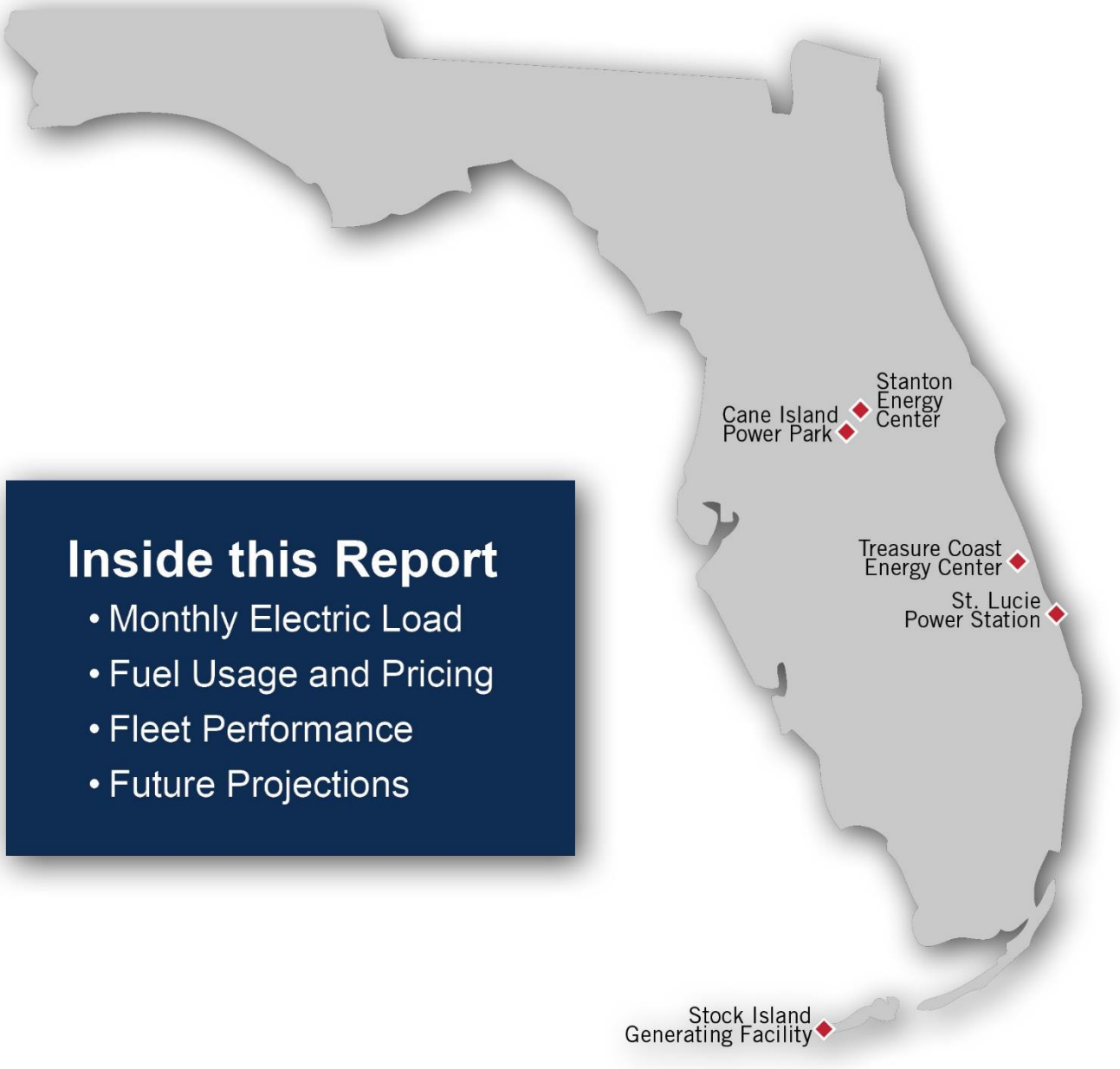
3 Phase Times



Inside this Report

- Monthly Electric Load
- Fuel Usage and Pricing
- Fleet Performance
- Future Projections

FMPA Power Resources

Operations Performance Report

February 2019

FMPA
MUNICIPAL POWER

TABLE OF CONTENTS

About this Report

This monthly report provides information about the All-Requirements Project's (ARP) system peak, hourly loads, resource fuel mix, natural gas usage, natural gas pricing and more performance information. For analysis purposes, results are a comparison of the actual and the budgeted data.

Questions about this report may be directed to FMPA's System Operations Manager, Joe McKinney at joe.mckinney@fmpa.com or 407-355-7767.

EXECUTIVE SUMMARY

Load		Natural Gas	Fleet Dispatch	Fleet Performance (Base Load)	
ARP Peak MW	Load Factor	Average Daily Price per MMBtu	Average Energy Costs per MWh*	EAF	NCF
895	65%	$2.75	$23.50	93%	72%

*Does not include fixed costs included in FMPA's ARP demand rate.

