

STATE OF THE UTILITY

July 2019

Item #190225

OPERATIONS SUMMARY

CORPORATE SAFETY

ENVIRONMENTAL

REGULATORY

PERSONNEL

July 2019

Safety

Employees

	Current Month		
	First Aid	Recordable	DART
Administration	0	0	0
WWW Systems	0	2	2
Energy Supply	0	0	0
Energy Delivery - Electric/Gas	0	1	0
GRUCom	0	0	0
Totals		3	

	Year to Date		
	First Aid	Recordable	DART
	1	4	3
	6	9	3
	1	1	0
	5	11	6
	0	0	0
Totals		25	

Vehicles

	Current Month		
	Miles Driven	Recordable	Preventable
Administration		0	0
WWW Systems		1	0
Energy Supply		0	0
Energy Delivery - Electric/Gas		1	1
GRUCom		0	0
Totals		2	1

July Mileage not yet reported

	Year to Date		
	Miles Driven	Recordable	Preventable
	140,104	0	0
	705,814	10	6
	38,343	0	0
	927,429	9	7
	79,437	0	0
Totals	1,891,127	19	

Through June

Environmental**Current Month****Calendar Year to Date**

Notices of Violation

0

0

Emissions**DH1, DH2, DHCT3, JRKCC1**CO₂ (tons)

114,517

612,973

NO_x (tons)

136

924

SO₂ (tons)

50

380

DH Unit 2 (only)PM_{FILT} (tons)

3

29

Hg (lbs)

0.30

3.21

DHRCO₂ (tons)

92,687

583,621

NO_x (tons)

26

173

SO₂ (tons)

2

11

Regulatory**NERC****Current Month****FY to Date**

Notice of Violations

0

7

Self Reports/Potential Violations

1

9

Personnel

Row Labels	AUTHORIZED_FTE	FILLED_FTE	VACANCY	Last Month (June)
Administration	15.00	13.00	2.00	2.00
Chief Operating Officer	20.00	19.00	1.00	2.00
Customer Support Services	118.25	108.00	10.25	12.25
Energy Delivery	264.00	250.00	14.00	12.00
Energy Supply	145.00	146.00	-1.00	-1.00
Energy Supply - District Energy	10.00	10.00	0.00	0.00
Finance	43.00	31.00	12.00	13.00
GRUCom	38.00	30.00	8.00	8.00
Information Technology	66.00	54.00	12.00	13.00
IT Governance & Compliance	5.00	5.00	0.00	0.00
Water Wastewater	168.00	160.00	8.00	7.00
Grand Total	892.25	826.00	66.25	68.25

Utility Advisory Board Monthly Report – FY 2019 Safety Data Summary

Employee Injuries (DART – days away, restricted duty, temporary transfer)

OCTOBER

- 10/08/2018 An employee was struck on both hands when a bathroom paper towel dispenser cover fell. Both hands were injured. (DART – restricted duty)
- 10/17/2018 While changing out a ball valve in a water line under pressure, the employee cut his finger on an old galvanized fitting.
- 10/21/2018 A line worker was injured during mutual aid assignment in the Panhandle. He suffered second degree burns on his left hand from an arc flash while he was cutting an energized 120V service line. (DART – Lost time)
- 10/31/2018 While putting away boxes of piping elbows, employee felt a slight pull in her lower back. Employee sought medical treatment on 11/2/2018.

NOVEMBER

- 11/09/2018 Employee was bitten by a dog on his left wrist while in a yard reading meters.

DECEMBER

- 12/06/2018 Employee slipped on some oil on the concrete floor and injured his right knee.
- 12/19/2018 While prying open a valve box, debris was thrown around his safety glasses and into his eyes causing irritation

JANUARY

- 1/7/2019 While carrying materials to another department, employee struck her left hand, fracturing the hand. (late report) (DART – Lost time)
- 1/11/2019 Unknown debris blew into a meter reader's right eye, causing irritation.
- 1/27/2019 Working at the headworks to remove a stoppage exposed employee's eyes to aerosols causing eye irritation.

FEBRUARY

- 2/25/2019 Employee was bitten by a dog on left leg while in yard reading meters.

MARCH

- 3/1/2019 Employee chipped tooth when wrench slipped while loosening bolt.
- 3/10/2019 Employee sprained ankle stepping down from derrick control station into truck bed
- 3/18/2019 Debris was blown into employee's right eye, causing abrasion of the cornea.

3/28/2019 While working on the belt thickener, wind-blown dust/debris got into employee's eyes causing irritation.

APRIL

4/9/2019 Employee fell off a pipe trailer and fractured his left wrist when he tried to catch his fall with his hand. (DART – Lost time)

MAY

5/1/2019 While reorganizing material, employee dropped a heavy box on her L middle finger, splitting the nail

5/7/2019 Employee was struck in the nose by metal splinter during alignment of hydraulic press

5/23/2019 While returning from an overnight call-out, employee was stung in the hand by an unknown insect

5/23/2019 Employee was lifting a press die and strained his lower back. (DART – restricted duty)

5/30/2019 Employee was pulling lid from underground junction box with blue manhole hook. Lid was stuck. Felt burning in lower abdomen (DART – restricted duty)

JUNE

6/10/2019 Employee's hand was struck/injured with drill bit as it came through pole.

JULY

7/2/2019 Employee was pulling on a water jet hose and strained his lower back.

7/3/2019 Employee was walking on a trailer deck when a board broke and he sprained his left knee as he fell through.

7/22/2019 Employee fractured her left middle finger when she slipped on an incline and caught her finger in between bench and legs.

End of FY 2019

Utility Advisory Board Monthly Report – FY 2019 Vehicle Collision Summary

Vehicle Collisions (P) indicates preventable by our employee

OCTOBER

10/02/2018 Backing out of a long wooded drive vehicle caught on a downed tree branch that was lying beside the drive damaging the front bumper and air dam (P)

10/15/2018 While a GRU employee was driving into work, another car collided with a deer, which was then thrown into the windshield of his GRU truck.

10/30/2018 While driving in the Plant to speak to an operator, the employee made a left-hand turn and scraped a concrete bollard with his truck. (P)

NOVEMBER

11/2019/2018 Employee was driving a tractor trailer and as he made the turn off of Main Street onto 16th avenue, the rear drivers tire on the trailer struck the front bumper on a vehicle that was stopped in the south bound turn lane causing damage. (P)

DECEMBER

12/20/2018 While pulling into a drive-through lane, the intern scraped the driver's side of the pick-up bed on a bollard. (P)

12/20/2018 Pulling onto road employee drove over a culvert, damaging the lower front bumper and air dam (P)

JANUARY

1/8/2019 While driving into work, a deer ran out of the woods. While the driver saw the deer and braked, the deer still ran into the side of the truck.

