## STATE OF THE UTILITY

December 2021

Item #210810

ASA	Average Speed of Answer			
ASAI	Average Service Availability Index			
CAIDI	Customer Average Interruption Duration Index			
CIP	Critical Infrastructure Protection			
CMI	Customer Minutes Interrupted			
CO2	Carbon Dioxide			
CSR	Customer Service Representative			
DART	Days away, Restricted duty, Temporary transfer			
DH1	DeerHaven 1			
DH2	DeerHaven 2			
DH CT-1	DeerHaven Combustion Turbine #1 – 17.5 MW			
DH CT-2	DeerHaven Combustion Turbine #2 – 17.5 MW			
DHCT3 or DH CT-3	DeerHaven Combustion Turbine #3 – 71 MW			
DHR	DeerHaven Renewable (Biomass Plant)			
EIA	Energy Information Administration			
FMPA	Florida Municipal Power Association			
FTE	Full Time Employee			
FY	Fiscal Year			
GS	General Service			
HE	Hour Ending			
Hg	Mercury			
IVR	Interactive Voice Response			
JRKCC1	John Kelly Combined Cycle 1			
Kelly CC	Kelly Combined Cycle			
kGals	A thousand gallons of water			
kWh	kilowatt-hour, commonly used as a billing unit for energy			
	delivered to consumers by electric utilities			
KWRF	Kanapaha Water Reclamation Facility			
L-Bar	Average Length of a Service Interruption			
MATS	Mercury			
MCF	1000 Cubic Ft. of Gas			
MWn	Mega Watts			
MSWRF	Main Street Water Reclamation Facility			
MWTP	Murphree Water Treatment Plant			
NERC	North American Electric Reliability Corporation			
NOX	Nitrogen			
OEM	Original Equipment Manufacturer			
OH	Overhead			
PMFILT	Porous Metal Filters			
PV	Photo Voltaic (Solar Cell)			
SAIDI	System Average Interruption Duration Index			
SAIFI	System Average Interruption Frequency Index			
SCR	Selectius Catalytic Reactor			
SO2	Sulfur Dioxide			
Therms	a unit of heat equivalent to 100,000 Btu or 1.055 × 10 <sup>8</sup> joules.			
THIP	Total Heat Input			
TND	Traditional Neighborhood Development			
TOU	Time of Use			
UG	Underground			
W/WW	Water WasteWater			
/	1			

## **OPERATIONS SUMMARY**

CORPORATE SAFETY
ENVIRONMENTAL
REGULATORY
PERSONNEL

#### December 2021

Totals

#### Safety

#### **Employees**

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

Current Month			
	First Aid	Recordable	DART
	0	0	0
	1	1	0
	0	1	0
	0	0	0
	0	0	0
	•	2	

Current Month

Year to Date		
First Aid	Recordable	DART
0	0	0
1	1	0
1	1	0
0	0	0
0	0	0
	2	
		-

#### **Vehicles**

#### **Current Month**

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

Miles Driven*	Recordable	Preventable	
8,167	0	0	
53,475	0	0	
2,430	0	0	
88,287	0	0	
6,614	0	0	
158,973	0	0	

<sup>\*</sup>Mileage data is for November 2021. December mileage data will be included in the January report.

#### Year to Date

Miles Driven*	Recordable	Preventable
16,945	1	1
114,730	0	0
4,183	0	0
182,675	1	0
15,366	0	0
333,899	2	1

Mileage YTD through November 2021

#### Environmental

	Current Month
Notices of Violation	0

#### **Emissions**

DH1, DH2, DHCT3, JRKCC1

CO <sub>2</sub> (tons)	69,350
NO <sub>X</sub> (tons)	110
SO <sub>2</sub> (tons)	79

#### DH Unit 2 (only)

PM <sub>FILT</sub> (tons)	5
Hg (lbs)	0.32

#### DHR

CO <sub>2</sub> (tons)	85,297
NO <sub>x</sub> (tons)	25
SO <sub>2</sub> (tons)	2
	·

#### Calendar Year to Date

0	

1,034,308	
1,348	
597	

64	
3.74	

955,513
275
17

#### Regulatory

NERC

Notice of Violations Self Reports/Potential Violations

0	
0	

**Fiscal Year to Date** 

 	•••	_
0		
1		

#### Personnel

	<b>AUTHORIZED FTE</b>	FILLED FTE	VACANCY	Last Month (September)
Administration				
Chief Operating Officer				
Customer Support Services		Not Available		
Energy Delivery				
Energy Supply				
Energy Supply - District Energy				
Finance				
GRUCom				
Information Technology				
Water Wastewater				

