



Pipeline Operations Update

October 2018

Agenda

Brian Merchant
Director, Engineering Gas Control, KMI East Region

Ganesh Venkateshan
Manager, TGP Gas Control, KMI East Region

Gina Mabry
Director, Trans and Storage Svc, KMI East Region

Cathy Soape Hutton
Manager, Trans and Storage Svc, KMI East Region

Mitchell Myer
Manager, OPS, Agawam STA 261, KMI East Region

Coralie Carter Sculley
Northeast LDC Account Director, TGP Marketing, KMI East Region

TGP Gas Control Organizational Structure

TGP System Overview

2018 Summer Review

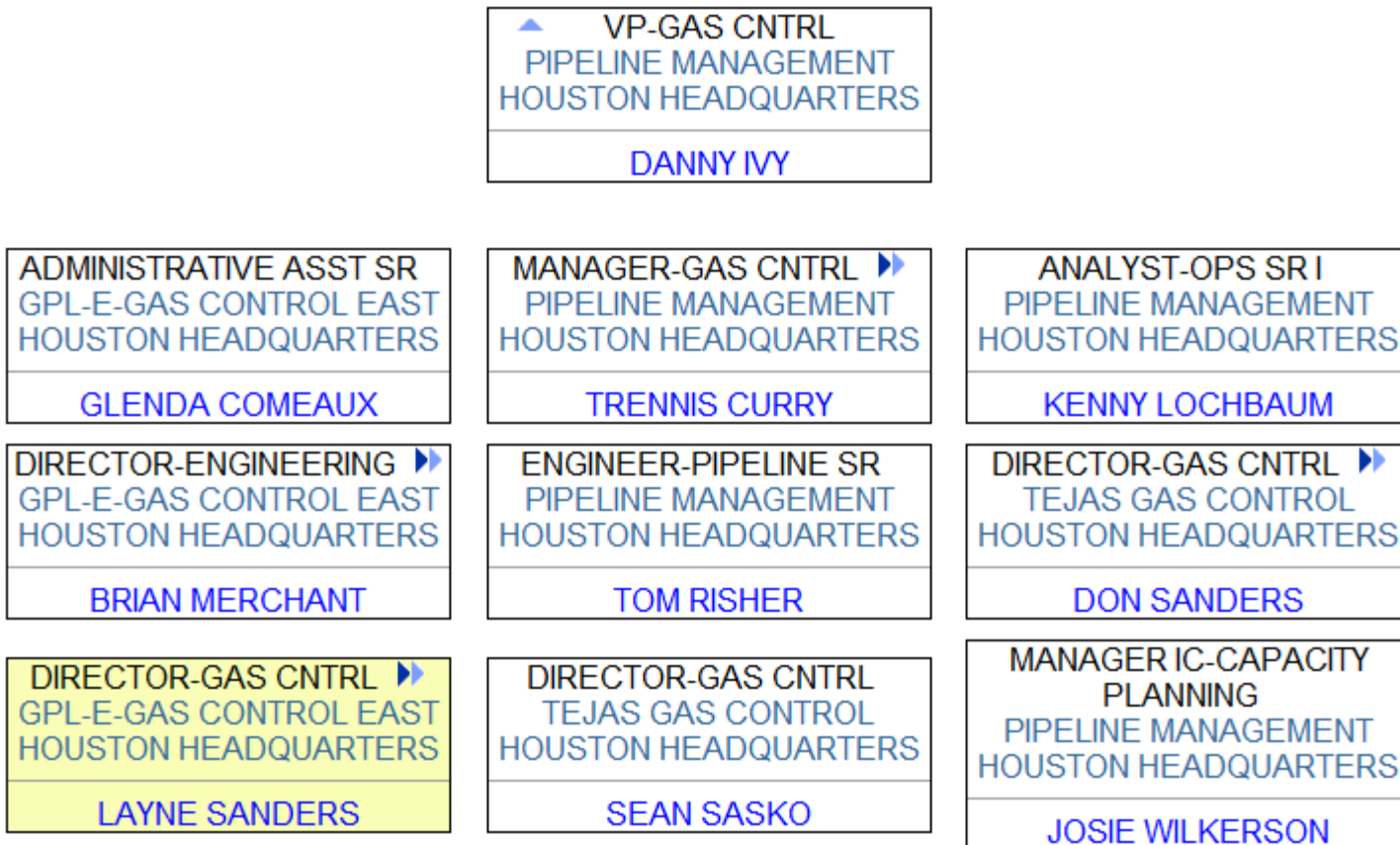
2017/2018 Winter Lookback

Operations/Outages Remaining

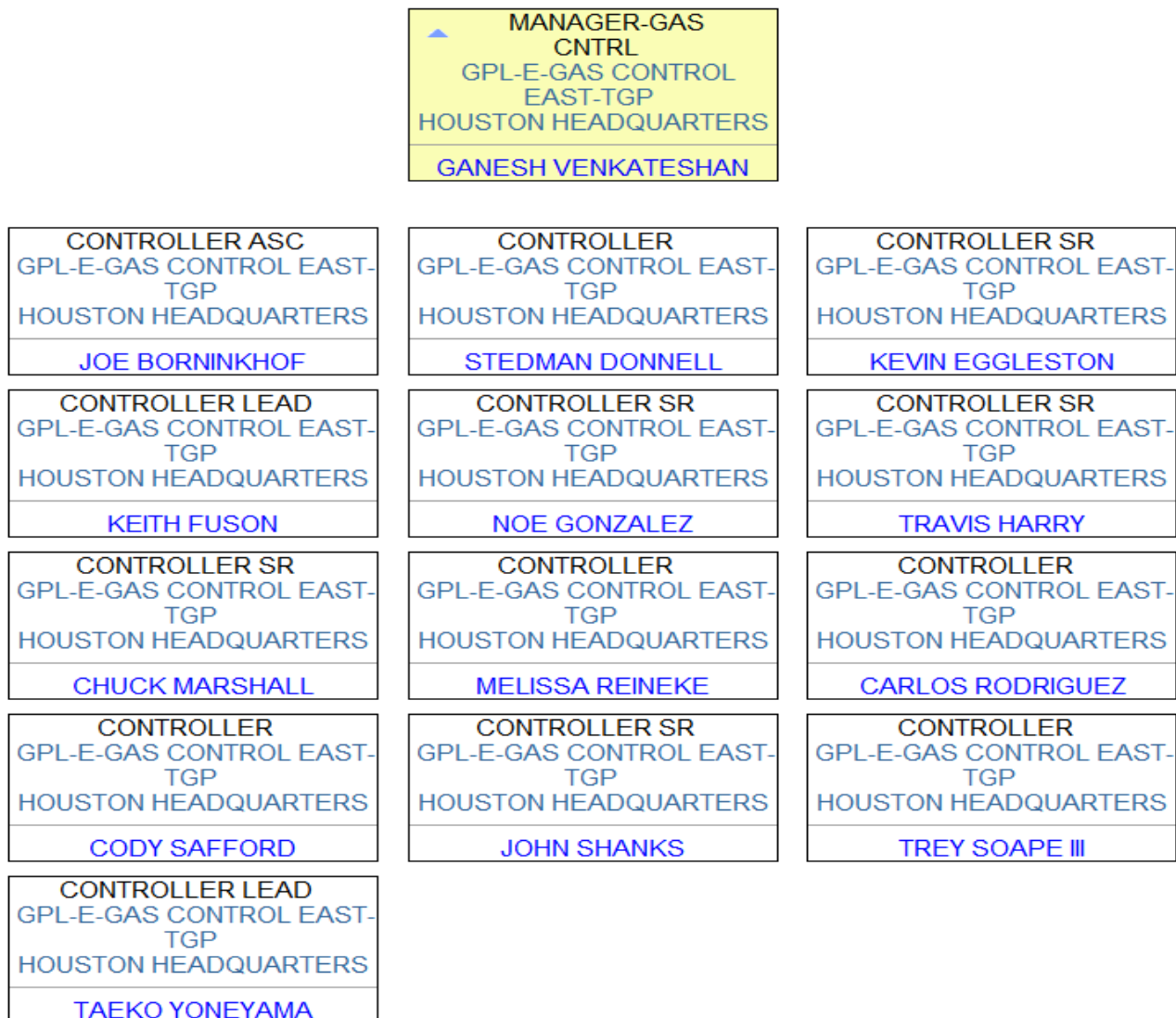
Scheduling/Dart Update

Commercial Update

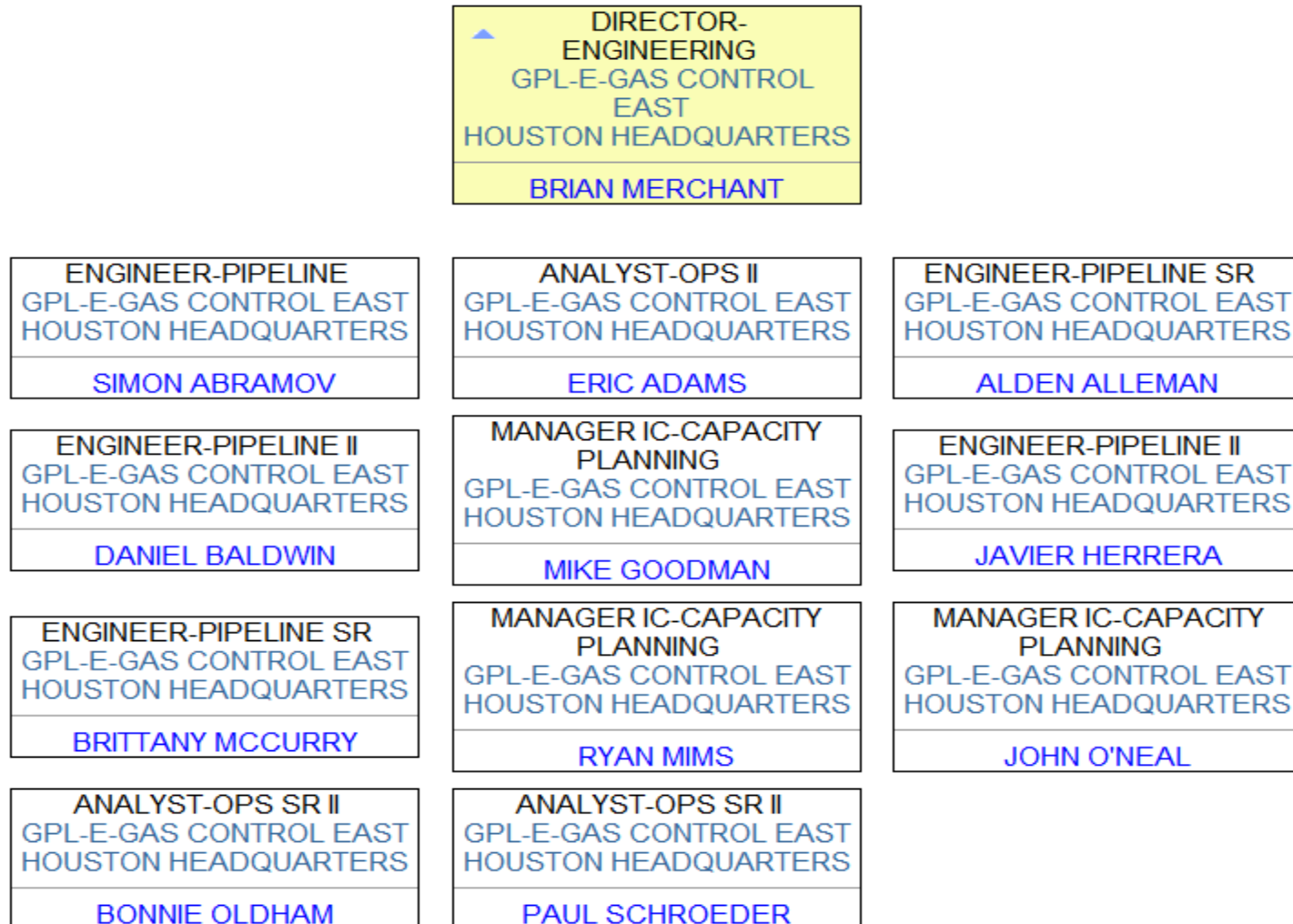
Gas Control Organizational Structure



TGP Gas Control Organizational Structure

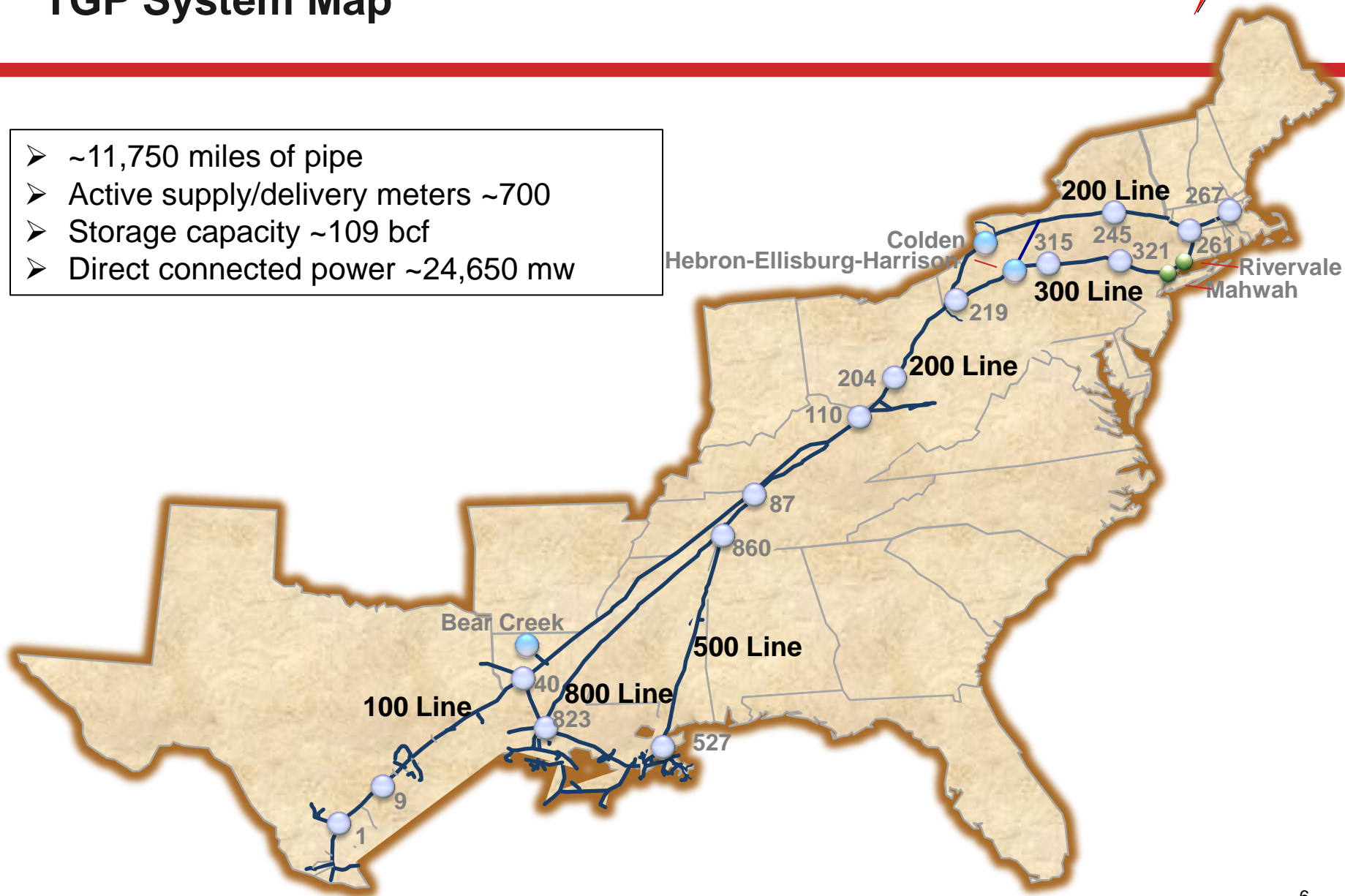


GC Engineering Organizational Structure



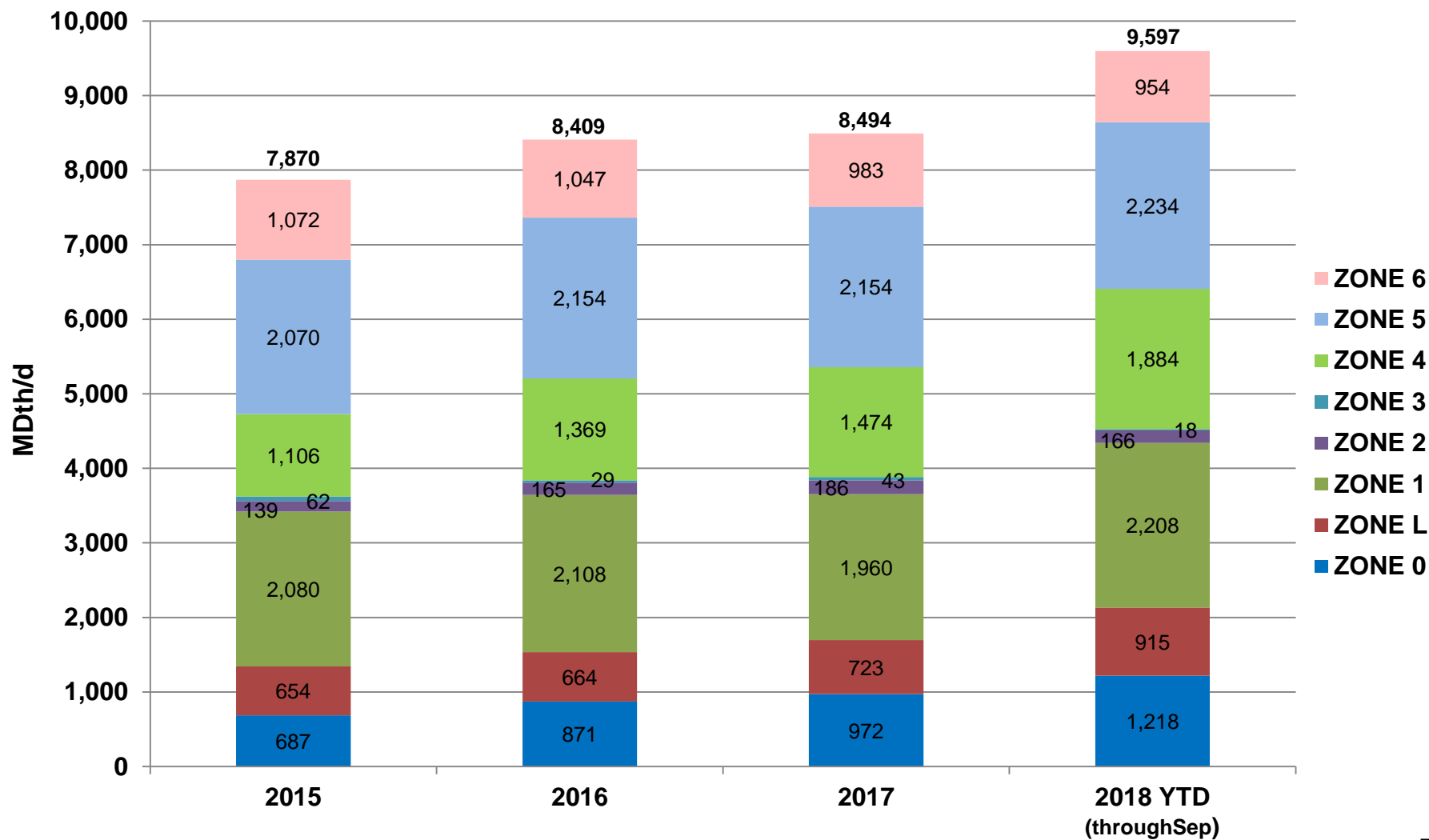
TGP System Map

- ~11,750 miles of pipe
- Active supply/delivery meters ~700
- Storage capacity ~109 bcf
- Direct connected power ~24,650 mw

