



WE MAKE ENERGY HAPPEN

# 2017 Winter Operations Meetings

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NYSE: WMB  
[williams.com](http://williams.com)



# Forward Looking Statements

- > The reports, filings, and other public announcements of The Williams Companies, Inc. (Williams) and Williams Partners L.P. (WPZ) may contain or incorporate by reference statements that do not directly or exclusively relate to historical facts. Such statements are “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements relate to anticipated financial performance, management’s plans and objectives for future operations, business prospects, outcome of regulatory proceedings, market conditions, and other matters. We make these forward-looking statements in reliance on the safe harbor protections provided under the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, included in this document that address activities, events or developments that we expect, believe or anticipate will exist or may occur in the future, are forward-looking statements. Forward-looking statements can be identified by various forms of words such as “anticipates,” “believes,” “seeks,” “could,” “may,” “should,” “continues,” “estimates,” “expects,” “forecasts,” “intends,” “might,” “goals,” “objectives,” “targets,” “planned,” “potential,” “projects,” “scheduled,” “will,” “assumes,” “guidance,” “outlook,” “in-service date” and other similar expressions. These forward-looking statements are based on management’s beliefs and assumptions and on information currently available to management and include, among others, statements regarding:
  - Levels of cash distributions by WPZ with respect to limited partner interests;
  - Levels of dividends to Williams stockholders;
  - Future credit ratings of Williams, WPZ and their affiliates;
  - Amounts and nature of future capital expenditures;
  - Expansion and growth of Williams’ business and operations;
  - Expected in-service dates for capital projects;
  - Financial condition and liquidity;
  - Business strategy;
  - Cash flow from operations or results of operations;
  - Seasonality of certain business components;
  - Natural gas and natural gas liquids prices, supply, and demand; and
  - Demand for our services.
- > Forward-looking statements are based on numerous assumptions, uncertainties and risks that could cause future events or results to be materially different from those stated or implied in this document. Many of the factors that will determine these results are beyond our ability to control or predict. Specific factors that could cause actual results to differ from results contemplated by the forward-looking statements include, among others, the following:
  - Whether WPZ will produce sufficient cash flows to provide expected levels of cash distributions;
  - Whether Williams is able to pay current and expected levels of dividends;
  - Whether WPZ elects to pay expected levels of cash distributions and Williams elects to pay expected levels of dividends;
  - Whether we will be able to effectively execute our financing plan;
  - Whether Williams will be able to effectively manage the transition in its board of directors and management as well as successfully execute its business restructuring;
  - Availability of supplies, including lower than anticipated volumes from third parties served by our business, and market demand;
  - Volatility of pricing including the effect of lower than anticipated energy commodity prices and margins;
  - Inflation, interest rates, and general economic conditions (including future disruptions and volatility in the global credit markets and the impact of these events on customers and suppliers);
  - The strength and financial resources of our competitors and the effects of competition;
  - Whether we are able to successfully identify, evaluate and timely execute capital projects and other investment opportunities in accordance with our forecasted capital expenditures budget;
  - Our ability to successfully expand our facilities and operations;
  - Development and rate of adoption of alternative energy sources;

# Forward Looking Statements (cont'd)

- The impact of operational and developmental hazards, unforeseen interruptions, and the availability of adequate insurance coverage;
  - The impact of existing and future laws, regulations, the regulatory environment, environmental liabilities, and litigation, as well as our ability to obtain permits and achieve favorable rate proceeding outcomes;
  - Williams' costs and funding obligations for defined benefit pension plans and other postretirement benefit plans;
  - WPZ's costs for defined benefit pension plans and other postretirement benefit plans sponsored by its affiliates;
  - Changes in maintenance and construction costs;
  - Changes in the current geopolitical situation;
  - Our exposure to the credit risk of our customers and counterparties;
  - Risks related to financing, including restrictions stemming from debt agreements, future changes in credit ratings as determined by nationally-recognized credit rating agencies and the availability and cost of capital;
  - The amount of cash distributions from and capital requirements of our investments and joint ventures in which we participate;
  - Risks associated with weather and natural phenomena, including climate conditions and physical damage to our facilities;
  - Acts of terrorism, including cybersecurity threats, and related disruptions; and
  - Additional risks described in our filings with the Securities and Exchange Commission (SEC).
- > **Given the uncertainties and risk factors that could cause our actual results to differ materially from those contained in any forward-looking statement, we caution investors not to unduly rely on our forward-looking statements. We disclaim any obligations to and do not intend to update the above list or announce publicly the result of any revisions to any of the forward-looking statements to reflect future events or developments.**
- > **In addition to causing our actual results to differ, the factors listed above may cause our intentions to change from those statements of intention set forth in this document. Such changes in our intentions may also cause our results to differ. We may change our intentions, at any time and without notice, based upon changes in such factors, our assumptions, or otherwise.**
- > **Because forward-looking statements involve risks and uncertainties, we caution that there are important factors, in addition to those listed above, that may cause actual results to differ materially from those contained in the forward-looking statements. For a detailed discussion of those factors, see Part I, Item 1A. Risk Factors in Williams' and WPZ's Annual Reports on Form 10-K filed with the SEC on February 22, 2017.**



# Agenda

## > Introduction - Safety Moment

- Cyber Security

## > Pipeline Control

- Operations and System Update

## > System Planning

- 2018 Planned Construction and Maintenance

## > Transportation Services

- Imbalance Management / E-Contracting / Tariff Filings

## > Break

## > Customer Services

- Industry Trends / System Imbalance / Modernization

## > Business Development

- Supply & Demand / Project Updates

## > Customer Service & Pipeline Control

- Future State System Flow Projections



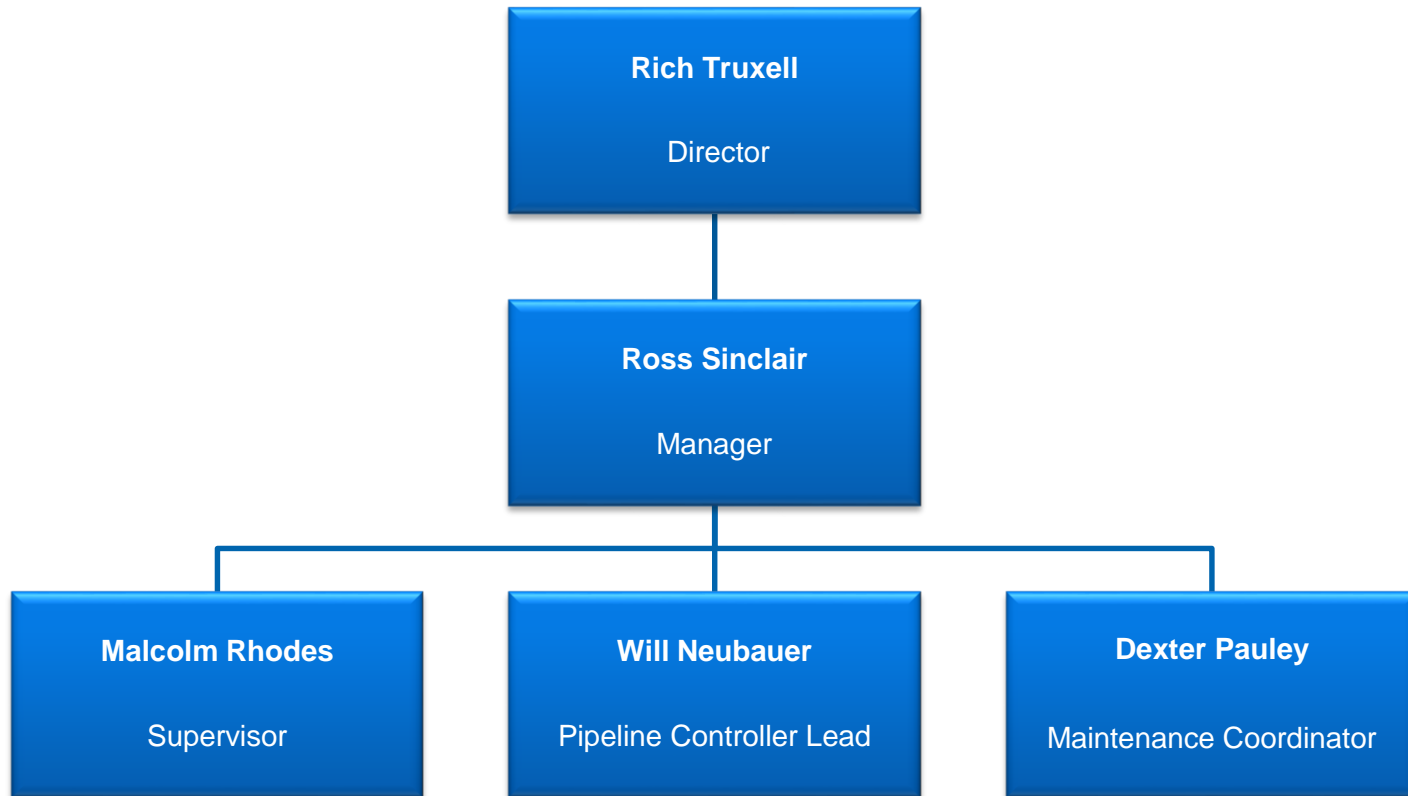
# Cyber Security is Everyone's Business

- > Each year, it's typical for large companies to experience incidents of stolen laptops, on and off, Company premises
- > Vehicles with visible briefcases, backpacks, and laptops are prime targets
- > Thieves are not discriminating between field vehicles, personal vehicles, or the location of the vehicle
- > Tips for protecting your laptops:
  - Treat it like cash
  - Get it out of the car ... don't ever leave it behind
  - Be vigilant when traveling, in particular at hotels
  - Avoid keeping sensitive customer data on it
  - Pay close attention in airports ... especially at security
  - Tether it, even if just stepping away for a brief moment



