# STATE OF THE UTILITY

September 2018

Item #180440

# **OPERATIONS SUMMARY**

CORPORATE SAFETY
ENVIRONMENTAL
REGULATORY
PERSONNEL

#### September 2018

Safety			Employe	ees
	С	urrent Month		
	First Aid	Recordable	DART	
Administration	0	0	0	l
W/WW Systems	0	0	0	ĺ
Energy Supply	1	0	0	l
Energy Delivery - Electric/Gas	0	0	0	ĺ
GRUCom	0	0	0	ĺ
Totals		0		

Year to Date		
First Aid	Recordable	DART
2	0	0
4	4	2
1	4	1
5	3	2
0	0	0
	11	

#### Vehicles

Administration W/WW Systems Energy Supply Energy Delivery - Electric/Gas GRUCom Totals

	Current Month	
Miles Driven	Recordable	Preventable
	0	0
	2	2
	0	0
	1	1
	0	0
	3	

Fleet has not reported September Mleage

Year to Date		
Miles Driven	Recordable	Preventable
157,601	1	1
887,049	10	7
68,284	2	2
1,207,310	7	5
98,102	0	0
2,418,346	20	

Mileage through August - does not include September

#### Environmental

0
130,692
166
68
10
0.40

	_
936,263	
1,249	
469.3	

Calendar Year to Date

48 3.17

#### Regulatory

NERC

Notice of Violations Self Reports/Potential Violations

0
0

**Current Month** 

2
2

## Personnel

			Current
	<b>Authorized Positions</b>	<b>Filled Positions</b>	Vacancies
Administration	16.00	14.00	2.00
Business Services and GRUCom	3.00	3.00	0.00
Chief Operating Officer	18.00	16.00	2.00
Customer Support Services	117.25	112.25	5.00
Energy Delivery	263.00	239.00	24.00
Energy Supply	145.00	140.00	5.00
Energy Supply - District Energy	10.00	10.00	0.00
Finance	43.00	26.00	17.00
GRUCom	35.00	27.00	8.00
Information Technology	68.00	60.00	8.00
Water Wastewater	168.00	161.00	7.00
Grand Total	886.25	808.25	78.00

### **Utility Advisory Board Monthly Report – FY 2018 Safety Data Summary**

Employee Injuries	(DART – days away, restricted duty, temporary transfer)
OCTOBER 10/09/2017	Employee was nicked in the chest when his knife slipped while removing the insulation from electric service conductor. The wound was treated and closed.
10/20/2017	Employee returned to regular duty after treatment.  While trying to open a valve using both his hands gripped together, the employee strained his left middle finger. Employee returned to regular duty after treatment.
NOVEMBER 11/04/2017	Employee lacerated his right hand and index finger on a sharp metal edge when a junction box cover came loose unexpectedly. Employee returned to regular duty after treatment.
11/21/2017	While cleaning the lime machine, employee had an unknown substance splash in his eye causing irritation. Employee returned to regular duty after treatment.
<u>DECEMBER</u> 12/13/2017	Employee strained both shoulders while pulling off an electrical connection from an underground transformer using an insulated switch stick. (DART – days away & restricted duty)
<u>JANUARY</u> 01/26/2018	Employee had stiffness to neck and shoulders after his vehicle was rear-ended while stopped in traffic. Employee was placed on restricted duty after treatment. (DART – restricted duty)
<u>FEBRUARY</u> 02/05/2018	While installing components on the roof, employee noticed something in his eye. He flushed with water and irritant seemed to go away. The following morning the eye was red and irritated. Employee was prescribed eye drops and returned to regular duty.
<u>JULY</u> 07/16/2018	Employee was making repairs to the leaking air/water separator for the center feed on #4 coal tunnel when he strained his back while transitioning off of the ladder. There is a low head clearance at this point. (DART – restricted duty)
07/23/2018	While working on a water service, the employee was turning a wrench and his left elbow struck against a metal box. (DART – restricted duty)

<u>AUGUST</u>	
08/17/2018	Employee stepped on a storm water manhole lid that was dislodged and covered with debris. The lid flipped and he fell in. He caught himself part-way in. (DART – restricted duty)
08/20/2018	Employee was holding a dump truck tailgate open so it could be scraped clean. The tailgate swung closed, striking his finger against the truck bed causing a fracture.