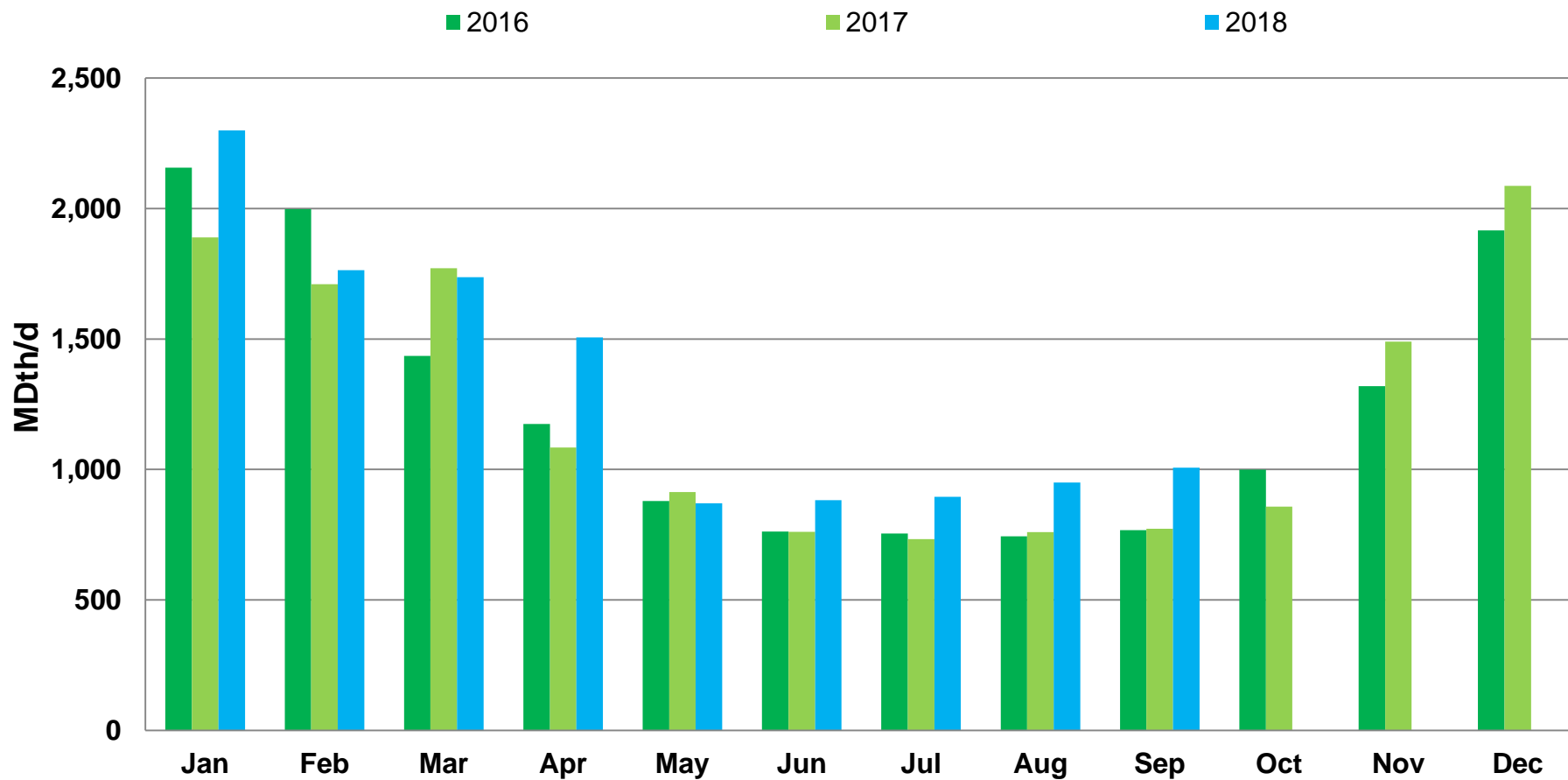


TGP System Wide Throughput

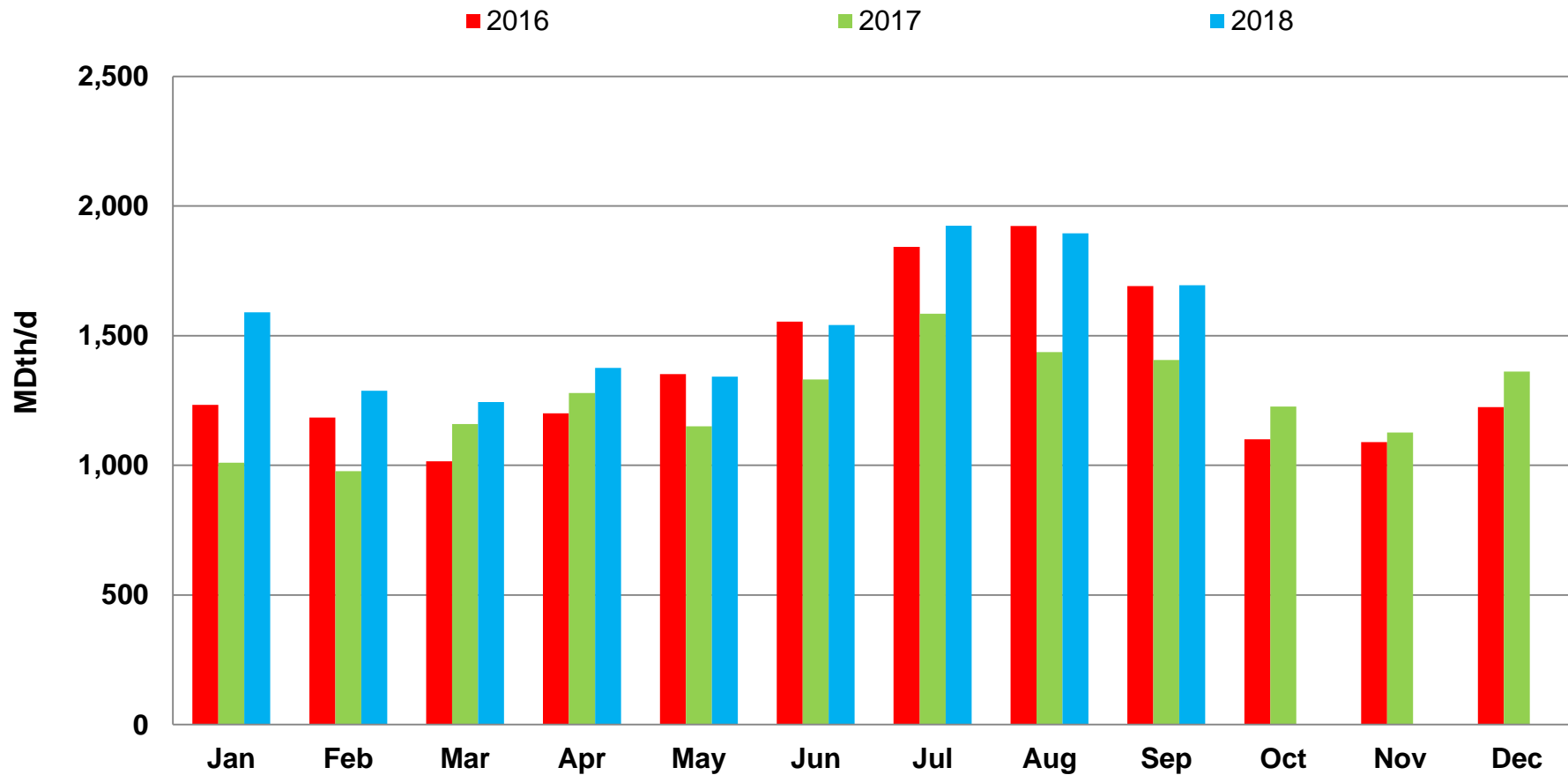
Deliveries by Zone



System Wide LDC Demand



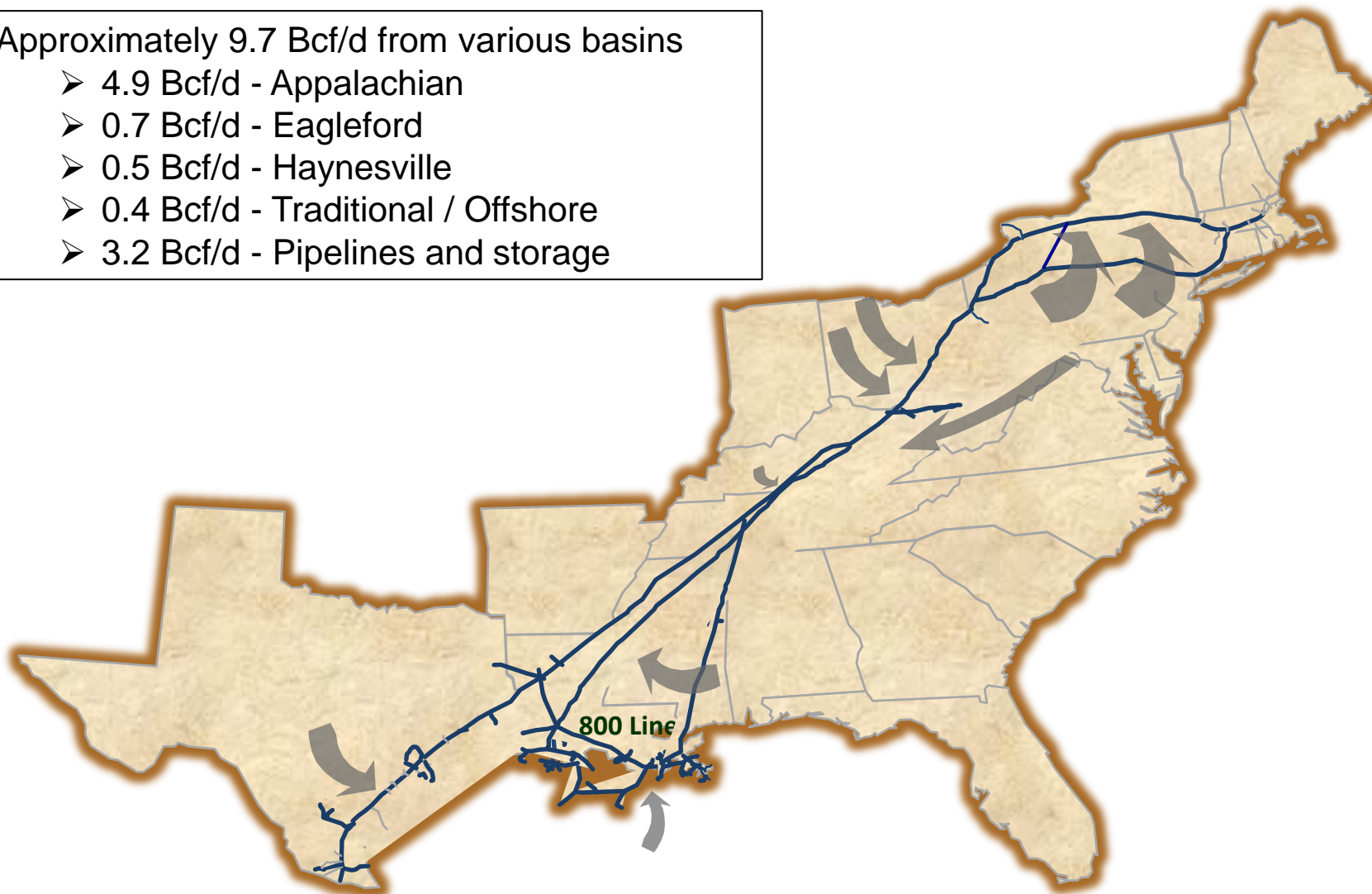
System Wide Power Demand



TGP Gas Receipts

Approximately 9.7 Bcf/d from various basins

- 4.9 Bcf/d - Appalachian
- 0.7 Bcf/d - Eagleford
- 0.5 Bcf/d - Haynesville
- 0.4 Bcf/d - Traditional / Offshore
- 3.2 Bcf/d - Pipelines and storage



Summer Review

■ Overview

- System-wide throughput increased 18% compared to previous summer
- Challenging Maintenance Season

■ Demand

- Strong Demand across system, especially in Zone 1 and Zone 4 (Power Loads)
- Significant increase in LDC, Power and Pipeline Interconnect Loads compared to 2017 Summer

Summer System Wide Flows

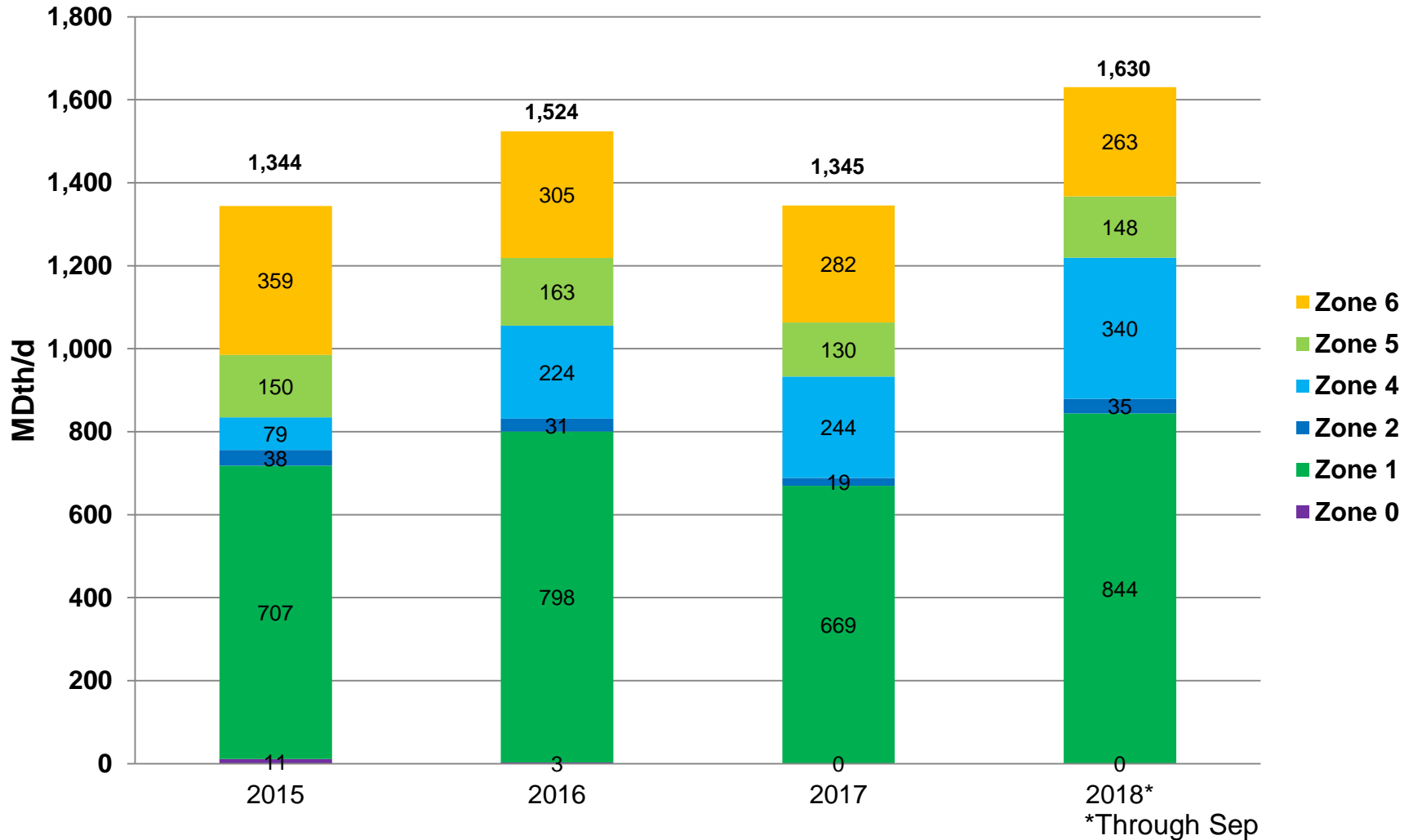
	<u>2016</u>	<u>2017</u>	<u>2018*</u>	<u>Change</u>
LDC	868	840	1,017	+21%
Power	1,524	1,345	1,630	+21%
Pipeline Interconnects	4,638	4,678	5,613	+20%
Mexico	757	793	863	+8%
Other	273	433	409	-6%
TOTAL	8,060	8,089	9,531	+18%