# Pipeline Control Update

# Pipeline Control Houston Organization

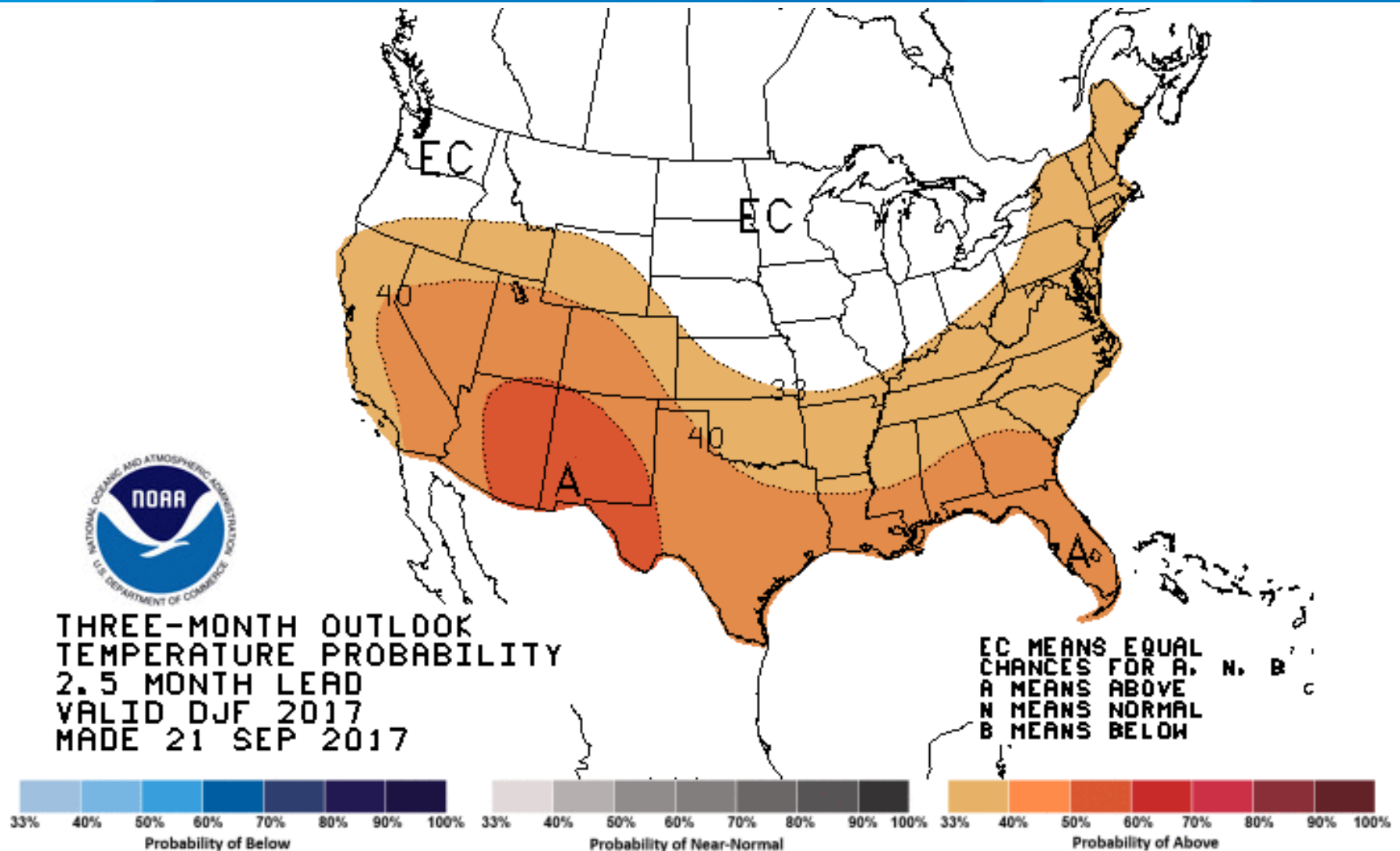




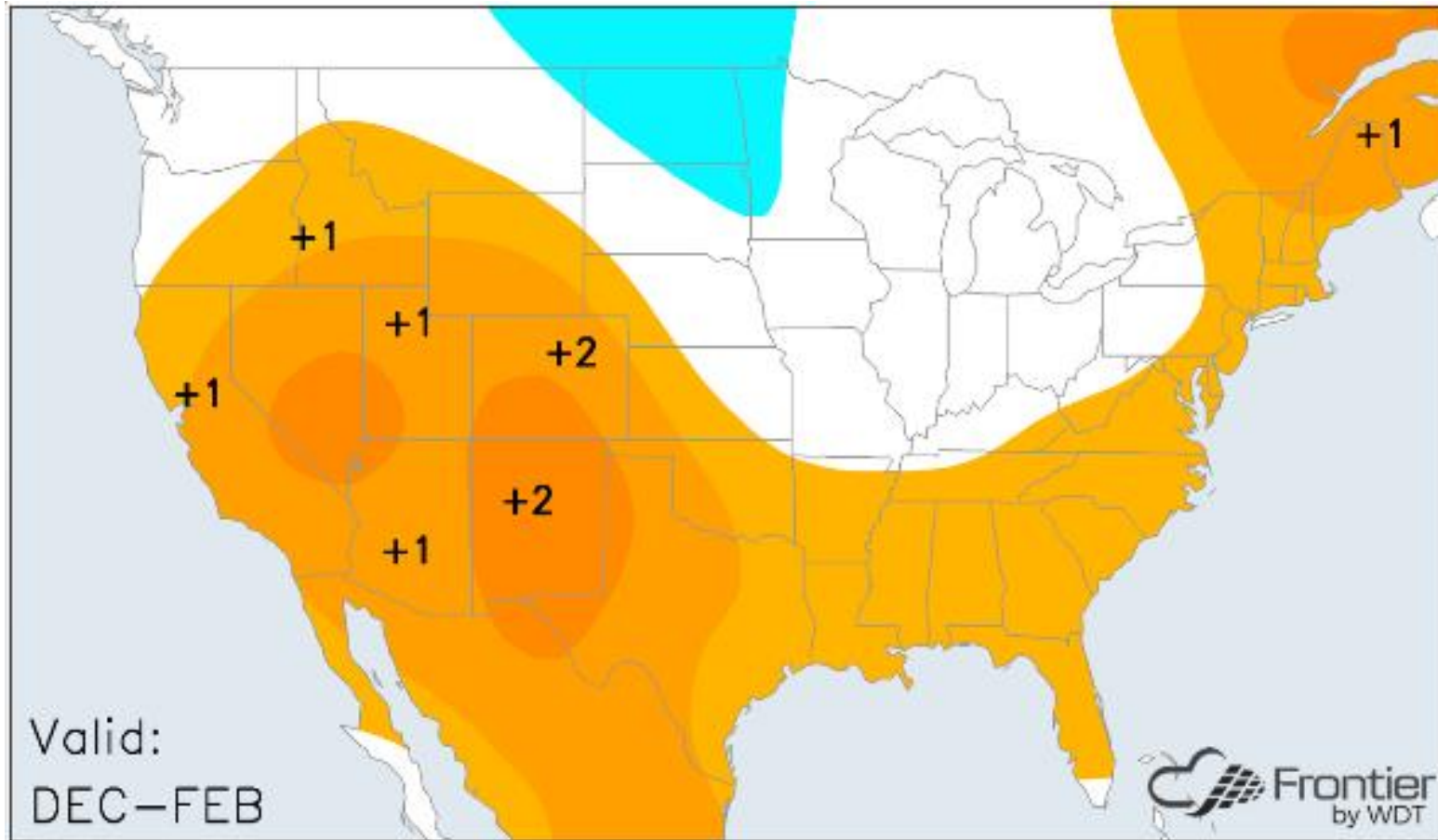
# Winter Weather Outlook



# Winter Weather Outlook



# Winter Weather Outlook



Temperature Anomaly (Degrees F)

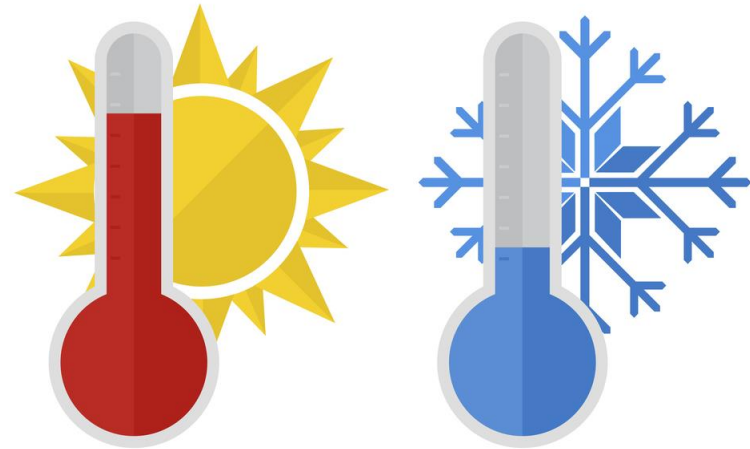


<http://www.frontierweather.com/seasonal/seasonalforecastpage.html>

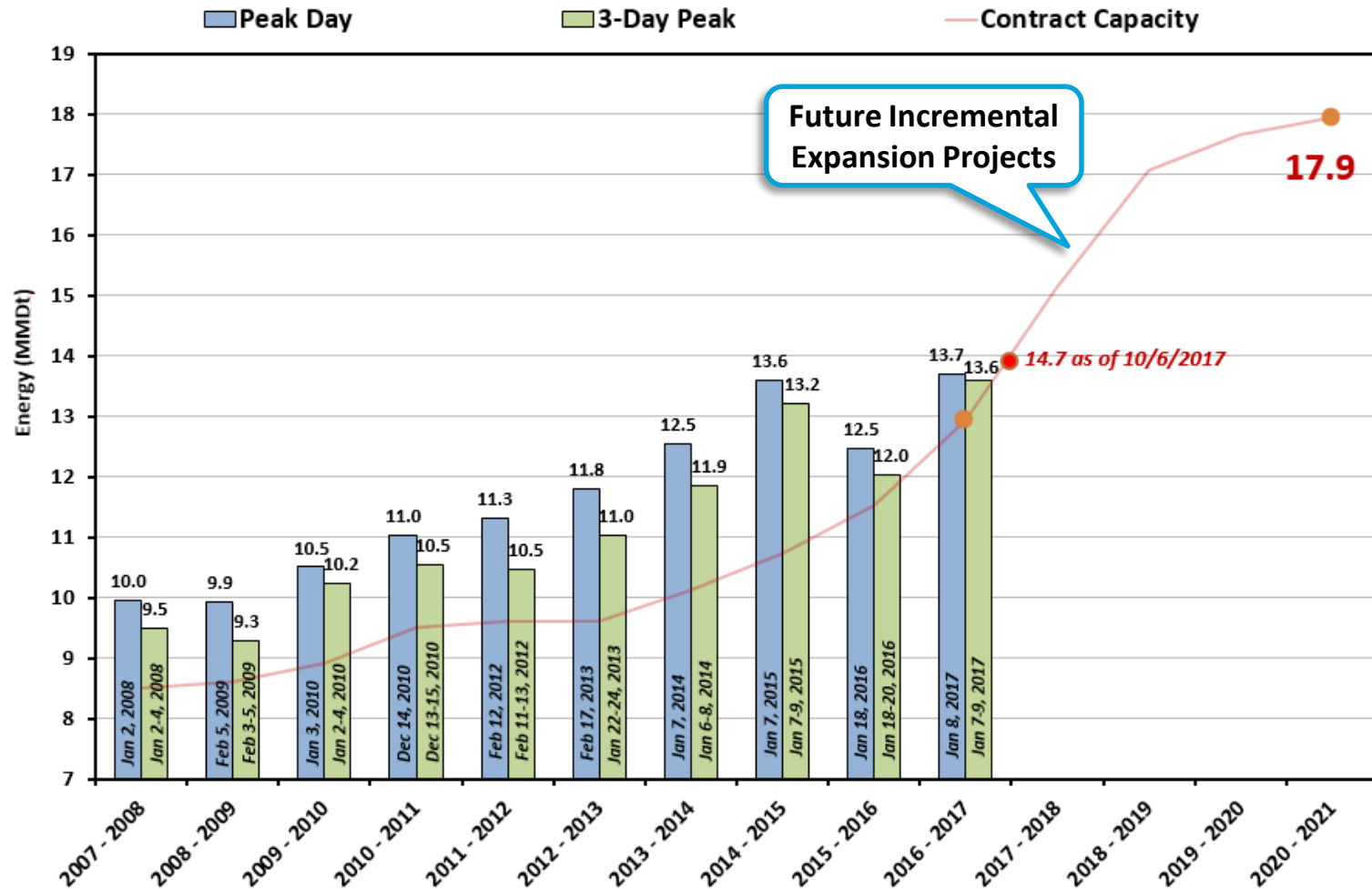


# Weather Forecast Summary

- > For the past two winters the Northeast market area has been 20 – 25% warmer than normal (as measured by degree day accumulation).
- > Summer 2017 ended up as the 15th warmest on record for the country as a whole
- > The balance of the fall season is expected to average warmer than normal across much of the country, but not nearly as warm as the same period last year.
- > The forecast for the upcoming winter season has been trended a little warmer along the East Coast, but colder across the middle of the country.