#### **Grand Total**

Authorized and filled FTE's do not include temporary employees or interns. Filled FTE's do include staffed overfills

#### Utility Advisory Board Monthly Report – FY 2022 NERC compliance

**Penalty violations** 

<u>Determination date</u> <u>Description</u>

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

<u>Determination date</u> <u>Description</u>

**Potential violations** (Pending regulatory agency determination)

Report date <u>Description</u>

10/11/2021 6/28/2021 change in AVR control mode without prior authorization from system

control [VAR-002-4.1 R1]; and no notification to system control within 30 minutes

of AVR status change [VAR-002-4.1 R3]. (2021-00644 & 2021-00645)

## Utility Advisory Board Monthly Report – FY 2022 Safety Data Summary

<b>Employee Injuries</b> (DART – days away, restricted duty, temporary transfer)
<u>OCTOBER</u>
None reported
<u>NOVEMBER</u>
None reported
<ul> <li>DECEMBER</li> <li>12/1/2021 – While changing a blade on a reciprocating saw, the employee cut the back of the right index finger. Recordable for Rx medication. No work restrictions.</li> <li>12/21/2021 – Hurt right shoulder loading chipper into back of truck. Recordable for Rx medication. Work restrictions given by Dr. do not affect daily duties.</li> </ul> JANUARY
<u>FEBRUARY</u>
<u>MARCH</u>
<u>APRIL</u>
MAY
<u>JUNE</u>
<u>JULY</u>
AUGUST
SEPTEMBER

End of FY 2022

#### Utility Advisory Board Monthly Report – FY 2022 Vehicle Collision Summary

**Vehicle Collisions** (P) indicates preventable by our employee

#### **OCTOBER**

- 10/1/2021 Employee was backing into a parking spot when a private driver cut behind him through the parking spaces. The vehicles collided doing minor damage to both vehicles right rear bumpers. There were no injuries.
- 10/27/2021 Employee was driving west on NW 39th Avenue approaching the light at NW 91st street. The traffic was flowing normal through the light, which was green. The employee observed a vehicle in the outside lane that looked as if it was going to come over into his lane, so he instinctively looked over at the vehicle and when he looked back up, traffic had come to an abrupt complete stop. The employee braked but could not stop and struck the vehicle ahead causing damage to both vehicles. No injuries were reported. (P)

#### **NOVEMBER**

• None reported

#### **DECEMBER**

None reported

**JANUARY** 

**FEBRUARY** 

**MARCH** 

**APRIL** 

MAY

<u>JUNE</u>

JULY

<u>AUGUST</u>

**SEPTEMBER** 

End of FY 2022

## **CUSTOMER SUPPORT SERVICES**

Customer Operations

New Services

Revenue Assurance

## Customer Operations Metrics Summary December 2021

Active Accounts	Dec-21	YTD Gain/Loss	FY21
Residential Contract Accounts			
Total	95,208	111	95,097
Electric	87,746	41	87,705
Gas	34,851	119	34,732
Water	64,802	68	64,734
Wastewater	60,577	109	60,468
Telecomm	0	0	0

New Installations	Dec-21	FY22 To Date	FY21
Electric	83	267	1833
Gas	33	103	775
Water	42	123	771
Wastewater	37	108	777
Telecomm	0	0	18

Call Center Volume	Dec-21	FY22 To Date	FY21
Residential ASA	0:16:52	0:14:31	0:16:46
Business ASA	0:04:35	0:04:21	0:03:42
CSR Calls	14,335	45,449	215,887
CSR Callbacks	3,534	10,020	47,189
IVR Self Service	84,036	249,865	189,977
Total	101,905	305,334	453,053
IVR/Total	82%	82%	42%

Bills Generated	Dec-21	FY22 To Date	FY21
Paper Bills	67,464	227,603	109,177
eBills	29,238	96,365	261,591
Total	96,702	323,968	1,353,368
eBill/Total	30%	30%	19%

Payment Arrangements	Dec-21	FY22 To Date	FY21
Total	615	1,900	8,419

Customer Experience	Dec-21	FY22 To Date	FY21
Overall CSAT	3.90	3.80	N/A
Number of Responses	236	737	N/A
Numnber of Surveys Sent	2,893	8,816	N/A
Response Rate	8%	8%	N/A

Active Accounts	Dec-21	YTD Gain/Loss	FY21
Nonresidential Contract Accounts			
Total	13,189	(6)	13,195
Electric	11,036	(7)	11,043
Gas	1,669	504	1,165
Water	5,902	(3)	5,905
Wastewater	4,703	25	4,678
Telecomm	0	0	0

Residential Disconnects	Dec-21	FY22 To Date	FY21
Volume	952	3,613	14,313
Average Balance	\$239.02	\$242.79	\$243.10

