

# Southern Natural Gas Winter Review

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May 2019

# Agenda

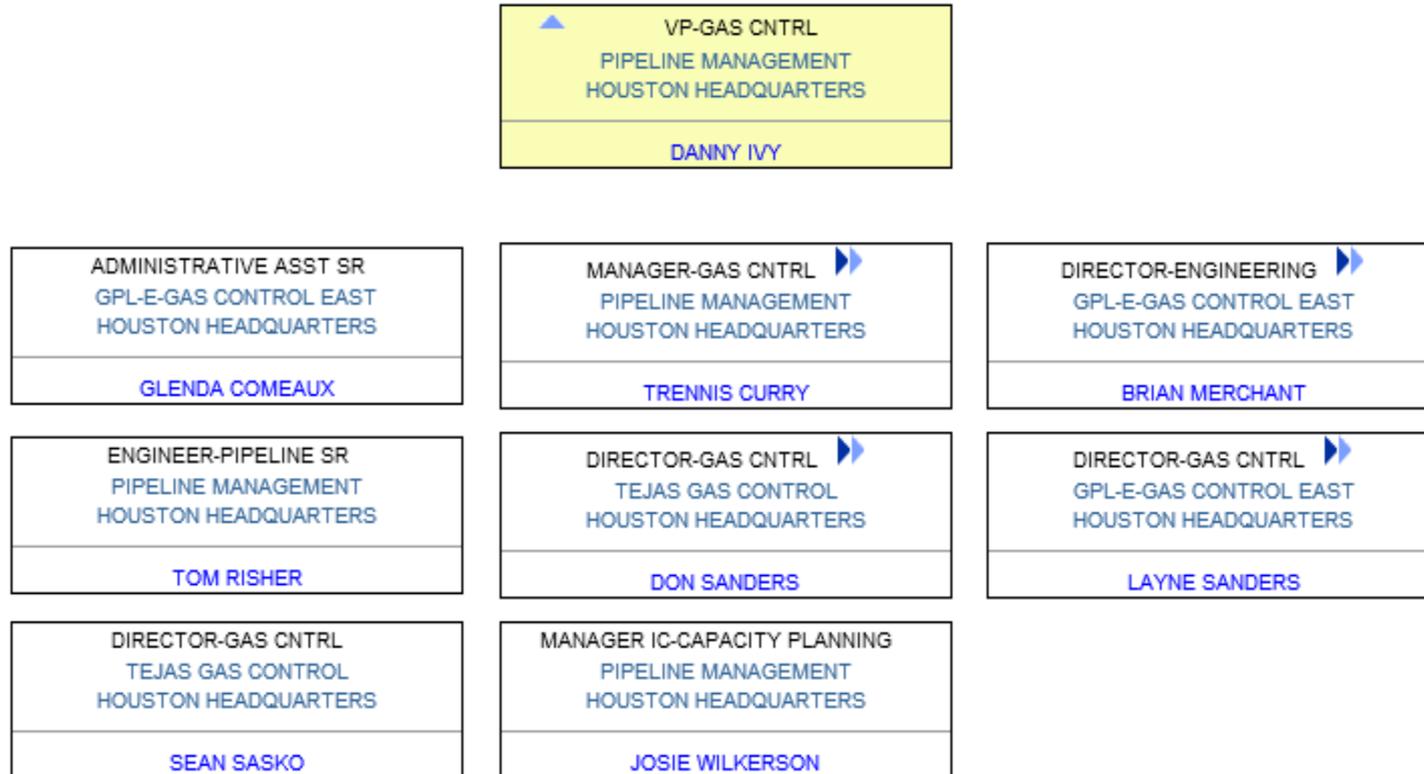
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- Operations Review
- Summer Maintenance Update
- Scheduling Review & Dart Updates
- Open Discussion