Volumes are MDth/d

*Through Sep

Summer System Wide Power Demand

Deliveries by Zone



Summer Northeast Market Flows

	<u>2016</u>	<u>2017</u>	<u>2018*</u>	<u>Change</u>
LDC	551	519	644	+24%
Power	451	47	396	-3%
Pipeline Interconnects	1,459	1,353	1,471	+9%
TOTAL	2,461	2,279	2,512	+10%

Volumes are MDth/d

*Through Sep

Winter Review

■ Overview

- Strong Winter Demand
 - 9 out of the Top-10 All-time System Peak Delivery Days occurred in January
- System-wide throughput increased 6% compared to previous winter
- Storage Inventories down from 2016/2017

■ Demand

- System Wide Peak Day was ~11.6 Bcf/d on January 2, 2018
- Power Plant Peak Day was ~2.4 Bcf/d on January 17, 2018
- Exports to Mexico flat compared to Winter 2016/2017

■ Supply

- Supply continued to be strong from Marcellus and Utica Shales
- Less supply coming from Dracut/Distrigas

TGP Top Flow Dates

System Wide Deliveries

Rank	Gas Day	MDth/d	Bcf/d
1	1/2/2018	12,045	11,638
2	1/4/2018	11,752	11,356
3	1/1/2018	11,572	11,180
4	1/6/2018	11,536	11,155
5	1/17/2018	11,516	11,120
6	1/5/2018	11,499	11,118
7	1/16/2018	11,379	10,992
8	1/13/2018	11,334	10,944
9	1/30/2018	11,309	10,924
10	12/15/2016	11,284	10,870

Storage Withdrawals

Rank	Gas Day	MDth/d	Bcf/d
1	1/23/2014	1,809	1,762
2	1/22/2014	1,728	1,683
3	2/11/2014	1,707	1,661
4	2/10/2014	1,670	1,626
11	1/4/2018	1,612	1,566

Rank	Gas Day	MDth/d	Bcf/d
1	1/17/2018	2,480	2,383
2	8/11/2016	2,402	2,304
3	8/28/2018	2,398	2,302
4	8/12/2016	2,300	2,210
5	1/16/2018	2,282	2,197

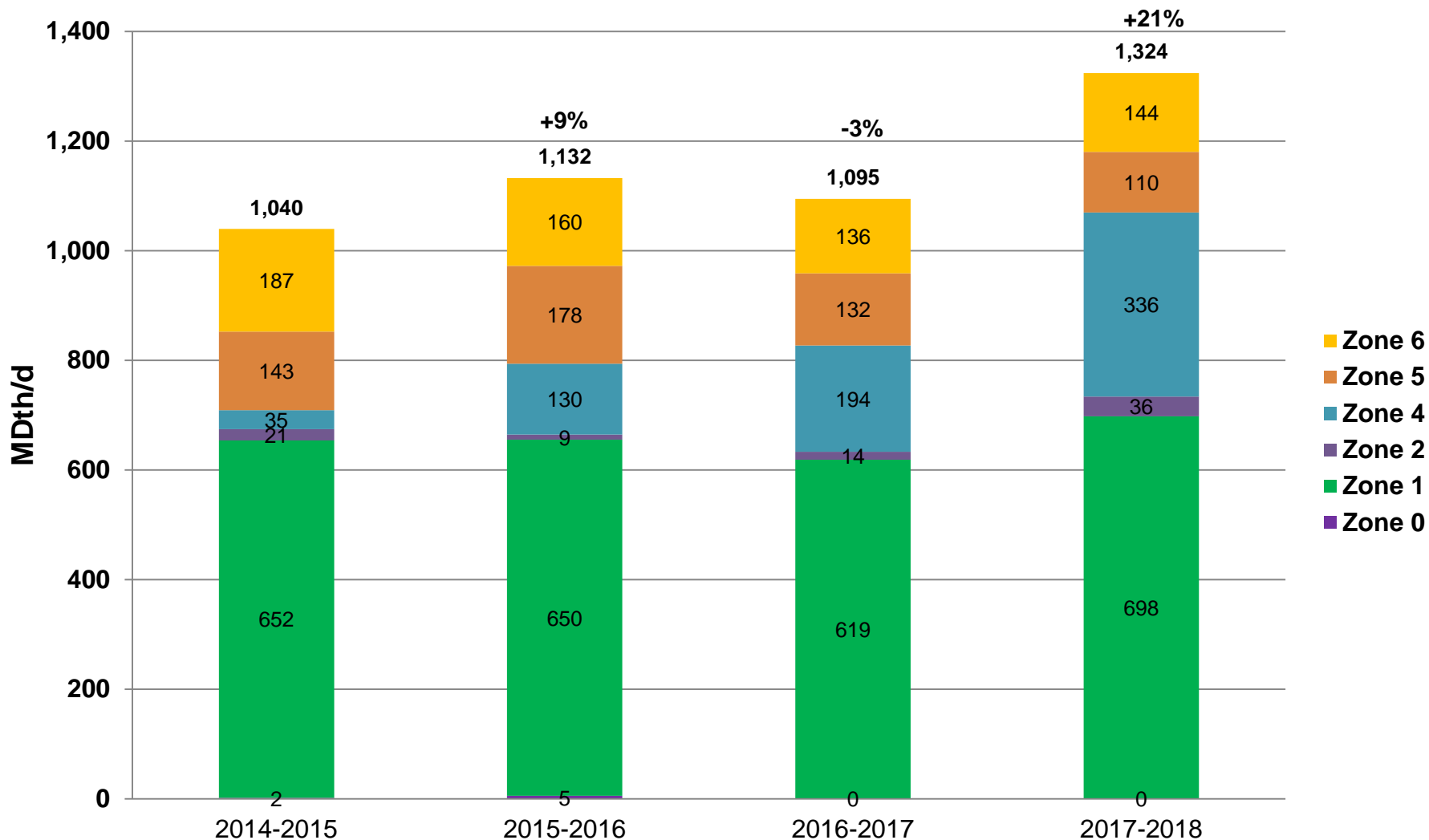
Winter System Wide Flows 2017/2018

	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>	<u>Change</u>
LDC	1,659	1,724	1,880	+9%
Power	1,132	1,095	1,324	+21%
Pipeline Interconnects	4,938	5,170	5,372	+4%
Mexico	696	844	857	+1%
Other	365	300	304	+1%
TOTAL	8,790	9,133	9,737	+6%

Volumes are MDth/d

Winter System Wide Power Demand

Deliveries by Zone



Winter Northeast Market Flows

	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>	<u>Change</u>
LDC	1,183	1,284	1,376	+7%
Power	326	266	246	-8%
Pipeline Interconnects	1,480	1,488	1,560	+5%
TOTAL	2,989	3,038	3,181	+5%

Volumes are MDth/d

Operations Update

Operations Organizational Structure

▲ VP-OPS
GPL-OPERATIONS
CORPORATE MGMT
HOUSTON HEADQUARTERS

RON BESSETTE

DIRECTOR-OPS ▶▶
GPL-E-EP SOUTHEAST
DIRECTOR
COLONIAL BROOKWOOD
CENTER

CHRIS BRADBERRY

DIRECTOR-OPS ▶▶
GPL-E-EP NORTHERN
DIRECTOR
DIVISION 10 OFFICE

TOM BURGETT

DIRECTOR-OPS ▶▶
GPL-E-EP GULF COAST
DIRECTOR
NEW CANEY CS 302

CY HARPER II

DIRECTOR-OPS ▶▶
GPL-E-EP LNG DIRECTOR
ELBA ISLAND OFFICE

STEVE HEARD

DIRECTOR-OPS ▶▶
GPL-E-EP CENTRAL
DIRECTOR
DIVISION 9 OFFICE

JOHN PANNELL

Operations Organizational Structure

▲ DIRECTOR-OPS
GPL-E-EP NORTHERN
DIRECTOR
DIVISION 10 OFFICE

TOM BURGETT

MANAGER-OPS ▶▶
GPL-E-EP NORTHERN
DIRECTOR
CAMBRIDGE CS 209

CARL BAYER

INTERN
GPL-E-EP NORTHERN
DIRECTOR
DIVISION 10 OFFICE

JOE DENESHA

MANAGER-OPS ▶▶
GPL-E-EP NORTHERN
DIRECTOR
NASSAU CS 254

BUTCH FERGUSON JR

MANAGER-OPS ▶▶
GPL-E-EP NORTHERN
DIRECTOR
COUDERSPORT CS 313

BRET METZGER

MANAGER-OPS ▶▶
GPL-E-EP NORTHERN
DIRECTOR
MERCER CS 219

RON MILLER

MANAGER-OPS ▶▶
GPL-E-EP NORTHERN
DIRECTOR
AGAWAM CS 261

MITCHELL MYER

COORDINATOR-OPS SR II ▶▶
GPL-E-EP NORTHERN
DIRECTOR
DIVISION 10 OFFICE

BILL REIS

MANAGER-OPS ▶▶
GPL-E-EP NORTHERN
DIRECTOR
HAMBURG CS 229

TOM SUTTON

Operations Update

New England Area

**Completed ILI of 12 Pipeline Segments,
1 remaining**

**Anomaly Remediation & Direct
Assessment**

Upgraded 2 Meter Stations

Connecticut Expansion Project

Station 267
Replaced ESD Stand for A Building - Aug


Westfield SMS
**Modifying heater system to keep gas
temperatures above freezing - Oct**

Station 264
Unit 1C – Turbine Exchange – April
Unit 2C – Turbine Exchange – April

Station 261
Unit 1 D – Installed New Compressor Bundle - March
Unit 1C & 1D – Replaced Exhaust Stack - Sept
Replaced Station UPS - Oct
Upgrading Station Automation Systems - Oct

Planned Maintenance Remaining

Electronic Bulletin Board



Tennessee Gas Pipeline Company, L.L.C.
a Kinder Morgan company

IMBALANCE WARNING FOR ZONE 0 SOUTH OF STATION 1

Interstate Pipelines ▾
Midstream Pipelines ▾
Informational Postings ▾
Customer Information ▾
Contact Us
DART Login
Legacy PASKEY Portal

Recent Notices

OFO
Apr 30 Imbalance Warning Zone 0 South Of Sta 1

Planned Service Outage
May 08 Scheduled Maintenance Webex
May 08 Updated Tgp Scheduled Outages
Page: [1] 2 3

Capacity Constraints/FMJ

Other Critical
Jun 17 Secondary In The Path Filing Update #3
Jun 01 Secondary In The Path Filing Update #2
Page: [1] 2 3

Non-Critical Notices
May 12 Cashout Data Estimate- April, 2014
May 12 Supply Net Pipeline Position Notice
Page: [1] 2 3

Open Seasons

May 09 Successful Bidder Open Season #925
May 09 Successful Bidder Open Season #924
May 05 Res. Of Cap. For Future Expansion
Page: [1] 2 3 4 5 6 7
[Open Season Documents](#)

Service Programs

No Service Programs


Other Postings

All Notices
[Critical Notices](#)
[Non-Critical Notices](#)
Operating Information
[Outage Impact Report](#)
[Maintenance Outages \(Excel\)](#)
Customer Information

System Constraints (mouse over the map hotspots to view data)

Highlight Locations ▾
Locs At/Near Capacity

Current Gas Day
Tomorrow's Gas Day



DISCLAIMER: The summary information contained in this graphical display is a sampling of points for informational purposes only. This display should not be relied on by shippers in making or confirming commercial transactions. For a listing of available capacity, please go to the capacity link under Informational Postings.