#### **End of FY 2018**

- Waiting on final payroll processing for total hours worked
- 11 recordable injuries/illnesses of which:
  - o 1 injury resulted in days away from work
  - o 4 injuries resulted in restricted duty/temporary transfer
  - o 6 resulted in medical treatment and return to full duty

### **Utility Advisory Board Monthly Report – FY 2018 Vehicle Collision Summary**

Vehicle Collisions	(P) indicates preventable by our employee
OCTOBER 10/09/2017	Employee caused damage to the front light and fender of the GRU truck while turning in close proximately to another vehicle that had its lay down bin door open. The bin door was not damaged in the collision. (P)
10/18/2017	Deer ran out in front of vehicle causing damage to the front of vehicle.
10/21/2017	Employee pulled truck forward and collided with a valve indicator post, scraping the passenger side of the truck. (P)
10/31/2017	Employee collided with the rear of a car traveling north on Tower Road when the car stopped abruptly for a stopped car in front of him. (P)
NOVEMBER	
11/30/2017	Employee was making a left turn into a shopping center for a service call. A motorcycle heading the other direction collided with the back corner of the service truck. (P)
DECEMBER	
12/05/2017	While the GRU employee was driving a boom truck westbound on University Avenue, a private van entered the road from a side street. The van did not maintain its lane and collided with the passenger side rear wheel of the GRU truck.
12/05/2017	GRU employee bumped into the rear of private vehicle as it was preparing to turn right onto 13th Street. Private vehicle started to turn right, but then stopped, and the GRU employee failed to notice as he moved forward to turn right as well. (P)
12/27/2017	A GRU tractor trailer was impacted by a private vehicle as the vehicles were turning left onto Archer Road from Tower Road. The private vehicle ran into the driver's side rear tire of the semi-trailer, causing bumper and headlight damage to the private vehicle. The GRU trailer received minimal damage to the wheel and minor cuts to the tire that was impacted.
JANUARY	
01/26/2018	A private vehicle failed to stop for traffic and collided with a mail truck behind a GRU vehicle. The impact of the collision drove the mail truck into the back of our vehicle. Both the mail truck and GRU vehicle were stopped at a red light on 34 <sup>th</sup> street when the collision occurred. The damage was to the rear of our vehicle and caused injury to our driver.

**FEBRUARY** 

02/28/2018 A GRU Service truck towing a trailer/backhoe was northbound on Main Street.

While stopped at the traffic light at North 23<sup>rd</sup> Ave, the trailer was hit by a pick-up truck. No visible damage to our trailer, minimal damage to the front of the pick-

up truck.

**MARCH** 

03/08/2018 While pulling out of a parking space, employee turned the truck too tight and the

side of the truck scraped a bollard. (P)

<u>APRIL</u>

04/11/2018 Employee in a GRU vehicle struck another vehicle while both were backing out of

a parking spot adjacent to each other. (P)

<u>MAY</u>

05/03/2018 GRU vehicle and private vehicle made contact as the GRU vehicle merged into the

travel lane. GRU's front left tire and private vehicles right rear door and fender

well were the contact areas. (P)

<u>JUNE</u>

6/15/2018 While backing away from the plant maintenance building, employee turned the

vehicle and scrapped the passenger side door and step against a fire hydrant. (P)

6/29/2018 Employee drove near large concrete bollard, and turned to close to it, damaging

the driver door and panel to the rear of the door. (P)

**JULY** 

07/19/2018 Employee was responding to an overnight water leak. While backing a vacuum

truck at 3:15 am at the work site, the employee backed into a parked SUV. (P)

**AUGUST** 

08/1/2018 Employee was stopped in the traffic lane at a Public Works construction site.

When the PW dump truck needed to pull out, the GRU employee backed up and

backed into a car that had pulled up on the right-of-way behind him. (P)

**SEPTEMBER** 

09/14/2018 Employee was backing out of a parking area into the street. When he changed

from reverse to drive, the vehicle rolled back slightly, denting the license plate & plastic trim of a parked car on the other side of the street. The car was not

occupied. (P)

09/14/2018 Employee was turning right onto NE 15th Street from NE 39th Avenue. As he was

completing the turn, there was a car stopped in the road ahead of him. The employee did not stop in time, and collided with the stopped car. There was

minor damage to the car's rear bumper. (P)

09/26/2018

Employee was approaching a parking space in Maguire Village off of 34th street. A private vehicle backed out into the GRU vehicle's path from the North (right) as employee was looking to the South (left) to park in a space. (P)

#### **End of FY 2018**

- Waiting on Fleet to report total miles driven
- 20 recordable vehicle collisions of which:
  - o 5 were not preventable by our employees (other driver at fault)
  - o 15 were preventable by our employees of which:
    - 8 collisions were with a stationary object

## **CUSTOMER SUPPORT SERVICES**

Customer Operations

New Services

Revenue Assurance

## Customer Operations Metrics Summary September 2018

Active Accounts	Sep-18	YTD Gain/Loss	FY17
Residential Contract Accounts			
Total	90,980	878	90,102
Electric	84,403	709	83,694
Gas	33,440	317	33,123
Water	63,105	413	62,692
Wastewater	59,012	352	58,660
Telecomm	129	(8)	137

New Installations	Sep-18	FY18 To Date	FY17
Electric	108	1512	1545
Gas	17	463	432
Water	42	558	525
Wastewater	47	566	530
Telecomm	12	120	223

