



# Gulfstream Shipper Meeting

September 23, 2021



*Clean Energy for Florida's Future.*



GULFSTREAM STATION 410  
Alabama



GULFSTREAM STATION 420  
Florida

# Topics

- COVID-19 Response
- Cyber Security Efforts
- Winter Storm Uri and Our Resiliency
- Tropical Storm/Hurricane Preparedness
- System Overview
- Annual Utilization
- Peak Days and Hours
- Business Development Update

# COVID-19 Pandemic Response

## Maintain Continuity of Operations:

- Set up a secondary control room at our primary location in Houston.
- Transitioned to a split control room operation to allow for physical distancing and to mitigate risk associated with physical interaction of shift teams.
- Equipped controllers to operate remotely – laptops, monitors, and phones.
- Utilized a virtual control room (Teams Meeting) to connect control rooms, remote controllers, and leaders.



# COVID-19 Pandemic Response

- Enterprise-wide Williams returned to office effective June 1<sup>st</sup>
- Returned to one control room on the same date.
- In early August transitioned to split control room operation due to Covid-19 spikes associated with the Delta variant. Pipeline Control leadership working remotely.
- Late August transitioned to split control room operation with some controllers working remotely.



# Cybersecurity

- We provide training, deliver presentations and answer questions to raise awareness around the threats we all face
- We monitor the changing threat landscape to understand how they might impact our risk posture
- We deploy modern technology to help identify and thwart attacks
- We have strong policy and governance to ensure we are focusing on the risks that require the most attention
- We align with business goals to support the success of the company
- We have and are participating in industry intelligence sharing with trade groups like INGAA, API and AGA on cybersecurity matters and best practices.

# Inclimate Weather Operations - Winter Storm Uri

⌚ Daily History - Houston, TX
☀️ My Forecasts
🌡️ Temperature
💧 Precipitation



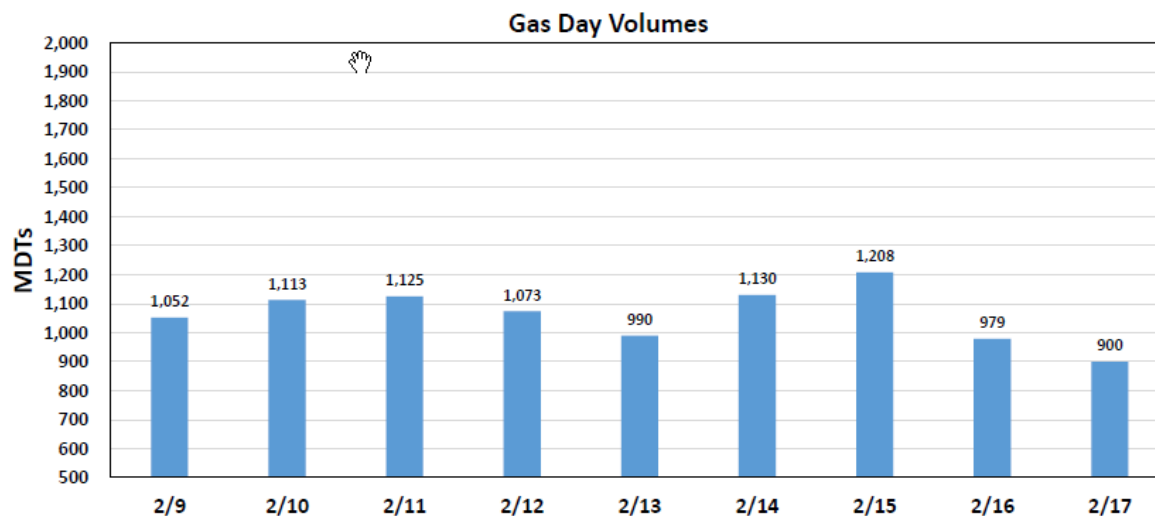
Time	Sun Feb 14	Mon Feb 15	Tue Feb 16	Wed Feb 17	Thu Feb 18	Fri Feb 19	Sat Feb 20
Actual Average Temperature	30°F	18°F	22°F	33°F	32°F	36°F	44°F
Actual High Temperature	36° F	23° F	32° F	36° F	37° F	48° F	57° F
Actual Low Temperature	25° F	14° F	11° F	30° F	28° F	25° F	32° F
Normal Average Temperature	56° F	57° F	57° F	57° F	57° F	57° F	58° F
Normal High Temperature	66° F	66° F	66° F	67° F	67° F	67° F	67° F

- Goals – The safety of our controllers and maintaining ability to staff for continuous operations.
- Night Shift on the 14<sup>th</sup> worked remotely – last night shift. Weather was expected to get bad with icy road conditions for the commute home.
- Day shift and night shift for the 15<sup>th</sup> and a portion of the leadership team were required to stay at a hotel near the office Sunday night UFN.
- Did not lose power at the building or hotel.