1/10/2019 While moving into the right-turn lane, a dump truck came off a ridge in the pavement and left the right side of the roadway and into the ditch. Once the truck stopped, it rolled over onto its right side causing damage to the truck. (P)

1/15/2019 While pulling a pick-up truck next to a fire hydrant to deflect the water stream from flow testing, an intern scraped the side of the truck on the hydrant nozzle, causing minor body damage (P)

1/23/2019 While stopped in traffic on SW 75th Street, the GRU vehicle was rear-ended.

MARCH

3/29/2019 Employee was backing a GRU vehicle into a parking space when a private vehicle cut behind, scraping the GRU bumper as it passed by. (P)

APRIL

4/21/2019 Employee was headed N. on 225 and a private vehicle ahead was turning right. GRU vehicle impacted the rear bumper of the private vehicle as it was turning. (P)

4/28/2019 While responding to Lift Station 123, employee took a right-hand turn too tightly and damaged the right rear wheel on a stormwater invert. (P)

MAY

5/18/2019 While stopped at the red light at the I-75 NB exit at the NW 39th Ave exit, a GRU service truck was rear-ended.

5/20/2019 Person came out of a porta-potti quickly, colliding with the side of truck.

5/21/2019 Employee back into a parked car while parking to repair a streetlight. (P)

JUNE

No collisions reported

JULY

7/1/2019 Employee was traveling through the intersection and was struck by a car that ran the red light.

7/23/2019 Employees vehicle U-1895 struck another GRU vehicle (U-1916) that pulled behind him while backing into a parking space at the EOC. (P)

End of FY 2019

Utility Advisory Board Monthly Report – FY 2019 NERC compliance

Penalty violations

<u>Determination date</u>	<u>Description</u>
N/A	No penalties to-date for FY 2019

Non-Penalty violations (Compliance Exceptions or Find-Fix-Track)

<u>Determination date</u>	<u>Description</u>
12/4/2018	GRU's Area Control Error (ACE), which is a calculation of electrical interchange on the system exceeded the Balancing Authority ACE Limit (BAAL) on three occasions
12/10/2018	Electronic authentication attempts were not limited for a portion of GRU's cyber assets that were part of a Critical Infrastructure Protection (CIP) network.
2/19/2019	A portion of the scheduled maintenance was not performed for generation station batteries that supply power to protection systems.
2/19/2019	Notification of a generator Automatic Voltage Regulator (AVR) status change was not made within the required time frame
3/27/2019	An alarm or alert was not issued in response to detected unauthorized access through a physical access point into a Physical Security Perimeter within the required time frame. Note: detected unauthorized access was a false alarm.
4/23/2019	GRU did not provide notification within the required time frame for a list of BES Elements that result in relay tripping during simulated extreme events
6/6/2019	Underfrequency Load Shedding (UFLS) relay setting was incorrect for approximately one year

Potential violations (Pending regulatory agency determination)

<u>Report date</u>	<u>Description</u>
6/6/2019	35 Cyber Assets were delayed in being included under GRU's Critical Infrastructure Protection (CIP) program
7/22/2019	Review and re-approval of CIP Cyber Security policy document exceeded the 15 month cycle period by 81 days

CUSTOMER SUPPORT SERVICES

Customer Operations

New Services

Revenue Assurance

Customer Operations Metrics Summary July 2019

Active Accounts	Jul-19	YTD Gain/Loss	FY18
<i>Residential Contract Accounts</i>			
Total	91,569	589	90,980
Electric	84,831	428	84,403
Gas	33,735	295	33,440
Water	63,425	320	63,105
Wastewater	59,327	315	59,012
Telecomm	120	(9)	129

Active Accounts	Jul-19	YTD Gain/Loss	FY18
<i>Nonresidential Contract Accounts</i>			
Total	13,585	103	13,482
Electric	11,018	83	10,935
Gas	1,654	11	1,643
Water	5,891	44	5,847
Wastewater	4,684	50	4,634
Telecomm	387	21	366

New Installations	Jul-19	FY19 To Date	FY18
Electric	207	1139	1512
Gas	60	446	463
Water	110	567	558
Wastewater	96	517	566
Telecomm	17	103	120

Residential Disconnects	Jul-19	FY19 To Date	FY18
Volume	1,193	11,960	15,305
Average Balance	\$254.80	\$244.54	\$250.07

Call Center Volume	Jul-19	FY19 To Date	FY18
Residential ASA	0:09:13	0:06:35	0:10:59
Business ASA	0:03:06	0:02:44	0:04:19
CSR Calls	14,716	122,916	142,989
CSR Callbacks	3,842	15,083	25,780
IVR Self Service	16,611	186,414	266,463
Total	31,327	309,330	409,452
IVR/Total	53%	60%	65%

Revenue Assurance	Jul-19	FY19 To Date	FY18
Referred to Collections	\$114,555.12	\$1,660,042.40	\$1,783,116.51
Recovered	\$73,184.55	\$685,096.93	\$786,025.11

Service Orders	Jul-19	FY19 To Date	FY18
Move Ins	15,140	80,754	116,784
Move Outs	18,333	83,736	116,307

Bills Generated	Jul-19	FY19 To Date	FY18
Paper Bills	118,513	1,074,386	1,276,432
eBills	19,268	178,281	200,984
Total	137,781	1,252,667	1,477,416
eBill/Total	14%	14%	14%

Average Res Bill Amounts	Jul-19	FY19 To Date	FY18
Electric (kWh)	999	792	812
Electric (\$)	\$146.70	\$115.75	\$118.11
Gas (Therms)	8	21	21
Gas (\$)	\$21.65	\$36.02	\$34.13
Water (kGals)	5	5	5
Water (\$)	\$30.87	\$30.66	\$30.34
Wastewater (kGals)	5	5	5
Wastewater(\$)	\$34.49	\$36.94	\$36.86

Payment Arrangements	Jul-19	FY19 To Date	FY18
Total	640	5,903	77,512

8/6/2019

ENERGY DELIVERY

System Consumption

System Reliability

Major Projects – Electric & Gas

ENERGY DELIVERY - UAB REPORT - JULY 2019

Durations Reliability Report Between 7/01/2019 and 7/31/2019

Excludes Extreme Weather and Generation/Transmission Disturbances

CUSTOMER DATA	RELIABILITY INDICIES	MONTHLY AVG GOAL
Monthly Average Customers Served(C)	98,909 Average Service Availability Index (ASAI)	99.9772%
Total Hours of Customer Demand	71,214,480 System Average Interruption Duration Index (SAIDI)	9.85
Total Number of Outages	119 Customer Average Interruption Duration Index (CAIDI)	91.61
Total Number of Customers Affected (CI)	10,638 System average Interruption Frequency Index (SAIFI)	0.11
Total Customer Minutes Interrupted (CMI)	974,533	
Total Customer "Out Minutes"	18,984 Average Length of a Service Interruption (L-Bar)	159.53 Mins