Call Center Volume	Sep-18	FY18 To Date	FY17
Residential ASA	0:10:14	0:10:59	0:07:23
Business ASA	0:03:52	0:04:19	0:03:43
Payment Arrangement ASA	0:10:41	0:09:00	0:04:58
CSR Calls	11,833	142,989	159,591
CSR Callbacks	1,877	25,780	19,673
IVR Self Service	20,224	266,463	283,147
Total	32,057	409,452	421,863
IVR/Total	63%	65%	67%

Bills Generated	Sep-18	FY18 To Date	FY17
Paper Bills	103,232	1,276,432	1,245,142
eBills	15,867	200,984	191,498
Total	119,099	1,477,416	1,436,640
eBill/Total	13%	14%	13%

Payment Arrangements	Sep-18	FY18 To Date	FY17
Total	841	77,512	95,142

Active Accounts	Sep-18	YTD Gain/Loss	FY17
Nonresidential Contract Accounts			
Total	13,482	5	13,477
Electric	10,935	18	10,917
Gas	1,643	30	1,613
Water	5,847	(45)	5,892
Wastewater	4,634	(17)	4,651
Telecomm	366	13	353

Residential Disconnects	Sep-18	FY18 To Date	FY17
Volume	1,379	15,305	14,335
Average Balance	\$264.15	\$250.07	\$245.50

Revenue Assurance	Sep-18	FY18 To Date	FY17
Referred to Collections	\$211,501.73	\$1,783,116.51	\$2,214,584.97
Recovered	\$56,023.00	\$786,025.11	\$664,519.40

Service Orders	Sep-18	FY18 To Date	FY17
Move Ins	7,773	116,784	117,647
Move Outs	7,298	116,307	117,865

Average Res Bill Amounts	Sep-18	FY18 To Date	FY17
Electric (kWh)	1,103	812	804
Electric (\$)	\$155.10	\$118.11	\$117.98
Gas (Therms)	10	21	16
Gas (\$)	\$22.48	\$34.13	\$28.81
Water (kGals)	5	5	5
Water (\$)	\$30.79	\$30.34	\$31.74
Wastewater (kGals)	5	5	5
Wastewater(\$)	\$37.17	\$36.86	\$38.08

10/5/2018 DEP

# **ENERGY DELIVERY**

# ELECTRIC T&D SYSTEM RELIABILITY GAS

#### **ENERGY DELIVERY - UAB REPORT - SEPTEMBER 2018**

#### **Electric System Consumption**

	2018			2017				
	CONSUMPTIC	N	CUSTOMERS		CONSUMPT	ION	CUSTOMERS	
Feed-In-Tarrif - Residential	52	KWH	102		50	KWH	98	
Feed-In-Tarrif - General Service	3,041	KWH	153		2,729	KWH	156	
Electric - GS - Demand - Regular	60,635,950	KWH	1,289		58,001,005	KWH	1,123	
Electric - General Service Demand PV	958,913	KWH	20		808,051	KWH	14	
GREC Startup Supplemental and Standby					427,994		1	
Electric - GS - Kanapaha w Curtail Cr	1,028,400	KWH	1		991,200	KWH	1	
Electric - GS - Demand - Large Power	9,096,160	KWH	8		10,893,560	KWH	10	
Electric - GS - Murphree Curtail Credit	1,416,000	KWH	1		1,389,600	KWH	1	
Electric - GS Large Demand PV	4,761,600	KWH	2		4,768,800	KWH	2	
Electric - GS - Non Demand	19,587,165	KWH	10,155		18,158,250	KWH	9,070	
Electric - General Service PV	209,575	KWH	66		129,517	KWH	42	
Electric - Lighting - Rental	1,015,104	KWH	4,384	n	957,544	KWH	4,047	n
Electric - Lighting - Street - City	771,682	KWH	14	n	793,087	KWH	14	n
Electric - Lighting - Street - County	250,472	KWH	2	n	299,590	KWH	2	n
Electric - Lighting - Traffic	4,542	KWH	2	n	4,542	KWH	2	n
Electric - Residential - Non TOU	94,682,260	KWH	89,621		89,769,645	KWH	77,891	
Electric - Residential PV	309,898	KWH	310	_	233,893	KWH	198	_
Total Retail Electric (n =not included in total)	194,730,814	KWH	101,728		185,574,294	KWH	88,607	
City of Alachua	13,164,000	KWH	26,848	KW	14,054,000	KWH	25,818	KW
City of Winter Park	72,000,000	KWH	10,000	KW	7,440,000	KWH	10,000	KW
Total (Native) Electric	215,094,814	KWH			207,068,294	KWH		