# System Performance During Winter Storm Uri

- Uri's affect to temperatures in Florida was not as severe as other parts of the country.
- Line Pack levels during the event stayed within the 2.9 to 2.6 Bcf range. This is a normal range for the expected load conditions.
- Instantaneous deliveries peaked out above 1.7 Bcf with a delivered volume of ~1.2 Bcf.
- No operational issues.

Daily History - Lakeland, FL		My Forecasts		Temperature		Precipitation	
Time		Sat Feb 13	Sun Feb 14	Mon Feb 15	Tue Feb 16	Wed Feb 17	Thu Feb 18
Actual Average Temperature	N	75°F	76°F	78°F	75°F	61°F	76°F
Actual High Temperature	N	84° F	85° F	88° F	86° F	67° F	87° F
Actual Low Temperature	N	66° F	68° F	69° F	64° F	55° F	66° F
Normal Average Temperature	N	63° F	63° F	63° F	63° F	64° F	64° F
Normal High Temperature	N	74° F	74° F	74° F	74° F	74° F	75° F



## Hurricane Preparedness – Pipeline Control

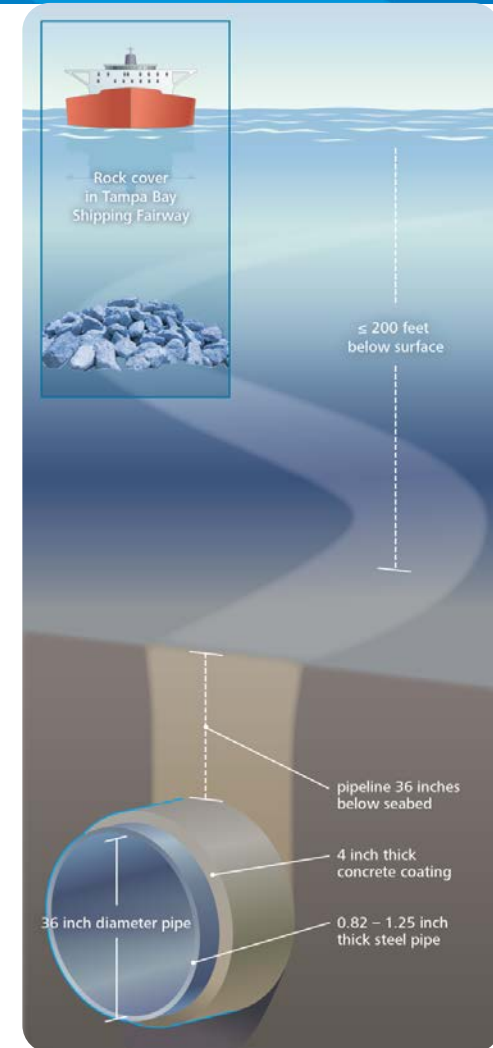


- May timeframe - begin daily monitoring of daily Tropical Weather Forecast – National Weather Service and Accuweather
- Survey controllers to identify volunteers for back up control room operations and identify those that would need to travel with family and pets etc
- May/June onsite test of the back up control center in Broken Arrow, OK
- Once a storm enters the Gulf of Mexico, evaluate storm track models, predicted intensity, and the protentional impact to the Houston area.
- 36 to 48 hours out from predicted landfall in the Houston area, make a go/no go decision regarding deployment to the back up control center
- Notify Pipeline Control personnel to deploy (9-10 people)
- Secure the use of the corporate jet or make commercial airline arrangements
- Transition control from primary to back up site
- Keep track of employees that remain in Houston to understand their post storm needs and their availability to transition control from back up site back to the primary site



# Tropical Storm/Hurricane Preparedness

- No disruptions in service due to weather, including the severe hurricane seasons of 2004/2005, Irma in 2017, Michael in 2018
- Offshore pipeline in Gulf of Mexico and Tampa Bay
  - Reduces weather related risks (lightning strikes, heavy rainfall, high winds)
  - Greatly reduces risk of third-party damage
- Onshore pipeline and facilities in Alabama and Florida
  - Designed and built to withstand 150 mph winds
  - Compressor stations equipped with emergency standby generators which allow operations to continue even without connection to main power grid or communications
  - Meter stations designed to for continuous operation in the event of loss of utility power.
  - Fully redundant spare compression units
  - Robust hurricane plan with 72, 48, 24 hour and post storm checklists and requirements