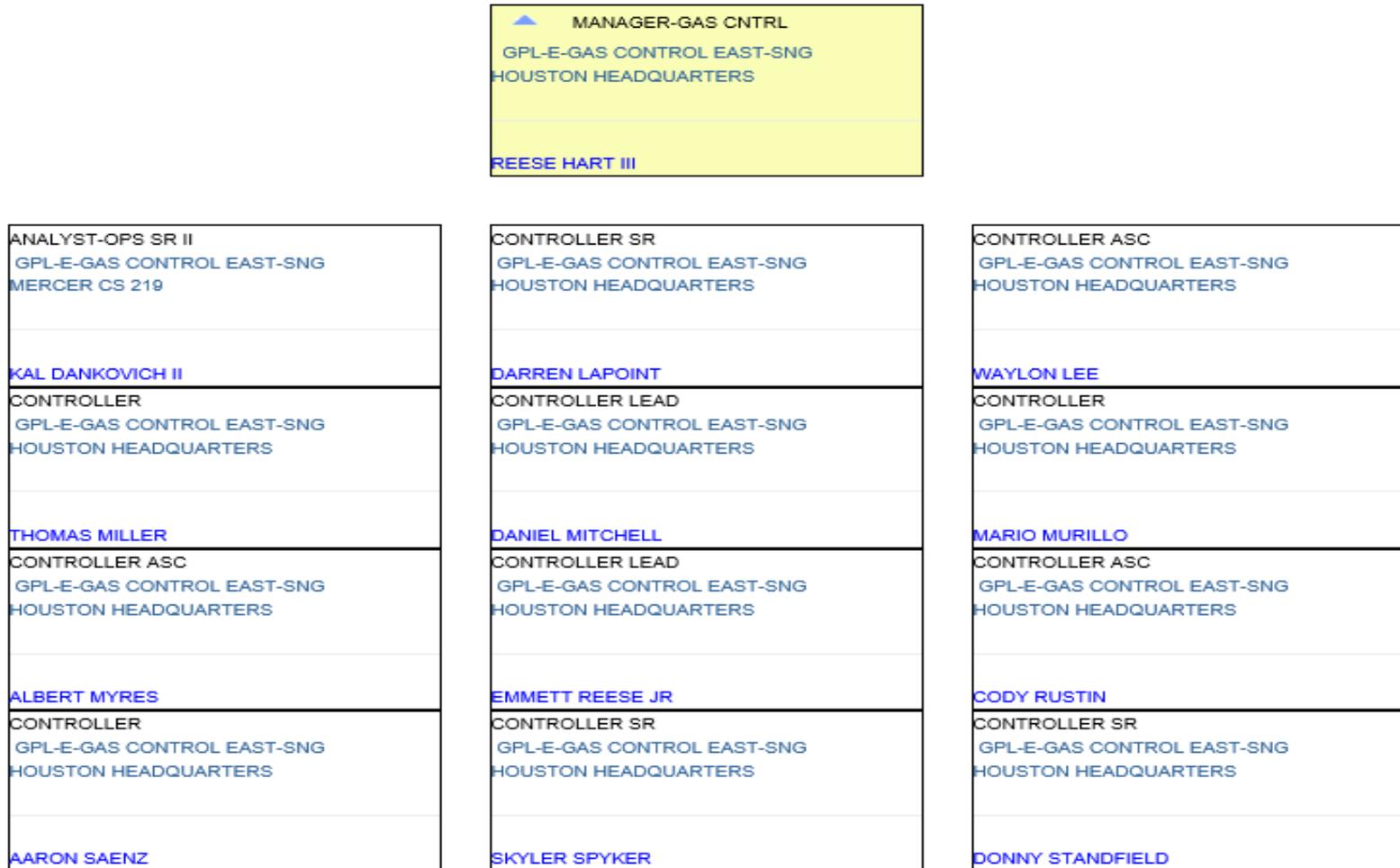
# Operations Review

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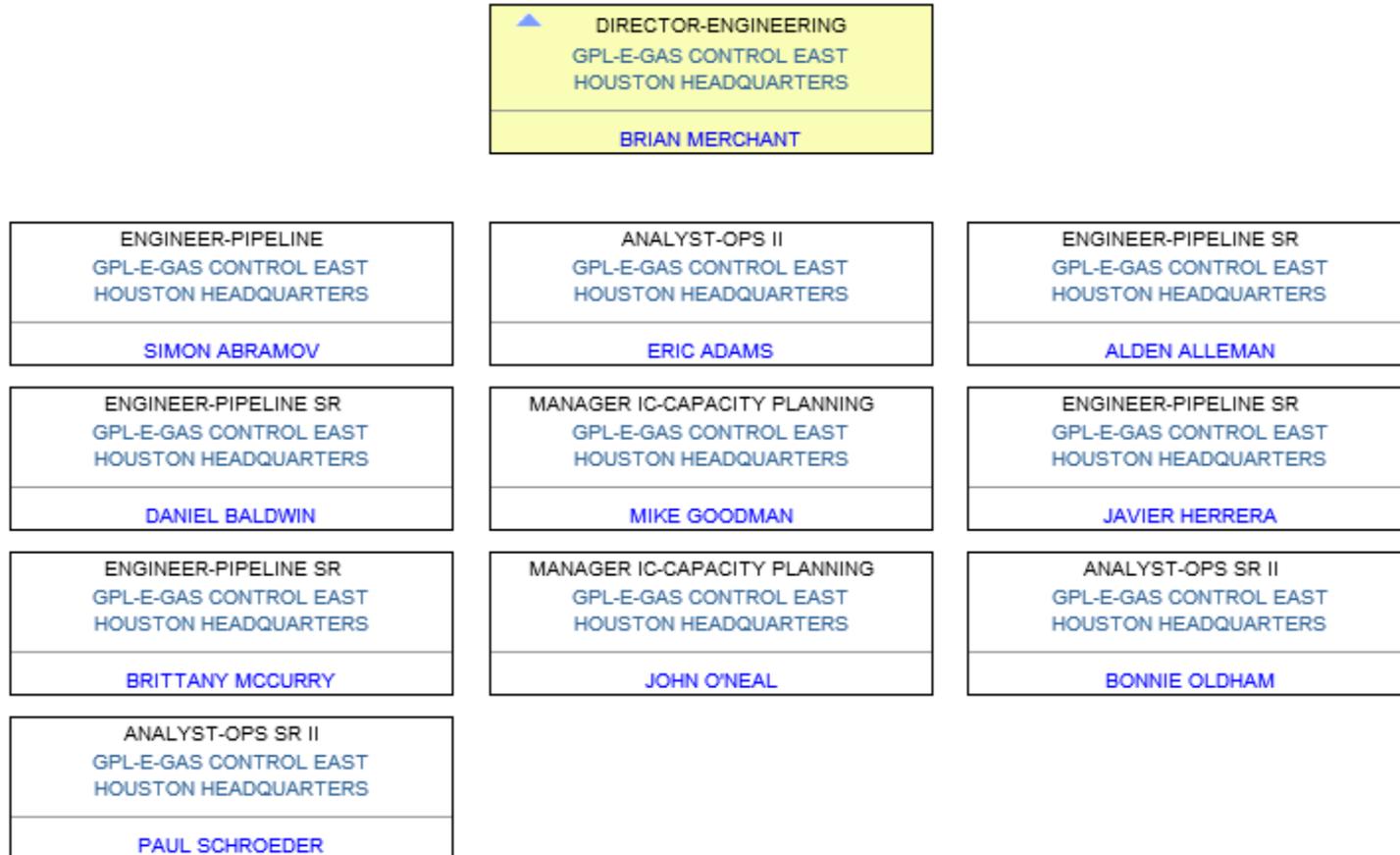
# Gas Control Organizational Structure



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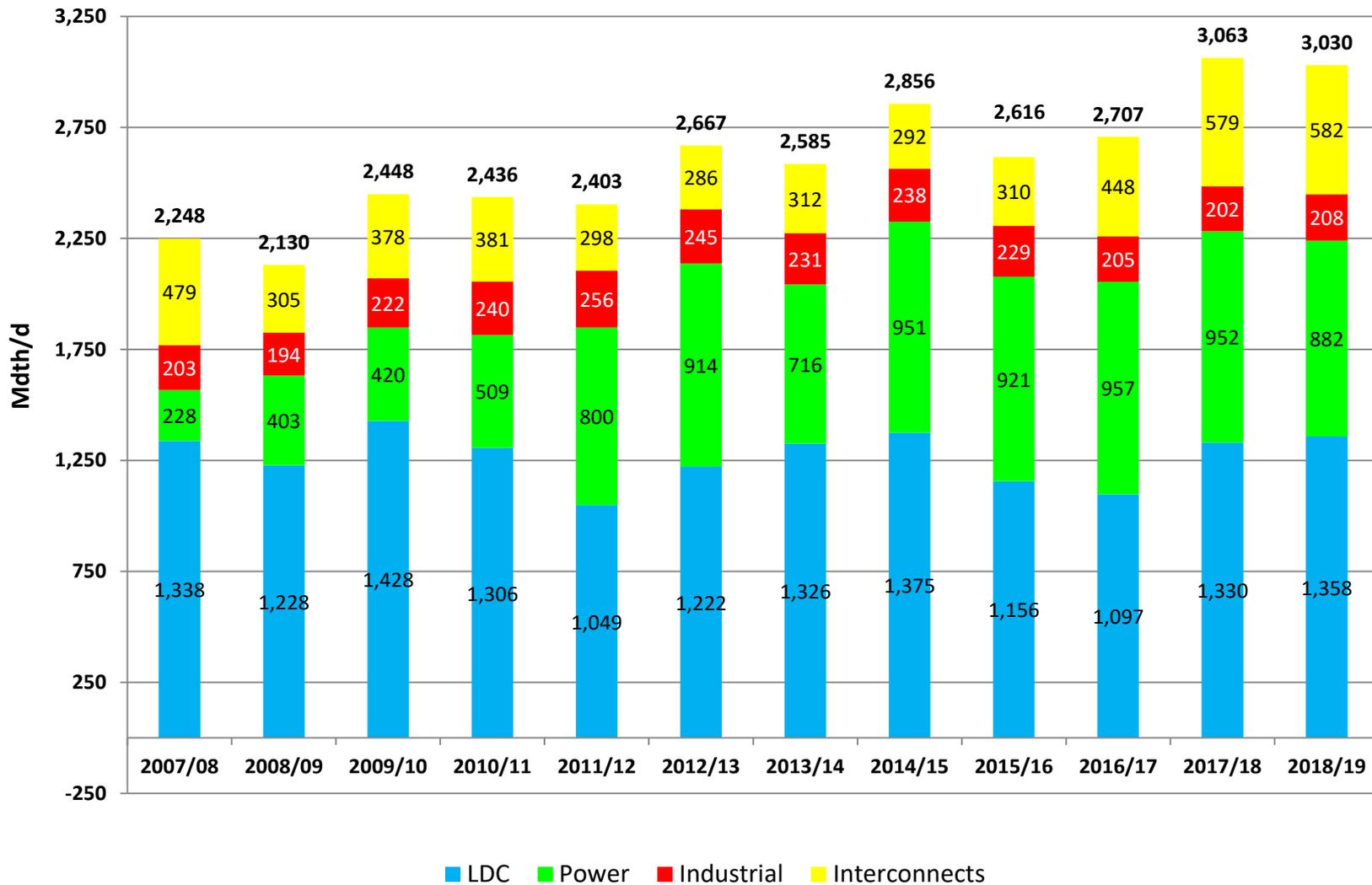