Outage Duration Times

Average Hours: 2
Maximum Hours: 10
Minimum Hours: 0

Cause of Outages

Cause	Overhead	Underground	Both	Total
0. Undetermined	10	5	0	15
1. Weather	18	4	2	24
2. Vegetation	39	5	3	47
3. Animals	4	2	0	6
4. Foreign Interference	0	0	0	0
5. Human Cause	1	0	1	2
6. Equipment Failure	10	11	3	24
7. All Remaining Outages	0	0	0	0
Total	82	27	9	118

ENERGY DELIVERY - UAB REPORT - JULY 2019

Durations Reliability Report Between 01/01/2019 and 7/31/2019 *

Excludes Extreme Weather and Generation/Transmission Disturbances, Excludes TMED Days

CUSTOMER DATA	RELIABILITY INDICIES	FISCAL YTD GOALS
Monthly Average Customers Served(C)	98,909 Average Service Availability Index (ASAI)	99.9870%
Total Hours of Customer Demand	500,875,176 System Average Interruption Duration Index (SAIDI)	39.42 31.5
Total Number of Outages	508 Customer Average Interruption Duration Index (CAIDI)	75.98 55 Mins
Total Number of Customers Affected (CI)	51,318 System average Interruption Frequency Index (SAIFI)	0.52 0.56
Total Customer Minutes Interrupted (CMI)	3,899,015	
Total Customer "Out Minutes"	88,721 Average Length of a Service Interruption (L-Bar)	174.65 Mins

Outage Duration Times

Average Hours: 2
Maximum Hours: 29
Minimum Hours: 0

Cause of Outages

Cause	Overhead	Underground	Both	Total
0. Undetermined	36	9	1	46
1. Weather	56	8	13	77
2. Vegetation	183	23	8	214
3. Animals	42	7	0	49
4. Foreign Interference	0	1	1	2
5. Human Cause	17	12	6	35
6. Equipment Failure	37	64	17	118
7. All Remaining Outages	1	0	1	2
Total	372	124	47	543

* REPORTED AS CALENDAR YEAR

ENERGY DELIVERY - UAB REPORT - JULY 2019

Electric System Consumption

	2019		2018	
	CONSUMPTION	CUSTOMERS	CONSUMPTION	CUSTOMERS
Feed-In-Tariff - Residential	57 KWH	102	43 KWH	104
Feed-In-Tariff - General Service	2,303 KWH	156	2,251 KWH	157
Electric - GS - Demand - Regular	56,620,563 KWH	1,218	57,571,871 KWH	1,297
Electric - General Service Demand PV	896,496 KWH	20	801,697 KWH	18
Electric - GS - Kanapaha w Curtail Cr	1,060,800 KWH	1	1,039,200 KWH	1
Electric - GS - Demand - Large Power	7,458,600 KWH	5	8,763,880 KWH	8
Electric - GS - Murphree Curtail Credit	1,473,600 KWH	1	1,324,800 KWH	1
Electric - GS Large Demand PV	4,557,600 KWH	2	4,399,200 KWH	2
Electric - GS - Non Demand	17,589,642 KWH	9,879	18,199,524 KWH	10,126
Electric - General Service PV	170,698 KWH	63	189,792 KWH	67
Electric - Lighting - Rental	986,649 KWH	4,143 <i>n</i>	1,024,092 KWH	4,407 <i>n</i>
Electric - Lighting - Street - City	717,641 KWH	12 <i>n</i>	776,653 KWH	14 <i>n</i>
Electric - Lighting - Street - County	150,444 KWH	2 <i>n</i>	293,948 KWH	2 <i>n</i>
Electric - Lighting - Traffic	4,542 KWH	2 <i>n</i>	4,542 KWH	2 <i>n</i>
Electric - Residential - Non TOU	85,771,116 KWH	88,541	86,485,388 KWH	91,186
Electric - Residential PV	329,499 KWH	371	258,894 KWH	299
Total Retail Electric	177,790,250 KWH	100,359	181,135,775 KWH	103,266
<small>(n =not included in total customer count)</small>				
City of Alachua	13,626,000 KWH	28,327 KW	13,218,000 KWH	26,782 KW
City of Winter Park	- KWH	- KW	7,440,000 KWH	10,000 KW
Total (Native) Electric	191,416,250 KWH		201,793,775 KWH	

Gas System Consumption

	2019		2018	
	CONSUMPTION	CUSTOMERS	CONSUMPTION	CUSTOMERS
Gas - GS - Regular Service (Firm)	555,787 THM	1,376	651,519 THM	1,546
Gas - GS - Regular Service (Small)	5,033 THM	302	8,036 THM	291
Gas - GS - Interruptible - Regular Serv	- THM	-	46,500 THM	1
Gas - GS - Interruptible - Large Volume	352,353 THM	7	358,790 THM	7
Gas - Residential - Regular Service	276,538 THM	34,452	306,799 THM	34,601
Total Retail Gas	1,189,711 THM	36,137	1,371,644 THM	36,446
Gas - GS - UF Cogeneration Plant	2,925,821 THM	1	2,996,224 THM	1
Gas - Residential - LP - Basic Rate	2,169 GAL	203	2,302 GAL	197

*Obtained from Monthly Billing Summary prepared by Todd Kamhoot.

ENERGY DELIVERY - UAB REPORT - JULY 2019

Energy Delivery - Major Projects

Major Electric Design Projects

West

- > Tower Rd Market West - Mixed-Use Development) / Grand Oaks Community
- > Urban Village - 180 unit apartment complex
- > Celebration Pointe - New Development
- > Integra 24 - 232 unit apartment complex
- > Chestnut Plantation Phase 2 - Residential Development

East

- > Murphree Water Plant - OH to UG Conversion and Rebuild
- > Hub on Campus I - 8 story mixed-use development
- > Hub on Campus II - 7 story mixed-use development
- > Campus Advantage Apartments - 5 story student apartments
- > Hyatt Place - Hotel City Center - Downtown mixed-use redevelopment

Major Gas Design Projects:

- > Main Installation – Oakmont Subdivision – ongoing – 10600'
- > Main Installation – US Hwy 27 - Great Outdoors Restaurant - High Springs, FL
- > Main Installation – Finley Woods Subdivision – 1460'
- > Main Installation – Grand Oaks Phase 1 - 5150'
- > Main Installation – South Point Phase 2 - 2,750'

New Gas Services installed in July 2019: 59 New Customers

ENERGY SUPPLY

SYSTEM STATISTICS

ENERGY DISTRIBUTION

FUEL

July 2019

Source

Energy Supply - CAPACITY

Unit Capability output - MWn

DH-2	228
DH-1	67*
Kelly CC	108
CT's	106
Grid	2 X 224
DHR	102.5

Energy Supply - Performance Parameter

	Month	YTD	Budget YTD	Delta Budget
	51,650	483,229	504,062	(20,833)
	17,184	128,733	30,472	98,261
	74,663	367,449	644,441	(276,992)
	100	8,829	30,715	(21,886)
	7,035	111,104	127,135	(16,031)
	56,138	518,988	247,214	271,774