# Transco Peak Day Deliveries and System Capacity



**Note:** Includes all system deliveries and all Zones.

# Transco Operations Update

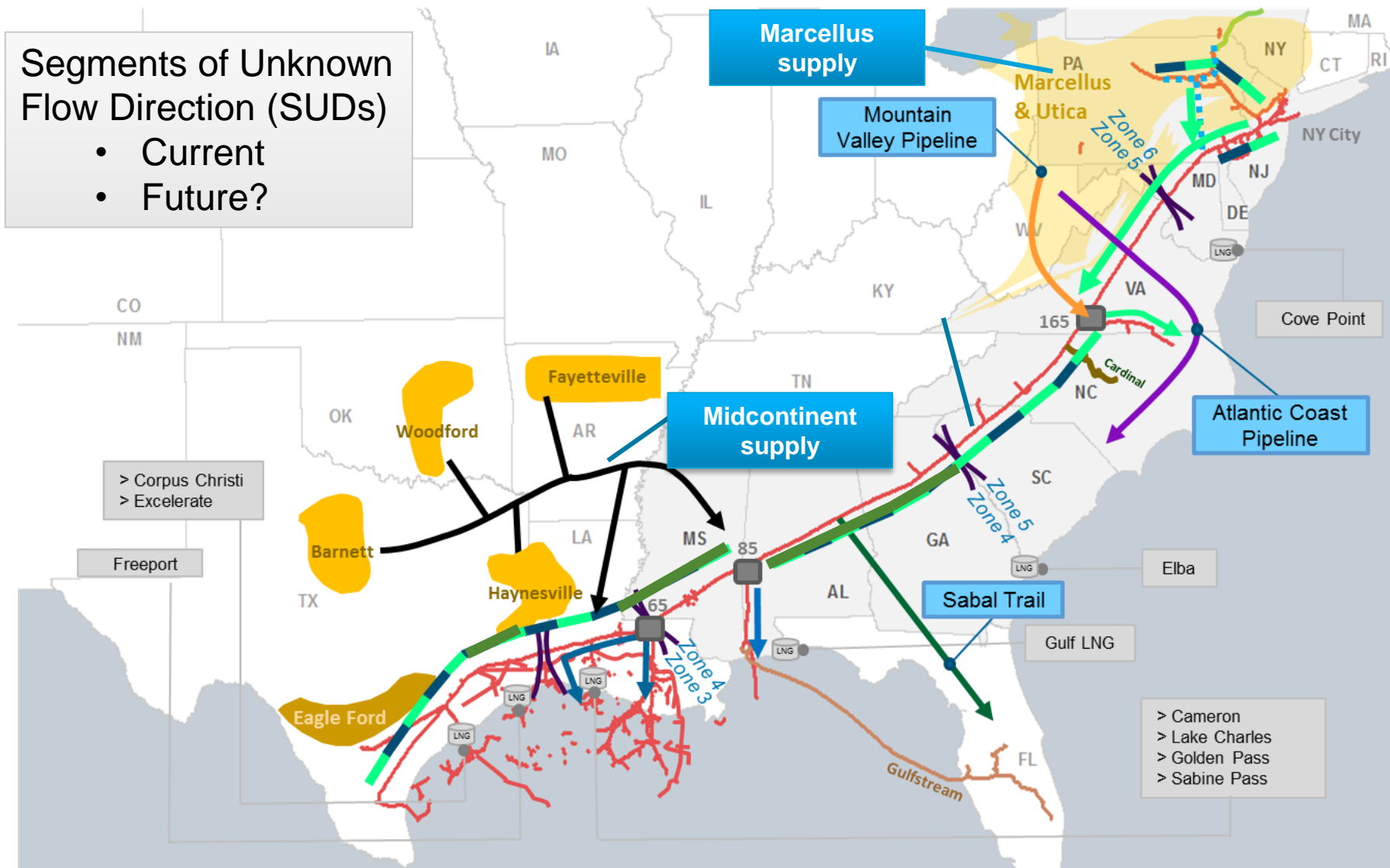
- > Largest pipeline in the nation continues to expand**
- > Power generation and LNG exports spur growth**
- > Abundant supply continues to causes changes in pipeline gas flows**
- > Large imbalance swings and non-ratable deliveries contribute to operational challenges**
- > Analyzing shipper activity and imbalances**
- > Prescriptive use of OFOs with a varying tolerances**
- > Operated from Disaster Recovery site for 12 days during Hurricane Harvey**



# Transco...Current Flow Patterns

## Segments of Unknown Flow Direction (SUDs)

- Current
- Future?



# Leidy Line & Wharton Storage Update

## > Leidy Line

- Transco continues to work through the requirements of the Corrective Action Order (CAO).
- In addition to CAO compliance activities, integrity testing was also performed on other pipelines on the Leidy system. This includes over 325 miles of pipeline.
  - The tests include the use of various pigging technologies, hydrotests, etc.
- All of Transco Leidy Lines (with the exception of Line “B” from Station 517 west to Leidy Storage) is back to normal operations.
- Transco expects Leidy Line “B” to return into service in the by the end 4th quarter of 2017

## > Wharton Storage

- Transco is currently undertaking a comprehensive assessment of Station 535, the storage field and the related injection and withdrawal lines to and from storage.
- The target is to have the assessments and all necessary repairs complete on both the storage field and the compressor station in time to provide service for the 2018-2019 withdrawal season.
- The objective of the assessment is to ensure that that all of the Wharton Storage Facilities continue to operate in a safe and reliable manner once the repairs are complete and placed back in service.
- Transco intends to continue to implement measures designed to mitigate potential impacts of this event on its ability to provide Rate Schedule GSS service.
- We will keep you apprised of any additional developments, including any limitations on the availability of storage services provided under Rate Schedule GSS.

# Construction & Maintenance



# Types of Construction & Maintenance Jobs

- > **Pipe Inspection**
- > **Anomaly Investigation**
- > **DOT Replacement**
- > **Hydro Test**
- > **Facility Modification**
  
- > **Depending on the work & scope of the project, meters listed may be affected.**
- > **Check 1Line EBB for latest updates or dates**

# Pipe Inspection

> Pipeline pigging for cleaning purposes and to check for anomalies.

- Corrosion
- Coating damage
- Dents



# Anomaly Investigations

## > What is an anomaly dig?

- A pipeline excavation for means of direct assessment and repairs or replacement if necessary.

## > What prompts anomaly digs?

- Data received from smart pigs shows an irregularity in wall thickness that warrants examination.

## > Types of digs

- Immediate dig – If smart pig data shows severe wall loss, we will immediately reduce line pressure in that segment and perform anomaly dig. There will be limited advanced notice.
- Scheduled dig – the smart pig data shows potential wall loss, but not to an extent that pipeline integrity is compromised. The anomaly dig may be scheduled during a low-load season where impacts to flow are minimized.

## > Impacts Depend on:

- Type of dig.
- Location of anomaly – do we have looped lines in the area?
- Season – if we are in a low-load season there may be minimal impact.

# Replacements

## > What situation might lead to a pipe replacement?

- Anomaly or physical damage.
- DOT class location change.
- Increased line pressure through a section.



# Hydro Tests

- > **Testing with pressurized water to ensure pipeline safety.**
- > **Hydro Testing is required for:**
  - New pipeline segments.
  - Segments that are being up-rated.





# Facility Modifications

- > Station expansion or maintenance work.
- > Pipeline expansion looping, pigging facilities, valve work.





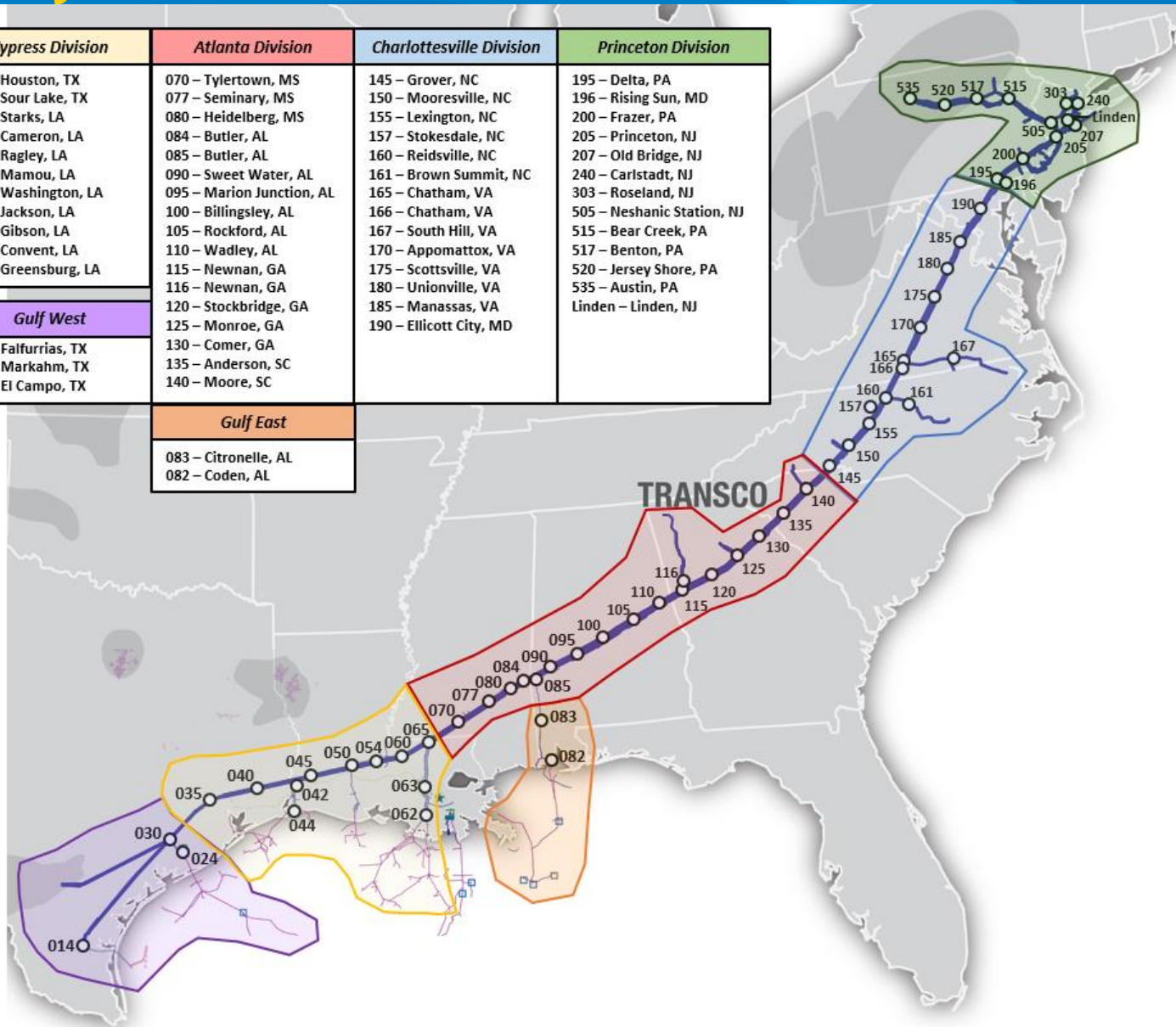
## Please Note:

- > **Job numbers and outages are subject to change**
- > **Pipeline sections and laterals are listed**
- > **Meter impacts to be determined**
  - Please communicate with Williams Pipeline Control for more information

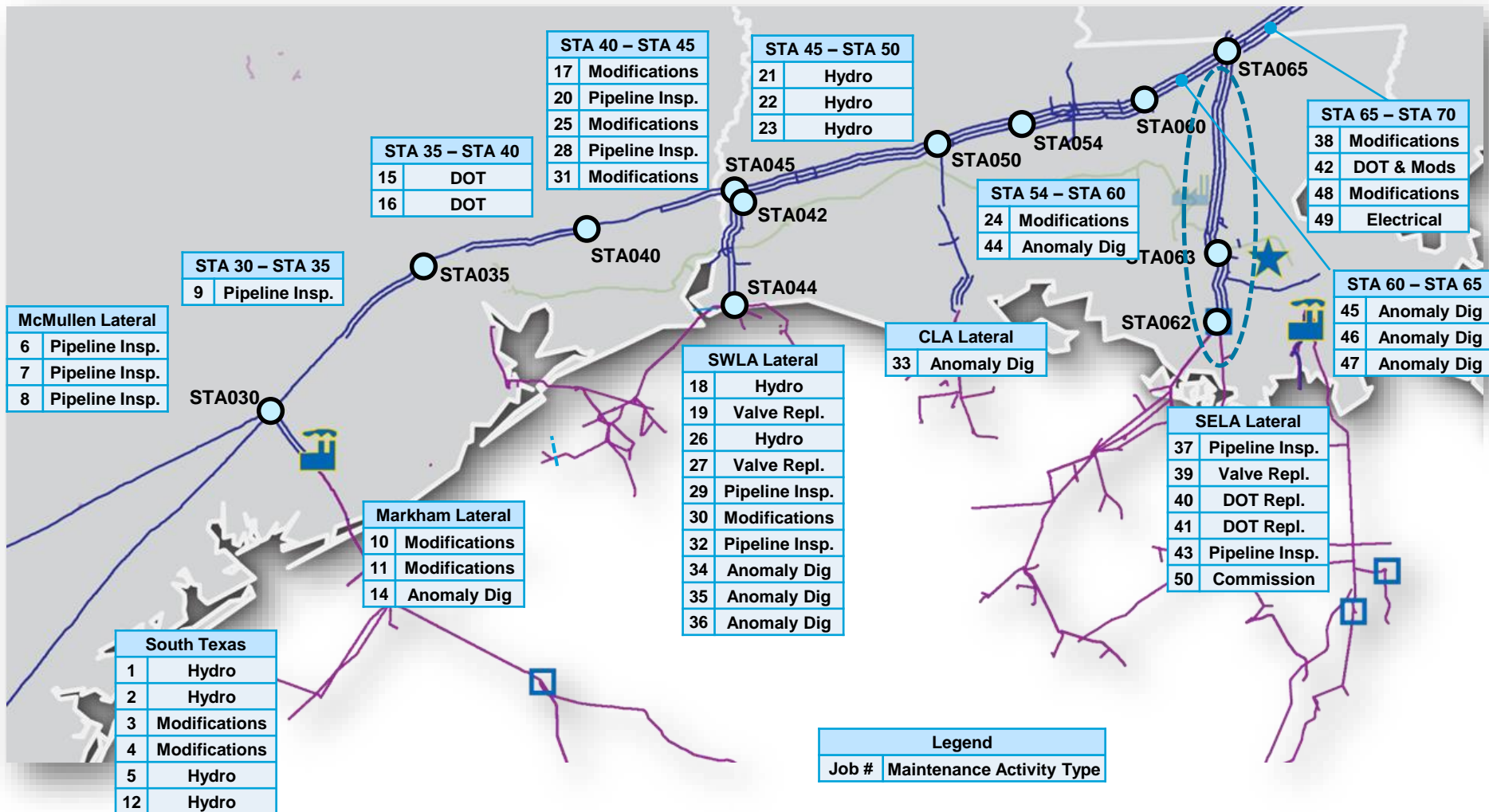


# Transco System Overview

| Cypress Division   | Atlanta Division  | Charlottesville Division   | Princeton Division   |
|--|---|--|--|
| 035 – Houston, TX<br>040 – Sour Lake, TX<br>042 – Starks, LA<br>044 – Cameron, LA<br>045 – Ragley, LA<br>050 – Mamou, LA<br>054 – Washington, LA<br>060 – Jackson, LA<br>062 – Gibson, LA<br>063 – Convent, LA<br>065 – Greensburg, LA | 070 – Tylertown, MS<br>077 – Seminary, MS<br>080 – Heidelberg, MS<br>084 – Butler, AL<br>085 – Butler, AL<br>090 – Sweet Water, AL<br>095 – Marion Junction, AL<br>100 – Billingsley, AL<br>105 – Rockford, AL<br>110 – Wadley, AL<br>115 – Newnan, GA<br>116 – Newnan, GA<br>120 – Stockbridge, GA<br>125 – Monroe, GA<br>130 – Comer, GA<br>135 – Anderson, SC<br>140 – Moore, SC | 145 – Grover, NC<br>150 – Mooresville, NC<br>155 – Lexington, NC<br>157 – Stokesdale, NC<br>160 – Reidsville, NC<br>161 – Brown Summit, NC<br>165 – Chatham, VA<br>166 – Chatham, VA<br>167 – South Hill, VA<br>170 – Appomattox, VA<br>175 – Scottsville, VA<br>180 – Unionville, VA<br>185 – Manassas, VA<br>190 – Ellicott City, MD | 195 – Delta, PA<br>196 – Rising Sun, MD<br>200 – Frazer, PA<br>205 – Princeton, NJ<br>207 – Old Bridge, NJ<br>240 – Carlstadt, NJ<br>303 – Roseland, NJ<br>505 – Neshanic Station, NJ<br>515 – Bear Creek, PA<br>517 – Benton, PA<br>520 – Jersey Shore, PA<br>535 – Austin, PA<br>Linden – Linden, NJ |
| Gulf West  | Gulf East   |  |  |
| 014 – Falfurrias, TX<br>024 – Markahm, TX<br>030 – El Campo, TX  | 083 – Citronelle, AL<br>082 – Coden, AL   |  |  |



# Texas & Louisiana Construction & Maintenance



# Texas & Louisiana Construction & Maintenance

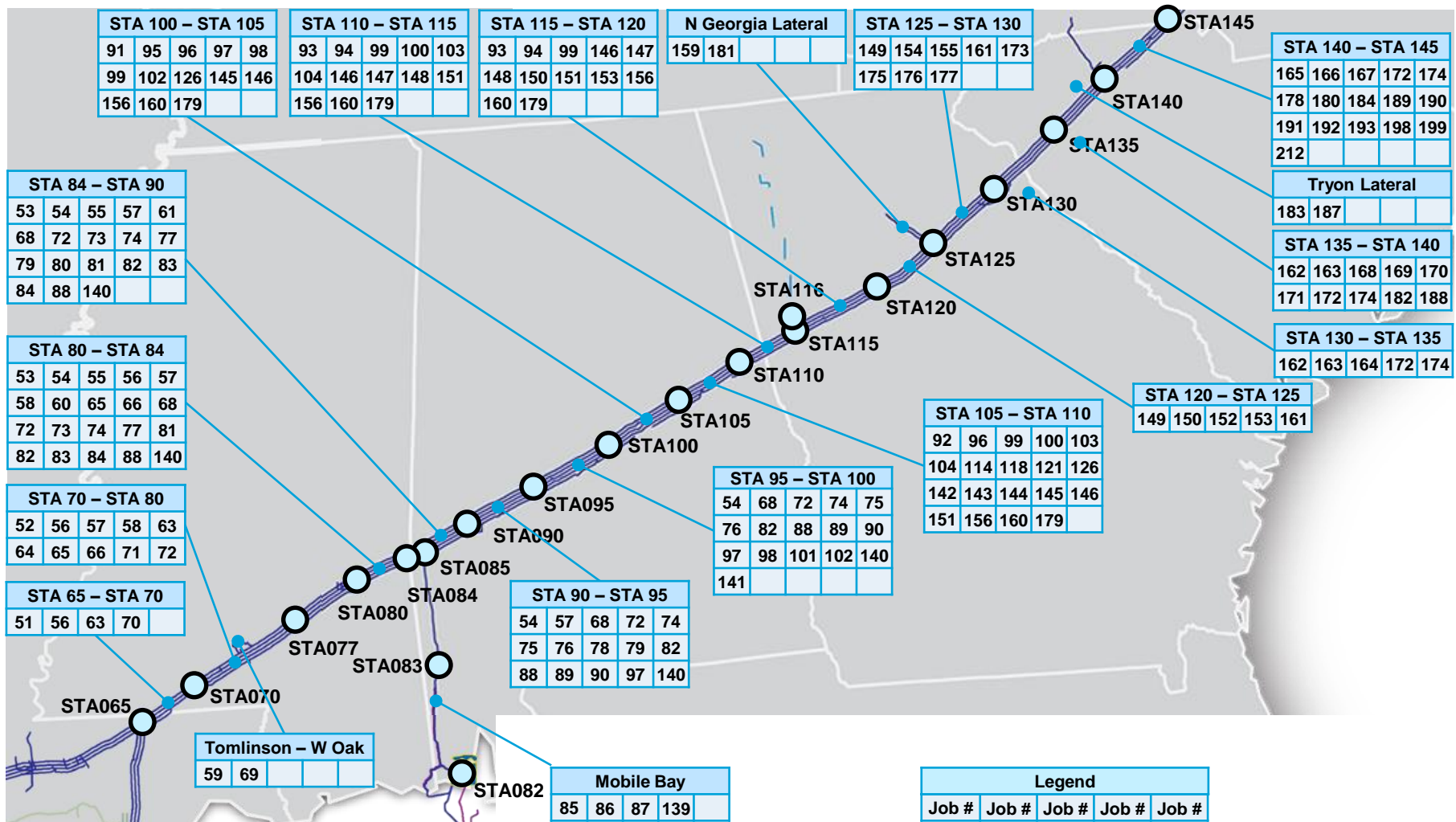
| Job No. | Location Description  | Maintenance Activity Type | Anticipated Impact | Meter No.  | Meter Name   | 1Line Location ID   |
|---------|---|---------------------------|--------------------|--|--|---|
| 1       | Mainline A (20A0 - 20A40)                                   | Hydro                     |                    |  |  |   |
| 2       | Mainline A (10A110 - 20A20)                                 | Hydro                     |                    |  |  |   |
| 3       | Mainline A (10A60 - 10A70) / NPI Lateral (St 14 S2 - TS100) | Modifications             |                    |  |  |   |
| 4       | North Padre Island Lateral (St 14 S1 - TS30A)               | Modifications             |                    |  |  |   |
| 5       | Mainline A (20A20 - 30A0)                                   | Hydro                     |                    |  |  |   |
| 6       | McMullen Lateral A (Tilden to TM562)                        | Pipeline Inspection       |                    |  |  |   |
| 7       | McMullen Lateral A (TM550 to Marshall Field)                | Pipeline Inspection       |                    |  |  |   |
| 8       | McMullen Lateral A (Marshall Field to Station 30)           | Pipeline Inspection       |                    |  |  |   |
| 9       | Mainline A (Station 30 to Station 35)                       | Pipeline Inspection       |                    |  |  |   |
| 10      | N Markham B STN24 (TC420-TC1001)                            | Modifications             |                    |  |  |   |
| 11      | N Markham B STN30 (TCB10-TC1001)                            | Modifications             |                    |  |  |   |
| 12      | Mainline A (10120 to Sta 30)                                | Hydro                     | Meter Outage       | 1767, 3648, 1660, 4400, 4515, 1637, 1004, 1707, 1760, 1695, 1659 | Pratka #1, Sherrill Road, Titan Taylor, Victoria Invista, Banquete XO, King Ranch, La Gloria, Wright #3, John G. Kenedy #1, Risken #5, JIL Kenedy #3 | 9007342, 9007242, 1003166, 1006391, 9000480, 1008773, 9001320, 9000900, 9004622, 9000083, 1003019 |
| 13      | Seahawk (Boomvang) – 18"                                    | Maintenance               |                    |  |  |   |
| 14      | N Markham Lateral B (TCB45 to Station 24)                   | Anomaly Dig               |                    |  |  |   |
| 15      | Mainline A (35A10 - 35A30)                                  | DOT Replacement           |                    |  |  |   |
| 16      | Mainline A (35B15 - 35B30)                                  | DOT Replacement           |                    |  |  |   |
| 17      | Mainline A (40A40 - 45A50)                                  | Modifications             |                    |  |  |   |
| 18      | SW Louisiana Lat B (LW11 - LW134)                           | Hydro                     |                    |  |  |   |
| 19      | Cameron Purchase A (LW197 - LW390)                          | Valve Replacement         |                    |  |  |   |
| 20      | Mainline B (40B20 to Sta. 45)                               | Pipeline Inspection       |                    |  |  |   |
| 21      | Mainline C (45C10 - LC1233)                                 | Hydro                     |                    |  |  |   |
| 22      | Mainline A (45A10 - 50A0)                                   | Hydro                     |                    |  |  |   |
| 23      | Mainline B (45B10 - 50B1)                                   | Hydro                     |                    |  |  |   |
| 24      | Atchafalaya River Crossing (LC1269 - LC1133)                | Modifications             |                    |  |  |   |
| 25      | Mainline A (40A40 - 45A50)                                  | Modifications             |                    |  |  |   |