# Winter Review

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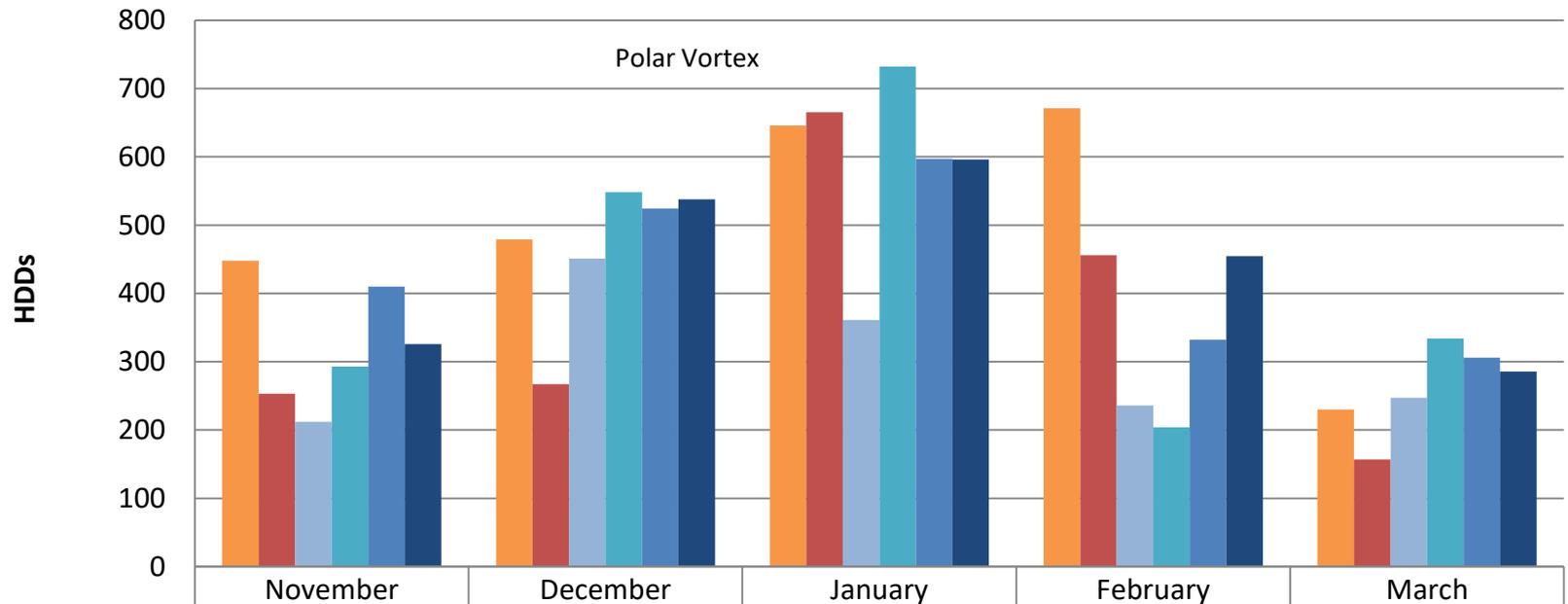
- SNG's facilities performed well during this winter
  - Compressor stations staffed 24x7 as needed
  - Horsepower reliability
- Overall average winter with milder temperatures
- Storage assets were heavily utilized. Extended customer withdrawals through March
- Peak Day – January 30, 2019
  - Peak Day Throughput: 4,105,000