*DH1 slight derate due to gas filter restriction in Dec

Fuels Consumed

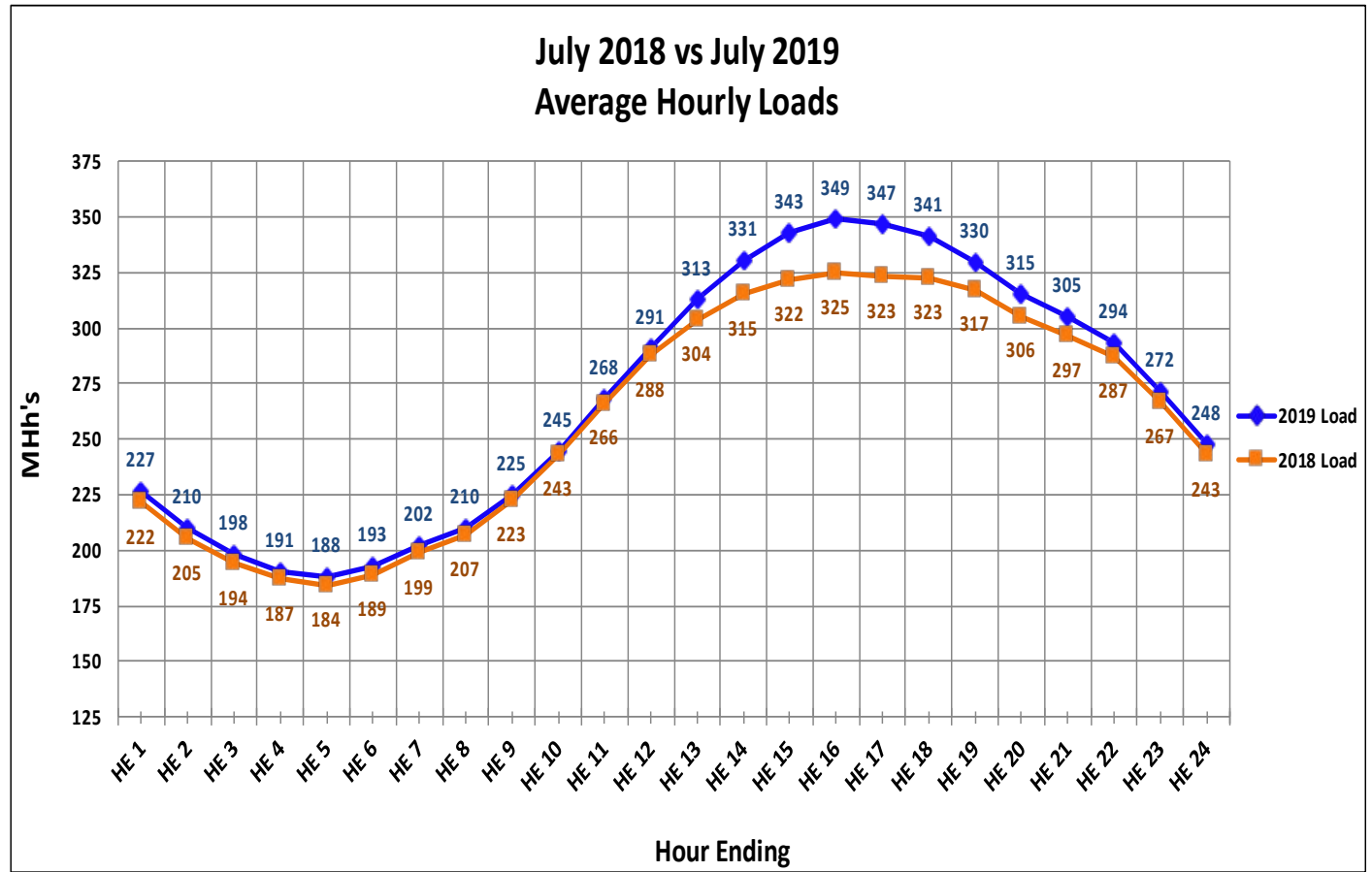
	Month	FYTD	Budget YTD	Delta Budget
Coal - Tons	18,839	186,220	276,419	(90,199)
Gas - MCF	1,087,034	6,601,109	6,233,038	368,071
Fuel oil - Gals	2	52,835	-	52,835
Biomass - Tons	78,498	673,013	309,428	363,585