# Texas & Louisiana Construction & Maintenance

| Job No. | Location Description   | Maintenance Activity Type | Anticipated Impact | Meter No. | Meter Name | 1Line Location ID |
|---------|--|---------------------------|--------------------|-----------|------------|-------------------|
| 26      | SW Louisiana Lat B (LW11 - LW134)                            | Hydro                     |                    |           |            |                   |
| 27      | Cameron Purchase A (LW197 - LW390)                           | Valve Replacement         |                    |           |            |                   |
| 28      | Mainline B (40B20 to Sta. 45)                                | Pipeline Inspection       |                    |           |            |                   |
| 29      | Cameron Purchase A (Station 44 to LW197)                     | Hydro                     |                    |           |            |                   |
| 30      | Cameron Purchase A (Station 44 to LW197)                     | Modifications             |                    |           |            |                   |
| 31      | Mainline B (MLV 40B20 to Station 45)                         | Modifications             |                    |           |            |                   |
| 32      | Cameron Purchase A (Station 44 to LW197)                     | Pipeline Inspection       |                    |           |            |                   |
| 33      | Central Louisiana Lat B (Cow Isl. Junction to Egan Junction) | Anomaly Dig               |                    |           |            |                   |
| 34      | N High Island B (LW223 to Station 44)                        | Anomaly Dig               |                    |           |            |                   |
| 35      | SW Louisiana Lat A (Ballard Plant to LW8)                    | Anomaly Dig               |                    |           |            |                   |
| 36      | SW Louisiana Lat B (Mecom-Texas Gas Junction to LW14)        | Anomaly Dig               |                    |           |            |                   |
| 37      | SE Louisiana Lat B (Station 63 to Station 65)                | Pipeline Inspection       |                    |           |            |                   |
| 38      | Mainline B (Station 65 to Station 70)                        | Modifications             |                    |           |            |                   |
| 39      | SE Louisiana Lat B (62B40 - 62B1)                            | Valve Replacement         |                    |           |            |                   |
| 40      | SE Louisiana Lat A (63A0 - LE8@STN 62)                       | DOT                       |                    |           |            |                   |
| 41      | Hester Storage Lateral (LE2698/LE1302 - LE2751)              | DOT                       |                    |           |            |                   |
| 42      | Mainline B STN 65 Launcher (65B1) & Receiver 70 (M413)       | DOT                       |                    |           |            |                   |
| 43      | SE Louisiana Lateral C (Mosquito Bay to Station 62)          | Pipeline Inspection       |                    |           |            |                   |
| 44      | Mainline B (MLV 50B20 to Atchafalaya River)                  | Anomaly Dig               |                    |           |            |                   |
| 45      | Mainline A (Mississippi River to Amite River)                | Anomaly Dig               |                    |           |            |                   |
| 46      | Mainline C (Mississippi River to Station 65)                 | Anomaly Dig               |                    |           |            |                   |
| 47      | Mainline C (Mississippi River to Station 65)                 | Anomaly Dig               |                    |           |            |                   |
| 48      | Mainline B (Station 65 to Station 70)                        | Modifications             |                    |           |            |                   |
| 49      | Station 65   | Electrical                |                    |           |            |                   |
| 50      | LE2030   | Commissioning             |                    |           |            |                   |



# Mississippi, Alabama, Georgia, & South Carolina Construction & Maintenance





# Mississippi, Alabama, Georgia, & South Carolina Construction & Maintenance

| Job No. | Location Description                         | Maintenance Activity Type | Anticipated Impact | Meter No. | Meter Name   | 1Line Location ID |
|---------|--|---------------------------|--------------------|-----------|--------------|-------------------|
| 51      | Mainline B (Station 65 to Station 70)        | Pipeline Inspection       |                    |           |              |                   |
| 52      | Mainline A (Station 70 to Station 80)        | Pipeline Inspection       |                    |           |              |                   |
| 53      | Mainline B (Station 80 to Station 90)        | Pipeline Inspection       |                    |           |              |                   |
| 54      | Mainline C (Station 80 to Station 100)       | Modifications             |                    |           |              |                   |
| 55      | Mainline B (Station 80 to Station 90)        | Valve Replacement         |                    |           |              |                   |
| 56      | Mainline A (Station 70 to Station 80)        | Modifications             |                    |           |              |                   |
| 57      | Mainline A (Station 70 to Station 95)        | Modifications             |                    |           |              |                   |
| 58      | Mainline D MP 725 DOT Hydro                  | Hydro                     |                    |           |              |                   |
| 59      | Tomlinson – West Oak Lateral Hydrotest       | Hydro                     |                    |           |              |                   |
| 60      | Mainline A – Station 80                      | Modifications             |                    |           |              |                   |
| 61      | Mainline A – Station 90                      | Modifications             |                    |           |              |                   |
| 62      | Station 77                                   | Electrical                |                    |           |              |                   |
| 63      | Special Consideration - Station 70           | Maintenance               |                    |           |              |                   |
| 64      | Special Consideration - Station 77           | Maintenance               |                    |           |              |                   |
| 65      | Special Consideration - Station 80           | Maintenance               |                    |           |              |                   |
| 66      | Mainline A 70-10 to 70-20                    | Casing Repair             |                    |           |              |                   |
| 67      | Mainline A 80-10 to 80-20                    | Casing Repair             |                    |           |              |                   |
| 68      | Mainline D (Station 80 – Station 100)        | Anomaly Digs              |                    |           |              |                   |
| 69      | 10" West Oakvale Lateral (MC161 to MC165)    | Hydro                     | Meter Outage       | 3440      | West Oakvale |                   |
| 70      | Mainline C (Mississippi River to Station 65) | Anomaly Dig               |                    |           |              |                   |
| 71      | Mainline D (Station 70 to Station 80)        | Anomaly Dig               |                    |           |              |                   |
| 72      | Mainline D (Station 80 to Station 100)       | Anomaly Dig               |                    |           |              |                   |
| 73      | Mainline B (Unknown to Station 90)           | Pipeline Inspection       |                    |           |              |                   |
| 74      | Mainline C (Station 80 to Station 100)       | Pipeline Inspection       |                    |           |              |                   |
| 75      | Mainline A (Station 90 to Station 100)       | Pipeline Inspection       |                    |           |              |                   |

# Mississippi, Alabama, Georgia, & South Carolina Construction & Maintenance

| Job No. | Location Description                    | Maintenance Activity Type | Anticipated Impact     | Meter No.  | Meter Name  | 1Line Location ID                                     |
|---------|---|---------------------------|------------------------|--|---|---|
| 76      | Mainline B (Station 90 to Station 100)  | Pipeline Inspection       |                        |  |   |   |
| 77      | Mainline A – Station 90                 | Modifications             |                        |  |   |   |
| 78      | Mainline A – Station 90                 | Modifications             |                        |  |   |   |
| 79      | Station 90                              | Maintenance               |                        |  |   |   |
| 80      | Station 85                              | Maintenance               |                        |  |   |   |
| 81      | Mainline E 80E17-90                     | Anomaly Digs              |                        |  |   |   |
| 82      | Mainline D 80-100                       | Anomaly Digs              |                        |  |   |   |
| 83      | Mainline E (MLV 80E17 to Station 90)    | Anomaly Digs              |                        |  |   |   |
| 84      | Mainline E (MLV 80E17 to Station 90)    | Anomaly Digs              |                        |  |   |   |
| 85      | Mobile Bay Lateral (AS28 to AS63)       | EMAT Digs                 | Possible meter outage. | 3603, 4603, 3614, 4614, 3593, 4621, 4514, 4624, 4596, 3577, 3604, 4622, 3567, 4508, 3560, 4498, 3562, 3569, 4511, 3575, 4520, 4528 | Southern Pines In, Southern Pines Out, Bay Gas In, Bay Gas Out, Moss Point, Grand Bay, FGT Citronelle, FGT Citronelle 2, Gulfstream Coden, Mobile Bay Duke, Sesh Coden, OTF Lateral Out, Duke Energy Digs, Shell Yellowhammer, Callon Chevron, Exxon OTF, WFS | 9003942, 9004562, 9006145, 9006146, 1005320, 9003000, |
| 86      | Mobile Bay Lateral (AS28 to AS63)       | Anomaly Digs              |                        |  |   |   |
| 87      | Mobile Bay Lateral (AS28 to AS63)       | Anomaly Digs              |                        |  |   |   |
| 88      | Mainline C (Station 80 to Station 100)  | Pipeline Inspection       |                        |  |   |   |
| 89      | Mainline B (Station 90 to Station 100)  | Pipeline Inspection       |                        |  |   |   |
| 90      | Mainline B (Station 90 to Station 100)  | Pipeline Inspection       |                        |  |   |   |
| 91      | Mainline E (Station 100 to MLV 100E10)  | Pipeline Inspection       |                        |  |   |   |
| 92      | Mainline E (Station 105 to A453)        | Pipeline Inspection       |                        |  |   |   |
| 93      | Mainline A (Station 110 to Station 120) | Pipeline Inspection       |                        |  |   |   |
| 94      | Mainline D (Station 110 to Station 120) | Pipeline Inspection       |                        |  |   |   |
| 95      | Mainline A – Coosa River Crossing       | Modifications             |                        |  |   |   |

