b>
<b>2016 Emissions per Net MW-hr</b>								
	SO <sub>2</sub> lbs/MW-hr	NO <sub>x</sub> lbs/MW-hr	Mercury (lbs)	PM (lbs)	CO <sub>2</sub> tons per MW-hr			
DH1	0.02672	1.59705	NA	NA	0.69141			
DH2	1.03457	2.18340	0.0000076009	0.07284	1.01171			
DHCT3	0.00000	0.39591	0.000		0.78149			
JRKCC1	0.00502	0.21046	0.000	NA	0.488			

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STATE OF THE UTILITY

WATER/WASTEWATER

Operations Data & Projects

# Water/Wastewater Monthly Dashboard

## Production

### Murphree Water Treatment Plant

		March 2017 (mgd)	FY to Date (mgd)	Permitted Capacity (mgd)	% of Permitted Capacity	Status
	Average Daily Flow	22.1	22.7	30	76%	
	Peak Daily Flow	26.3	29.6	54	-	

### Main Street Water Reclamation Facility

		March 2017 (mgd)	FY to Date (mgd)	Permitted Capacity (mgd)		Status
	Average Daily Flow	5.1	5.6	7.5		

### Kanapaha Water Reclamation Facility

		March 2017 (mgd)	FY to Date (mgd)	Permitted Capacity (mgd)		Status
	Average Daily Flow	10.4	10.6	14.9		

### Water Reclamation Facilities (Combined)

		March 2017 (mgd)	FY to Date (mgd)	Permitted Capacity (mgd)	% of Permitted Capacity	Status
	Average Daily Flow	15.5	16.2	22.4	72%	

## Maintenance

### Wastewater Collections

		March 2017 (Miles)	FYTD	Monthly Goal (miles)	
	Miles of gravity mains cleaned	8.5	41.7	7.5	
	Miles of gravity mains TV inspected	9.3	44.4	7.5	

### Water Distribution & Wastewater Collections

		Mar-17	FYTD		
	Work orders, service orders completed	1263	7479		

## Major Water/Wastewater Projects

Electrical System Upgrade at MWTP - Notice to Proceed will be executed in April with General Contractor  
Manhole Lining  
Gravity Sewer Lining  
Galvanized Steel Pipe Replacements  
Lift Station 40 GM and FM - Complete  
Gulfview water replacements & sewer lining - Complete

## 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