Revenue As	surance	Dec-21	FY22 To Date	FY21
Referred to C	ollections	\$93,246.58	\$340,883.25	\$1,972,070.41
Recovered		\$69,829.60	\$270,276.26	\$1,093,335.45

Service Orders	Dec-21	FY22 To Date	FY21
Move Ins	6,682	18,922	114,586
Move Outs	6,129	18,104	112,065

Average Res Bill Amounts	Dec-21	FY22 To Date	FY21
Electric (kWh) Electric (\$)	680 \$119.91	747 \$121.97	819 \$119.78
Gas (Therms) Gas (\$)	29 \$50.60	18 \$34.54	21 \$33.99
Water (kGals)	5	5	5
Water (\$)	\$31.12	\$31.45	\$30.64
Wastewater (kGals)	5	5	5
Wastewater(\$)	\$45.24	\$44.97	\$36.96

Annual Relationship	Dec-21	FY22 To Date	FY21
Overall CSAT	0.00	#DIV/0!	N/A
Number of Responses	0	0	N/A
Number of Surveys Sent	0	0	N/A
Response Rate			N/A

## **ENERGY DELIVERY**

System Consumption
System Reliability
Major Projects – Electric & Gas

## Energy Delivery - UAB Report - December 2021

		<b>eport Between 12/01/2021 and 12</b> Weather and Generation/Transmission Disturbances		
CUSTOMER DATA	Excludes Extreme	RELIABILITY INDICES		MONTHLY AVG GOAI
Monthly Average Customers Served(C)	101,092	Average Service Availability Index (ASAI)	99.9843%	6
Total Hours of Customer Demand	75,212,448	System Average Interruption Duration Index (S	AIDI) 7.02	<mark>2</mark> 4.5
Total Number of Outages	37	Customer Average Interruption Duration Index		2 60
Total Number of Customers Affected (CI)	14,725	System Average Interruption Frequency Index	(SAIFI) 0.1	<mark>5</mark> 0.08
Total Customer Minutes Interrupted (CMI)	710,088			
Total Customer "Out Minutes"	4,235	Average Length of a Service Interruption (L-Ba	r) 114.40	6 Mins
		Cause of Outages		
Cause	Overhead	Underground	Both	Total
0. Undetermined	2	0	0	2
1. Weather	0	0	0	0
2. Vegetation	5	3	0	8
3. Animals	2	0	1	3
4. Foreign Interference	0	0	0	0
5. Human Cause	4	0	0	4
O F	10	9	1	20
o. Equipment Failure				_
6. Equipment Failure 7. All Remaining Outages	0	0	0	0

Exclud	des Extreme Weather ar	nd Generation/Transmission Disturbances, Excludes TMED Days		
CUSTOMER DATA		RELIABILITY INDICES		GRU YTD GOAL
Monthly Average Customers Served(C)	99,938	Average Service Availability Index (ASAI)	99.9844%	
Total Hours of Customer Demand	875,456,880	System Average Interruption Duration Index (SAIDI)	81.95	54
Total Number of Outages	807	Customer Average Interruption Duration Index (CAIDI	) 54.97	60
Total Number of Customers Affected (CI)	148,985	System average Interruption Frequency Index (SAIFI)	1.49	0.96
Total Customer Minutes Interrupted (CMI)	8,190,295			
Total Customer "Out Minutes"	106,253	Average Length of a Service Interruption (L-Bar)	131.66	Mins
		Cause of Outages		
Cause	Overhead	Underground Bo	th	Total
0. Undetermined	61	5	6	72
1. Weather	52	6	3	61
2. Vegetation	279	12 1	4	305
3. Animals	91	5	5	101
4. Foreign Interference	0	0 (	)	0
5. Human Cause	33	6	,	46
6. Equipment Failure	61	113 3	2	206
7. All Remaining Outages	2	0 1	4	16
Total	579	147 8	1	807

_	GRU	GRU	EIA - All	EIA - Public	FMPA
_	CY 2021 Goal	CY 2020 Actual	CY 2019	CY 2019	CY 2020
SAIDI	55 Mins	60.69	144.16	62.31	89.06
CAIDI	60 Mins	54.57	83.35	65.09	65.45
SAIFI	1.0 or less	1.11	1.66	0.98	1.36

Notes on EIA and FMPA Data:

- 1.  $\ensuremath{\mathsf{EIA}}$   $\ensuremath{\mathsf{All}}$  data is Florida only and includes co-ops, IOU's and municipals
- 2. FMPA data includes 23 municipals in Florida
- 3. Breakdown:

Number of Utilities Submitting Data in FL				
All	IOU	Public Power		
38	13	5	20	

## Energy Delivery - UAB Report - December 2021

#### **Electric System Consumption**

	2021		2020	
	CONSUMPTION	CUSTOMERS	CONSUMPTION	CUSTOMERS
Feed-In-Tarrif - Residential	89 KWH	98	60 KWH	103
Feed-In-Tarrif - General Service	2,712 KWH	153	2,493 KWH	160
Electric - GS - Demand - Regular	40,439,137 KWH	1,113	43,417,693 KWH	1,162
Electric - General Service Demand PV	1,032,195 KWH	23	866,958 KWH	22
Electric - GS - Kanapaha w Curtail Cr	1,123,200 KWH	1	1,068,000 KWH	1
Electric - GS - Demand - Large Power	7,333,800 KWH	7	7,273,800 KWH	6
Electric - GS - Murphree Curtail Credit	1,334,400 KWH	1	1,303,200 KWH	1
Electric - GS Large Demand PV	3,436,800 KWH	2	3,844,800 KWH	2
Electric - GS - Non Demand	13,225,240 KWH	10,005	12,857,419 KWH	9,969
Electric - General Service PV	141,919 KWH	77	141,941 KWH	77
Electric - Lighting - Rental	851,193 KWH	3,735 n	956,723 KWH	3,987 n
Electric - Lighting - Street - City	408,750 KWH	12 n	488,695 KWH	12 n
Electric - Lighting - Street - County	127,050 KWH	2 n	130,716 KWH	2 n
Electric - Lighting - Traffic	144 KWH	1	4,542 KWH	2
Electric - Residential - Non TOU	57,603,487 KWH	88,421	58,453,370 KWH	88,505
Electric - Residential PV	333,878 KWH	716	317,429 KWH	526
Total Retail Electric	127,393,994 KWH	100,618	131,127,839 KWH	100,536
City of Alachua	9,953,356 KWH	11,740	10,538,473 KWH	23,177
Total (Native) Electric	137,347,350 KWH		141,666,312 KWH	

(n =not included in total customer count)

#### **Gas System Consumption**

	•	•		
	2021		2020	
	CONSUMPTION	CUSTOMERS	CONSUMPTION	CUSTOMERS
Gas - GS - Regular Service (Firm)	815,991 THM	1,325	918,421 THM	1,368
Gas - GS - Regular Service (Small)	13,911 THM	352	9,998 THM	328
Gas - GS - Interrruptible - Regular Serv	16,000 THM	1	0 THM	-
Gas - GS - Interrruptible - Large Volume	428,875 THM	7	340,048 THM	6
Gas - Residential - Regular Service	971,758 THM	34,965	900,569 THM	34,564
Total Retail Gas	2,246,535 THM	36,650	2,169,036 THM	36,266
Gas - GS - UF Cogeneration Plant	3,402,800 THM	1	3,411,707 THM	1
Gas - Residential - LP - Basic Rate	6,680 GAL	201	6,776 GAL	210

#### Energy Delivery - UAB Report - December 2021

#### Major Electric Design Projects

- > Lincoln Ventures
- > Hyatt Downtown
- > Oaks Preserve (295 single-family residences)
- > Celebration Pointe Alachua County Sport Events Center
- > VA Mental Health Hub & Outpatient Clinic 34th St

#### Major Gas Design Projects

- > Main Replacement Arbor Loft Apt replace all mains and services for AMI Project
- > Main Installation Oak Ridge Sub US 441 8,960'
- > Main Installation Flint Rock Sub SW 122nd St 15,576'
- > Main Installation Town of Tioga Ph. 20 SW 131st St. 2,700'
- > Main Replacement SW 10th St. Fill in Project 3,215'

Gas Services installed in December 2021: 30 new customers

## **ENERGY SUPPLY**

# SYSTEM STATISTICS ENERGY DISTRIBUTION FUEL

#### December 2021

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

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

#### Source

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

	Unit Capability output - wwn
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
58,195	156,069	8,159	147,910
10,865	39,999	6,041	33,958
3,618	117,819	225,211	(107,392)
(233)	(192)	129	(321)
(3,697)	(45,545)	56,712	(102,257)
60,172	149,734	134,355	15,379