February Highlights

- ARP delivered Net Energy for Load was 388 GWhs, which was 5% below the forecast due to milder weather. Average temperatures were well above normal in Orlando and across most of Florida, which in a winter month reduces heating load and results in milder overall conditions.

- The average ARP natural gas price was $2.75 per MMBtu, which is approximately $0.22 (9%) above budget – this $0.22 difference corresponds to about $1.62 /MWh. The average energy cost of ARP generation excluding nuclear and purchases was $23.50 /MWh and the average heat rate of the ARP's generating units (gas, coal and oil) was 7,367 Btu/kWh.

- The ARP's generation mix to supply ARP load and all sales was 83% natural gas, 10% coal, 7% nuclear[1] and <1% FMPP purchases. Natural gas-fired generation (MWhs) produced 4.6% more output than budgeted, due to increased sales to the Florida Municipal Power Pool ("FMPP", or "pool") driven primarily by reduced coal generation.

- The ARP gas fleet heat rate (7,192 Btu/kWh) and the ARP energy generation cost (3.10 cents/kWh or $31.04 $/MWh) are the lowest in the state for the calendar year to date through January (one-month data lag).

- The ARP sold 23% of its generation to the FMPP whereas the budget forecast 16%. This was due to increased gas generation as a result of reduced coal generation. McIntosh 3 and Stanton 2 were offline most of the month. The Pool sales helped the ARP to offset costs by $0.36 per MWh.

- The ARP's base load units CYTD EAF is 93%. Cane 4 was on a planned outage and Stanton 2 was offline for boiler tube repairs.

- The ARP supplied 40 MWhs to Bartow and 6,713 MWhs to Winter Park. The non-coincident Peak (NCP) supply for Bartow was 4 MWs. This reduced the ARP rate by $0.29 / MWh ($0.16 and $0.13 respectively).

[1]Nuclear is an Excluded Resource; therefore, from an operations perspective in meeting the ARP total load, a portion of the energy to serve load was from nuclear. However, from a rates perspective, there is no nuclear rate determinant in the ARP.

ELECTRIC LOAD

The average temperatures in February were above normal in Orlando and across most of the state. ARP delivered Net Energy for Load was approximately 5% below the forecast due to the milder winter temperatures.

The All-Requirements Project (ARP) hourly peak load was 895 MW, which was 16% lower than the budget forecast. The ARP coincident peak occurred on February 22nd, and was a cooling (afternoon) peak.

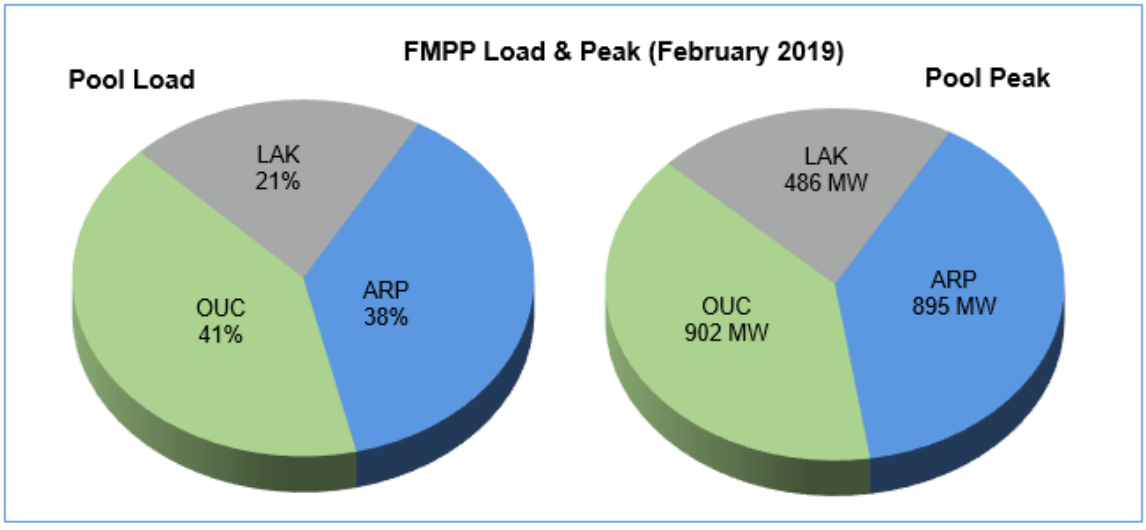
Table 1: ARP Actual and Budget Load

	Budget	Actual	Actual
	Feb-19	Feb-19	Feb-18
ARP Load (GWhs)	407	388	396
ARP Peak (MW)	1,060	895	880
Load Factor	57%	65%	67%

Florida Municipal Power Pool Load

The chart below shows the ARP Net Energy for Load (NEL) and peak hourly load in relation to other FMPP member loads and peaks.