# Mississippi, Alabama, Georgia, & South Carolina Construction & Maintenance

| Job No. | Location Description                    | Maintenance Activity Type | Anticipated Impact   | Meter No. | Meter Name | 1Line Location ID |
|---------|---|---------------------------|--|-----------|------------|-------------------|
| 96      | Mainline C MP 937.5                     | Hydro                     |  |           |            |                   |
| 97      | Mainline A – Station 100                | Modifications             |  |           |            |                   |
| 98      | Mainline D – Station 100                | Modifications             |  |           |            |                   |
| 99      | Mainline C – Station 100 to Station 120 | Pipeline Inspection       |  |           |            |                   |
| 100     | Mainline A – Tallapoosa River HDD       | Modifications             |  |           |            |                   |
| 101     | Station 95 – Valve Commissioning        | Commissioning             |  |           |            |                   |
| 102     | Station 100 – Valve Commissioning       | Commissioning             |  |           |            |                   |
| 103     | Tallapoosa River MLA HDD                | Modifications             |  |           |            |                   |
| 104     | Station 110                             | Modifications             |  |           |            |                   |
| 105     | American Can M&R Meters (M&R Outage)    | Modifications             |  |           |            |                   |
| 114     | Mainline A – Coosa River to 110         | Anomaly Digs              |  |           |            |                   |
| 118     | Mainline E – Coosa River - A453         | Anomaly Digs              |  |           |            |                   |
| 121     | Mainline A Coosa River to 110           | Anomaly Digs              |  |           |            |                   |
| 126     | Mainline D 100 - 110                    | Anomaly Digs              |  |           |            |                   |
| 139     | Mobile Lateral AS28 to AS63             | Anomaly Digs              |  |           |            |                   |
| 140     | Mainline D 80-100                       | Anomaly Digs              |  |           |            |                   |
| 141     | 42" M/L D (95D20 to Sta. 100)           | Modifications             | Possible impact on the availability of non-primary firm services scheduled through constraint location Compressor Station 90 |           |            |                   |
| 142     | Mainline E (Coosa River to A453)        | Anomaly Digs              |  |           |            |                   |
| 143     | Mainline A (Coosa River to Station 110) | Anomaly Digs              |  |           |            |                   |
| 144     | Mainline A (Coosa River to Station 110) | Anomaly Digs              |  |           |            |                   |
| 145     | Mainline D (Station 100 to Station 110) | Anomaly Digs              |  |           |            |                   |

# Mississippi, Alabama, Georgia, & South Carolina Construction & Maintenance

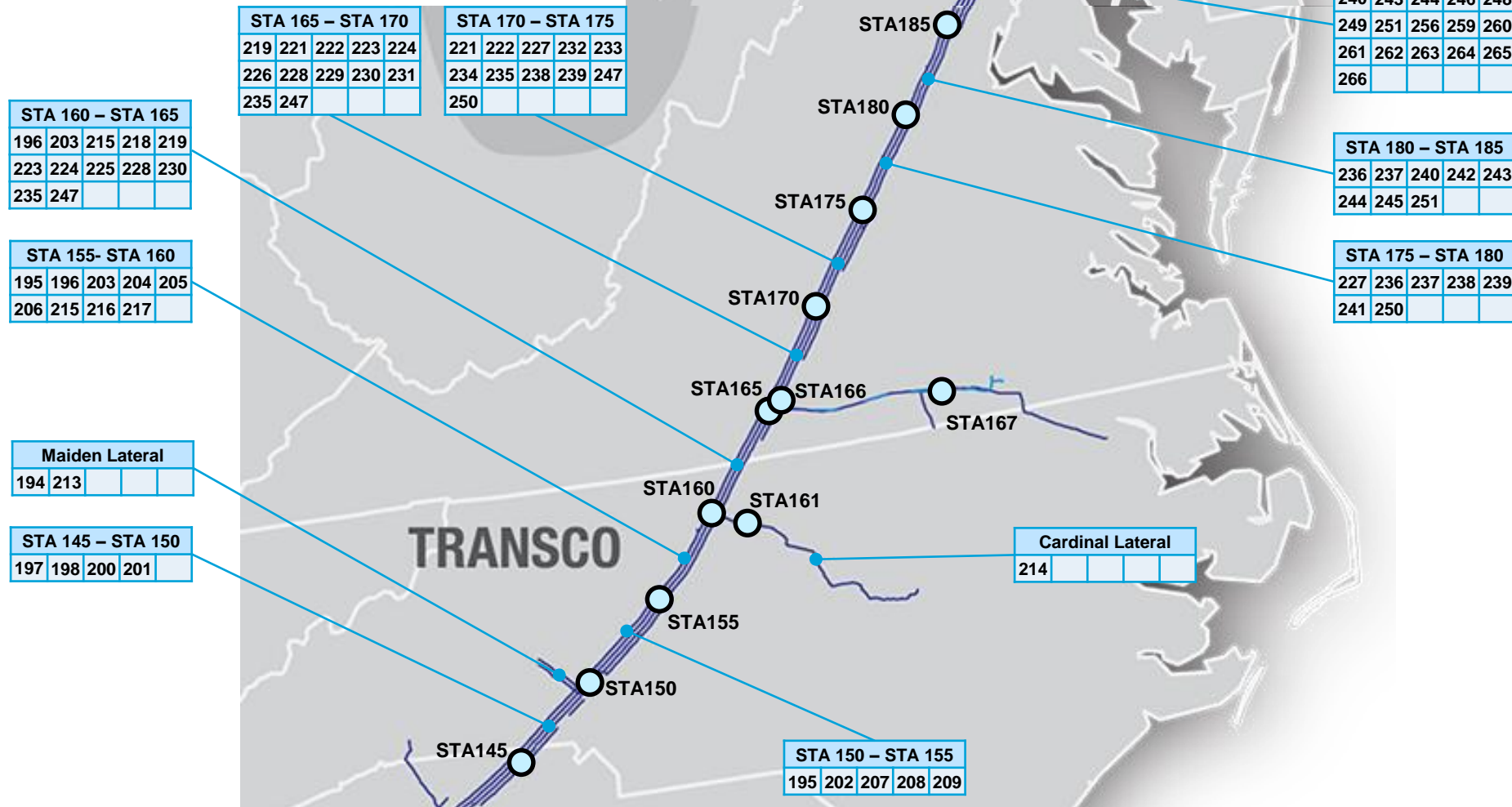
| Job No. | Location Description   | Maintenance Activity Type  | Anticipated Impact | Meter No. | Meter Name | 1Line Location ID |
|---------|--|----------------------------|--------------------|-----------|------------|-------------------|
| 146     | Anomaly Dig - Mainline B (Station 100 to Station 120)                | Anomaly Digs               |                    |           |            |                   |
| 147     | Mainline A (Station 110 to Station 120)                              | Pipeline Inspection        |                    |           |            |                   |
| 148     | Mainline D (Station 110 to Station 120)                              | Pipeline Inspection        |                    |           |            |                   |
| 149     | Mainline C (Station 120 to Station 130)                              | Pipeline Inspection        |                    |           |            |                   |
| 150     | Mainline A Coosa River Crossing<br>MLC MP 937.5 & 1063.70 DOT Hydros | Modifications & DOT Hydros |                    |           |            |                   |
| 151     | Mainline D – Station 110 to Station 120                              | Modifications              |                    |           |            |                   |
| 152     | MLB MP 1061.6  | DOT Hydro                  |                    |           |            |                   |
| 153     | MLC MP 1063.70   | DOT Hydro                  |                    |           |            |                   |
| 154     | New 125B30 (Valve Spacing)   | Modifications              |                    |           |            |                   |
| 155     | New 125C30 (Valve Spacing)   | Modifications              |                    |           |            |                   |
| 156     | Mainline C (Station 100 to Station 120)                              | Pipeline Inspection        |                    |           |            |                   |
| 157     | Mainline C (Station 100 to Station 120)                              | Pipeline Inspection        |                    |           |            |                   |
| 158     | Station 120  | Modifications              |                    |           |            |                   |
| 159     | N Georgia A Lateral (Station 125 to GNA30)                           | Anomaly Digs               |                    |           |            |                   |
| 160     | Mainline B (Station 100 to Station 120)                              | Anomaly Digs               |                    |           |            |                   |
| 161     | Mainline C (Station 120 to Station 130)                              | Pipeline Inspection        |                    |           |            |                   |
| 162     | Mainline B (Station 130 to Station 140)                              | Pipeline Inspection        |                    |           |            |                   |
| 163     | Mainline D (Station 130 to Station 140) - 20 Miles S of Station 140  | Pipeline Inspection        |                    |           |            |                   |
| 164     | Mainline E (Station 130 to G296)                                     | Pipeline Inspection        |                    |           |            |                   |
| 165     | Mainline B (Station 140 to Station 145) - 20 Miles S of Station 145  | Pipeline Inspection        |                    |           |            |                   |
| 166     | Mainline C (Station 140 to Station 145)                              | Pipeline Inspection        |                    |           |            |                   |
| 167     | Mainline D (Station 140 to S216)                                     | Pipeline Inspection        |                    |           |            |                   |
| 168     | Mainline A – MP 1187 Replacement                                     | DOT                        |                    |           |            |                   |
| 169     | Mainline B – MP 1187 Replacement                                     | DOT                        |                    |           |            |                   |
| 170     | Mainline C – MP 1187 Replacement                                     | DOT                        |                    |           |            |                   |