Availability/Capacity

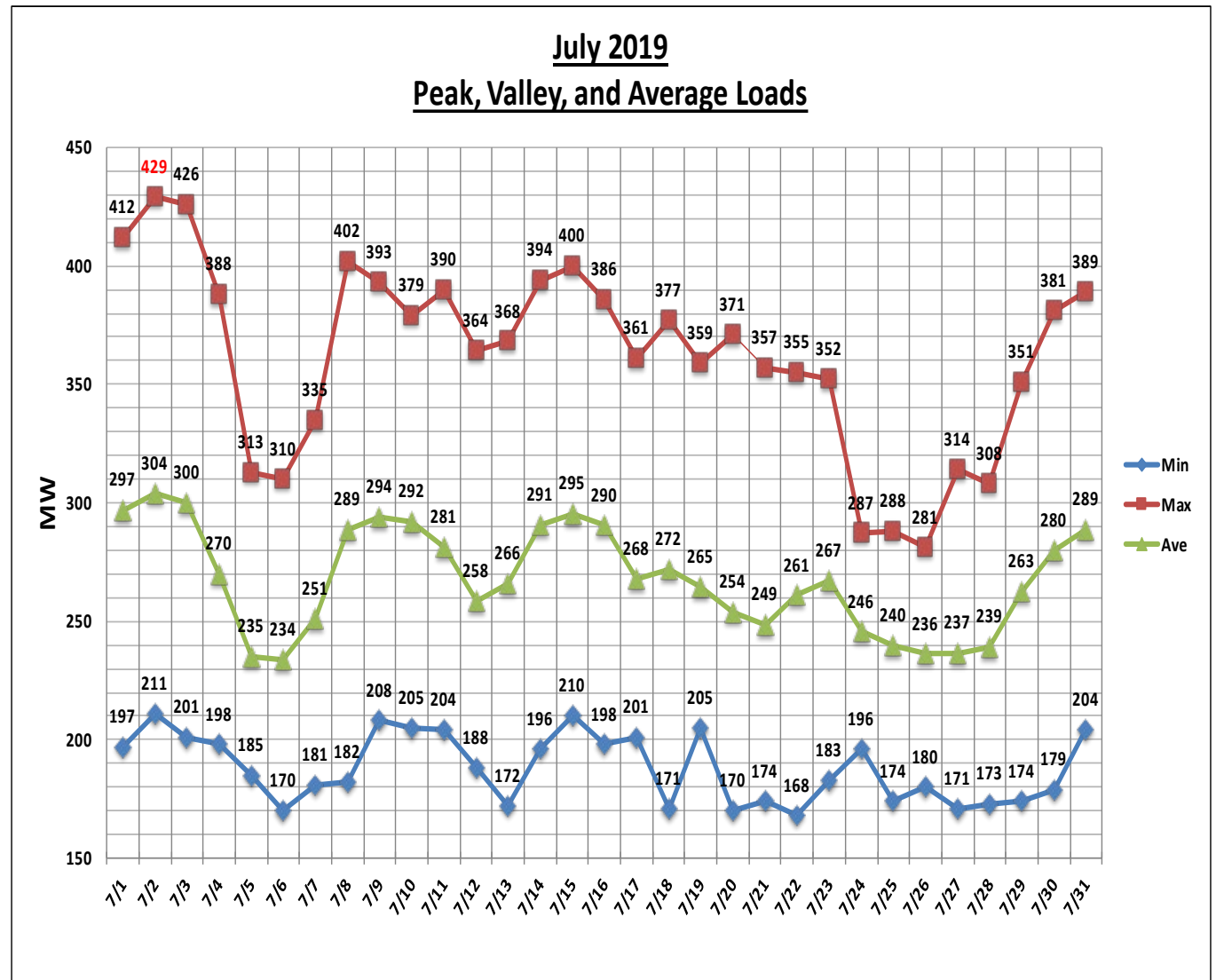
	Availability			Capacity		
	Month	FY 2019 YTD	FY 2018 YTD	Month	FY 2019 YTD	FY 2018 YTD
DH-2	99.78%	81.90%	96.26%	33.33%	31.28%	30.89%
DH-1	100.00%	99.46%	90.09%	32.80%	24.74%	27.88%
Kelly CC	100.00%	75.19%	75.30%	91.50%	45.94%	47.93%
DH CT-1	99.41%	99.47%	98.89%	0.13%	0.20%	0.41%
DH CT-2	100.00%	95.47%	96.00%	0.01%	0.13%	0.71%
DH CT-3	100.00%	92.53%	50.63%	0.09%	1.55%	4.93%
DHR*	99.21%	88.28%	80.41%	76.03%	71.20%	23.69%

DHR tracking is from Nov. 7th, 2017 forward

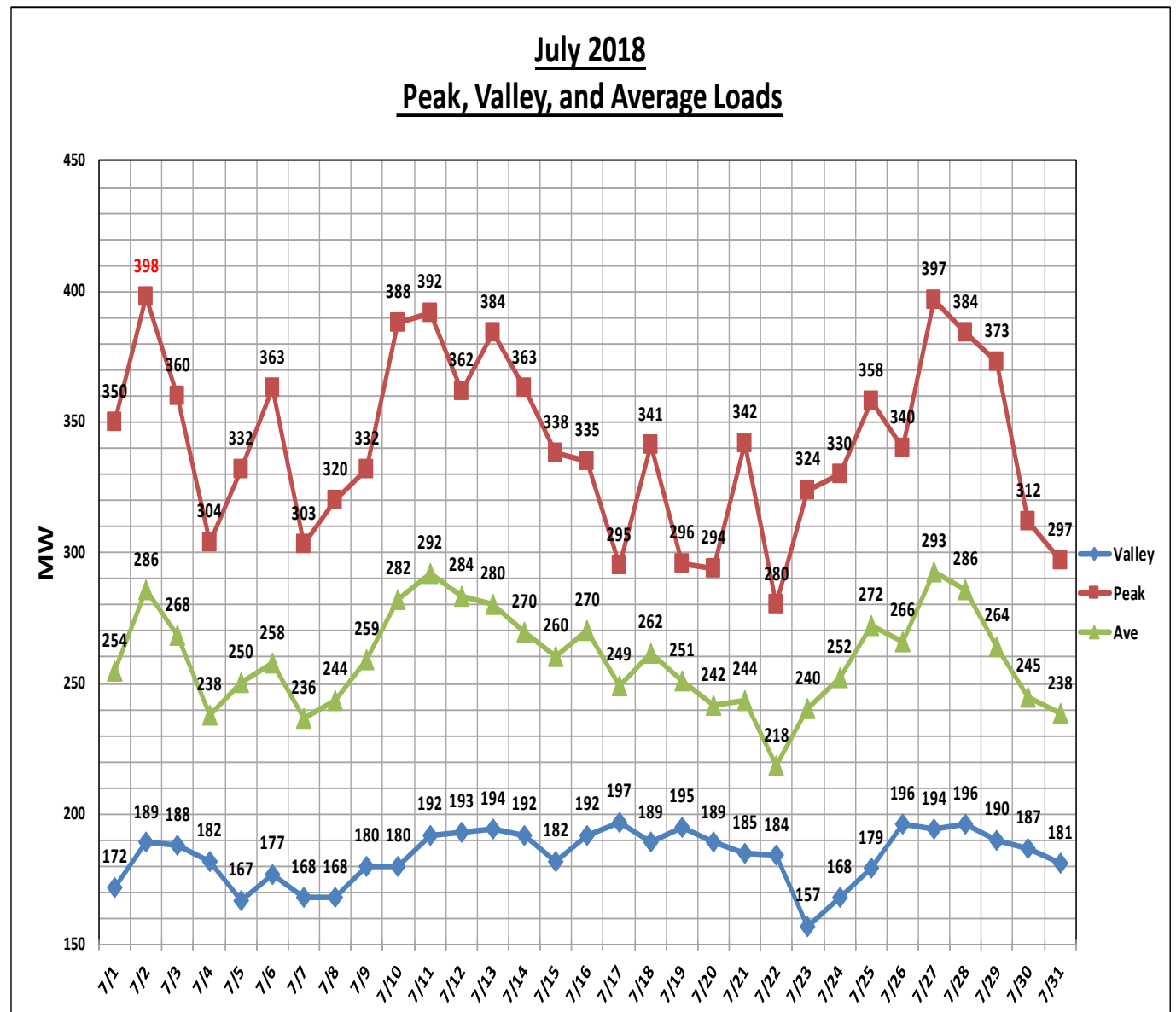
July Average Hourly Loads		
Hour Ending	2018 Load	2019 Load
HE 1	222	227
HE 2	205	210
HE 3	194	198
HE 4	187	191
HE 5	184	188
HE 6	189	193
HE 7	199	202
HE 8	207	210
HE 9	223	225
HE 10	243	245
HE 11	266	268
HE 12	288	291
HE 13	304	313
HE 14	315	331
HE 15	322	343
HE 16	325	349
HE 17	323	347
HE 18	323	341
HE 19	317	330
HE 20	306	315
HE 21	297	305
HE 22	287	294
HE 23	267	272
HE 24	243	248