# Average Daily Deliveries (Nov – Mar)



# Winter Heating Degree Days (HDDs\*)

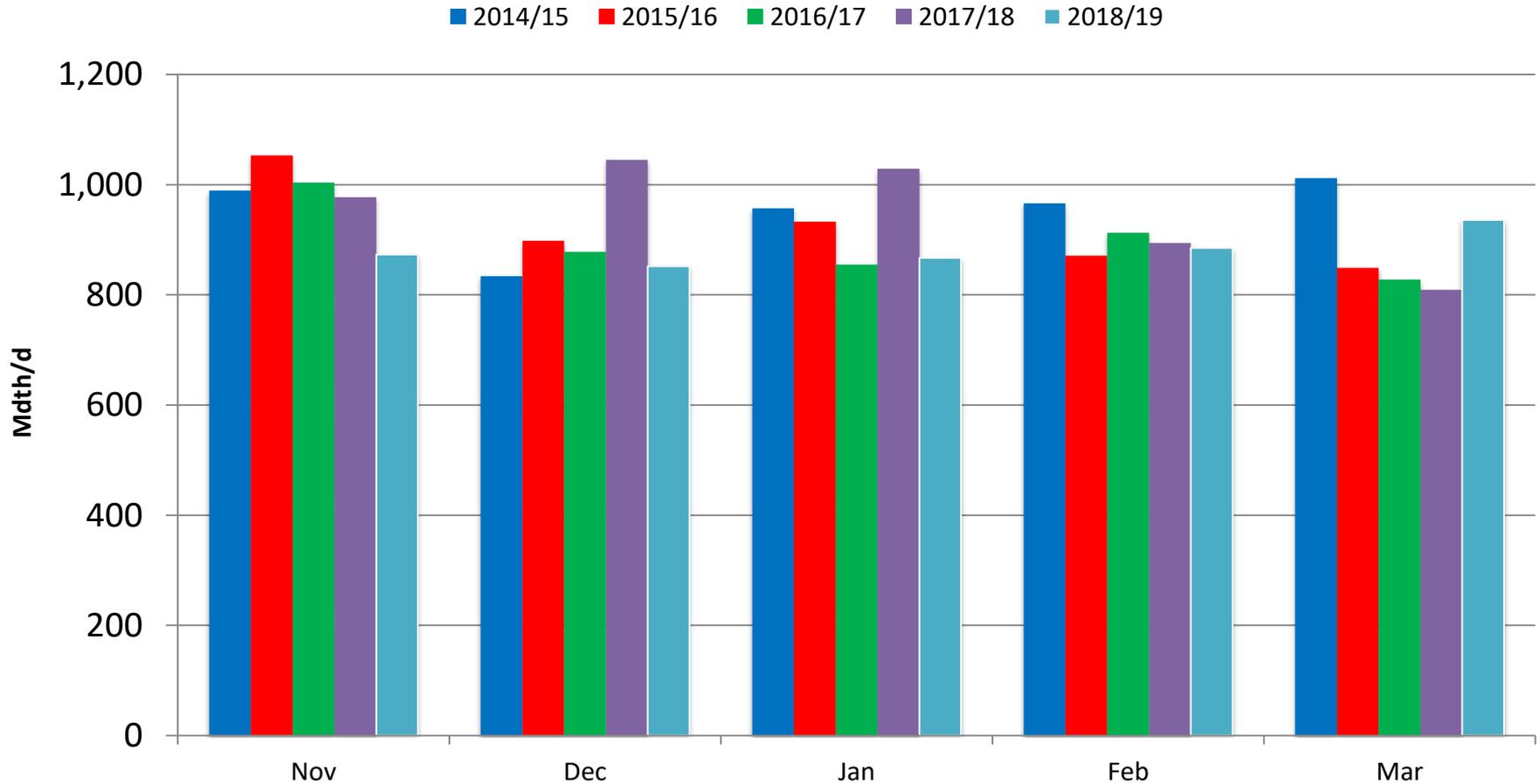
## 2013-2019



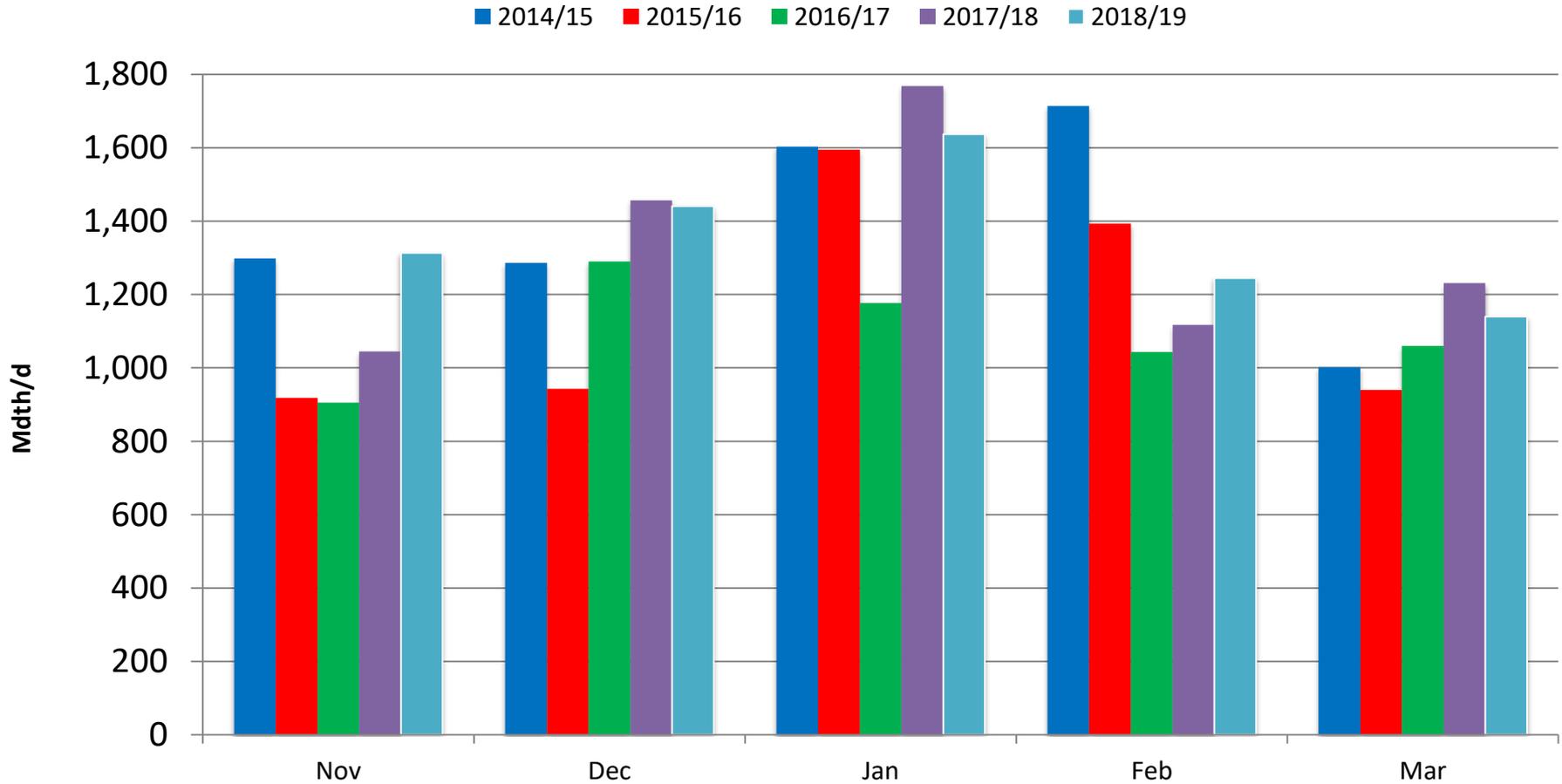
	November	December	January	February	March
2014/15	448	479	646	671	230
2015/16	253	267	665	456	157
2016/17	212	451	361	236	247
2017/18	293	548	732	204	334
2018/19	410	524	597	332	306
30 Year Average	326	538	596	455	286