Chart 1: FMPP Member Loads and Peaks



Note: Network transmission losses are not included in the Pool load.

NATURAL GAS

Natural Gas Market Pricing

The average natural gas price for the FMPP dispatch was $2.83/MMBtu in February, which represents the market price for delivered gas (Table 2). The actual average natural gas price for the ARP was $2.75/MMBtu, which is $0.22 / MMBtu (9%) above budget (Table 3). Natural gas burn/usage was slightly (0.5%) more than budgeted.

Table 2: Monthly Average Platt's Gas Daily Index Prices

	Henry Hub Index	FGT Zone 3 Index	FMPP Dispatch
Natural Gas Market Prices	$2.67	$2.65	$2.83

Natural Gas Usage and Prices

Natural gas usage is the gas burned at Treasure Coast, Cane Island Units 1 – 4, Oleander 5 and FMPA's share of the Indian River CTs. The natural gas is delivered by FGU and reported by FGU.

Table 3: Natural Gas Price and Usage in February

	Budget February **2019**	Actual February **2019**	Actual February **2018**
Natural Gas Cost ($/MMBTU)	$2.53	$2.75	$2.77
Natural Gas usage (MMBTU)	2,966,657	2,981,787	2,511,290

Table 4: ARP Natural Gas Price Comparison CY 2019 through End of January

CY 2019 through January	FMPA	FPL	DUKE	TECO
Natural Gas Cost ($)	$11,396,690	$225,326,381	$98,979,603	$42,579,316
Generation from NG (MWH)	367,207	5,968,591	2,633,224	1,218,682
Gas Burned (MMBtu)	2,640,952	42,984,306	19,574,700	9,515,986
Gas cost ($/MCF)	$4.40	$5.34	$5.15	$4.57
Gas cost ($/MMBtu)	$4.32	$5.24	$5.06	$4.47
Heat Rate (Btu/kWh)	7,192	7,202	7,434	7,808
Generated Cost(cents/kWh)	3.10	3.78	3.76	3.49
Savings compared to Others		$2,466,116.81	$2,406,162.66	$1,433,090.70

Source: IOUs data from Public Service Commission (PSC) filing

- FMPA's ARP gas fleet heat rate of 7,192 Btu/kWh is the lowest in the state for the calendar year to date through January (one-month data lag).
- The ARP's energy cost (including pipeline capacity costs) of 3.10 cents/kWh is the lowest in the state for the calendar year to date through January.

- FMPA's Natural gas cost includes the ARP gas cost and the gas cost of OUC assets as allocated to the ARP.

Natural Gas production average

The following chart shows natural gas production in the U.S. over the past several years through February 2019. The total US natural gas production has increased significantly since the middle of 2017, with some levelling off over the past few months. This has been offsetting below average gas storage levels and had helped stabilize pricing. We expect natural gas pricing to remain flat in the near future due to the end of winter conditions and impending LNG exports. FGU is projecting monthly average delivered Natural Gas pricing of around $3.13 /MMBtu for the next several months.

Chart 2: Natural Gas Production Average

Source: U.S. Energy Information Administration (EIA)

Natural Gas Pipeline Alerts

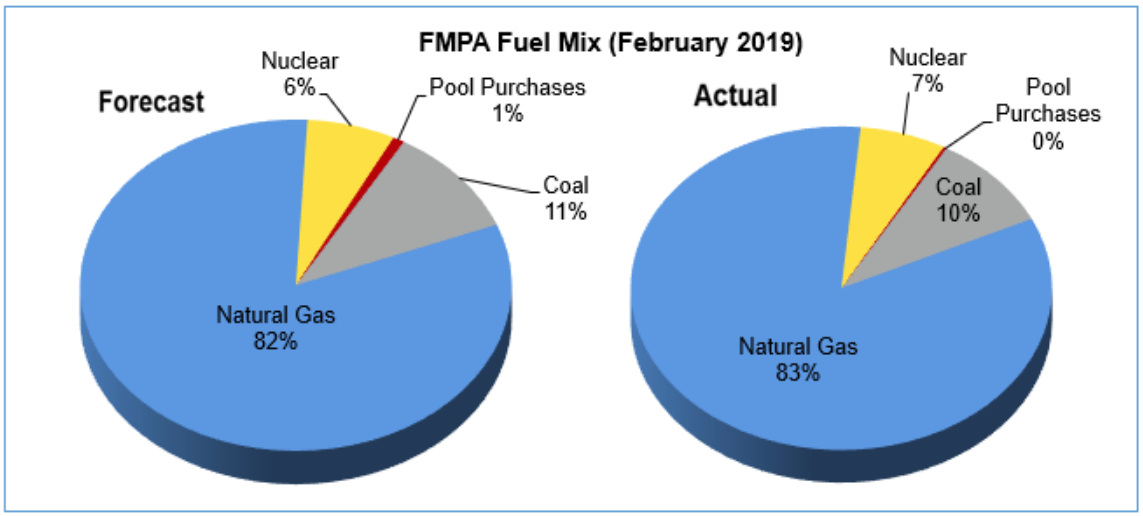
There were no alerts on the Florida Gas Transmission (FGT) or on the Gulfstream (GST) pipeline in February. This means there were no restrictions or constraints on the flow of natural gas to generation facilities. Pipeline alerts typically result from high gas demand caused by hot or cold weather in Florida and usually coincide with higher gas prices.