Date	Valley	Peak	Ave
7/1/2019	197	412	297
7/2/2019	211	429	304
7/3/2019	201	426	300
7/4/2019	198	388	270
7/5/2019	185	313	235
7/6/2019	170	310	234
7/7/2019	181	335	251
7/8/2019	182	402	289
7/9/2019	208	393	294
7/10/2019	205	379	292
7/11/2019	204	390	281
7/12/2019	188	364	258
7/13/2019	172	368	266
7/14/2019	196	394	291
7/15/2019	210	400	295
7/16/2019	198	386	290
7/17/2019	201	361	268
7/18/2019	171	377	272
7/19/2019	205	359	265
7/20/2019	170	371	254
7/21/2019	174	357	249
7/22/2019	168	355	261
7/23/2019	183	352	267
7/24/2019	196	287	246
7/25/2019	174	288	240
7/26/2019	180	281	236
7/27/2019	171	314	237
7/28/2019	173	308	239
7/29/2019	174	351	263
7/30/2019	179	381	280
7/31/2019	204	389	289



Date	Valley	Peak	Ave
7/1/2018	172	350	254
7/2/2018	189	398	286
7/3/2018	188	360	268
7/4/2018	182	304	238
7/5/2018	167	332	250
7/6/2018	177	363	258
7/7/2018	168	303	236
7/8/2018	168	320	244
7/9/2018	180	332	259
7/10/2018	180	388	282
7/11/2018	192	362	284
7/12/2018	193	392	292
7/13/2018	194	332	280
7/14/2018	192	363	270
7/15/2018	182	320	260
7/16/2018	192	338	270
7/17/2018	197	335	249
7/18/2018	189	341	262
7/19/2018	195	296	251
7/20/2018	189	294	242
7/21/2018	185	342	244
7/22/2018	184	280	218
7/23/2018	157	324	240
7/24/2018	168	330	252
7/25/2018	179	358	272
7/26/2018	196	340	266
7/27/2018	194	397	293
7/28/2018	196	384	286
7/29/2018	190	373	264
7/30/2018	187	312	245
7/31/2018	181	297	238



Major Energy Supply Projects/Milestones Updates

As of August 5th, 2019

1. Deerhaven (DH):
 - a. Unit #2 experienced a significant leak in the Circulating Water System that required unit to be shutdown to weld repair. Unit came off line late on 8/2/2019, temporary weld repairs completed on 8/3/2019, and unit restored to full service on 8/4/2019. More extensive inspection of the Circulating Water System piping connections will be required next planned outage.
 - b. Unit #2 is experiencing some issues related to the fineness and clay content in some of our coal. This coal quality is leading to some plugging in coal piping and feeders. Operations is proactively staying on top of this and working with facilitates to blend coals to mitigate effects. The issue with the coal quality has been fully communicated to our supplier to address before loading trains, and we have contract terms to reject train(s) if required criteria not meet.
 - c. Unit #2 East Boiler Feed Pump was installed and successful commissioned back to service following overhaul. So now all 3 pumps are available for redundancy.
2. Deerhaven Renewable(DHR):
 - a. Preparing for November 2019 planned outage. Critical path will be boiler and turbine work.
3. South Energy Center (SEC):
 - a. Steam Chiller is still down and we are coordinating turbine repairs. The Turbine has been transported to the OEM (Dresser Rand) for inspection and repairs. This currently has no impact to hospital service we provide.
 - b. The Wartsila 16,000 hour outage start August 7th and runs through August 26th, 2019. This is an extensive 19 day outage, and Hospital is fully aware of this required planned outage to maintain overall unit reliability.
4. Other:
 - a. DHR Staff Transition briefings have been held with our current and potential future GRU employees, with the target transition date of midnight on October 6, 2019.
 - i. In parallel to support this NAES Management has been provided formal letter by GRU of our intent to terminate the current O&M Contract at midnight on October 6, 2019. Noting the contract requires either party provide at least a 60 day notice for termination.
 - b. Our Solar PPA ITN responses were received on July 25, 2019. We have received 5 responses, and these responses are being formally evaluated by procurement and our select project team members.
 - c. Energy Supply is coordinating to provide DHR Biomass Fuel Sourcing Presentation to County Commission on August 27, 2019. This will be the same presentation that was previously presented to both UAB and CCOM earlier this year.