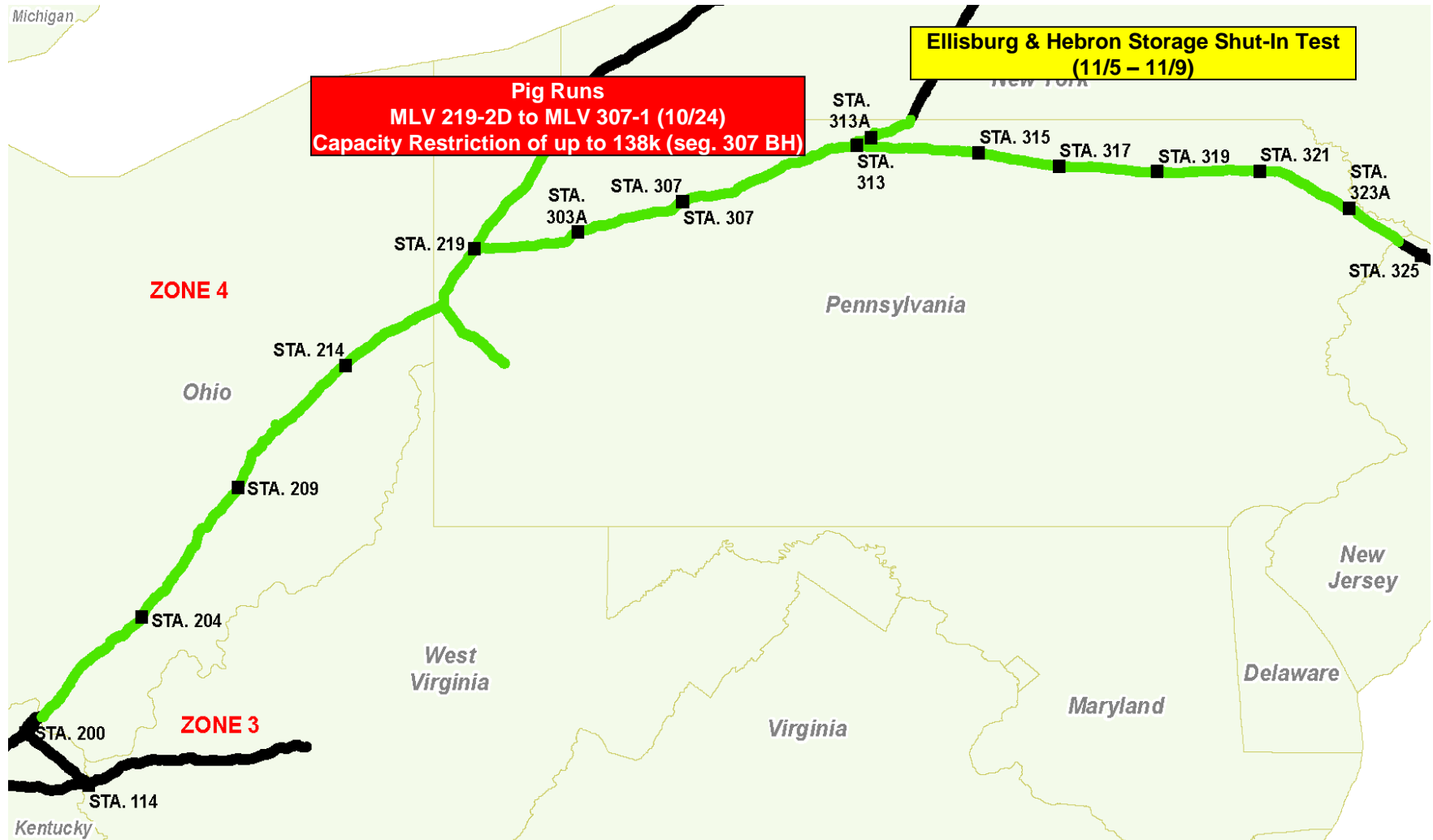
Weather Forecast (data from weather.gov)

Location	May 12:	May 13:	Forecast
Boston	81/52°F	55/46°F	Chance Rain Showers
			Mostly Cloudy
Buffalo	70/59°F	71/52°F	Rain Showers Likely
			Chance Thunderstorms
Hartford	83/56°F	65/48°F	Chance Rain Showers
			Slight Chance Rain Showers
New York	82/62°F	68/52°F	Chance Rain Showers
			Slight Chance Rain

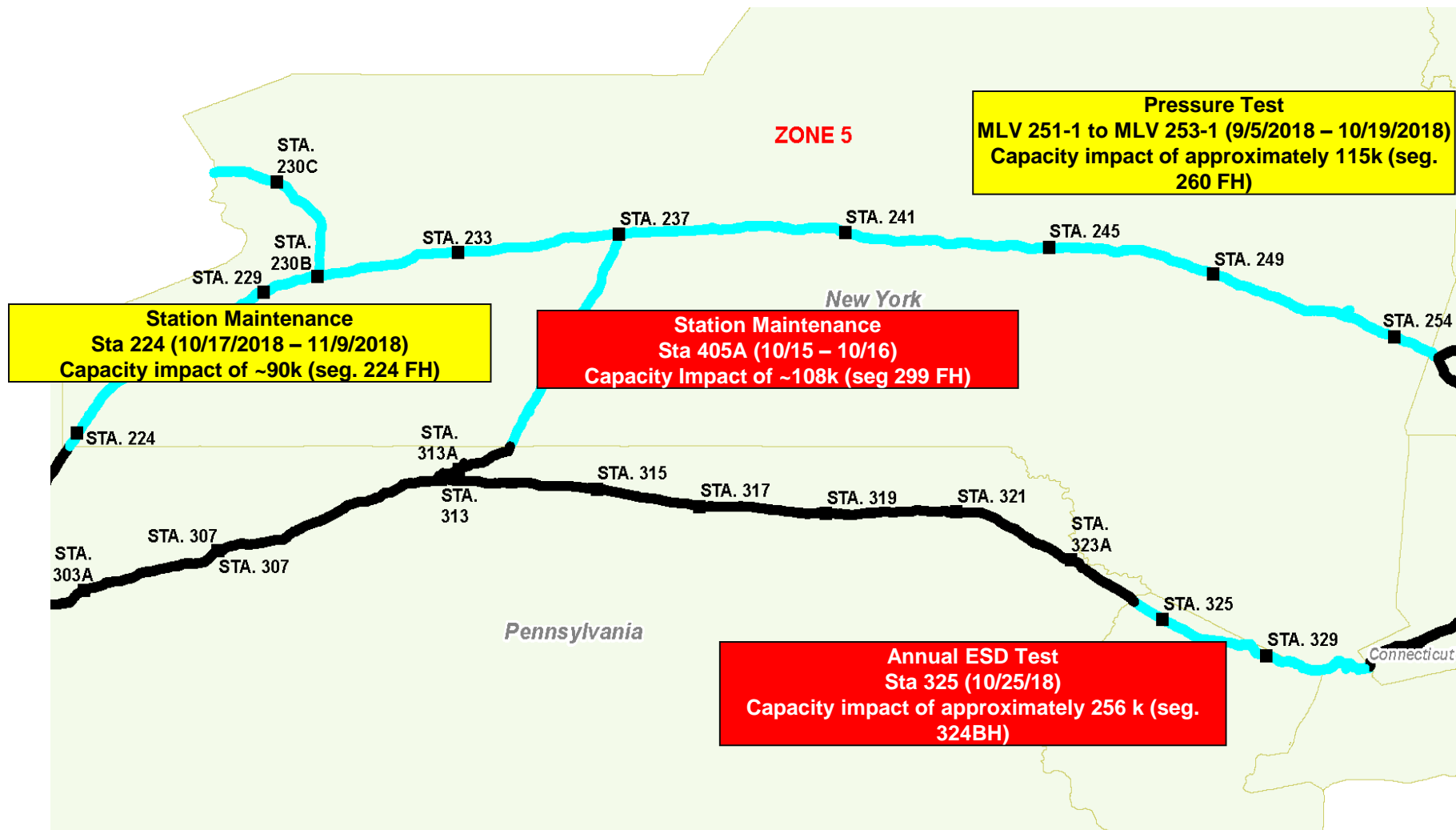
On Call Assistance

Service	Contact
Scheduling Hotline	(713) 420-4999
Weekend Contacts	
Gas Control Hotline	(800) 231-2800
Contract Mgmt. Hotline	(713) 420-3434
DART Non-Security Issues	(713) 420-4999
DART Security Support	

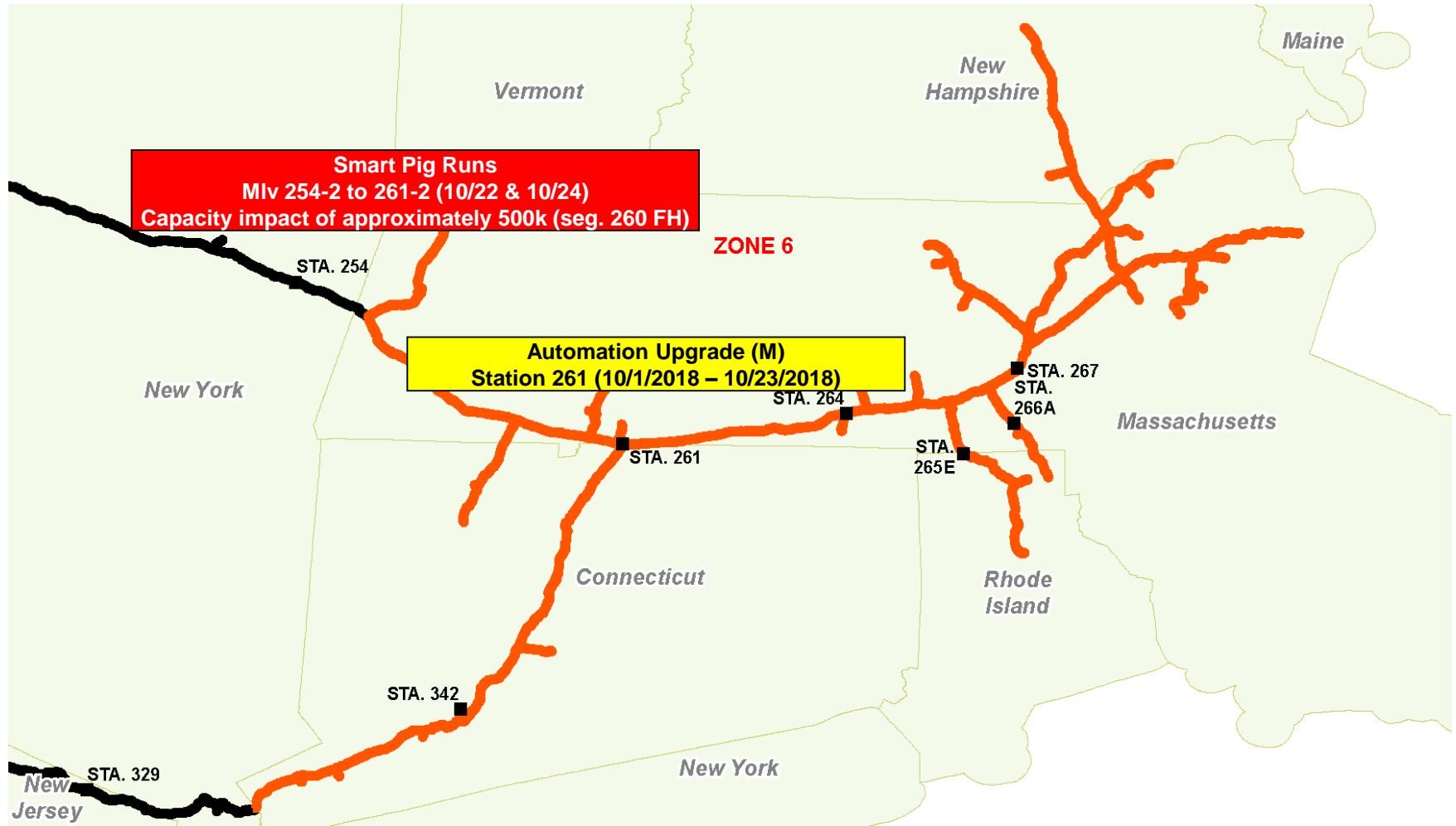
Zone 4 (Maintenance Items Remaining)