FLEET DISPATCH AND POOL OPERATIONS

Fuel Mix

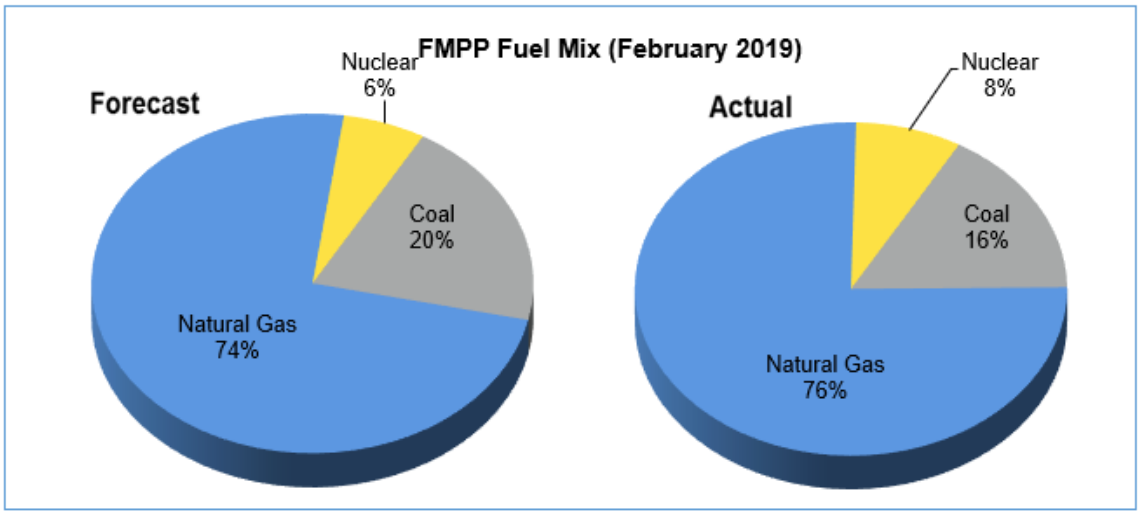
The ARP's natural gas-fired generation (MWhs) was 4.6% more than budgeted due to reduced coal generation. The budget forecast sales of 16% of the ARP's generation to the FMPP; the actual sales were 23% which provided a cost offset to the ARP of about $0.36 /MWh. The Pool generated 17% less from coal-fired units than budgeted.

Chart 3: FMPA Fuel Mix and Purchases for February 2019



NOTE: FMPA's fuel mix represents ARP generation and purchases to serve native load, losses, obligations and sales to the FMPP. Forecasted pool purchases are based on the 4-month forecast prepared by FMPA.

Chart 4: FMPP Fuel Mix for February 2019 (excludes purchases)



FMPA Fleet Dispatch and Costs

Gas Fuel Burned in all FMPA ARP gas fueled resources is based on FMPP CHP data. Coal Fuel Burned represents the total fuel burned in operating Stanton 1 and 2 including the use of natural gas.

Table 5. ARP Fleet Dispatch Costs per MWh in February 2019

Fleet Operations	Fuel Burned (MMBtu)	Power Produced (MWh)	Heat Rate (Btu/kWh)	Fuel Cost ($/MWh)	Variable O&M Cost ($/MWh)	Variable Gen Cost ($/MWh)
Gas	2,981,717	424,729	7,020	$19.86	$2.18	$22.05
Coal	500,359	48,890	10,234	$26.54	$0.51	$27.05
Oil	15,682	1,183	13,256	$210.38	$4.90	$215.28
Nuclear	--	33,695	--	--	--	$10.00
Purchases	--	1,222	--	--	--	$27.55
Total/Ave Gen	3,497,758	509,719	--	--	--	$23.50

Power Pool Transactions

Net Generation to ARP includes all FMPA ARP fleet generation, plus pool purchases minus pool sales. Net generation, plus nuclear resources comprises all generation and resources necessary to supply ARP load, losses, and the Bartow and Winter Park obligations.

Table 6. ARP Pool Transactions for February 2019

Pool Transactions	Cost	Volume (MWh)	Average Price ($/MWh)	Offset to ARP Costs	Offset to ARP Cost ($/MWh)
FMPA Fleet Generation	$11,156,160	474,802	$23.50	--	--
Sales to FMPP*	$2,330,852	108,222	$21.54	$131,475	--
Purchases from FMPP	$33,668	1,222	$27.55	--	--
Net Generation to ARP	$8,858,976	367,802	$24.09	$131,475	$0.36

*Sales to FMPP include sales to Pool participants and third parties - Revenues are shown in red.