# Mississippi, Alabama, Georgia, & South Carolina Construction & Maintenance

| Job No. | Location Description   | Maintenance Activity Type | Anticipated Impact | Meter No. | Meter Name | 1Line Location ID |
|---------|--|---------------------------|--------------------|-----------|------------|-------------------|
| 171     | Mainline A – Station 135 to Station 145                                      | DOT Hydro & Modifications |                    |           |            |                   |
| 172     | Mainline B – Station 130 to Station 145                                      | DOT Hydro & Modifications |                    |           |            |                   |
| 173     | New 125A30 (Valve Spacing)   | Modifications             |                    |           |            |                   |
| 174     | Mainline D – Station 130 to Station 145                                      | Modifications             |                    |           |            |                   |
| 175     | New 125B30 (Mainline B – Valve Spacing)                                      | Modifications             |                    |           |            |                   |
| 176     | New 125C30 (Mainline C – Valve Spacing)                                      | Modifications             |                    |           |            |                   |
| 177     | Mainline D – Station 125 to Station 135                                      | DOT Hydro & Modifications |                    |           |            |                   |
| 178     | New 140A15 (Mainline A – Valve Spacing)                                      | Modifications             |                    |           |            |                   |
| 179     | Mainline C (Station 100 to Station 120)                                      | Pipeline Inspection       |                    |           |            |                   |
| 180     | Mainline A 140-145   | Anomaly Digs              |                    |           |            |                   |
| 181     | N Georgia A Lateral 125 - GNA30  | Anomaly Digs              |                    |           |            |                   |
| 182     | Mainline A Savannah River-140  | Anomaly Digs              |                    |           |            |                   |
| 183     | Tryon Lateral 140-SN30   | Anomaly Digs              |                    |           |            |                   |
| 184     | Mainline C 140-145   | Anomaly Digs              |                    |           |            |                   |
| 185     | Grover SC M&R Tap - ILI To Be Conducted by Dominion Carolina Gas - Fall      | Pipeline Inspection       |                    |           |            |                   |
| 186     | Grover Loop SC M&R Tap - ILI To Be Conducted by Dominion Carolina Gas - Fall | Pipeline Inspection       |                    |           |            |                   |
| 187     | Tryon Sales Lateral (Station 140 to SN30)                                    | Anomaly Digs              |                    |           |            |                   |
| 188     | Mainline A (Savannah River to Station 140)                                   | Anomaly Digs              |                    |           |            |                   |
| 189     | Mainline A (Station 140 to Station 145)                                      | Anomaly Digs              |                    |           |            |                   |
| 190     | Mainline C (Station 140 to Station 145)                                      | Anomaly Digs              |                    |           |            |                   |
| 191     | Mainline B (Station 140 to Station 145) - 20 Miles S of Station 145          | Pipeline Inspection       |                    |           |            |                   |
| 192     | Mainline C (Station 140 to Station 145)                                      | Pipeline Inspection       |                    |           |            |                   |
| 193     | Mainline D (S227 to Station 145) - 20 Miles S of Station 145                 | Pipeline Inspection       |                    |           |            |                   |
| 198     | Mainline D (Station 140 to Station 145)                                      | Modifications             |                    |           |            |                   |
| 199     | Mainline B (Station 140 to Station 145)                                      | Modifications             |                    |           |            |                   |
| 212     | Mainline A (Station 140 to Station 145)                                      | Anomaly Digs              |                    |           |            |                   |



# North Carolina, Virginia, & Maryland Construction & Maintenance



# North Carolina, Virginia, & Maryland Construction & Maintenance

| Job No. | Location Description                      | Maintenance Activity Type | Anticipated Impact | Meter No. | Meter Name | 1Line Location ID |
|---------|---|---------------------------|--------------------|-----------|------------|-------------------|
| 194     | Maiden Lateral A (NM5 to NMA30)           | Pipeline Inspection       |                    |           |            |                   |
| 195     | Mainline C (Station 150 to Station 160)   | Pipeline Inspection       |                    |           |            |                   |
| 196     | Mainline C (Station 155 to Station 165)   | Pipeline Inspection       |                    |           |            |                   |
| 197     | Mainline D (Station 145 to Station 150)   | Pipeline Inspection       |                    |           |            |                   |
| 200     | Mainline A (Station 145 to Station 150)   | Modifications             |                    |           |            |                   |
| 201     | Mainline C (Station 145 to Station 150)   | Modifications             |                    |           |            |                   |
| 202     | Mainline A (Station 150 to Station 155)   | Modifications             |                    |           |            |                   |
| 203     | Mainline C (Station 155 to Station 165)   | Modifications             |                    |           |            |                   |
| 204     | Mainline C (Station 155 to Station 155)   | Modifications             |                    |           |            |                   |
| 205     | Mainline C (Station 150 to Station 155)   | Modifications             |                    |           |            |                   |
| 206     | Mainline A (Station 155 to Station 160)   | Modifications             |                    |           |            |                   |
| 207     | Mainline A (Station 150 to Station 150)   | Modifications             |                    |           |            |                   |
| 208     | Mainline B (Station 150 to Station 150)   | Modifications             |                    |           |            |                   |
| 209     | Mainline D (Station 150 to Station 150)   | Modifications             |                    |           |            |                   |
| 210     | Mainline D (Station 155 to Station 155)   | Modifications             |                    |           |            |                   |
| 211     | Station 150                               | Modifications             |                    |           |            |                   |
| 213     | Maiden Lateral B (NMB6 to NMB30)          | Anomaly Digs              |                    |           |            |                   |
| 214     | Cardinal Lateral A (Station 160 to NC160) | Pipeline Inspection       |                    |           |            |                   |
| 215     | Mainline C (Station 155 to Station 160)   | Modifications             |                    |           |            |                   |
| 216     | Mainline A (Station 155 to Station 160)   | Modifications             |                    |           |            |                   |
| 217     | Mainline B (Station N369 to Station 160)  | Modifications             |                    |           |            |                   |
| 218     | Mainline C (Station 160 to Station 160)   | Modifications             |                    |           |            |                   |
| 219     | Mainline C (Station 160 to Station 160)   | Modifications             |                    |           |            |                   |
| 220     | Station 160                               | Modifications             |                    |           |            |                   |

# North Carolina, Virginia, & Maryland Construction & Maintenance

| Job No. | Location Description   | Maintenance Activity Type | Anticipated Impact  | Meter No. | Meter Name | 1Line Location ID |
|---------|--|---------------------------|---|-----------|------------|-------------------|
| 221     | Mainline A (Station 160 to James River)                          | Anomaly Digs              | Possible impact on the availability of non-primary services at all north to south constraint locations from Compressor Station 195 through Compressor Station 160 |           |            |                   |
| 222     | Mainline A (Station 160 to James River)                          | Anomaly Digs              |   |           |            |                   |
| 223     | Mainline B (Station 160 to Station 170)                          | Anomaly Digs              |   |           |            |                   |
| 224     | Mainline C (Station 160 to Station 170)                          | Pipeline Inspection       |   |           |            |                   |
| 225     | Mainline D (V371 to Station 165) - 20 Miles South of Station 165 | Pipeline Inspection       |   |           |            |                   |
| 226     | Mainline D (V382 to Station 170) - 20 Miles South of Station 170 | Pipeline Inspection       |   |           |            |                   |
| 227     | Mainline C (Station 170 to Station 180)                          | Pipeline Inspection       |   |           |            |                   |
| 228     | Mainline C (Station 160 to Station 165)                          | Modifications             |   |           |            |                   |
| 229     | Mainline C (Station 165 to Station 175)                          | Modifications             |   |           |            |                   |
| 230     | Mainline D (Station 160 to Station 165)                          | Modifications             |   |           |            |                   |
| 231     | Mainline D (Station 165 to Station 170)                          | Modifications             |   |           |            |                   |
| 232     | Mainline C (Station 170 to James River)                          | Modifications             |   |           |            |                   |
| 233     | Mainline C (Station 170 to Station 180)                          | Modifications             |   |           |            |                   |
| 234     | Mainline C (Station 170 to James River)                          | Modifications             |   |           |            |                   |
| 235     | Mainline A (Station 160 to James River)                          | Anomaly Digs              | Possible impact on the availability of non-primary services at all north to south constraint locations from Compressor Station 195 through Compressor Station 160 |           |            |                   |
| 236     | Mainline B (Station 175 to Station 185)                          | Pipeline Inspection       |   |           |            |                   |
| 237     | Mainline C (Station 175 to Station 185)                          | Pipeline Inspection       |   |           |            |                   |
| 238     | Mainline C (Station 170 to Station 180)                          | Modifications             |   |           |            |                   |
| 239     | Mainline C (James River to Station 180)                          | Modifications             |   |           |            |                   |
| 240     | Mainline C (Station 180 to Station 190)                          | Modifications             |   |           |            |                   |

# North Carolina, Virginia, & Maryland Construction & Maintenance

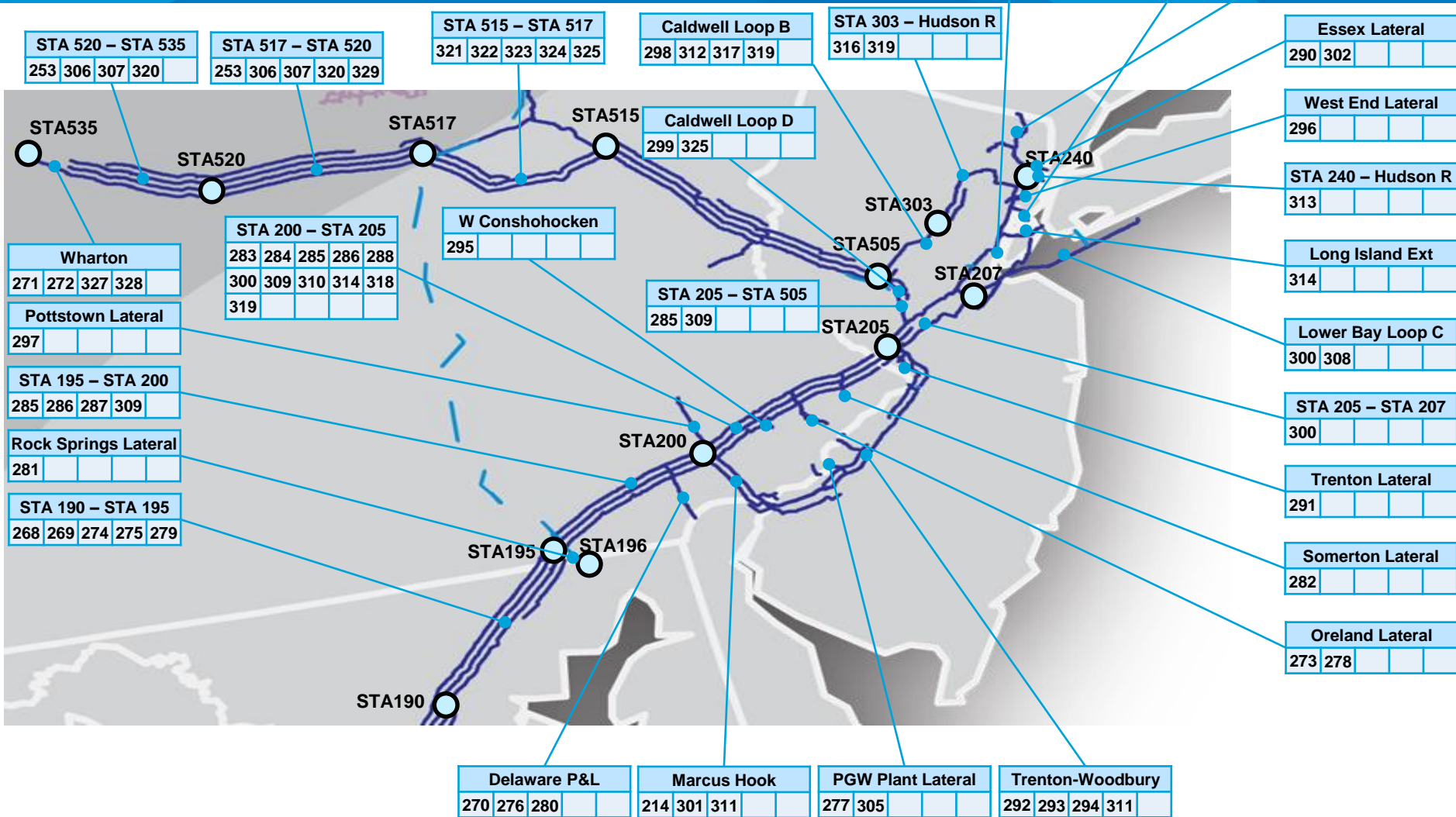
| Job No. | Location Description                    | Maintenance Activity Type | Anticipated Impact  | Meter No. | Meter Name | 1Line Location ID |
|---------|---|---------------------------|---|-----------|------------|-------------------|
| 241     | Mainline B (Station 175 to Station 180) | Modifications             |   |           |            |                   |
| 242     | Mainline B (Station 180 to Station 185) | Modifications             |   |           |            |                   |
| 243     | Mainline C (Station 180 to Station 190) | Modifications             |   |           |            |                   |
| 244     | Mainline C (Station 185 to Potomac R)   | Modifications             |   |           |            |                   |
| 245     | Mainline A (Station 185 to Station 190) | Modifications             |   |           |            |                   |
| 246     | Mainline A (Station 185 to Potomac)     | Modifications             |   |           |            |                   |
| 247     | Mainline A (Station 160 to James River) | Anomaly Digs              | Possible impact on the availability of non-primary services at all north to south constraint locations from Compressor Station 195 through Compressor Station 160 |           |            |                   |
| 248     | Mainline C (Station 185 to Station 190) | Modifications             | Possible impact on the availability of non-primary services at all north to south constraint locations from Compressor Station 195 through Compressor Station 160 |           |            |                   |
| 249     | Mainline D (Station 185 to Station 190) | Modifications             |   |           |            |                   |
| 250     | Mainline A (James River to Station 180) | Anomaly Digs              |   |           |            |                   |
| 251     | Mainline C (Station 180 to Station 190) | Anomaly Digs              |   |           |            |                   |
| 254     | Mainline A (Station 190 to Station 195) | Pipeline Inspection       |   |           |            |                   |
| 255     | Mainline B (Station 190 to Station 195) | Pipeline Inspection       |   |           |            |                   |
| 256     | Mainline A (Potomac to Station 190)     | Modifications             |   |           |            |                   |
| 259     | Mainline C (Potomac to Station 190)     | Modifications             |   |           |            |                   |
| 260     | Mainline D (Potomac to Station 190)     | Modifications             |   |           |            |                   |