#### **Fuels Consumed**

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

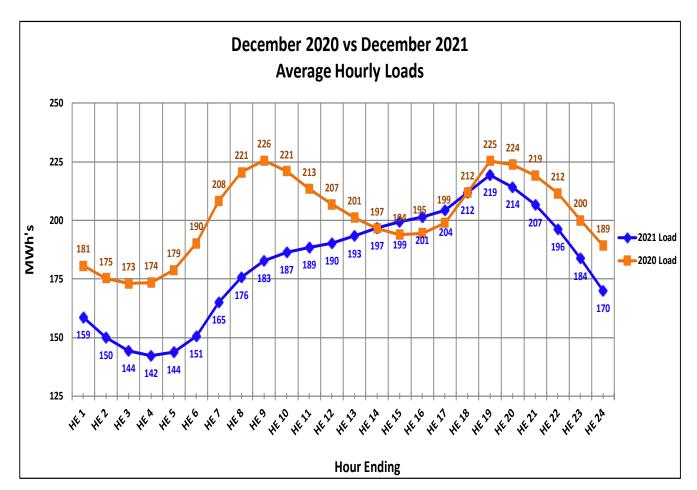
Month	FYTD	<b>Budget YTD</b>	Delta Budget
15,040	36,996	•	36,996
520,314	3,466,474	2,163,609	1,302,865
305,323	306,709	-	306,709
73,362	184.295	177.762	6.533

#### **Availability/Capacity**

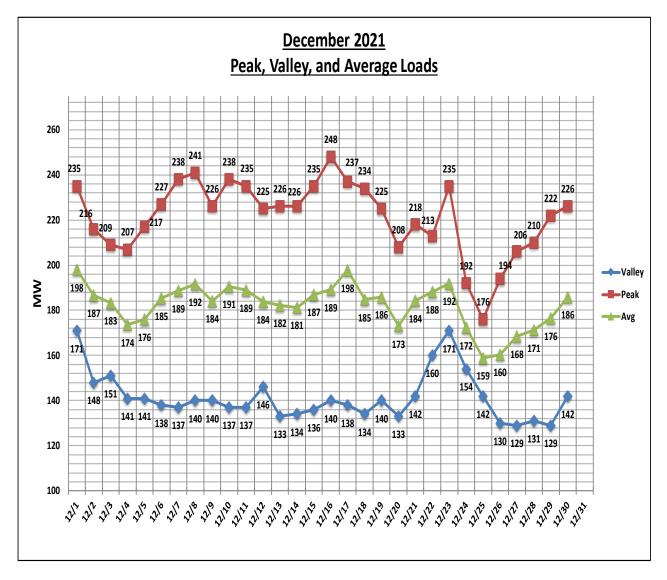
DH-2 DH-1 Kelly CC DH CT-1 DH CT-2 DH CT-3 DHR

	Availability			Capacity		
Month	FY 2022 YTD	FY 2021 YTD	Month	FY 2022 YTD	FY 2021 YTD	
100.00%	96.14%	87.01%	37.48%	34.05%	30.69%	
100.00%	97.50%	98.80%	20.59%	25.83%	40.19%	
99.66%	95.29%	52.97%	7.96%	50.96%	43.42%	
86.02%	95.34%	96.22%	0.02%	0.01%	0.25%	
92.93%	97.64%	94.96%	0.02%	0.15%	0.21%	
53.01%	84.34%	99.89%	0.00%	0.00%	2.06%	
100.00%	79.50%	68.62%	79.91%	59.09%	46.38%	

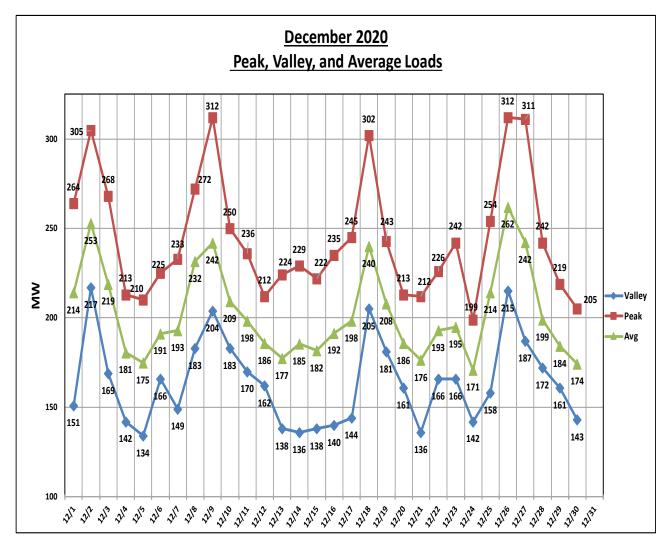
December Average Hourly Loads						
<b>Hour Ending</b>	2020 Load	2021 Load				
HE 1	181	159				
HE 2	175	150				
HE 3	173	144				
HE 4	174	142				
HE 5	179	144				
HE 6	190	151				
HE 7	208	165				
HE 8	221	176				
HE 9	226	183				
HE 10	221	187				
HE 11	213	189				
HE 12	207	190				
HE 13	201	193				
HE 14	197	197				
HE 15	194	199				
HE 16	195	201				
HE 17	199	204				
HE 18	212	212				
HE 19	225	219				
HE 20	224	214				
HE 21	219	207				
HE 22	212	196				
HE 23	200	184				
HE 24	189	170				