# Overview of Facilities



*FPL's West County Energy Center*

## Gulfstream Facilities:

<b>Receipt meter stations</b>	8
<b>Bi-directional meter stations</b>	3, 2 in Florida
<b>Delivery meter stations</b>	25
<b>Microwave towers</b>	8
<b>Mainline valve settings</b>	21
<b>Offshore valves</b>	9
<b>Valve sites (tap/junction)</b>	10

# Compressor Station 410 Coden, AL



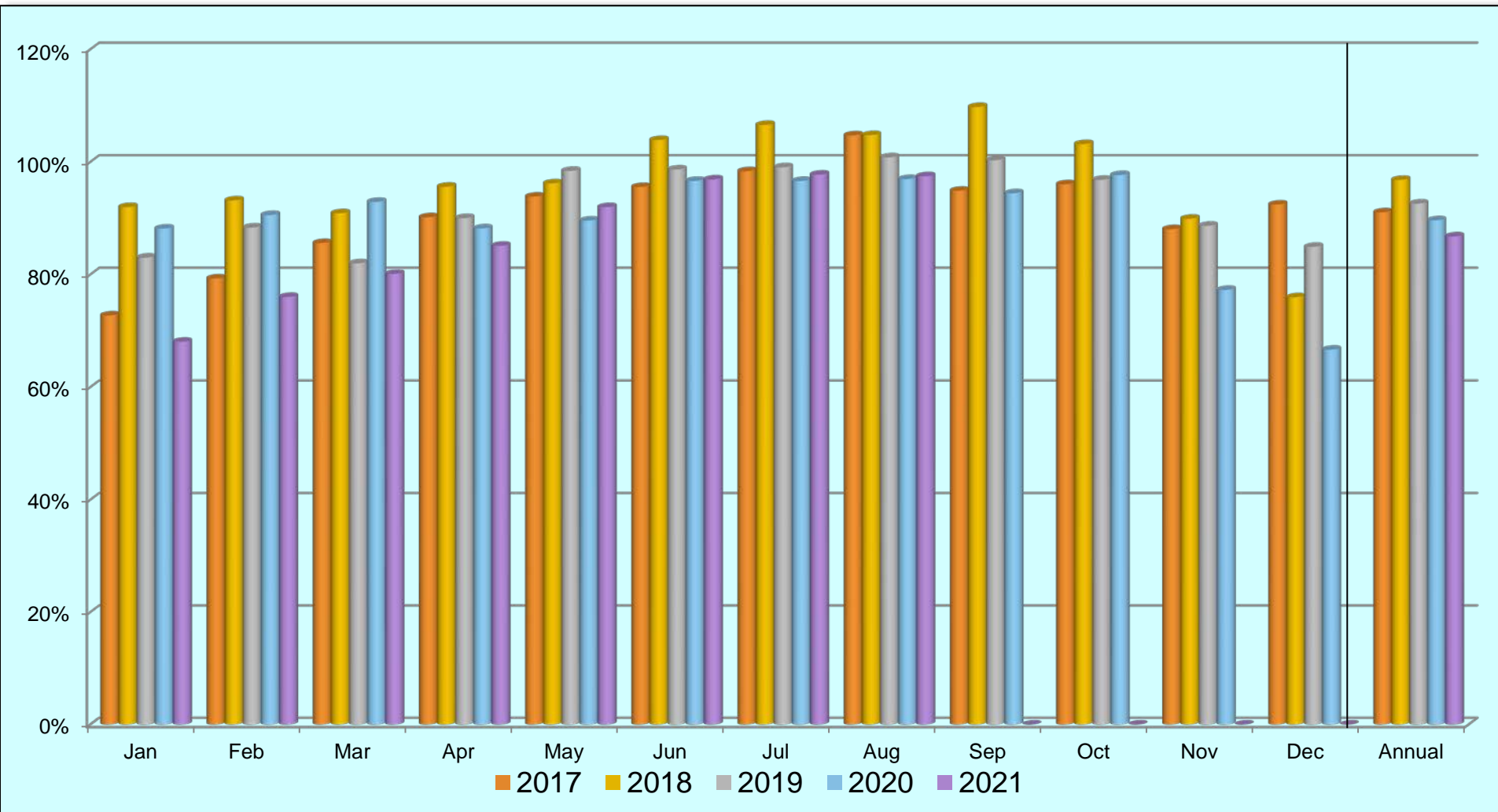
# Compressor Station 420 Palmetto, FL



# Compressor Station 430 Sebring, FL



# Gulfstream Percentage Utilization



# Peak Day Data

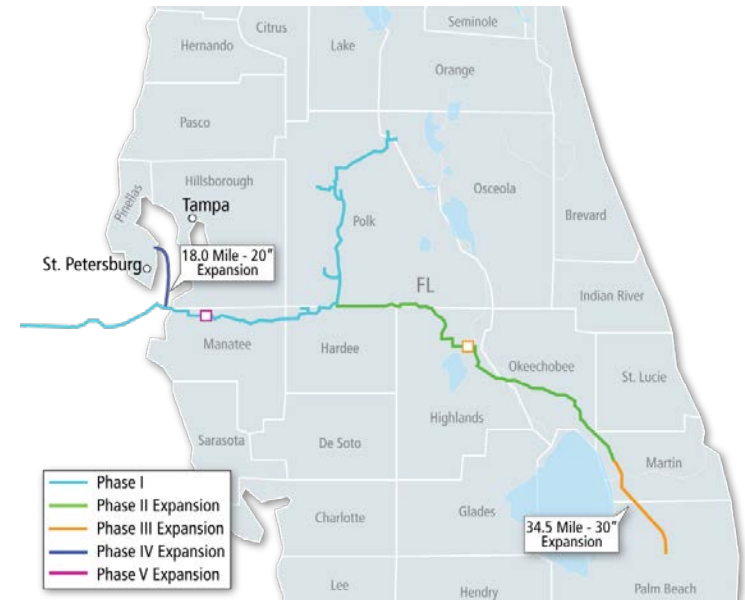
## Top 25 Delivery Days

1	1/3/18	1,767,084
2	1/18/18	1,750,710
3	1/4/18	1,680,679
4	2/19/15	1,648,833
5	8/8/17	1,643,785
6	1/5/18	1,640,159
7	8/9/17	1,589,447
8	8/7/17	1,555,164
9	10/9/18	1,552,986
10	11/13/18	1,551,895
11	10/28/19	1,544,613
12	9/17/18	1,539,684
13	9/20/18	1,536,920
14	1/3/12	1,519,101
15	11/14/18	1,518,423
16	8/5/17	1,517,596
17	10/15/18	1,516,951
18	6/18/18	1,515,926
19	9/4/18	1,513,965
20	12/27/10	1,511,879
21	11/7/18	1,510,576
22	11/12/18	1,509,405
23	10/29/19	1,506,945
24	7/16/18	1,505,949
25	9/19/18	1,504,620

## Top 25 Delivery Hours

1	1/4/12 6:00	2,041,656
2	1/19/18 5:00	2,037,024