POWER GENERATION FLEET PERFORMANCE

FMPA Fleet Performance

Cane Island Unit 2 tripped on 2/23 during startup and was unavailable for four hours due to a false MKVIe generator ground fault indication. Cane Island Unit 4 was unavailable for 6 days for a planned outage. Stanton 1 was de-rated for deaerator level control valve issues and condensate motor pump issues. Stanton 1 tripped due to a boiler drum level control and the loss of a pulverizer. Stanton 2 was offline due to a boiler tube leak. Stock Island EP2 was unavailable due to issues with protection relay modules. Stock Island CT2 had a coupling failure on the shaft for its radial exhaust fan for lube oil coolers. Stock Island CT4 was unavailable due to the failure of the turbine compartment exhaust fan "B" motor.

Table 7. FMPA ARP Generating Fleet Performance – February 2019

Unit	Capacity* (MW)	Heat Rate (Btu/kWh)	Equivalent Availability Factor	Capacity Factor	Notes
Treasure Coast	300	7,306	100.0%	72.0%	0
Cane Island Unit 4	300	7,447	79.8%	61.5%	Outage
Cane Island Unit 3	240	7,188	100.0%	83.9%	0
Cane Island Unit 2	109	8,781	99.4%	5.6%	Trip
Stanton A	122	7,680	100.0%	29.2%	0
Stanton 1	112	9,704	97.5%	61.0%	De-rate/Trip
Stanton 2	102	10,576	5.7%	3.0%	Outage
St. Lucie	48	10,250	100.0%	98.9%	0
Peaking Units**	386	9,163	88.2%	1.3%	Outage

*Capacity is Net Summer Capacity from the FMPA 10 Year Site Plan. **Peaking Units include Cane 1, FMPA's share of Indian River CTs, Keys generation and Oleander 5.

Chart 5: Equivalent Availability Factor – FY 2019 YTD

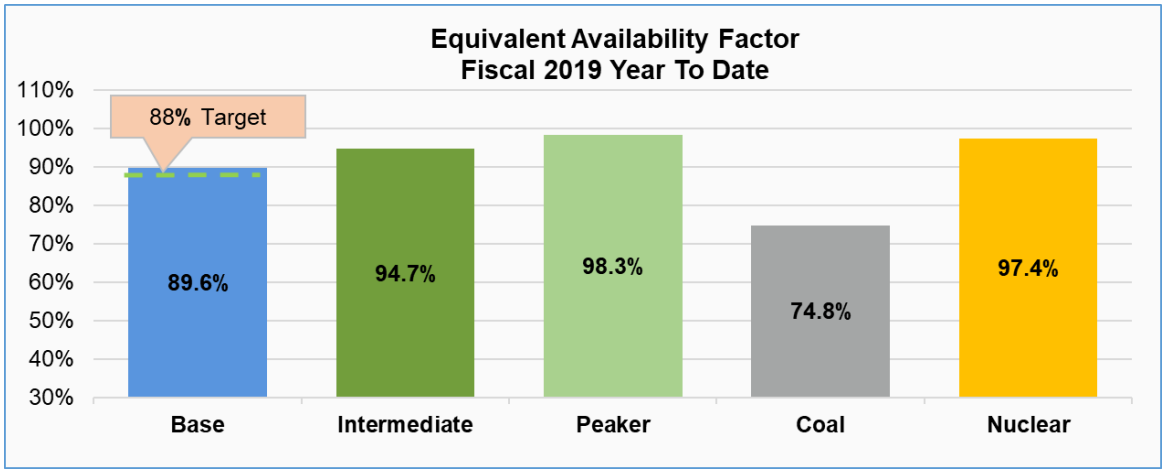
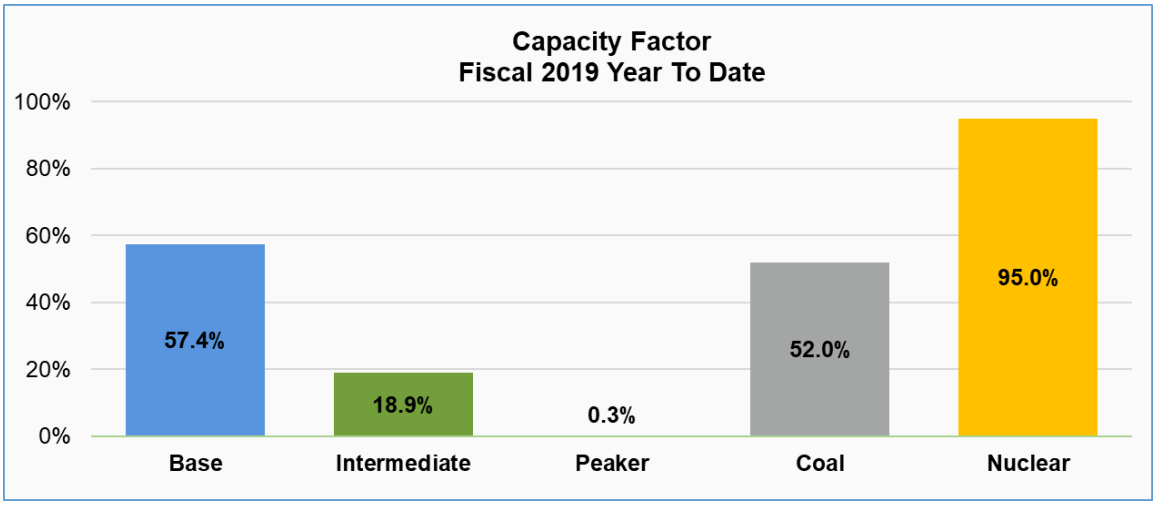