\*HDD = 65 Degrees Minus System Mean Temperature

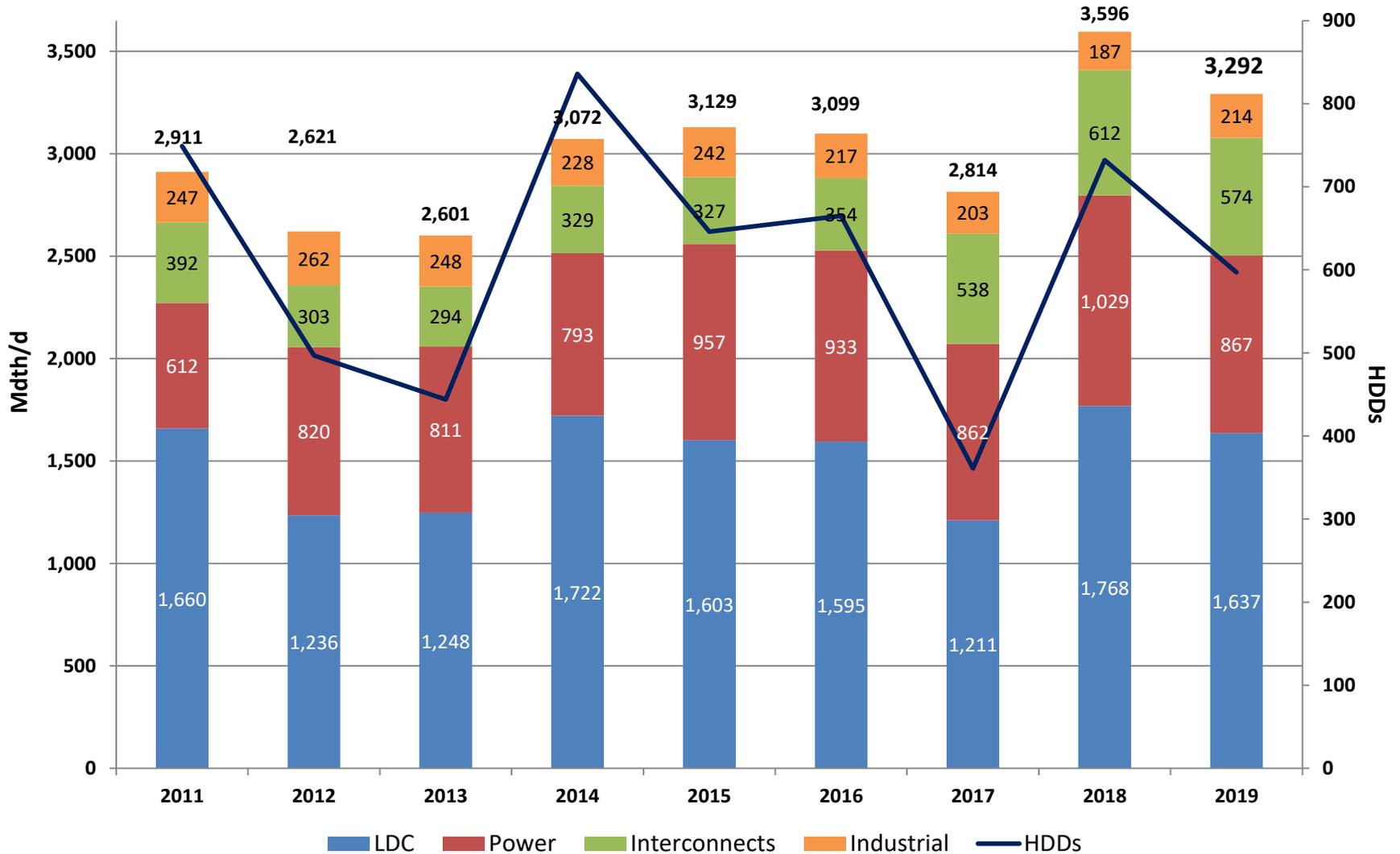
# Winter Average Daily Power Demand



# Winter Average Daily LDC Demand



# Average January Daily Deliveries 2011-2019



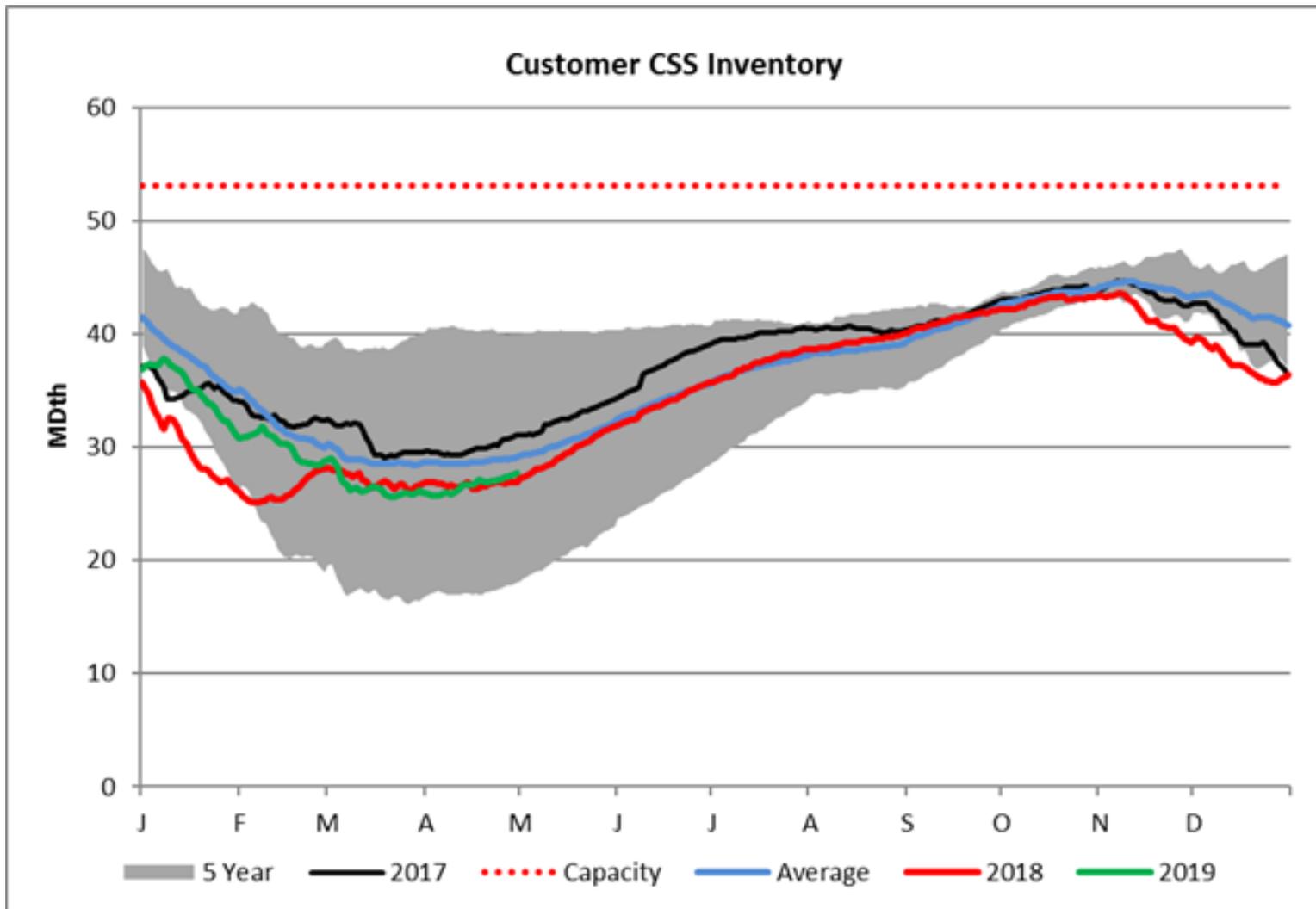
# Average Daily Deliveries\*

## (Nov- March)<sub>(MDth/d)</sub>

	<u>2019 Nov- Mar</u>	<u>2018 Nov- Mar</u>	<u>% Change</u>
LDC	1,358	1,330	2.1%
Power	882	952	-7.3%
Industrial	208	202	2.8%
Interconnects	582	579	0.5%
<b>TOTAL</b>	<b>3,030</b>	<b>3,063</b>	<b>-1.1%</b>

\*EXCLUDES DELIVERIES INTO STORAGE

# Customer Storage Inventory Levels



# Summer Maintenance

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# Maintenance Planning Process

## Typical Types of Maintenance Work

### Compressors:

- ESD and safety tests
- Emission tests
- Run-hour inspections & maintenance to insure reliability
- Various engine/compressor repairs

### Integrity Management:

- Various pig runs (ILI)
- Remediation of anomalies
- Hydrotests
- Selected wrinkle bend replacements

### 3<sup>rd</sup> Party Needs:

- Class location changes
- Line relocations
- Expansion projects

Storage Field: Shut-in tests & maintenance – spring & fall

- Gas Control models impact to capacity and compares to expected flow to determine best outage windows
- Goal is to avoid impact to firm service or coordinate with impacted customers to manage the impact
- Plan may be adjusted for unscheduled outages, multiple outages, availability of equipment and contractors, and weather

# 2019 Maintenance

Overview	# of jobs
System total	714
Posted	91
Posted(with possible impact)	63
Posted(no impact expected but risks could develop)	28
South Main lines	11
North Main lines	16
Other lines	41

## Monthly Outage Call

- 3<sup>rd</sup> Wednesday of the month at 1:30 pm CST

# Maintenance

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- **Ongoing -**

Fairburn Unit 1 = Limited to 210Mdh/d

South Section 28 Force Majeure RTS to be determined

- **Upcoming -**

North Main Line Segment 110 McConnells 4/24 – 5/1 = 223 Mdh/d

East Gadsden Line Hydro testing 6/24 – 7/15 = Line out of service

Ocmulgee Compressor Station unit maintenance 6/1 – 10/31 = 72 Mdh/d

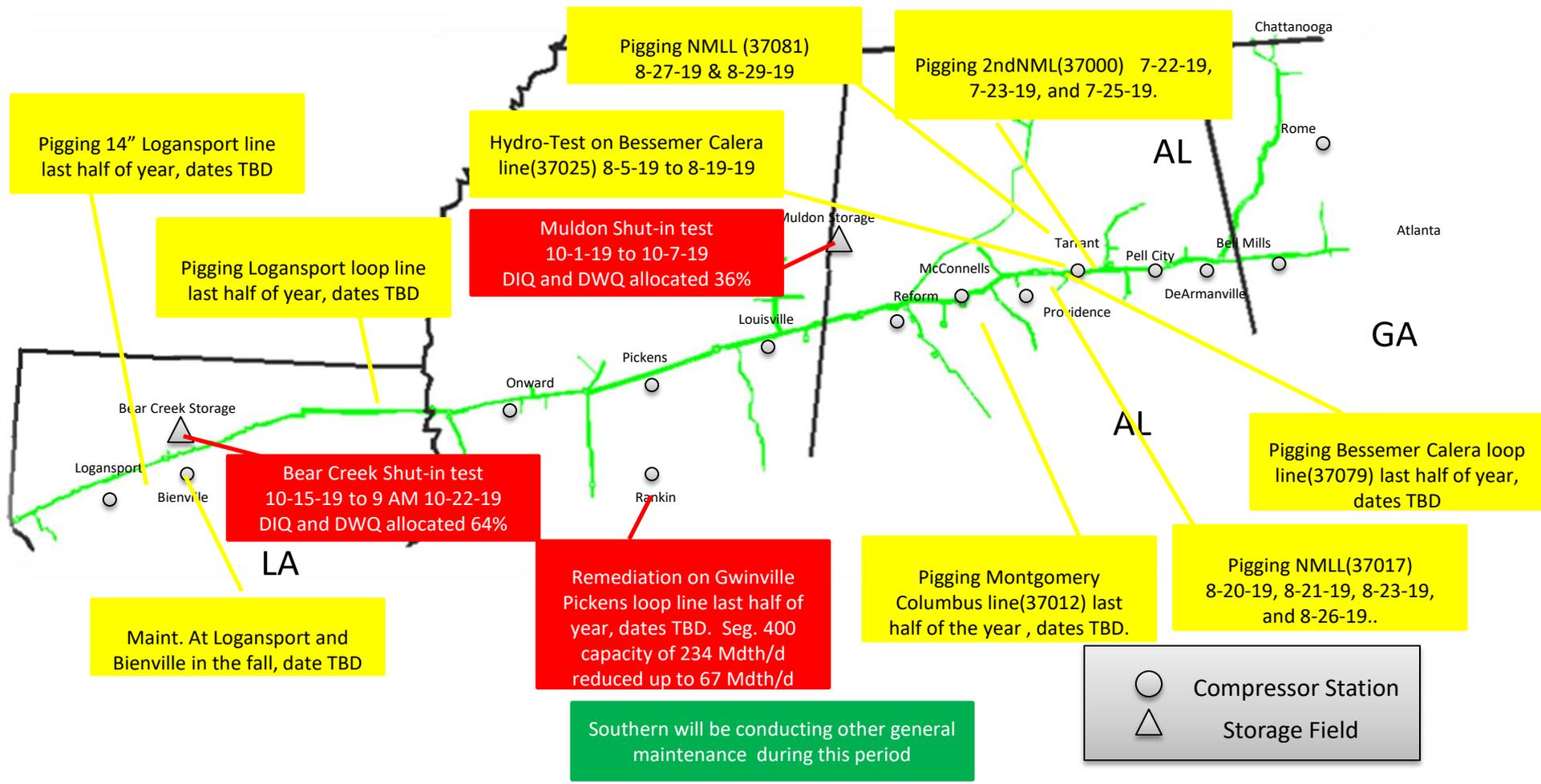
Enterprise Compressor Station unit maintenance 9/2 – 9/27 = 177 Mdh/d