#### **Gas System Consumption**

	2018				2017	7
	CONSUMPTIO	N	CUSTOMERS	CONSUMPT	TION	CUSTOMERS
Gas - GS - Regular Service (Firm)	683,515	THM	1,525	551,425	THM	1,365
Gas - GS - Regular Service (Small)	8,835	THM	307	7,747	THM	257
Gas - GS - Interrruptible - Regular Serv	66,816	THM	1	51,149	THM	1
Gas - GS - Interrruptible - Large Volume	371,937	THM	7	337,477	THM	6
Gas - Residential - Regular Service	331,275	THM	34,121	267,739	THM	33,840
Total Retail Gas	1,462,378	THM	35,961	1,215,537	THM	35,469
Gas - GS - UF Cogeneration Plant	2,449,787	THM	1	3,684,413	THM	1
Gas - Residential - LP - Basic Rate	2,483	GAL	202	1,966	GAL	195
GREC Gas (PGA only)				110	THM	1

<sup>\*</sup>Obtained from Monthly Billing Summary prepared by Todd Kamhoot.

#### **ENERGY DELIVERY - UAB REPORT - SEPTEMBER 2018**

#### Durations Reliability Report Between 9/01/2018 and 9/30/2018

Excludes Extreme Weather and Generation/Transmission Disturbances

CUSTOMER DATA	RELIABILITY INDICIES		MONTHLY AVG GOAL	
Monthly Average Customers Served(C)	97,787 Average Service Availability Index (ASAI)	99.9965%		
Total Hours of Customer Demand	68,059,752 System Average Interruption Duration Index (SAIDI)	1.47	4.5 Mins	
Total Number of Outages	89 Customer Average Interruption Duration Index (CAIDI)	85.28	55 Mins	
Total Number of Customers Affected (CI)	1,685 System average Interruption Frequency Index (SAIFI)	0.02	0.08	
Total Customer Minutes Interrupted (CMI)	143,699			
Total Customer "Out Minutes"	9,281 Average Length of a Service Interruption (L-Bar)	142.13 N	lins	

#### **Outage Duration Times**

Average Hours: 1 Maximum Hours: 7 Minimum Hours: 0

#### **Cause of Outages**

Cause	Overhead	Underground	Undetermined	Total
1. Weather	8	2	0	10
2. Vegetation	28	3	0	31
3. Animals	5	2	0	7
4. Foreign Interference	0	0	0	0
5. Human Cause	2	1	0	3
6. Undetermined	6	6	0	12
7. Equipment Failure	6	14	6	26
8. All Remaining Outages	0	0	0	0
Total	55	28	6	89

#### Durations Reliability Report Between 10/01/2017 and 9/30/2018

Excludes Extreme Weather and Generation/Transmission Disturbances

CUSTOMER DATA	RELIABILITY INDICIES		FISCAL YTD GOALS
Monthly Average Customers Served(C)	97,787 Average Service Availability Index (ASAI)	99.9901%	
Total Hours of Customer Demand	854,267,232 System Average Interruption Duration Index (SAIDI)	52.08	54 Mins
Total Number of Outages	848 Customer Average Interruption Duration Index (CAIDI)	46.07	55 Mins
Total Number of Customers Affected (CI)	110,541 System average Interruption Frequency Index (SAIFI)	1.13	1.00
Total Customer Minutes Interrupted (CMI)	5,092,960		
Total Customer "Out Minutes"	120,167 Average Length of a Service Interruption (L-Bar)	141.71	Mins

#### **Outage Duration Times**

Average Hours: 2 Maximum Hours: 17 Minimum Hours: 0

#### **Cause of Outages**

Cause	Overhead	Underground	Undetermined	Total
1. Weather	86	21	12	119
2. Vegetation	251	22	10	283
3. Animals	60	13	6	79
4. Foreign Interference	0	0	0	0
5. Human Cause	25	28	4	57
6. Undetermined	34	20	2	56
7. Equipment Failure	65	135	53	253
8. All Remaining Outages	0	0	0	0
Total	521	239	87	847

#### **ENERGY DELIVERY - UAB REPORT - SEPTEMBER 2018**

#### **Energy Delivery - Major Projects**

#### Major Electric Design Projects

#### West

- > Butler Plaza Town Center
- > Celebration Point (Ongoing Retail Development)
- > Alachua County SW 20th Avenue (OH to UG conversion)

#### <u>East</u>

- > SE 4th ST Roadway Project (OH to UG conversion)
- > CRA South Main Street (OH to UG conversion)
- > CRA Heartwood Subdivision

#### Major Gas Design Projects:

- > Main Replacement NE 5th St. Bare Steel Replacement
- > Main Installation Amariah Subdivision (4100') Finished
- > Main Installation Celebration Oaks / The Commons Archer Rd at SW 43rd St.
- > Main Installation Plantation Oaks Senior Living US Hwy 27 2500'