3	1/4/12 5:00	2,036,208
4	11/14/18 13:00	1,998,456
5	11/7/18 16:00	1,992,600
6	9/14/18 11:00	1,989,408
7	11/7/18 17:00	1,977,696
8	1/19/18 2:00	1,966,176
9	11/14/18 12:00	1,961,304
10	1/19/18 6:00	1,958,232
11	9/27/18 16:00	1,951,104
12	1/19/18 3:00	1,947,000
13	9/27/18 15:00	1,945,728
14	1/22/20 5:00	1,945,032
15	7/16/18 12:00	1,944,480
16	9/27/18 14:00	1,942,200
17	11/14/18 14:00	1,941,864
18	1/19/18 4:00	1,940,352
19	10/9/18 15:00	1,940,208
20	11/12/18 13:00	1,937,424
21	9/24/10 13:00	1,936,992
22	11/13/18 15:00	1,935,120
23	3/5/10 6:00	1,931,688
24	7/16/18 13:00	1,930,392
25	11/7/18 15:00	1,927,464

# Business Development Update



## ▪ Gulfstream Phase VI Update:

- Received FERC certificate March: 19, 2020
- Received FERC Notice to Proceed: May 2021
- Construction commenced: August 2021
- Anticipating outage to remain March 1-11, 2022
- Anticipated In-services date December 01, 2022
- Project Capacity: 78,000 dth/d

Expansions	In-service	Capacity (Mdt/d)
<b>Phase I</b>	May 2002	305
<b>Phase II</b>	Feb 2005	753
<b>Phase III</b>	Aug 2008	1,098
<b>Phase IV</b>	Jan 2009	1,258
<b>Phase V</b>	Apr 2011	1,298
<b>Current Mainline Capacity</b>		<b>1,310</b>



# Questions