- **Completed -**

Muldon and Bear Creek Spring Test are complete

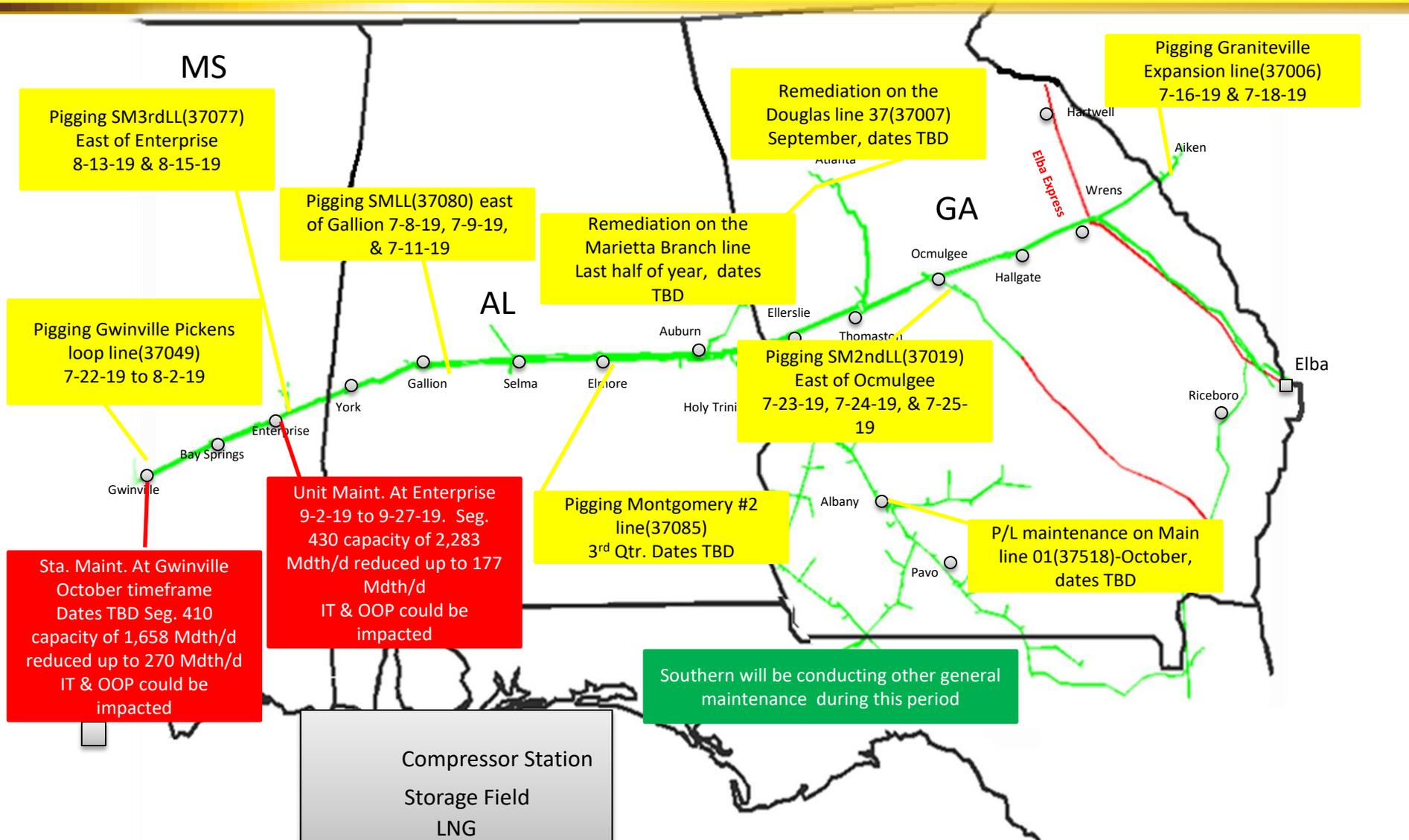
# SNG North System

## Maint. Review Remainder of Year

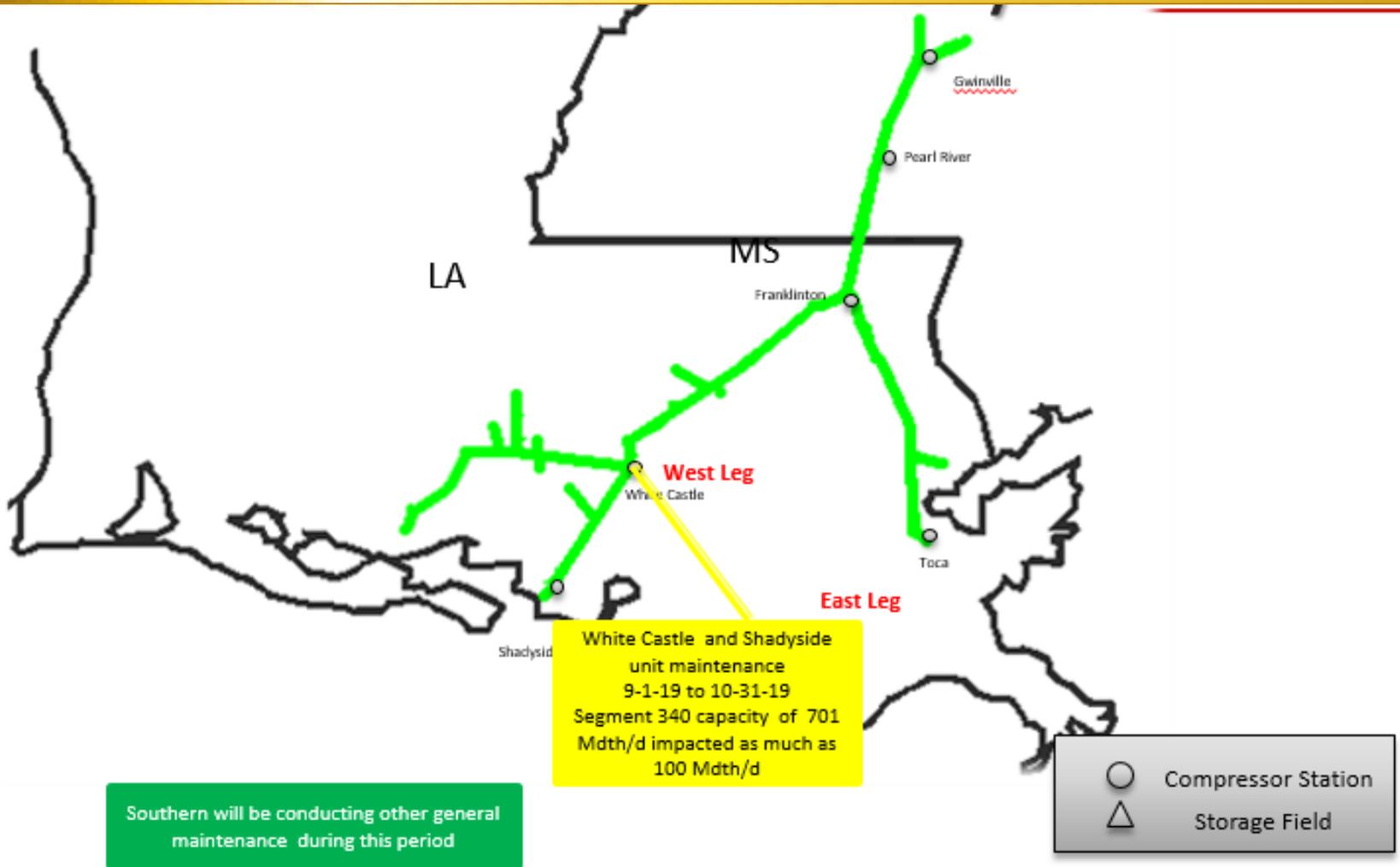


# SNG South System

## Maint. Review Remainder of Year



# SNG South Louisiana System Maint. Review Remainder of Year



# New Outage Impact Report

SNG - Outage Impact Report Seven Day Forecast (updated 3/14/19)									-Primary firm impact restrictions may be necessary
									-Major impact restrictions may be necessary
									-Minor impact restrictions may be necessary depending on flow conditions
									-Little to no impact, though minor outages may cause incremental reductions
Station # / Scheduling Segment	Est Nominal Design Capacity (Thousand Dth)	Saturday (3/16)	Sunday (3/17)	Monday (3/18)	Tuesday (3/19)	Wednesday (3/20)	Thursday (3/21)	Friday (3/22)	Primary Outage(s) that may impact Throughput or Pressures
		Est. Operational Capacity Available (Operational Impact) - Thousand Dth							
South System									
Fairburn	370	210 (160)	210 (160)	210 (160)	210 (160)	210 (160)	210 (160)	210 (160)	2/7/2019 - TBD Fairburn Unit#1
Segment 330	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	Project 37011 Pigging Main Pass Franklinton Line LaCombe to Franklinton 3/20,3/21,3/25 Recoat 5 areas on 24" Main Pass Franklinton Loop Line 2/19 - 3/22