New Gas Services installed in September 2018: 38 New Customers

New Gas Services installed for fiscal year 2018: 444

# **ENERGY SUPPLY**

# SYSTEM STATISTICS ENERGY DISTRIBUTION FUEL

#### September 2018

#### Source

#### **Energy Supply - CAPACITY**

#### **Energy Supply - Performance Parameter**

#### **Unit Capability output - MWn**

	Offic Capability output - WW
DH-2	228
DH-1	75
Kelly CC	108
CT's	106
Grid	2 X 224
DHR	102.5

Month	YTD	<b>Budget YTD</b>	Delta Budget
71,935	717,807	766,925	(49,118)
17,995	186,444	38,209	148,235
50,607	431,688	689,426	(257,738)
3,669	6,856	686	6,170
4,246	203,245	260,949	(57,704)
59,090	526,234	235,235	290,999

#### **Fuels Consumed**

Coal - Tons
Gas - MCF
Fuel oil - Gals
Biomass - Tons

Month	FYTD	Budget YTD	Delta Budget
27,522	268,815	388,802	(119,987)
957,523	8,546,852	7,022,788	1,524,063
2,020	202,396	-	202,396
79,044	664,446	247,652	416,794

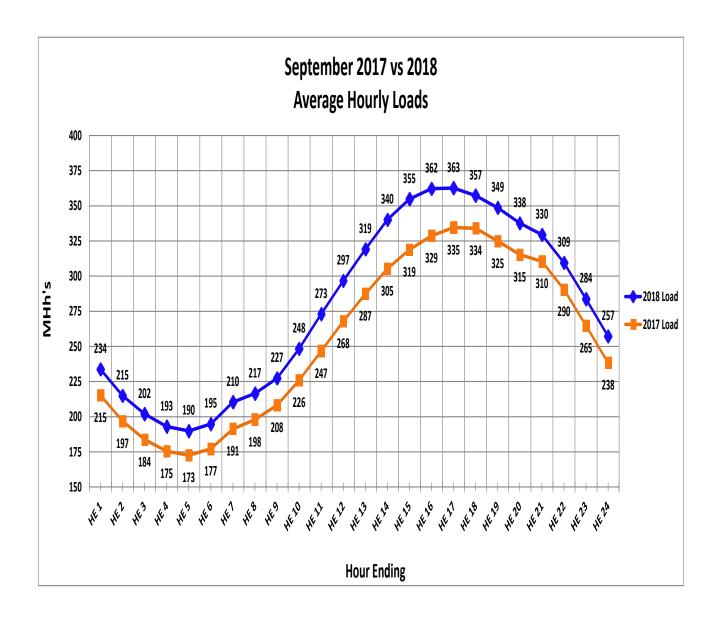
#### **Availability/Capacity**

DH-2 DH-1 Kelly CC DH CT-1 DH CT-2 DH CT-3 DHR\*

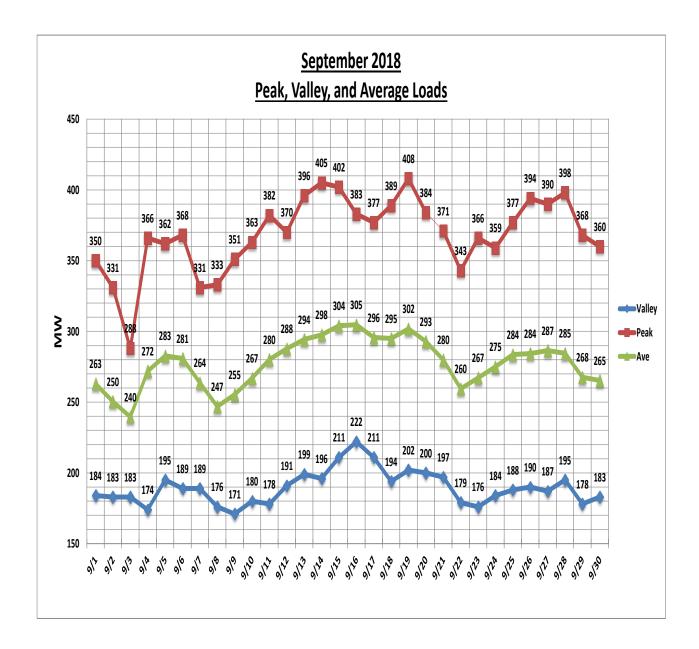
	Availability			Capacity	
Month	FY 2018 YTD	FY 2017 YTD	Month	FY 2018 YTD	FY 2017 YTD
100.00%	96.42%	39.30%	45.41%	38.79%	17.35%
100.00%	90.09%	93.40%	33.87%	25.59%	35.17%
46.56%	72.86%	95.24%	63.74%	45.77%	78.58%
100.00%	98.89%	95.50%	0.52%	0.31%	0.86%
84.19%	96.00%	96.90%	0.19%	0.51%	1.01%
67.06%	50.63%	96.06%	6.35%	0.89%	1.29%
100.00%	80.45%	N/A	87.53%	73.58%	N/A