Chart 6: Capacity Factor – FY 2019 YTD



MONTHLY WEATHER

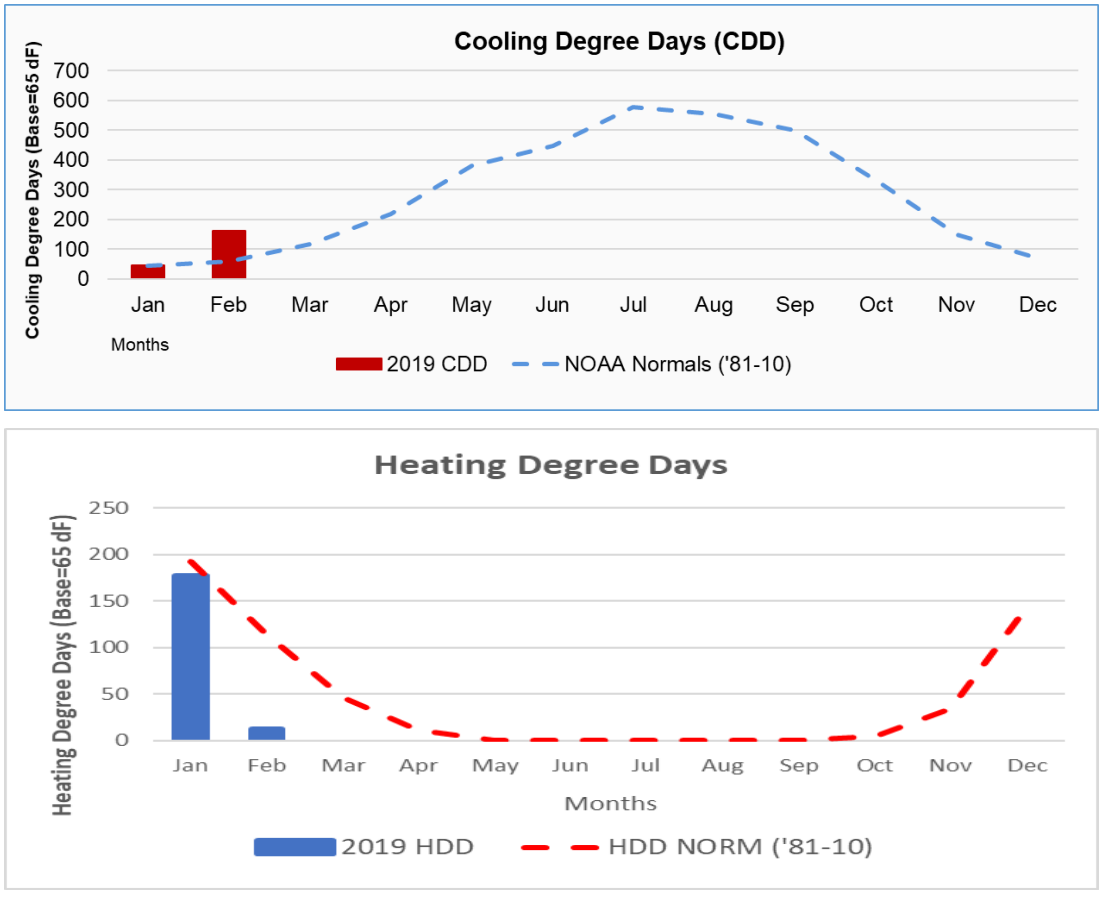
The average temperatures in February were well above normal in Orlando (Table 8). Rainfall across the central and eastern parts of the state was below normal. The cooling degree days were above normal in the Orlando area (Chart 8). Heating degree days were well below normal.

Table 8: Temperatures in Central Florida

Month	Average Temperature	Avg. High	Avg. Low
February-19	70.1	80.3	59.9
February-18	71.8	82.8	60.9
Historical Average*	63	73.9	52.1

*Historical Average (30 years) Normal data from the National Oceanic and Atmospheric Administration (NOAA) monthly climate report for Orlando.