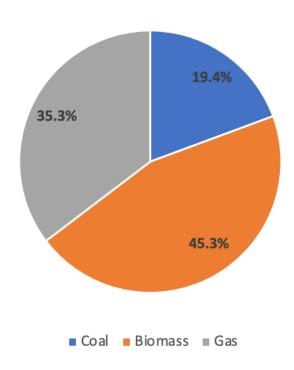
Date	Valley	Peak	Avg
12/1/2021	171	235	198
12/2/2021	148	216	187
12/3/2021	151	209	183
12/4/2021	141	207	174
12/5/2021	141	217	176
12/6/2021	138	227	185
12/7/2021	137	238	189
12/8/2021	140	241	192
12/9/2021	140	226	184
12/10/2021	137	238	191
12/11/2021	137	235	189
12/12/2021	146	225	184
12/13/2021	133	226	182
12/14/2021	134	226	181
12/15/2021	136	235	187
12/16/2021	140	248	189
12/17/2021	138	237	198
12/18/2021	134	234	185
12/19/2021	140	225	186
12/20/2021	133	208	173
12/21/2021	142	218	184
12/22/2021	160	213	188
12/23/2021	171	235	192
12/24/2021	154	192	172
12/25/2021	142	176	159
12/26/2021	130	194	160
12/27/2021	129	206	168
12/28/2021	131	210	171
12/29/2021	129	222	176
12/30/2021	142	226	186
12/31/2021	150	227	188



Date	Valley	Peak	Avg
12/1/2020	151	264	214
12/2/2020	217	305	253
12/3/2020	169	268	219
12/4/2020	142	213	181
12/5/2020	134	210	175
12/6/2020	166	225	191
12/7/2020	149	233	193
12/8/2020	183	272	232
12/9/2020	204	312	242
12/10/2020	183	250	209
12/11/2020	170	236	198
12/12/2020	162	212	186
12/13/2020	138	224	177
12/14/2020	136	229	185
12/15/2020	138	222	182
12/16/2020	140	235	192
12/17/2020	144	245	198
12/18/2020	205	302	240
12/19/2020	181	243	208
12/20/2020	161	213	186
12/21/2020	136	212	176
12/22/2020	166	226	193
12/23/2020	166	242	195
12/24/2020	142	199	171
12/25/2020	158	254	214
12/26/2020	215	312	262
12/27/2020	187	311	242
12/28/2020	172	242	199
12/29/2020	161	219	184
12/30/2020	143	205	174
12/31/2020	130	213	172



MWh Produced by Fuel Type December 2021



COST BY FUEL TYPE - DECEMBER 2021

	Total Cost	MWh	\$/kWh	
Coal	\$ 1,601,020.95	25,728.9	\$ 0.062	19.4%
Biomass	\$ 2,164,599.41	60,172	\$ 0.036	45.3%
Gas	\$ 3,116,890.14	46,949	\$ 0.066	35.3%
Total	\$ 6,882,510.50	132,850.0	\$ 0.052	

City Commission - FY21 - 4QTR Coal Sourcing Report

Month Coal Delivered	Coal Supplier(s)	Mine	Tons	Deep	MTR	Surface (No MTR)
Jul-21	1	Creech	12,567.90	70%		30%
Aug-21	1	Creech	23,665.05	70%		30%
Sep-21						
		Total	36,232.95	70.00%		30.00%

#### Notes:

#### 1. Coal Supplier 1

Spot transaction Confirmation, Coal Commodity Purchase Agreement effective June 7, 2021-July 31, 2021.

Spot transaction Confirmation, Coal Commodity Purchase Agreement effective July 27, 2021-August 31, 2021.

#### Gainesville Regional Utilities Solar PPA Status Report Report Period: December 2021

#### **GRU Scope:**

Milestone	Expected Completion Date	Status	Notes
Grid Interconnection Studies	2/2021	Complete	Complete
Grid Interconnection Agreement	7/15/2021	Pending	Finalizing document. Extended due to higher team priorities.
Easement for Seller Interconnection Facilities at Parker Rd Substation	9/2021	Pending	
GRU Interconnection Facilities Planning and Construction	10/2021	Pending	Commenced project planning
GRU Interconnection Facilities Completion	8/2022	Pending	
Operating Procedures	11/2021	Pending	
Scheduled Commercial Operation	12/31/2022	Pending	

<u>COVID-19 Pandemic Impact</u> – While there remains a potential for impacts that may adversely affect GRU's ability to fulfil its obligations under this agreement, none have occurred to-date. GRU will continue to monitor the situation and use commercially reasonable efforts to meet it's contractual obligations.