DHR tracking is from Nov. 7th, 2017 forward

September Average Hourly Loads				
Hour Ending	2017 Load	2018 Load		
HE 1	215	234		
HE 2	197	215		
HE 3	184	202		
HE 4	175	193		
HE 5	173	190		
HE 6	177	195		
HE 7	191	210		
HE 8	198	217		
HE 9	208	227		
HE 10	226	248		
HE 11	247	273		
HE 12	268	297		
HE 13	287	319		
HE 14	305	340		
HE 15	319	355		
HE 16	329	362		
HE 17	335	363		
HE 18	334	357		
HE 19	325	349		
HE 20	315	338		
HE 21	310	330		
HE 22	290	309		
HE 23	265	284		
HE 24	238	257		



Date	Valley	Peak	Ave
9/1/2018	184	350	263
9/2/2018	183	331	250
9/3/2018	183	288	240
9/4/2018	174	366	272
9/5/2018	195	362	283
9/6/2018	189	368	281
9/7/2018	189	331	264
9/8/2018	176	333	247
9/9/2018	171	351	255
9/10/2018	180	363	267
9/11/2018	178	382	280
9/12/2018	191	370	288
9/13/2018	199	396	294
9/14/2018	196	405	298
9/15/2018	211	402	304
9/16/2018	222	383	305
9/17/2018	211	377	296
9/18/2018	194	389	295
9/19/2018	202	408	302
9/20/2018	200	384	293
9/21/2018	197	371	280
9/22/2018	179	343	260
9/23/2018	176	366	267
9/24/2018	184	359	275
9/25/2018	188	377	284
9/26/2018	190	394	284
9/27/2018	187	390	287
9/28/2018	195	398	285
9/29/2018	178	368	268
9/30/2018	183	360	265



#### Major Energy Supply Projects/Milestones/Updates

#### As of October 4th, 2018

- Deerhaven Unit #2(DH2) Planned Outage was schedule to start on 10/5/2018, but had to be delayed a week due to generation issues with Kelly Plant Unit #8 and Deerhaven Combustion Turbine #3 that will be covered below. This planned outage is scheduled to run through November 30, 2018, with the critical path work of the boiler inspection and associated corrective actions.
- 2. On 9/20/2018 the Deerhaven Combustion Turbine #3 (CT3) rebuilt torque converter installed this past July failed. The converter would not rotate so failure is internal, and this is being further examined by the OEM (Voith) to determine failure mode. Working with Voith and GE we were able to find a replacement torque converter similar to ours. This replacement was received 9/27/2018 and converter configuration modifications and replacement is in progress. As of 10/4/2018 we have finished all the mechanical modification and aligned converter and starting motor. Rewiring will begin 10/5/2018 with anticipated testing of CT3 on 10/8/2018, to hopefully fully restore CT3 by end of week starting 10/8/2018. We will be working with both GE and Voith on warranty issues related to the failed rebuild of or torque converter in parallel.
- 3. On 9/14/2018 while taking Kelly Combined Cycle Unit #1 (JCC1) off service for a planned Short Duration Outage (SDO), the Unit #8 Start Breaker had electrical failure of one of the Potential Transformers (PT's). This Start Breaker was just replaced less than 13 months ago by OEM (Eaton), and thus is under warranty. The CT4 portion of JCC1 was restored to full service on 9/21/2018. The warranty repairs to the Unit #8 Start Breaker is in progress with estimated restoration of Unit #8 (and thus all of JCC1) on 10/5/2018.
- 4. On 9/25/2018 we had one of the 2 large bulldozers (Wagner) at DHR experience an engine compartment fire. These are the large dozers required to move the fuel efficiently for plant operation. Dozer Operator was on the woodpile, and while backing up noticed visible flames from dozer engine compartment. He promptly backed dozer off woodpile to a flat staging and activated the fire suppression system. The suppression system failed and dozer engine compartment continued to burn. Plant began first responder firefighting efforts while GFR was contacted via 911. Once GFR arrived the fire was put out by them, about 35 minutes after fire reported. The dozer experience significant fire damage, and the fire root cause and the failure of the fire suppression system are under formal investigation by GFR. To ensure no restriction in DHR plant continued operation we have rented and Caterpillar D-7 to continue to move fuel as needed. Along with the support of GFR investigation in parallel we are working with the dozer OEM vendor (Sun Machinery) to get quotes and timeline for repairs. More to follow when investigation is complete.
- 5. On 10/3/2018 DHR has been successfully tuned to operate between 30 and 103 MW in Automatic Generation Control (AGC). AGC allows System control to control the load on DHR without having to talk to the Control Room Operator, and this is the mode we prefer to operate all our generation units.