Zone 5 (Maintenance Items Remaining)



Zone 6 (Maintenance Items Remaining)



■ Scheduled Maintenance

- All routine compressor station maintenance in the Market Area shall be completed by early November. Examples include:
 - Station/Unit Protective Devices
 - Compressor maintenance
 - Boroscope Inspections
 - Device Calibration/Testing
 - Test run units (as applicable)
- All routine pipeline and meter station maintenance in the Market Area shall be completed by early November. Examples include:
 - Annual Valve Maintenance
 - Auto Closure Checks
 - Boiler Maintenance
 - Device Calibration/Meter Tests (Ongoing)

■ Winter Event Preparation

- Check/Test run emergency equipment (i.e. generators, heaters, etc)
- Field Operations will be on site at key compressor stations during significant winter events.

Scheduling Review

Transportation and Storage Services Organizational Structure

▲	DIRECTOR-SCHEDULING TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
	GINA MABRY

ANALYST-BUSINESS PROCESS SR II TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
MARY COLCLASURE

MANAGER-SCHEDULING ▶▶ TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
KATIE CORNUTT

ANALYST-BUSINESS PROCESS SR II TRANSPORTATION/STORAGE SRVCS COLONIAL BROOKWOOD CENTER
NEIL MARTIN

ANALYST-BUSINESS PROCESS SR I TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
RIZWAN FIRZADA

MANAGER-SCHEDULING ▶▶ TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
CATHY SOAPE

MANAGER-SCHEDULING ▶▶ TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
DEBBIE VASQUEZ

▲	MANAGER-SCHEDULING TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
	DEBBIE VASQUEZ

DSRs
*Daytime Scheduling
Representatives*

▲	MANAGER-SCHEDULING TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
	CATHY SOAPE

WEARs
*Weekend/Evening and
Afterhours Reps*

REP-SCHEDULER SR I TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
VERONICA ESPARZA

REP-SCHEDULER SR II TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
DANA GOODMAN

REP-SCHEDULER SR II TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
ADAM HARRIS

REP-SCHEDULER SR I TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
MANDEY ALLEN

REP-SCHEDULER SR I TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
GINGER BRYAN

REP-SCHEDULER SR I TRANSPORTATION/STORAGE SRVCS COLONIAL BROOKWOOD CENTER
TODD DAVIS

REP-SCHEDULER SR II TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
BOB KAHLDEN

REP-SCHEDULER SR II TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
SUSANA LOPEZ

REP-SCHEDULER SR II TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
ERIN MORTIMER

REP-SCHEDULER SR I TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
CHARLOTTE HAWKINS

REP-SCHEDULER SR I TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
NICOLE LANG

REP-SCHEDULER SR II TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
PHYLLIS MILLER

REP-SCHEDULER SR I TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
TAMARA SCHNEIDER

REP-SCHEDULER SR II TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
DEB SHIPMAN

REP-SCHEDULER SR II TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
CARLA VANNOY

REP-SCHEDULER III TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
AHSAN MOHAMMAD

REP-SCHEDULER SR II TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
JILL OVERMAN

REP-SCHEDULER SR I TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
JEREMY RAINWATER

REP-SCHEDULER III TRANSPORTATION/STORAGE SRVCS COLONIAL BROOKWOOD CENTER
DAVID SOKRA

REP-SCHEDULER SR II TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
DEBBIE TWEEDY

REP-SCHEDULER SR I TRANSPORTATION/STORAGE SRVCS HOUSTON HEADQUARTERS
NORMA VILLARREAL

Winter Restrictions

Restriction Point Highly Utilized TGP Paths	Percentage Days Restricted (November - March)	Percentage Days Restricted (November - March)	Percentage Days Restricted (November - March)	Percentage Days Restricted (November - March)
	2014/2015	2015/2016	2016/2017	2017/2018
Sta. 200/204	23%	64%	69%	68%
Sta. 245	100%	100%	99%	100%
Sta. 261	32%	68%	28%	81%
Sta. 267	5%	31%	56%	68%
MLV 268	0%	0%	0%	38%
MLV 273	0%	0%	17%	76%
Sta. 315 BH	100%	76%	97%	89%
Sta. 321	95%	86%	93%	92%
MLV 355 BH	6%	9%	5%	15%
Sta. 1 BH	11%	84%	0%	21%
Sta. 9 BH	0%	0%	44%	90%
Mahwah	64%	93%	88%	60%
Rivervale	81%	66%	81%	99%



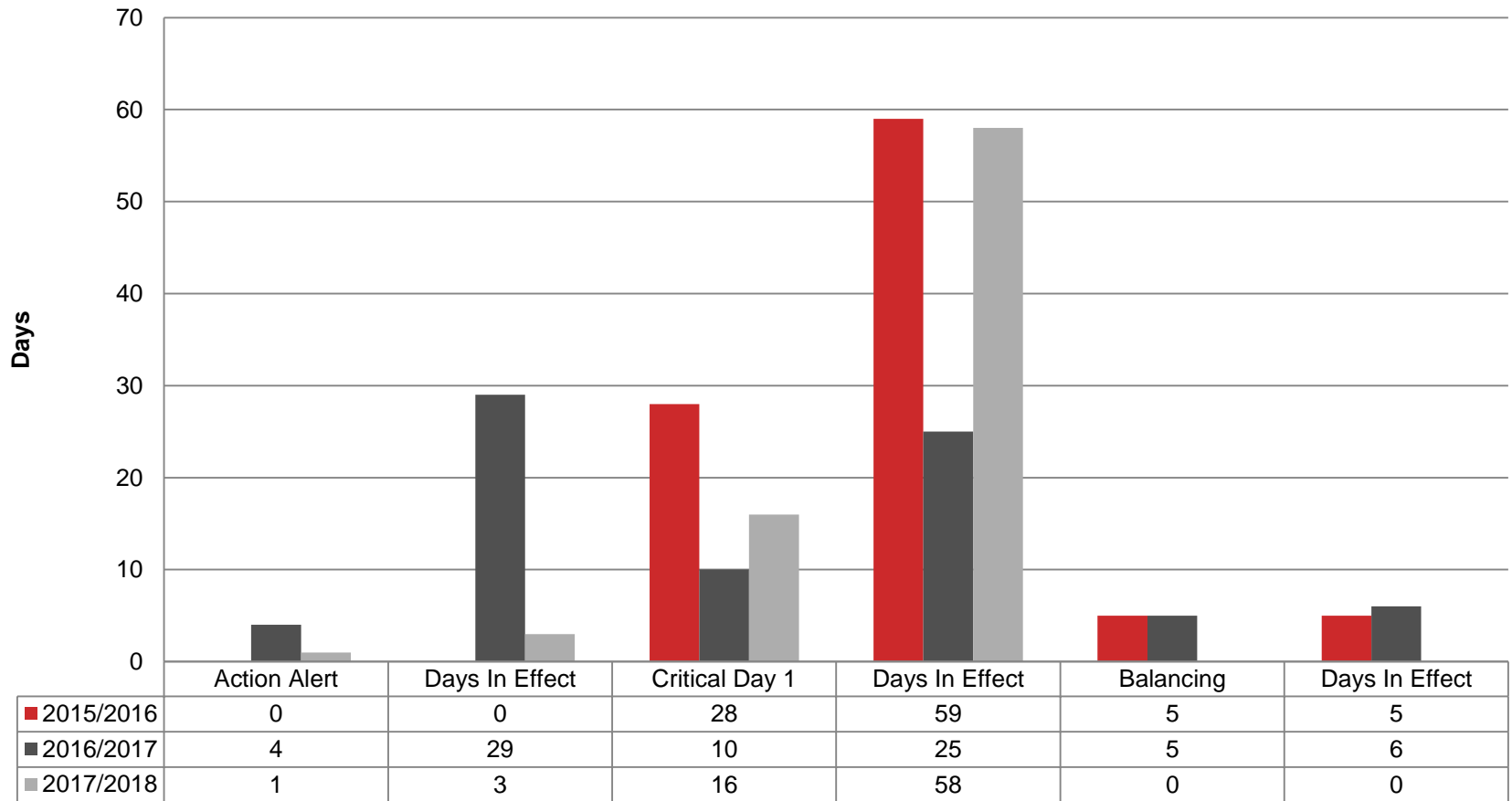
Summer Restrictions

Restriction Point Highly Utilized TGP Paths	Percentage Days Restricted (April - October)	Percentage Days Restricted (April - October)	Percentage Days Restricted (April - October)	Percentage Days Restricted (April – Sept*)
	2015	2016	2017	2018
Sta. 200/204	16%	74%	93%	67%
Sta. 245	98%	100%	98%	98%
Sta. 261	95%	12%	20%	49%
Sta. 267	1%	1%	5%	10%
MLV 268	0%	0%	0%	12%
MLV 273	0%	0%	0%	17%
Sta. 315 BH	64%	99%	99%	99%
Sta. 321	60%	46%	76%	99%
MLV 355 BH	15%	63%	29%	79%
Sta. 1 BH	48%	65%	8%	80%
Sta. 9 BH	0%	37%	50%	58%
Mahwah	95%	86%	58%	50%
Rivervale	48%	78%	57%	58%