Segment 350	798	798	798	798	798	798	798	798	Duck Lake Franklinton Line to White Castle Coating Inspection 3/18-3/21 Duck Lake Franklinton Line anomaly remediation 3/11 - 3/22 White Castle CS Unit #8 Inspection 3/18 - 3/22 White Casle #8 Turbo Overhaul 3/18 - 4/12

# Scheduling Review & Dart Updates

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# Eastern Region TSS Management Team

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Gina Mabry  
Director-Scheduling  
Transportation/Storage Services  
Houston Headquarters

Katie Cornutt  
Manager-Scheduling  
Transportation/Storage Services  
Houston Headquarters

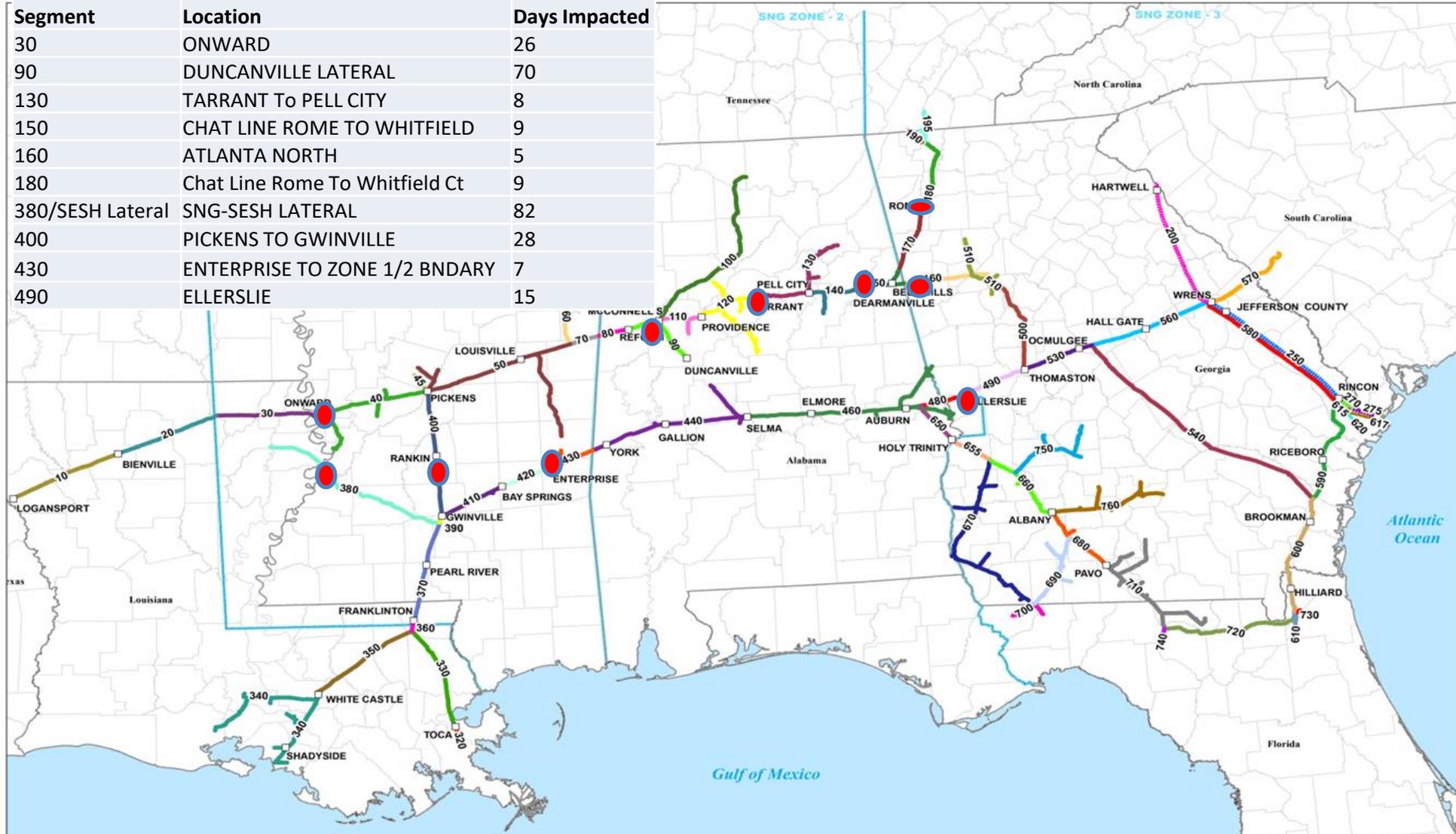
Adam Harris  
Manager-Scheduling  
Transportation/Storage Services  
Houston Headquarters

Cathy Soape  
Manager-Scheduling  
Transportation/Storage Services  
Houston Headquarters

# SNG Winter 2018/2019

## Segment Constraints (November-March)

Segment	Location	Days Impacted
30	ONWARD	26
90	DUNCANVILLE LATERAL	70
130	TARRANT To PELL CITY	8
150	CHAT LINE ROME TO WHITFIELD	9
160	ATLANTA NORTH	5
180	Chat Line Rome To Whitfield Ct	9
380/SESH Lateral	SNG-SESH LATERAL	82
400	PICKENS TO GWINVILLE	28
430	ENTERPRISE TO ZONE 1/2 BNDARY	7
490	ELLERSLIE	15