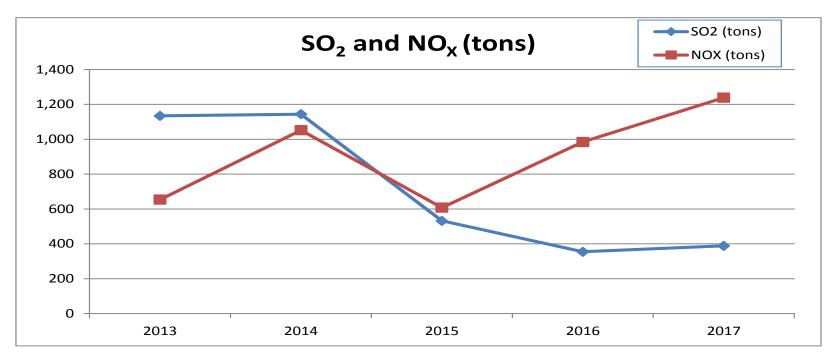
# **ENVIRONMENTAL PERMITTING**

# **Emissions Data**

**Yearly Emissions** 

	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	Mercury (lbs)	PM (tons)	CO <sub>2</sub> (tons)
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	984	2.92	61	1,216,690
2017	389	1,239	2.40	52	1,037,711
2018 YTD	469	1,249	3.17	48	936,263

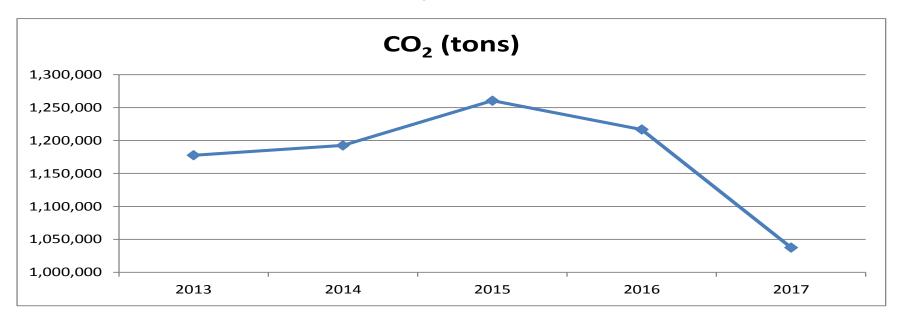
2017 Mercury values are for Unit 2 only. DHR data not available.

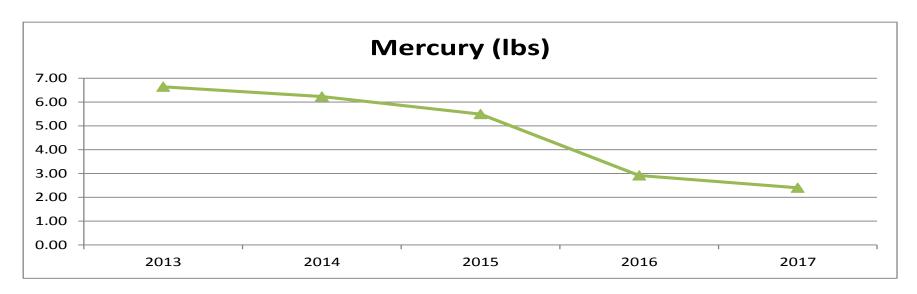


SO<sub>2</sub> was lower in 2015, 2016, and 2017 due to higher removal rate settings to assure compliance with the MATS Rule.

 $NO_X$  was higher in 2016 since it was more cost effective to use allowances than increase SCR removal rate.  $NO_X$  was higher in 2017 since the Cross State Rule was no longer in effect for Florida.

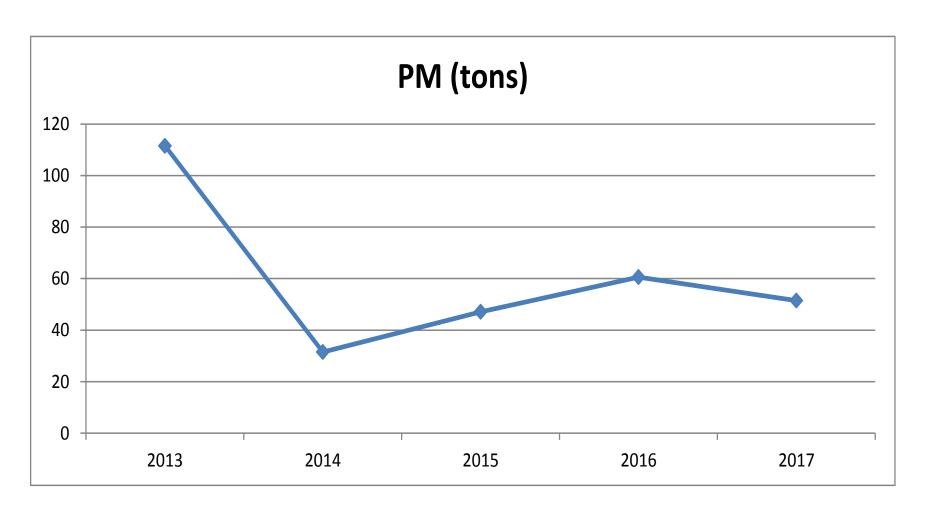
#### **Yearly Emissions**





Mercury was lower in 2016 and 2017 due to higher removal rate settings to assure compliance with the with the MATS Rule.