Chart 8: Cooling and Heating Degree Days in the Orlando Area (MCO)



Source: National Weather Service (NWS)

PROJECTIONS FOR NEXT TWO MONTHS

Weather Forecast

Temperatures in Florida are expected to be somewhat below normal in March and mostly about normal in April. ARP natural gas usage in March and April is expected to be slightly higher than the annual ARP budget projections. This is due to an increase in gas generation over the budget forecast as a result of lower gas dispatch pricing.

Chart 9: Weather Forecast - March 2019

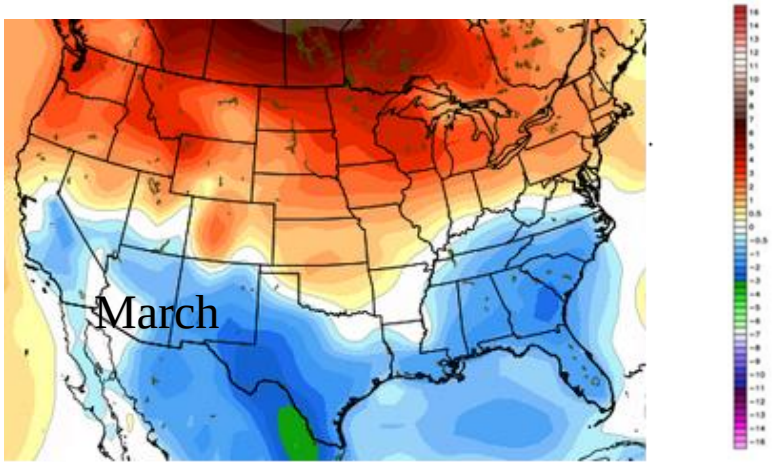
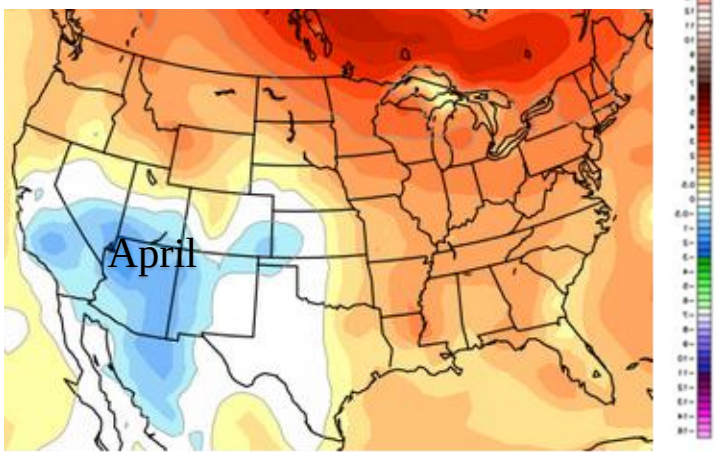


Chart 10: Weather Forecast – April 2019



Source: National Centers for Environmental Prediction (NCEP)

Load Projections

All load projections are based on the FY 2019 ARP budget load forecast.

Table 9. Load Projections

	March		April	
	Peak (MW)	Load (MWhs)	Peak (MW)	Load (MWhs)
FMPA	848	427,679	956	441,053
FMPP	2,383	1,258,890	2,751	1,313,419

Natural Gas Usage Projections

Natural gas usage and pricing projections are shown in Table 10. We are expecting the actual natural gas prices to be similar to the ARP budget forecast even though they have fallen somewhat over the past few weeks.

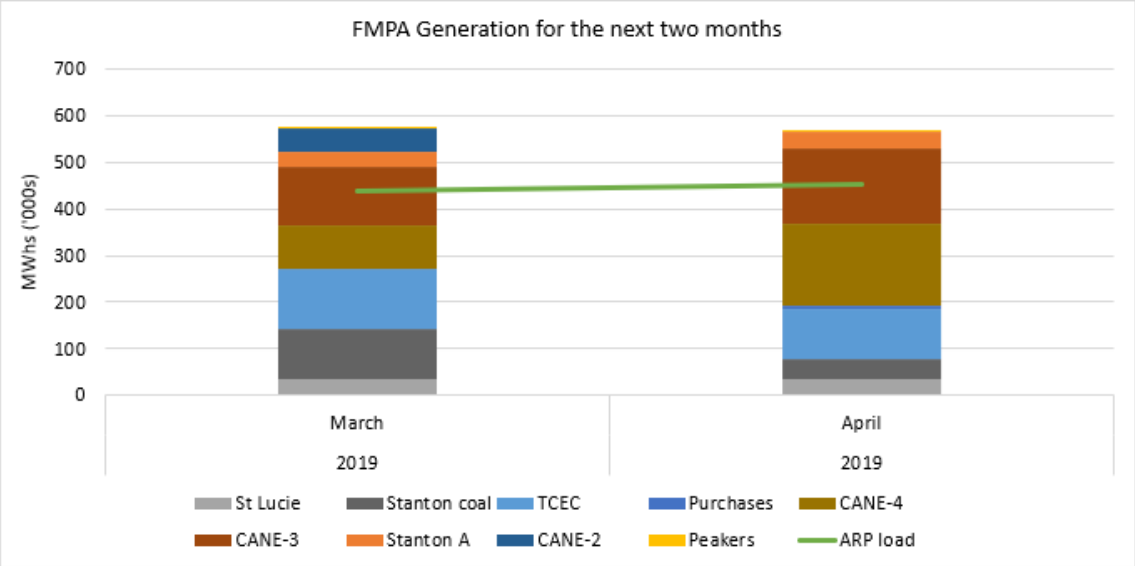
Table 10. Natural Gas Uses & Prices Projections