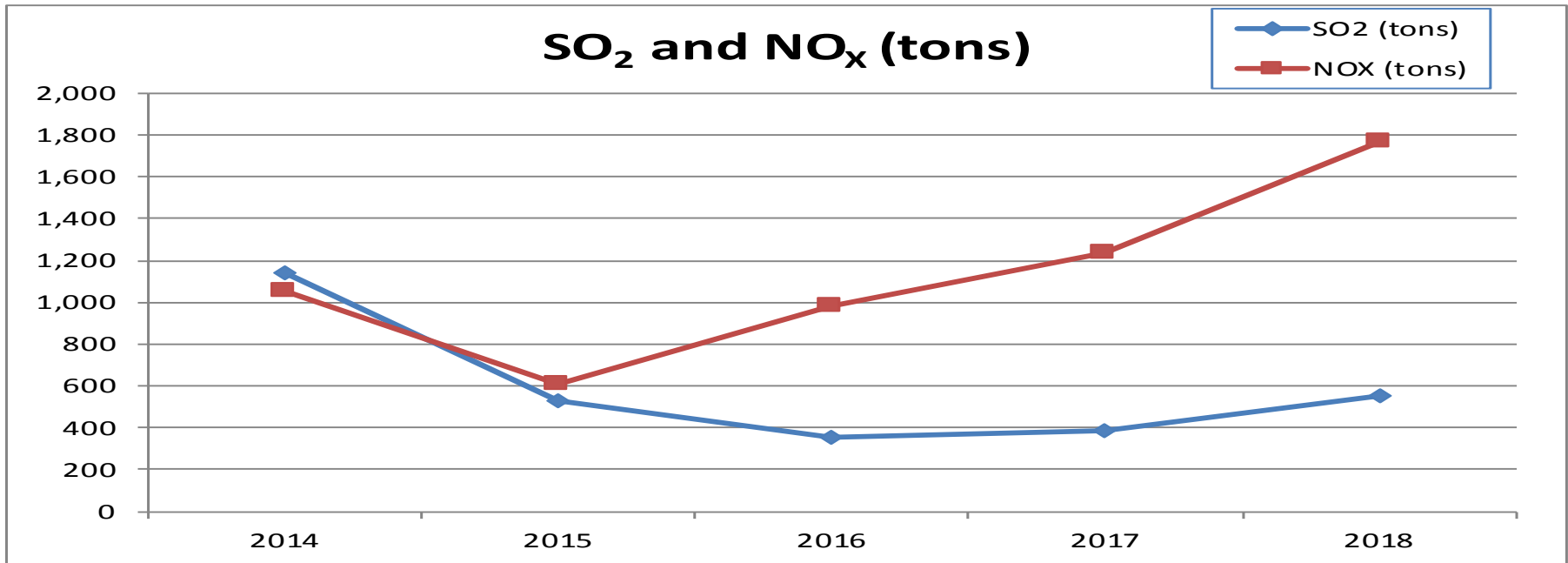
ENVIRONMENTAL PERMITTING

EMISSIONS DATA

Yearly Emissions

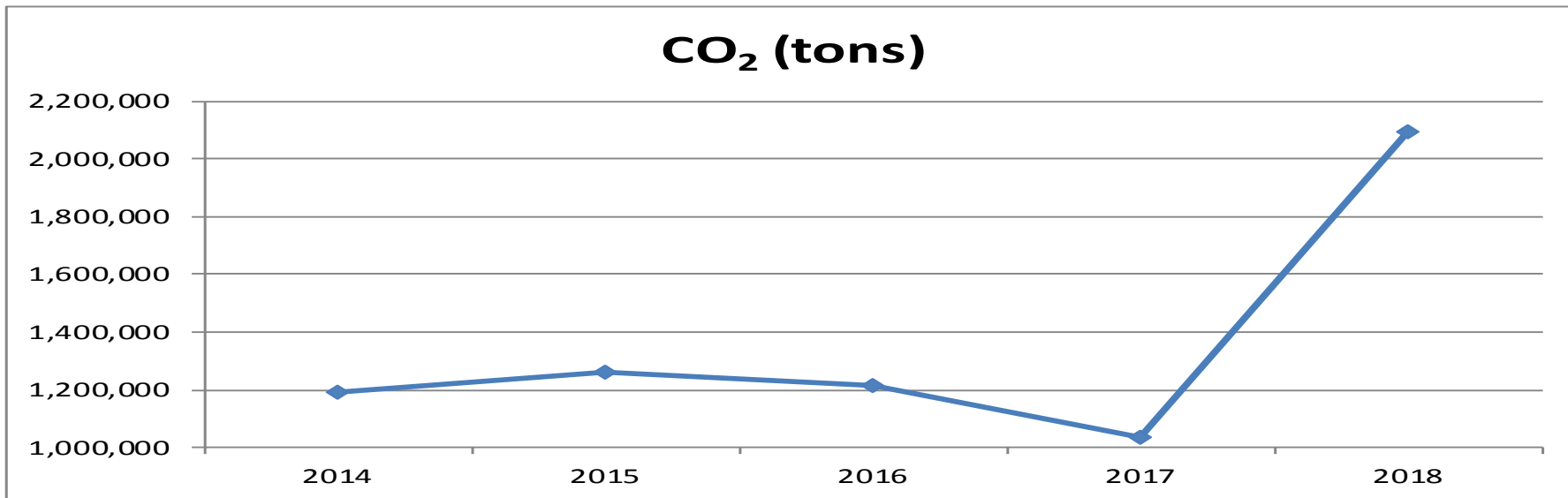
	SO ₂ (tons)	NO _x (tons)	Mercury (lbs)	PM (tons)	CO ₂ (tons)
2014	1,144	1,052	6.23	32	1,192,647
2015	532	608	5.49	47	1,260,423
2016	354	984	2.92	61	1,216,690
2017	389	1,239	2.40	52	1,037,711
2018	551	1,770	3.80	55	2,096,289
2019 (Jan-July)	391	1,097	3.21	29	1,196,594

**Mercury and Particulate values are for Unit 2 only.
DHR data included starting in 2018.**

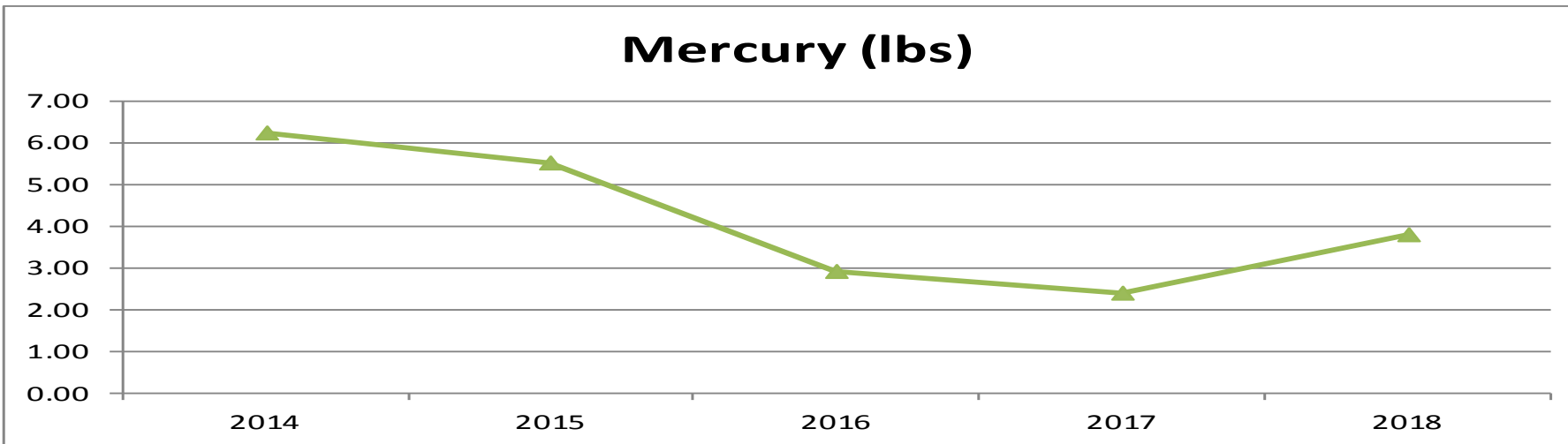


**SO₂ lower in 2015, 16, & 17 due to higher removal rate settings for compliance with MATS Rule.
NO_x higher in 2016 as it was more cost effective to use allowances than increase SCR removal
DHR data included starting in 2018.**