## **Yearly Emissions**



2018 (Jan.-Sept.)

	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	Mercury (lbs)	PM (tons)	CO <sub>2</sub> (tons)	SO <sub>2</sub> Rate (lb/MMBtu)	NO <sub>x</sub> Rate (lb/MMBtu)	HTIP (MMBtu)	GEN (MW-hours)
DH1	16.5	132.8			108,123.5			1,813,427.0	150,017.0
DH2	451.7	1,068.2	3.2	48.2	609,019.6			5,939,494.0	639,314.0
DHCT3	0.0	1.5			4,309.3			72,505.0	5,059.0
JRKCC1	1.1	46.8			214,810.5			3,614,605.0	415,846.0
DHR									
TOTAL	469.3	1,249.3	3.170	48.2	936,262.9			11,440,031.0	1,210,236.0

DHR data not available this month

2018 (Jan-Aug.) Emissions per MW-hr

	SO <sub>2</sub> lbs/MW-hr	NO <sub>x</sub> lbs/MW-hr	Mercury (lbs)	PM (lbs)	CO <sub>2</sub> tons/MW-hr	SO <sub>2</sub> Rate (lb/MMBtu)	NO <sub>x</sub> Rate (lb/MMBtu)	HTIP (MMBtu)	GEN (MW-hours)
DH1	0.21998	1.77047			0.72074			1,813,427.0	150,017.0
DH2	1.41308	3.34171	0.000005	0.15084	0.95261			5,939,494.0	639,314.0
DHCT3	0.00000	0.59300			0.85181			72,505.0	5,059.0
JRKCC1	0.00529	0.22508			0.51656			3,614,605.0	415,846.0
DHR	0	0			0			0	0

# WATER/WASTEWATER

Production

Maintenance

Projects

# Water/Wastewater September Dashboard

	717 11 010 10 11 1	Production	1.5 0.1 2 0		
lurphree Water Treatment Pla	int	Troduction			
	Sept 2018	FY to Date (mgd)	Permitted Capacity (mgd)	% of Permitted Capacity	Status
A D 11 51				, ,	
Average Daily Flow	23.9	22.7	30	76%	
Peak Daily Flow	26.4	27.7	54	-	
ain Street Water Reclamation	1 Facility				
	0 10010	F)(( P ( ( ))	Permitted		0
	Sept 2018	FY to Date (mgd)	Capacity (mgd)		Status
Average Daily Flow	6.9	6.7	7.5		
anapaha Water Reclamation	Facility				
	0	FV (a Data (as ad)	Permitted		01-1
	Sept 2018	FY to Date (mgd)	Capacity (mgd)		Status
Average Daily Flow	13.0	12.9	14.9		
ater Reclamation Facilities (	Combined)				
			Permitted		
	Sept 2018	FY to Date (mgd)	Capacity (mgd)	% of Permitted Capacity	Status
Average Daily Flow	19.9	19.6	22.4	87%	
				0.75	
		Maintenance			
astewater Collections		Cont 2049 (Miles)	EVID	Manthly Coal (miles)	
		Sept 2018 (Miles)	FYTD	Monthly Goal (miles)	
Miles of gravity mains clear	ed	4.8	76.7	7.5	
Miles of gravity mains TV in	spected	4.7	*avg of 6.4 miles per mor	5.0	
ater Distribution & Wastewa	ter Collections		*avg of 5.3 miles per mor	nth	
		Sept 2018	FYTD		
Work orders, service orders	completed	1,118	13,653		
	SSO	<b>Monthly Sum</b>			
		September	YTD	GOAL	
Sanitary Sewer Overflows		1	24	<16	

#### Water/Wastewater

#### **Major Projects and Other Updates**

**MWTP Electric System Upgrade** - electrical building walls have been erected and primary generator is on-site.

**South Main Street Sewer Crossing -** All dewatering and bypasses are in place. All materials are on-site.

**MSWRF** Aeration Basin Repair - The East Train Basin aerator has been repaired and placed back in service.

Water Service Replacements - Replaced over 880 water services Fiscal Year to date

**Gravity Sewer Lining** - Lined over 14.5 miles of gravity sewer in Fiscal Year 2018