#### **Origis Energy Scope:**

- 1. The Alachua County Commission denied the Special Use Permit for the Sand Bluff Solar Facility on July 7, 2021.
- 2. Origis is reviewing their planned course of action which will be communicated to GRU at a future date.
- 3. Origis is asserting a day for day delay in milestones for excusable delay due to special use permit denial by Alachua County Commission.

Prepared 12/29/2021

Date: As of January 5, 2022: Major Energy Supply Projects/Milestones Updates:

- 1. Deerhaven Generating Station (DH):
  - a. Deerhaven Unit #2(DH2):
    - i. The dual fuel project testing has been able to achieve 244 MW gross so far. To conduct full load testing we will need to wait until our gas provider (Florida Gas Transmission) completes upgrades, expected in July 2022. We have been limited by gas header pressure at this point.
    - ii. We have received 5 coal trains this calendar year, have another train coming in January and still working on 1 other possible train after the first of the year.
       Availability of cost-effective coal is very limited, and cost of coal has been trending upward with the cost of natural gas pricing.
  - b. Deerhaven Unit #1 (DH1):
    - i. We are planning the unit lifetime assessment in fall of 2002, in hopes of being able to safely, and reliably, extend life of unit beyond December of 2022.
  - c. CT3:
    - Planned outage conducted 12/3 through 12/17/2021. Scope of outage was borescope of turbine and compressor, and replacement of the high side electrical duct. Completed satisfactorily
- 2. Deerhaven Renewable (DHR):
  - a. We have begun planned outage starting 1/4/2022, and outage will run through 1/31/2022. The main scope of this outage is ID Fan Motor Variable Frequency Drive (VFD) installation, as well as maintenance and inspection of fuel handling equipment.
- 3. South Energy Center (SEC):
  - a. Wartsila engine 38000 hour planned inspection is set for January 4-6, 2022.

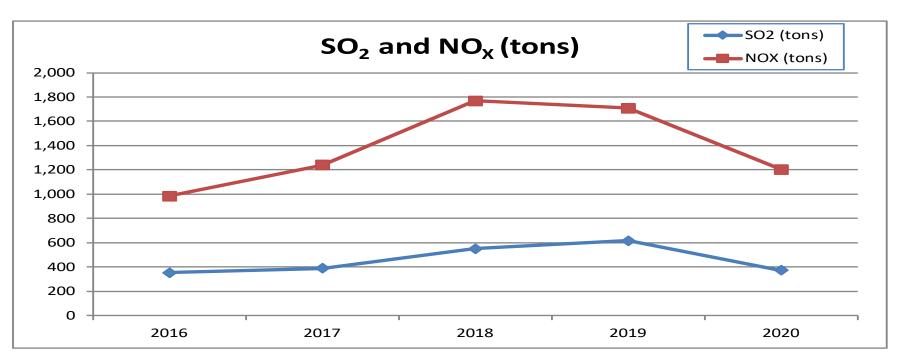
## **ENVIRONMENTAL PERMITTING**

## **EMISSIONS DATA**

#### **Yearly Emissions**

	SO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	Mercury (lbs)	PM (tons)	CO <sub>2</sub> (tons)
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	618	1,707	5.30	49	2,020,310
2020	372	1,203	3.14	56	1,462,622
2021 (thru Dec.)	614	1,623	3.74	63.7	1,989,821

2017, 2018, 2019 and 2020 Mercury and Particulate values are for Unit 2 only.

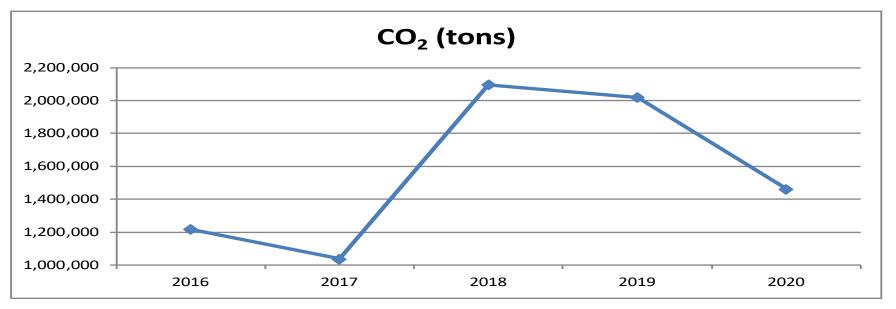


SO<sub>2</sub> was lower in 2015, 2016, and 2017 due to higher removal rate settings to assure compliance with the MATS Rule.