Yearly Emissions

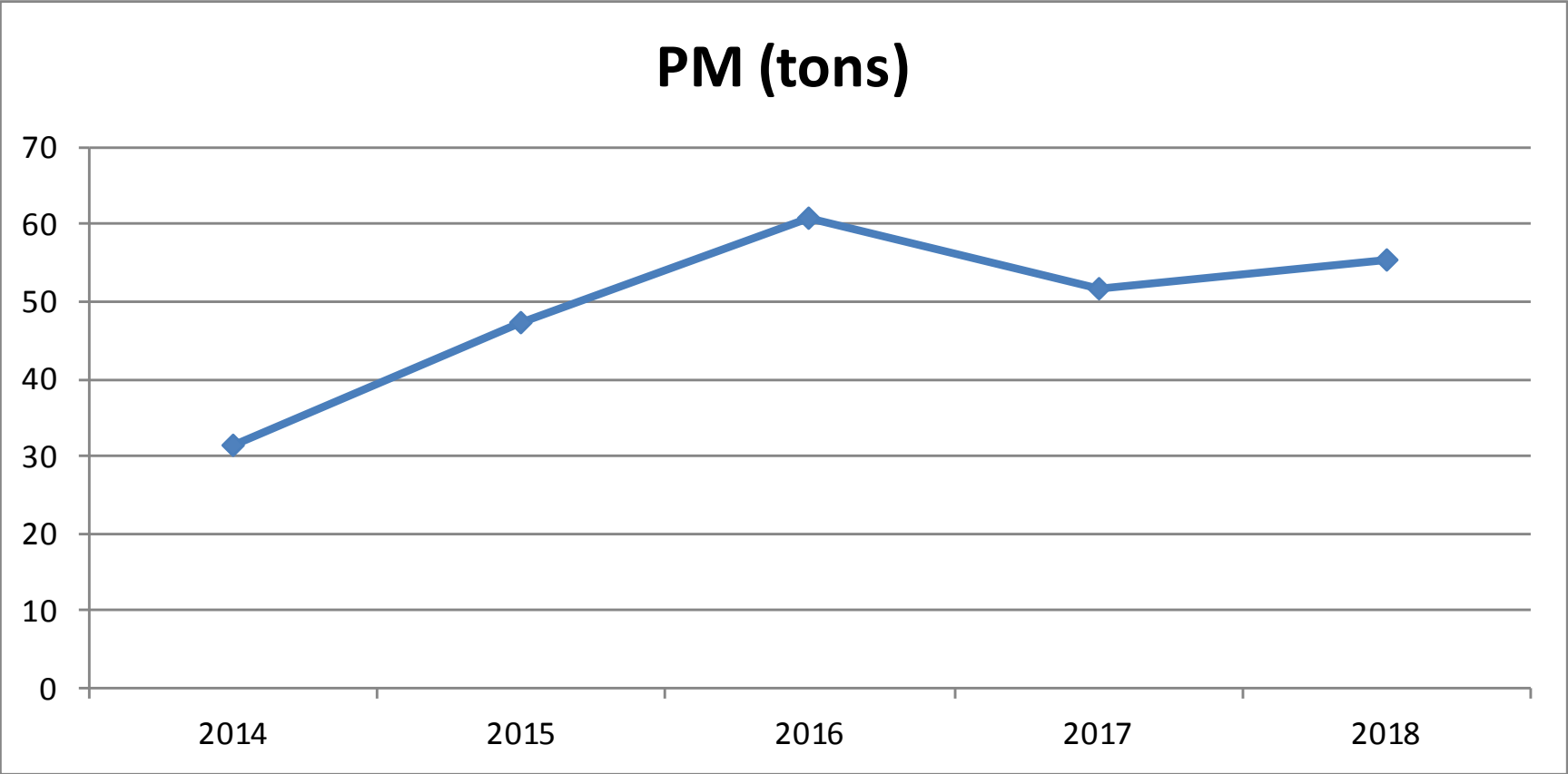


DHR data included starting in 2018.



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

Yearly Emissions



2019 YTD (Jan.-July)

	SO₂ (tons)	NO_x (tons)	Mercury (lbs)	PM (tons)	CO₂ (tons)	HTIP (MMBtu)	GEN (MW-hours)
DH1	5.5	89.3			66,589.3	1,117,931.0	92,828.0
DH2	374.4	810.2	3.21	29.2	457,713.1	4,460,167.0	485,746.0
DHCT3	0.0	1.1			4,047.8	68,087.0	4,924.0
JRKCC1	0.4	23.7			84,622.8	1,423,955.0	159,924.0
DHR	10.5	172.7			583,620.7	5,594,314.6	424,763.1
TOTAL	390.8	1,097.0	3.210	29.2	1,196,593.7	12,664,454.6	1,168,185.1

2019 - July

	SO₂ (tons)	NO_x (tons)	Mercury (lbs)	PM (tons)	CO₂ (tons)	HTIP (MMBtu)	GEN (MW-hours)
DH1	0.1	17.3			14,661.5	246,695.0	19,376.0
DH2	49.5	110.1	0.3	3.4	60,405.5	587,384.0	61,826.0
DHCT3	0.0	0.0			358.3	1,396.0	93.0
JRKCC1	0.2	8.6			39,091.9	657,806.0	75,295.0
DHR	1.7	25.5			92,687.0	888,573.5	64,580.7
TOTAL	51.5	161.5	0.346	3.4	207,204.2	2,381,854.5	221,170.7

WATER/WASTEWATER

PRODUCTION

MAINTENANCE

Water/Wastewater July Dashboard

Production						
Murphree Water Treatment Plant						
		July 2019	FY to Date (mgd)	Permitted Capacity (mgd)	% of Permitted Capacity	Status
	Average Daily Flow	23.4	22.8	30	76%	
	Peak Daily Flow	27.0	26.4	54	49%	
Main Street Water Reclamation Facility						
		July 2019	FY to Date (mgd)	Permitted Capacity (mgd)	% of Permitted Capacity	Status
	Average Daily Flow	6.8	6.3	7.5	84%	
Kanapaha Water Reclamation Facility						
		July 2019	FY to Date (mgd)	Permitted Capacity (mgd)	% of Permitted Capacity	Status
	Average Daily Flow	12.0	11.9	14.9	80%	
Water Reclamation Facilities (Combined)						
		July 2019	FY to Date (mgd)	Permitted Capacity (mgd)	% of Permitted Capacity	Status
	Average Daily Flow	18.8	18.2	22.4	81%	
Maintenance						
Wastewater Collections						
		July 2019 (Miles)	FYTD	Monthly Goal (miles)		
	Miles of gravity mains cleaned	11.5	72	5.0		
	Miles of gravity mains TV inspected	8.1	55	5.0		
Water Distribution						
		July 2019	FYTD	Monthly Goal		
	Number of Water Services Replaced	110	858	75		
SSO Monthly Summary						
		July	YTD	GOAL		
	Sanitary Sewer Overflows	0	16	<16		

Major Projects and Other Updates

Water/Wastewater Department

1. MWTP Electric System Upgrade - Structure nearly complete for the new electrical building, Guard Shack complete
2. MSWRF - Aeration Basin and Headworks project planning and design are underway. East Clarifier demolition & rehab nearing completion
3. Gravity Sewer Lining - Priorities being implemented with a goal to line at least 10 miles of gravity sewer in FY19
4. KWRF - headwork repairs complete and placing online