* 2017/2018 is through September 30



Winter Season OFOs – Zones 5 and 6



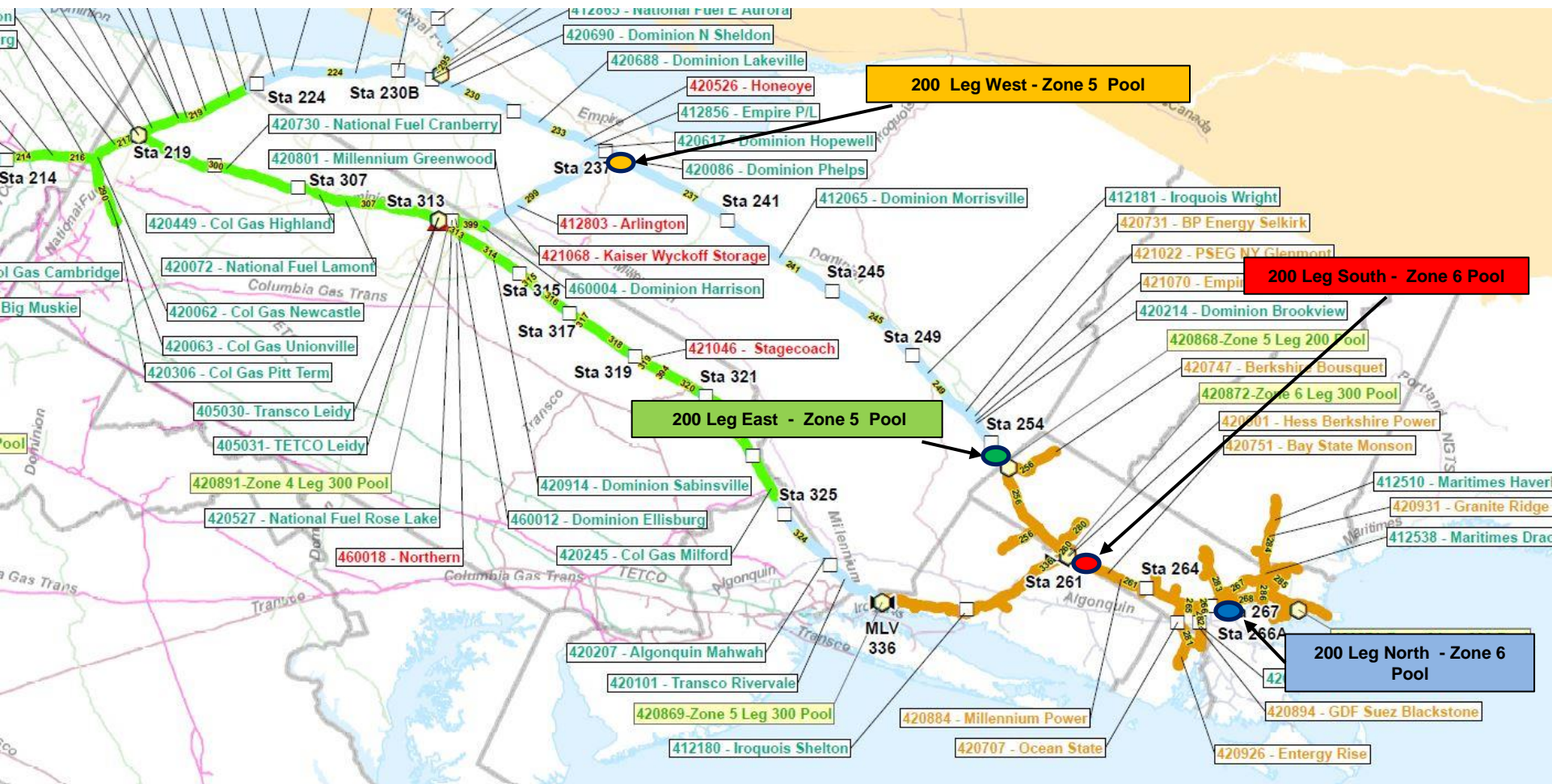
Enhancements to TGP Pooling Services effective October 1

Pool Modifications for 200 Leg - Zone 5 and 6:

- Zone 5 200 Leg will have 3 pooling points:
 - 200 Leg **West** Pool - located discharge side of Sta 237
 - 200 Leg **East** Pool - located discharge side of Sta 254
 - Zone 5 Niagara Pool – 420870 (existing)
- Zone 6 200 Leg will have 2 pooling points:
 - 200 Leg **South** Pool - located discharge side of Sta 261
 - 200 Leg **North** Pool - located discharge side of Sta 267
- Benefits from Pooling Changes:
 - More liquidity for shipper
 - More liquidity for markets seeking supply
 - Providing additional options for pooling
 - Improve shippers' ability to use Secondary Out of the Path (SOP) services



POOLING POINTS ZONES 5 & 6



Re-name the existing 200 Leg – Zone 5 pooling point and re-locate to the discharge of Sta. 237

**“Super Pool” for all receipt points
in 200 Leg - Zone 5 – excluding the
Niagara Spur**

New pool located at the discharge of Sta. 254

Restricted to receipt points east of Station 245 on the 200 Leg to the end of Zone 5 at the NY/MA Border

Re-name existing 200 Leg - Zone 6 pooling point and re-locate to the discharge of Sta. 261

“Super Pool” for all receipt points in 200 Leg -Zone 6

New pool located at the discharge of Sta. 267.

Restricted to receipt points east of Station 267 on the 200 Leg to the end of Zone 6

Scheduling Priority Modification

effective 10.01.18

Scheduling Priority Change for **ALL** Pooling (SA) Service

- Scheduling priority of pooling (SA) transactions will be modified from firm secondary out of path (“SOP”) to a scheduling priority just below SOP but above PAL and Interruptible services

Supply Aggregation Priority

effective 10.01.18

Highest



Primary (PIP)

Secondary in the Path – secondary to primary (SIPsp)

Secondary in the Path – primary to secondary (SIPps)

Secondary in the Path – secondary to secondary (SIPss)

Secondary out of th Path (SOP)

'New' Supply Aggregation (SA)



PAL-T (firm Park and/or Loan)

Payback

AO FS

Remaining Interruptible Priorities

**FIRM
Services**

**Interruptible
Services**

Lowest



- No delivery nominations allowed to Dracut
- No receipt nominations allowed at Mendon until ID1 (compared to EPSQ volumes)
- No delivery nominations allowed at Wright/Shelton until ID1 (compared to EPSQ volumes)
- Invalid nominations not allowed
- Limitations of Storage Services/Linepack Services
- No meter bounces allowed at power plants downstream (may be invoked)
- EPSQ invoked on meters as needed
- New restriction locations as needed
- Imbalance Warnings
- Monthly OFOs
- Daily OFOs
- Hourly OFOs

DART Winter Reminders

- New DART Capacity Release Upload Feature
NOTE: Expected to be available for November 1st, 2018
- New Restriction locations may be implemented
NOTE: New locations are stated in Restriction Notice
- Monitor EBB for System and Maintenance Updates
- Contract pathing should be determined – know exception pathing
- Be conscious of suppliers' priorities
- If using the copy batch feature from before October 1, remove invalid pool meters before submitting
- To avoid overlapping nominations, review MDQ Utilization screen before or after submitting batch
- After nomination submission, review priorities in Capacity Split Screen
- The new SA priority will keep previously scheduled status (PS) like other firm services
- Supply points associated with pools can be found on the TGP home page in Location Information

Commercial Update

Business Development Overview

Progressing on Project Backlog

- Adding 1.2 Bcf/d to connect two new LNG projects
 - Cameron (Mitsui, Mitsubishi) – Jan 2019
 - Corpus Christi (Cheniere) – Jan 2019
- Adding 200,000 Dth/d to move Marcellus gas south
 - Broad Run Expansion (Antero) – 4th Qtr 2018

TGP Development Drivers

1. Shale production
2. Supply security and diversity
3. LNG and Mexico exports
4. Power generation



Lone Star – Sta. 3A Construction

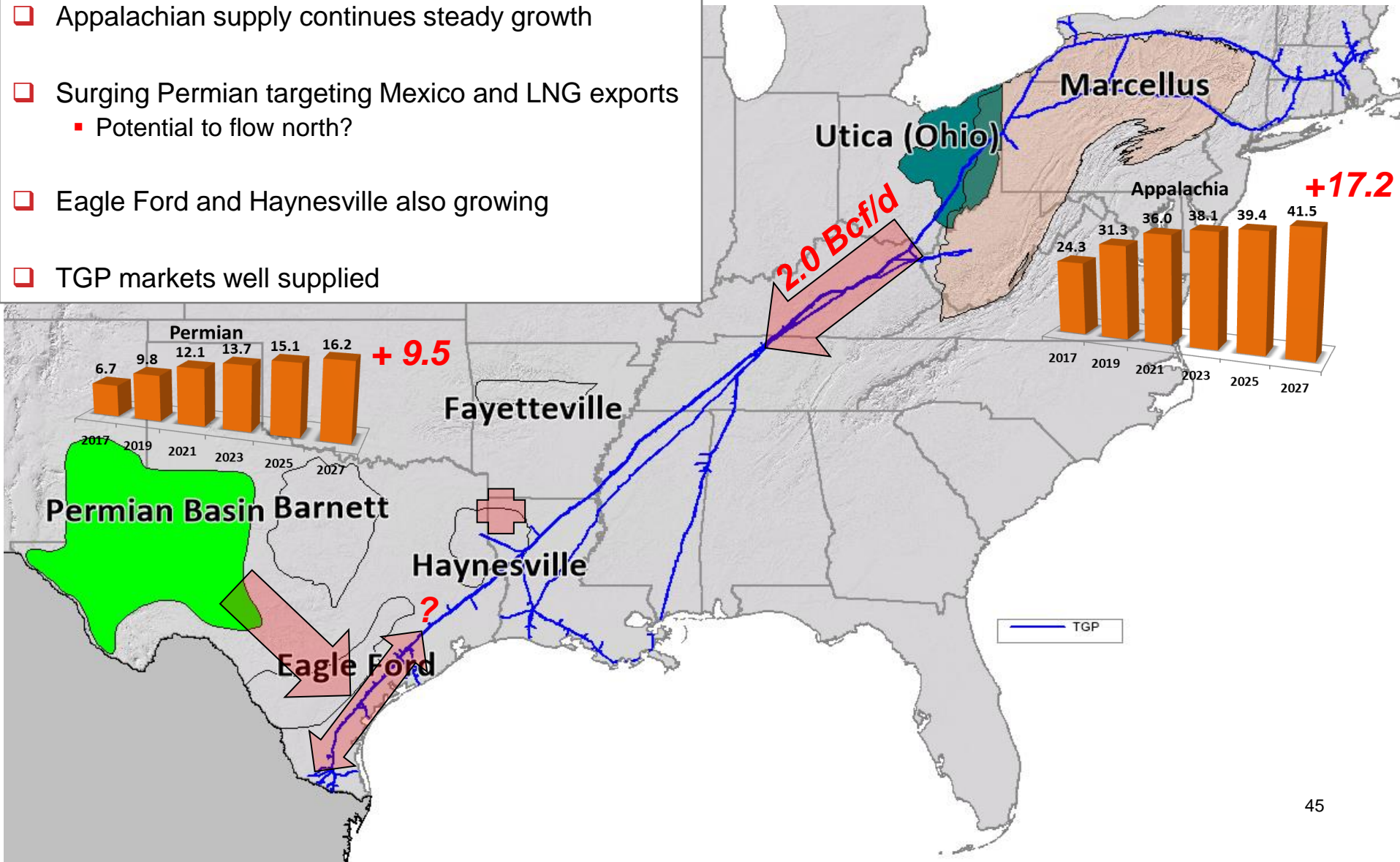


Broad Run Expansion – Sta. 563 Construction

Shale Production

Continued supply growth expected on both ends of TGP

- ❑ Appalachian supply continues steady growth
- ❑ Surging Permian targeting Mexico and LNG exports
 - Potential to flow north?
- ❑ Eagle Ford and Haynesville also growing
- ❑ TGP markets well supplied



Future LNG and Mexico Exports

The next "wave" of projects

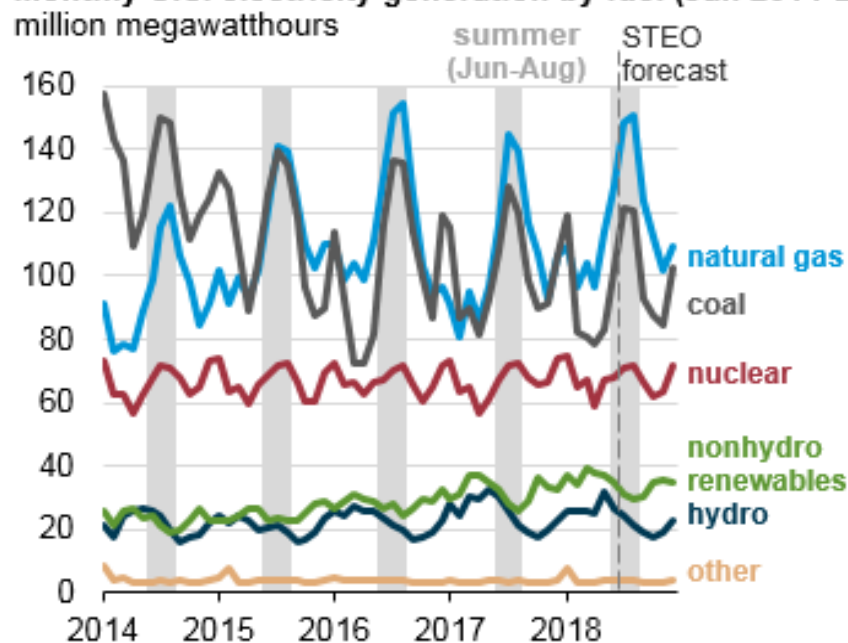
- ❑ TGP expansions nearing completion to Cameron (900,000 Dth/d) and Corpus Christi (300,000 Dth/d)
- ❑ Connectivity to Freeport via Coastal Bend
- ❑ Majority of future LNG project potential is along TGP footprint
- ❑ Currently marketing up to 140,000 Dth/d incremental with delivery to Mexico