# Winter Restrictions

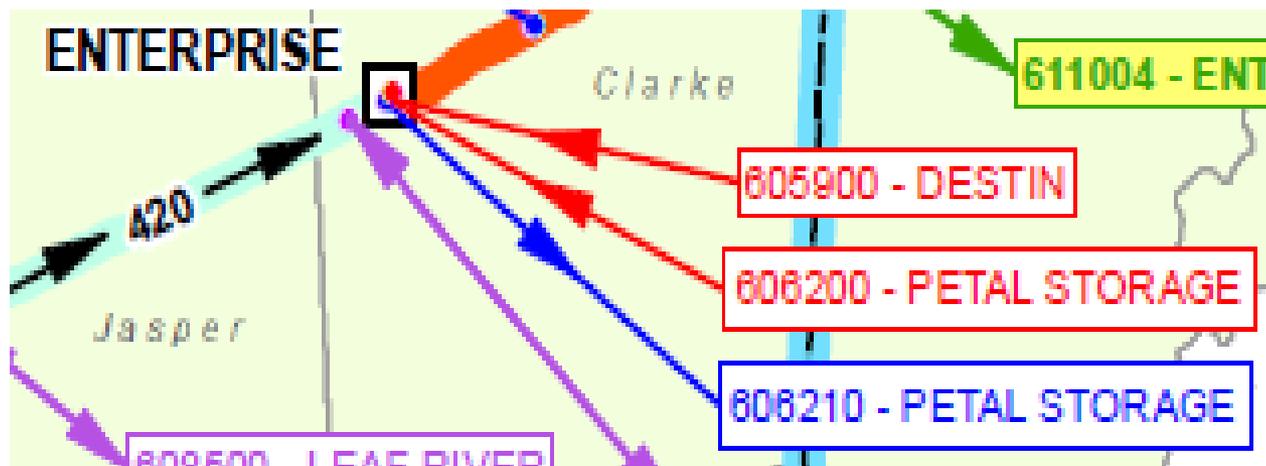
## Percentage Days Restricted (November - March)

Restriction Point Highly Utilized SNG Paths	Percentage Days Restricted (November - March)	Percentage Days Restricted (November - March)	Percentage Days Restricted (November - March)
	2016/2017	2017/2018	2018/2019
Segment 30	0.00%	18.54%	17.22%
Segment 90/Duncanville Lateral	N/A	N/A	46.35%
Segment 130	0.00%	0.00%	5.30%
Segment 150	0.00%	0.00%	5.96%
Segment 180	0.00%	0.00%	5.96%
Segment 380/SESH Lateral	4.64%	1.32%	54.31%
Segment 400	0.00%	19.21%	18.54%
Segment 490	7.95%	14.57%	9.93%
American Midstream Duncanville	1.99%	21.19%	22.52%
Columbia Gulf	0.66%	13.91%	10.60%
East Tenn Whitfield	0.00%	0.00%	9.27%
Thomson/SNG Jefferson	0.00%	7.28%	5.30%
AGL/SNG Thomaston	0.00%	1.32%	5.30%



# Petal Nomination Changes

- Effective May 1, 2019, Southern will be utilizing two pins for nominations at the Petal Storage Interconnect:
  - 606200 – Gulf South/SNG Petal Clarke Receipt – will be utilized for Receipt (Withdrawal) nominations
  - 606210- Gulf South/SNG Petal Clarke Delivery-will be utilized for Delivery (Injection) nominations



# Proposed Segment Name Changes

Current		Proposed	
North System	10 LOGANSPORT TO BIENVILLE	10 LOGANSPORT	
	20 BIENVILLE TO ZONE 0/1 BNDARY	20 BIENVILLE	

View Point(s) Capacity	Loc (Segment)	Loc Name (Segment)	Loc Zn	Design Capacity	Operating Capacity	Total Scheduled Quantity	Operationally Available Capacity	IT	Flow Ind	All Qty Avail
	90									
<a href="#">View</a>	90	REFORM TO MCCONNELLS	02	686,000	686,000	233,408	452,592	Y	TD1	Y
<a href="#">View</a>	90	DUNCANVILLE LATERAL	02	36,748	36,748	0	36,748	N	TD1	Y

- Changes expected to be implemented in the 3<sup>rd</sup> Quarter of 2019

# Type 3 OFO Factors

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- Type 3 Operational Flow Orders (OFOs) are implemented when demand in an area of the system is forecasted to exceed capacity
  - OFOs are used to protect primary firm services
  - System conditions dictate the level of interruptible reductions and OFOs needed
- Factors SNG considers when evaluating whether Type 3 OFO penalties need to be implemented:
  - Weather Forecast – system means in the mid-40's and mid-80's are where demand starts to approach capacity
  - Day of week – weekday demand exceeds weekend/holiday demand
  - Expected duration of heavy demand
  - Recent history
  - Nominated deliveries
  - Actual takes from the system higher than entitlements

# Protecting System Integrity

- SNG's objective is to provide reliable service and protect our firm commitments
- SNG's Type 3 OFO
  - For daily quantities taken in excess of the Shipper's Daily Entitlement plus a stated tolerance
  - Penalties are assessed only after a variety of group, shipper, and agent checks
  - The current penalty as of December 2018 now includes the price of gas as a component
    - *Level 1 - \$10*
    - *Level 2 - \$15 + Highest Regional Daily Price*
    - *Level 3 - \$25 + 2x Highest Regional Daily Price*

# Type 3 OFO Winter Count\* (November- March)

	2016/17	2017/18	2018/19
Type 3 Level 1	7	2	25
Type 3 Level 2	12	36	10
Type 3 Level 3	0	0	0
Total	19	38	35

\* Number of days OFO was in effect for any group(s) on the system

# DSR Scheduling Contacts

	Phone	Email	Ice Chat Handle
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<b>Katie Cornutt, DSR Manager</b>	(713) 420-5648	katlynn_cornutt@kindermorgan.com	
<b>Walker Agnew</b>	(713) 420-6059	walker_agnew@kindermorgan.com	Wagnew
<b>Krysta Henry</b>	(713) 420-3023	krysta_henry@kindermorgan.com	Khenry4
<b>Adam Ivy</b>	(713) 369-8922	adam_ivy@kindermorgan.com	Alvy
<b>Tracy Minter</b>	(713) 420-7030	tracy_minter@kindermorgan.com	Tminter
<b>Carol Whatley</b>	(713) 420-3889	carol_m_whatley@kindermorgan.com	CWhatley
<b>SNG Hotline</b>	(713) 420-7213	SNGSchedulers@kindermorgan.com	

# WEARS Scheduling Contacts

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<b>Mandey Allen</b>	(713) 369-9369	mandey_allen@kindermorgan.com	Mallen11
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<b>Todd Davis</b>	(205) 325-7440	todd_davis@kindermorgan.com	Tdavis23
<b>Charlotte Hawkins</b>	(713) 420-4873	charlotte_hawkins@kindermorgan.com	Chawkins4
<b>Nicole Lang</b>	(713) 420-5992	nicole_Lang@kindermorgan.com	Nlang
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<b>David (Scott) Sokira</b>	(205) 325-7313	david_sokira@kindermorgan.com	Ssokira
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<b>Norma Villarreal</b>	(713) 420-3924	Norma_Villarreal@kindermorgan.com	Nvillarreal

# SNG Contracts Contacts

<b>Contract Administration Contacts:</b>		
<b>Sherry Noack, Manager</b>	(713) 420-3764	sherry_noack@kindermorgan.com
<b>Shari Jones</b>	(713) 420-3710	shari_jones@kindermorgan.com
<b>Marquette Williams</b>	(713) 369-9336	marquette_williams@kindermorgan.com
<b>Natarsua Player</b>	(713) 369-9871	natarsua_player@kindermorgan.com
<b>Lindsay Sanford</b>	(713)420-2382	lindsay_sanford@kindermorgan.com
<b>SNG Contract Administration Hotline</b>	(713) 420-4455	

# SNG Commercial Contacts

<b>Commercial Contacts</b>		
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<b>Darryl Outlaw, Director, Commercial</b>	(205) 325-7421	Darryl_outlaw@kindermorgan.com
<b>Walter Coe</b>	(205) 325-3708	Walter_coejr@kindermorgan.com
<b>Lisa Guthrie</b>	(205) 325-3816	Lisa_guthrie@kindermorgan.com
<b>Jerry Nelson</b>	(205) 325-7257	Jerry_nelson@kindermorgan.com
<b>On call Account Manager</b>	(800) 315-0575	

# SNG Gas Control Contacts

<b>Gas Control Contacts:</b>		
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<b>Jimmy Reese, Lead Controller</b>	(713) 420-7310	jimmy_reese@kindermorgan.com
<b>Daniel Mitchell, Lead Controller</b>	(713) 420-5874	daniel_mitchell@kindermorgan.com