Projected Florida City Gate Natural Gas Prices and FMPA Volumes		
	March	April
$/MMBTU (latest projection)	$2.87	$2.98
$/MMBTU (budget projection)	$3.13	$2.88
MMBTUs required (latest projection)	3,415,172	3,572,368
MMBTUs required budget projection)	3,101,359	3,684,048

Note: Natural gas requirement includes gas burned in FMPA shared units, including coal units.

Fleet Dispatch Projections (Based on current fuel price projections)

Chart 11: FMPA ARP Fleet Dispatch Projections



FMPP Generator Planned Outages

Table 11. FMPP Scheduled Generator Outages (March 2019 – April 2019)

Generating Unit	Unavailable Capacity	Start Date	End Date
*McIntosh 2 (LAK)	112 MW	04/26/2017	12/31/2019
Larsen 2 (LAK)	14 MWs	1/1/2019	12/31/2019
McIntosh 3 (LAK)	342 MWs	2/9/19	5/31/19
Indian River CT A	35 MWs	2/18/19	2/24/19
Cane Island 4	300 MWs	2/23/19	3/8/19
Indian River CT B	35 MWs	2/25/19	3/3/19
Stanton 1	435 MWs	3/7/19	4/19/19
Cane Island 1	35 MWs	4/16/19	4/19/19
Stanton A	650 MWs	4/7/2019	4/23/2019
Stanton B (OUC)	300 MWs	4/27/19	5/12/19
Treasure Coast	300 MWs	4/27/19	4/28/19

*McIntosh 2 most likely will not return

GLOSSARY AND ACRONYMS

Capacity Factor – Measures asset utilization. Calculated by taking the average hourly output over a time period and dividing it by the capacity of the unit during that time period. A capacity factor in the 80% range indicates a base load unit, less than 10% range a peaking unit, and in between would be indicative of an intermediate unit.

CHP - The Clearinghouse Price (CHP50) is a Member agreed to methodology to price energy that FMPP Members buy and sell to each other. The hourly CHP price is the weighted average of the incremental energy cost of the Pool's highest cost resource/s online subject to exclusions as agreed by the FMPP, that are able to ramp down by 50 MWs in a given hour. CHP 50 may or may not be comprised of more than one unit or transaction.

Cooling degree days - Degree-days are derived by comparing the average daily temperature and a base temperature, typically 65 degrees Fahrenheit, the base relied on herein. To the extent the average daily temperature exceeds the base, the difference between that average temperature and the base is the number of cooling degree days for the day in question.

EIA – U.S. Energy Information Administration

Equivalent Availability Factor (EAF): Measures reliability. Calculated by the amount of time that it is able to produce electricity over a certain period, divided by the amount of the time in the period. As a frame of reference, industry average EAF for combined cycle units has been about 83% on an annual basis.

FGU – Florida Gas Utility is a non-profit joint action agency that provides natural gas management services to its municipal utility members.

FMPP – Florida Municipal Power Pool, or the Pool for short. FMPP members are FMPA, OUC and Lakeland.

GWh – Gigawatt-hour; one billion watt hours.

Heating degree days – Degree-days are derived by comparing the average daily temperature and a base temperature, typically 65 degrees Fahrenheit, the base relied on herein. To the extent the average daily temperature is below the base, the difference between that average temperature and the base is the number of heating degree days for the day in question.

Heat Rate – Measures the efficiency of the generator. The lower the heat rate, the better. For comparison, a typical heat rate for an automobile is 14,000 BTUs/kWh. FMPA's base load combined cycle fleet is twice as efficient with a heat rate of approximately 7,000 BTUs/KWh.

Load Factor – Measures how variable the load is. Calculated by taking the average hourly energy use over a time period (in this report monthly) and dividing it by the peak hourly usage over that time period.

MMBTU – One million British Thermal Units, a measure of energy in the form of heat.

MW – Megawatt; one million watts, a measure of electrical power, 1MW = 1,341 horsepower.

MWh – Megawatt-hour; one million watt hours, a measure of electrical energy, a typical household uses between 1 and 2 MWhs per month.

TCEC – Treasure Coast Energy Center