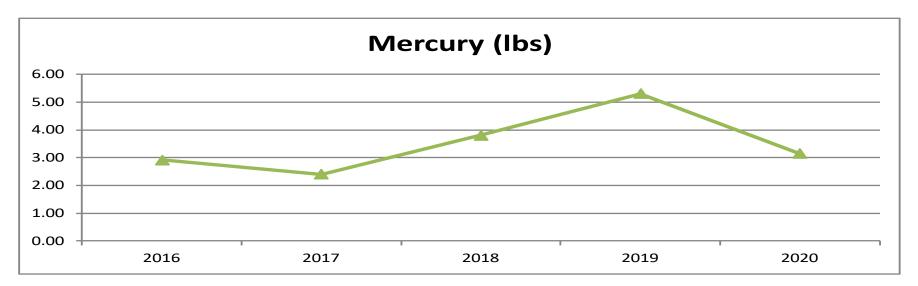
 $NO_X$  was higher in 2016 since it was more cost effective to use allowances than increase SCR removal rate.  $NO_X$  was higher in 2017 since the Cross State Rule was no longer in effect for Florida.

2018 and later data include DHR. The previous years did not include DHR.

#### **Yearly Emissions**

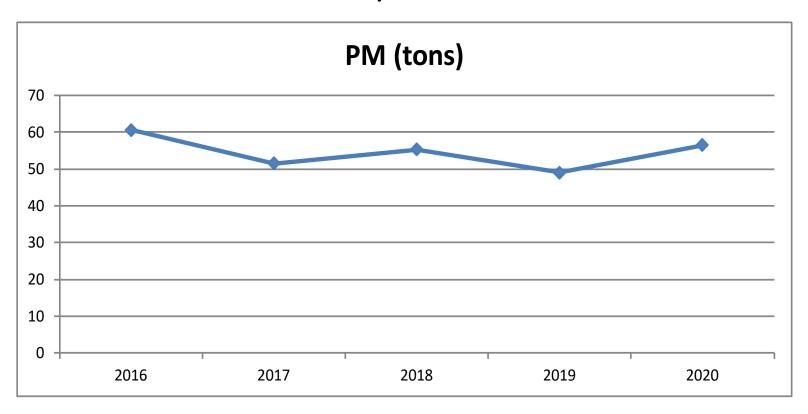


2018 and later data include DHR. The previous years did not include DHR.



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

## **Yearly Emissions**



YTD - 2021 December

	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	56.8	233.5			179,128.5			2,986,125.0	256,537.0
DH2	539.5	1,065.4	3.74	63.7	626,856.5			7,699,415.0	742,409.0
DHCT3	0.0	0.2			9,336.4			157,146.0	11,694.0
JRKCC1	1.0	48.7			218,987.0			3,684,887.3	422,549.0
DHR	17.1	275.3			955,512.8			9,153,766.6	697,776.0
TOTAL	614.4	1,623.1	3.74	63.7	1,989,821.2			23,681,339.9	2,130,965.0

#### TOTALS without DHR

	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	56.8	233.5			179,128.5			2,986,125.0	256,537.0
DH2	539.5	1,065.4	3.74	63.7	626,856.5			7,699,415.0	742,409.0
DHCT3	0.0	0.2			9,336.4			157,146.0	11,694.0
JRKCC1	1.0	48.7			218,987.0			3,684,887.3	422,549.0
Total									
Without	597.3	1,347.8	3.738	63.7	1,034,308.4			14,527,573.3	1,433,189.0
DHR									

2021 - December

	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	35.4	16.0			9,918.9			148,942.0	12,133.0
DH2	43.9	93.1	0.32	5.2	56,036.3			693,357.0	69,546.0
DHCT3	0.0	0.0			19.5			328.0	19.0
JRKCC1	0.1	0.9			3,375.6			56,799.1	6,480.0
DHR	1.5	24.7			85,297.2			816,414.4	67,875.0
TOTAL	80.9	134.7	0.32	5.2	154,647.5			1,715,840.5	156,053.0

#### Totals without DHR

	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	35.4	16.0			9,918.9			148,942.0	12,133.0
DH2	43.9	93.1	0.32	5.2	56,036.3			693,357.0	69,546.0
DHCT3	0.0	0.0			19.5			328.0	19.0
JRKCC1	0.1	0.9			3,375.6			56,799.1	6,480.0
Without									
DHR	79.4	110.0	0.32	5.2	69,350.3			899,426.1	88,178.0

## WATER/WASTEWATER

## PRODUCTION MAINTENANCE

December data for Water/Wastewater is unavailable and will be included with the Jan report.	ıuary