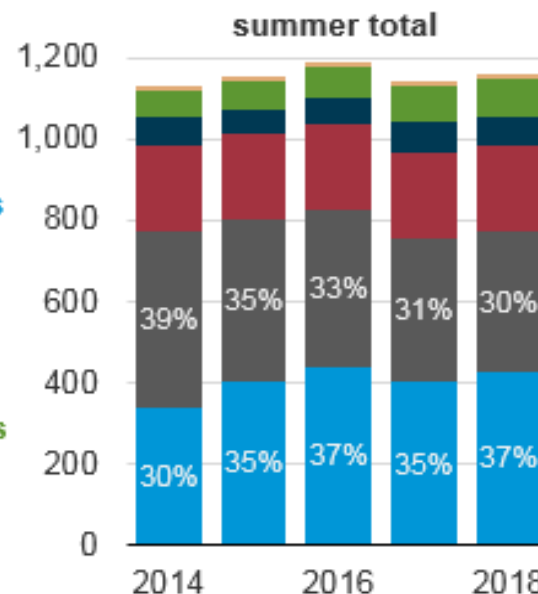
Power Generation

Gas-fired generation still on the rise

Monthly U.S. electricity generation by fuel (Jan 2014-Dec 2018)



million megawatthours



Natural gas share of summer power-gen near all-time high

- Natural gas share ~ 37%
- Coal share ~ 30%
- Continues multi-year trend of lower coal-fired electricity
- Over the three-year period from 2015 to 2017, the cost of natural gas delivered to power-gen averaged \$3.16

TGP has seen tremendous growth in power-generation

- Delivered ~ 1.55 Bcf/d summer (15% increase)
- Delivered ~ 1.32 Bcf/d winter (21% increase)
- Direct connected power ~24,650 MW
- Continued focus on connecting new load
- Portfolio renewals and ensuring supply access

Improving / Increasing level of service to customers using existing assets

- **Customer Service**
- **Open Capacity Marketing**
- **IT Discounting**
- **Strategic Initiatives**
- **Customer Representation**
- **Park and Loan**
- **Open Seasons**
- **Market Intelligence and Forecasting**

- **Interruptible Service**
- **Balancing Services Utilizing Linepack and Operational Storage**
- **Load Swings**
- **Call the Bidroom for**
 - Restriction Management
 - Intraday Swings
 - Weekend Balancing

Interesting Deal Structure:

2 day PAL service to allow power generator to swing on linepack, when operationally feasible

Where Does Open Capacity Come From?

- Under-contracted segments
- ROFR Turnback
- Receipt / Delivery Point Changes
- Technology Improvements

How Do We Market Capacity?

- Capacity Request
- Generally Available Open Season
- Pre-Arranged Deals
- Customer Relationships

Note: Available capacity is posted by segment since mid-2017

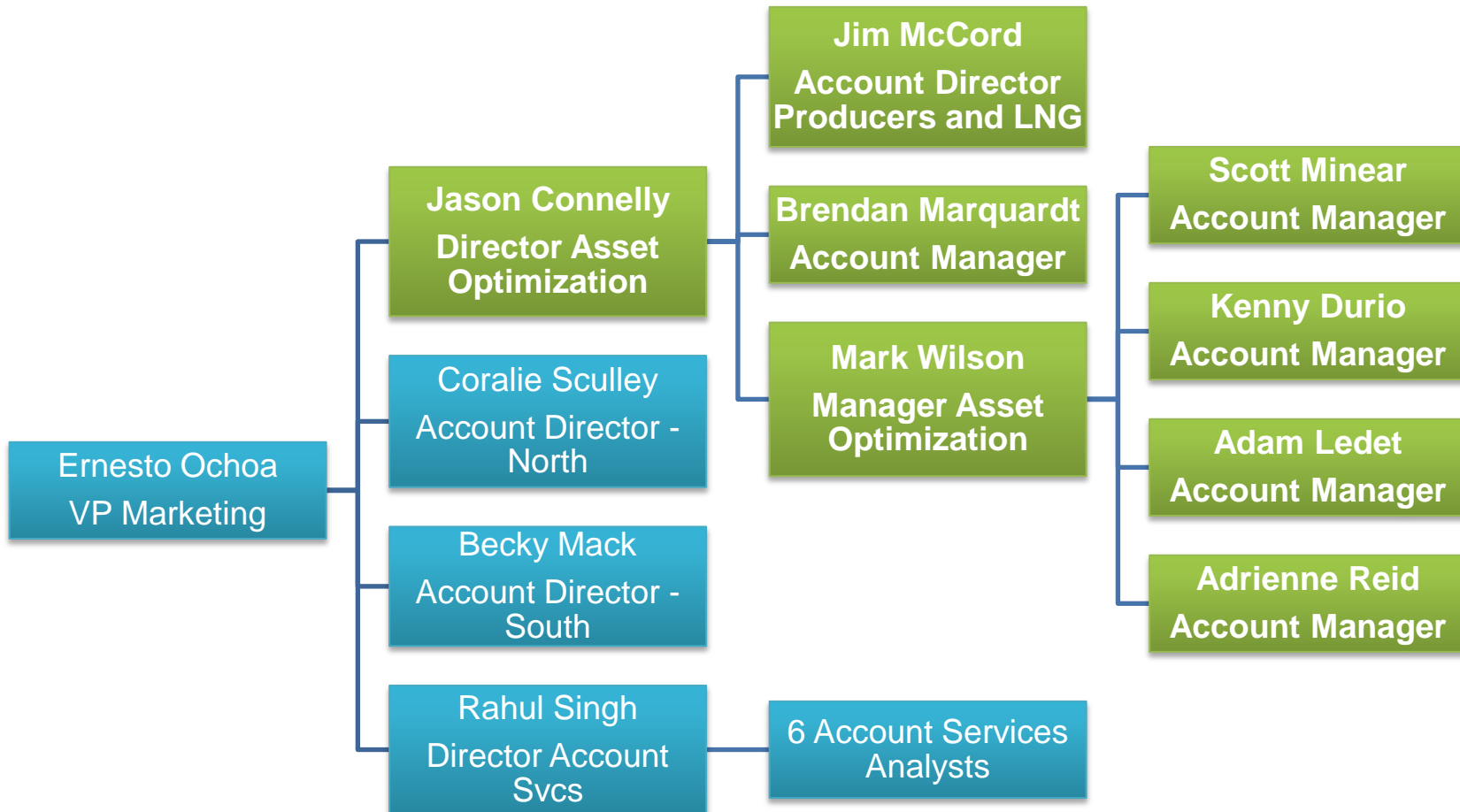
Summary

- ❑ Nearing completion of significant project backlog

- ❑ Well positioned for another “wave” of development projects, driven by:
 - Shale production
 - Supply security and diversity
 - LNG and Mexico exports
 - Power generation

- ❑ Improving / Increasing level of service to customers using existing assets

North Region Marketing Team



Appendix

Contacts – TGP Schedulers

TGP HOTLINE for day and after hours 713-420-4999

DAYTIME		ICE Name	Phone
Veronica	Esparza	vesparza2	713-420-5213
Dana	Goodman	dgoodman2	713-420-3684
Adam	Harris	aharris10	713-420-2672
Bob	Kahlden	bkahlden	713-420-3717
Susan	Lopez	slopez3	713-420-3724
Erin	Mortimer	emortimer1	713-420-5878
Tamara	Schneider	tschneider4	713-420-2396
Deb	Shipman	dshipman1	713-420-3088
Carla	Vannoy	cvannoy	713-369-8048

WEEKEND AND	EVENING	ICE Name
Mandey	Allen	mallen11
Nicole	Lang	nlang
Norma	Villarreal	NormaVTGP
Ginger	Bryan	gbryan5
Debbie	Tweedy	dtweedy
Jill	Overman	joverman
Todd	Davis	Tdavis23
Charlotte	Hawkins	Chawkins4
Phyllis	Miller	Pmiller7
Jeremy	Rainwater	Jrainwater
David	Sokira	Ssokira
Ahsan	Mohammad	Amohammad

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200 Leg Zone 5 Supply Aggregation Points

200 Leg Zone 5 Pool – WEST (*Loc 50763*)

49756	NFG/TGP COLDEN
411158	NFG DIST/TGP SHERMAN
411781	SJRSY RG/TGP UDP LAKE SHORE DEHY
412065	DOMINION/TGP MORRISVILLE
412181	IROQUOIS/TGP WRIGHT
412479	CEM/TGP COOK SCHOOL ROAD
412803	ARLSTOR/TGP ARLINGTON STORAGE
412856	EMPIREPL/TGP CANANDAIGUA
412870	DOMINION/TGP CRAIGS
420526	HONEOYE/TGP UDP HONEOYE NEW YORK
421068	KAISER/TGP WYCKOFF STORAGE STEUBEN

200 Leg Zone 5 Pool – EAST (*Loc 50679*)

412181	IROQUOIS/TGP WRIGHT SMS SCHOHARIE
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200 Leg Zone 6 Supply Aggregation Points

200 Leg Zone 6 Pool – SOUTH (*Loc 50764*)

49831	NG ADVAN/TGP CNG PEMBROKE
412510	MARITIME/TGP HAVERHILL PORTLAND
412513	DISTRGAS/TGP DISTRIGAS
412538	MARITIME/TGP DRACUT MIDDLESEX

200 Leg Zone 6 Pool – NORTH (*Loc 50680*)

49831	NG ADVAN/TGP CNG PEMBROKE
412510	MARITIME/TGP HAVERHILL PORTLAND
412513	DISTRGAS/TGP DISTRIGAS
412538	MARITIME/TGP DRACUT MIDDLESEX

Tennessee Gas Pipeline Contact List



Gas Control

24 hour and emergency
800-231-2800

Ganesh Venkateshan – Mgr
713-420-2099
Cell – 832-980-8296

Layne Sanders – Dir
713-420-5024
Cell – 832-563-5024

Danny Ivy - VP
713-369-9311
Cell – 713-829-2761

Tom Dender – VP
713-420-3833
Cell – 205-572-1549

Transportation and Storage

24 hour Scheduling Hotline
713-420-4999

Cathy Soape – Manager
713-420-3814
Cell – 713-922-5083

Debbie Vasquez – Manager
713-420-3864
Cell – 713-806-7723

Katie Cornutt – Manager
713-420-5648
407-902-8027

Gina Mabry – Director
713-420-3685
Cell – 281-744-8666

Gene Nowak – VP
713-369-9329
Cell – 713-252-9759

Commercial/Marketing

Jason Connelly - Director
713-420-2446
Cell – 713-444-3940

Ernesto Ochoa – VP
713-420-1734
Cell – 281-414-3823

Kim Watson – President
713-369-9233
Cell – 713-204-5423

Field Operations

Bret Metzger– Ops Manager
(Coudersport Area)
814-274-3122
Cell – 814-366-1712

Butch Ferguson – Ops Manager
(Nassau Area)
860-763-6013
Cell – 518-542-8907

Mitchell Myer– Ops Manager (NE Area)
413-821-2022
Cell – 713-205-7864

Tom Burgett – Director (Northeast)
860-763-6027
Cell – 713-829-2919

Ron Bessette– VP
713-420-6012
Cell – 413-313-4380

Ken Grubb –COO GAS Pipelines
713-369-8763
Cell – 713-702-1210