# North Carolina, Virginia, & Maryland Construction & Maintenance

| Job No. | Location Description                    | Maintenance Activity Type | Anticipated Impact  | Meter No. | Meter Name | 1Line Location ID |
|---------|---|---------------------------|---|-----------|------------|-------------------|
| 261     | Mainline C (Station 185 to Station 190) | Modifications             | Possible impact on the availability of non-primary services at all north to south constraint locations from Compressor Station 195 through Compressor Station 160 |           |            |                   |
| 262     | Mainline C (Station 185 – Station 190)  | Modifications             | Possible impact on the availability of non-primary services at all north to south constraint locations from Compressor Station 195 through Compressor Station 160 |           |            |                   |
| 263     | Mainline D (Station 185 – Station 190)  | Modifications             |   |           |            |                   |
| 264     | Mainline D (Potomac to Station 190)     | Anomaly Digs              | Possible impact on the availability of non-primary services at all north to south constraint locations from Compressor Station 195 through Compressor Station 160 |           |            |                   |
| 265     | Mainline D (Potomac to Station 190)     | Anomaly Digs              |   |           |            |                   |
| 266     | Mainline D (Potomac to Station 190)     | Anomaly Digs              |   |           |            |                   |



# Pennsylvania & New Jersey Construction & Maintenance



# Pennsylvania & New Jersey Construction & Maintenance

| Job No. | Location Description                                 | Maintenance Activity Type | Anticipated Impact | Meter No. | Meter Name | 1Line Location ID |
|---------|--|---------------------------|--------------------|-----------|------------|-------------------|
| 268     | Mainline A (Station 190 to Station 195)              | Pipeline Inspection       |                    |           |            |                   |
| 269     | Mainline B (Station 190 to Station 195)              | Pipeline Inspection       |                    |           |            |                   |
| 270     | Delaware Power & Light Lateral (P163 to P171)        | Pipeline Inspection       |                    |           |            |                   |
| 271     | Wharton Extension Lateral                            | Pipeline Inspection       |                    |           |            |                   |
| 272     | Wharton Extension Loop                               | Pipeline Inspection       |                    |           |            |                   |
| 273     | Oreland B Lateral (P443 to P447)                     | Pipeline Inspection       |                    |           |            |                   |
| 274     | Mainline A (Station 190 to Station 195)              | Modifications             |                    |           |            |                   |
| 275     | 190B5 to 195B0                                       | Modifications             |                    |           |            |                   |
| 276     | Delaware Power & Light Lateral (P163 to P171)        | Modifications             |                    |           |            |                   |
| 277     | PGW Plant A Lateral (J842 to P83/P82 Delaware River) | Modifications             |                    |           |            |                   |
| 278     | Oreland A Lateral (P455 to P449)                     | Modifications             |                    |           |            |                   |
| 279     | Mainline C (Station 190 to Station 195)              | Anomaly Digs              |                    |           |            |                   |
| 280     | Delaware Power & Light Lateral (P163 to P171)        | Anomaly Digs              |                    |           |            |                   |
| 281     | Rock Springs Lateral (P543 to Station 196)           | Anomaly Digs              |                    |           |            |                   |
| 282     | Somerton Lateral (P384 to P386)                      | Anomaly Digs              |                    |           |            |                   |
| 283     | Mainline A (MLV 195A5) to Downingtown M&R (P347)     | Anomaly Digs              |                    |           |            |                   |
| 284     | Mainline B (Station 195 to MLV 195B20)               | Anomaly Digs              |                    |           |            |                   |
| 285     | Mainline B (MLV 195B20) to MLCW_B (Station 505)      | Anomaly Digs              |                    |           |            |                   |
| 286     | Mainline C (Station 195 to MLV 200C10)               | Anomaly Digs              |                    |           |            |                   |
| 287     | Mainline A (Downingtown M&R - P352 to Station 200)   | Anomaly Digs              |                    |           |            |                   |
| 288     | Mainline A (Station 200 to Delaware River)           | Anomaly Digs              |                    |           |            |                   |
| 289     | Bayonne Lateral 20" (J768 to J881)                   | Pipeline Inspection       |                    |           |            |                   |
| 290     | Essex Lateral  | Pipeline Inspection       |                    |           |            |                   |

# Pennsylvania & New Jersey Construction & Maintenance

| Job No. | Location Description   | Maintenance Activity Type | Anticipated Impact                           | Meter No. | Meter Name | 1Line Location ID |
|---------|--|---------------------------|--|-----------|------------|-------------------|
| 291     | Trenton Lateral (J794 to J21)                                | Pipeline Inspection       |  |           |            |                   |
| 292     | Trenton-Woodbury A (J13 to Burlington M&R)                   | Pipeline Inspection       |  |           |            |                   |
| 293     | Trenton-Woodbury B (J5 to Cypress Valve Site)                | Pipeline Inspection       |  |           |            |                   |
| 294     | Trenton-Woodbury B (Cypress Valve Site to Burlington M&R)    | Pipeline Inspection       |  |           |            |                   |
| 295     | West Conshohocken Lateral (P453 to P457)                     | Pipeline Inspection       |  |           |            |                   |
| 296     | West End Lateral (J814 to J816)                              | Pipeline Inspection       |  |           |            |                   |
| 297     | Pottstown Lateral  | Pipeline Inspection       |  |           |            |                   |
| 298     | Mainline Caldwell B Loop (Station 505 to Roseland Regulator) | Pipeline Inspection       |  |           |            |                   |
| 299     | Mainline Caldwell D Loop (Station 505 to MLV 505D05)         | Pipeline Inspection       |  |           |            |                   |
| 300     | Mainline C (Delaware River) to Lower Bay Loop C (Morgan M&R) | Pipeline Inspection       |  |           |            |                   |
| 301     | Marcus Hook Lateral B (P434 to P431)                         | Pipeline Inspection       |  |           |            |                   |
| 302     | Essex Lateral  | Modifications             |  |           |            |                   |
| 303     | Sewaren Lateral  | Modifications             |  |           |            |                   |
| 304     | Sewaren Lateral  | Hydro                     | Meter Outage                                 | 6033      | Sewaren    | 1006386           |
| 305     | PGW Plant A Lateral Receiver Modifications                   | Modifications             | Meter Outage                                 | 6093      | Whitman    | 1006621           |
| 306     | Leidy Line B (Station 517 to MLV 520LB30)                    | Modifications             |  |           |            |                   |
| 307     | Leidy Line B (Station 517 to MLV 520LB30)                    | Modifications             |  |           |            |                   |
| 308     | Lower Bay Loop C (Morgan M&R to Long Beach M&R)              | Anomaly Digs              |  |           |            |                   |
| 309     | Mainline B (MLV 195B20) to MLCW_B (Station 505)              | Anomaly Digs              |  |           |            |                   |
| 310     | Mainline A (Station 200 to Delaware River)                   | Anomaly Digs              |  |           |            |                   |
| 311     | MHWD_A (Marcus Hook M&R) to TRWD_A (Mount Laurel M&R)        | Anomaly Digs              |  |           |            |                   |
| 312     | Mainline A Passaic River X-ing - South                       | Pipeline Inspection       |  |           |            |                   |
| 313     | Mainline A (Station 240 to Hudson River)                     | Pipeline Inspection       |  |           |            |                   |
| 314     | Mainline A (200A121 to Y19)                                  | Modifications             | Valve Removal. 134th St. gate not available. | 6051      | Manhattan  | 1006571           |
| 315     | N New Jersey Lateral (J647 to J648)                          | Anomaly Digs              |  |           |            |                   |

# Pennsylvania & New Jersey Construction & Maintenance

| Job No. | Location Description  | Maintenance Activity Type | Anticipated Impact | Meter No. | Meter Name | 1Line Location ID |
|---------|---|---------------------------|--------------------|-----------|------------|-------------------|
| 316     | MLCW-B (Station 303) to MAIN-B to 72LTA (Hudson River)        | Anomaly Digs              |                    |           |            |                   |
| 317     | Mainline A Passaic River X-ing - North                        | Pipeline Inspection       |                    |           |            |                   |
| 318     | Piles Creek M&R Tap   | Pipeline Inspection       |                    |           |            |                   |
| 319     | Mainline A (Passaic River to Hackensack River)                | Anomaly Digs              |                    |           |            |                   |
| 320     | Leidy Line B (Sta. 517 to 520LB30)                            | Pipeline Inspection       |                    |           |            |                   |
| 321     | STN515 - 515LA20  | Modifications             |                    |           |            |                   |
| 322     | 515LA40 - 515LA28   | Modifications             |                    |           |            |                   |
| 323     | 515LB20 - 515LB10   | Modifications             |                    |           |            |                   |
| 324     | Leidy Loop Line B (Station 515 to Station 517)                | Anomaly Digs              |                    |           |            |                   |
| 325     | Leidy Loop Line D (MLV 515LD22) to Leidy Line D (Station 517) | Anomaly Digs              |                    |           |            |                   |
| 253     | 24" Leidy Line B (Sta. 517 to 520LB30)                        | Pipeline Inspection       |                    |           |            |                   |
| 327     | Wharton Extension Loop - NFG to Station 535                   | Modifications             |                    |           |            |                   |
| 328     | Sewaren Lateral - NFG to Station 535                          | Modifications             |                    |           |            |                   |
| 329     | Leidy Line C (Hughesville M&R to Station 520)                 | Anomaly Digs              |                    |           |            |                   |

# 2017/18 Maintenance

## > Over 300 maintenance jobs were scheduled in 2017; work included:

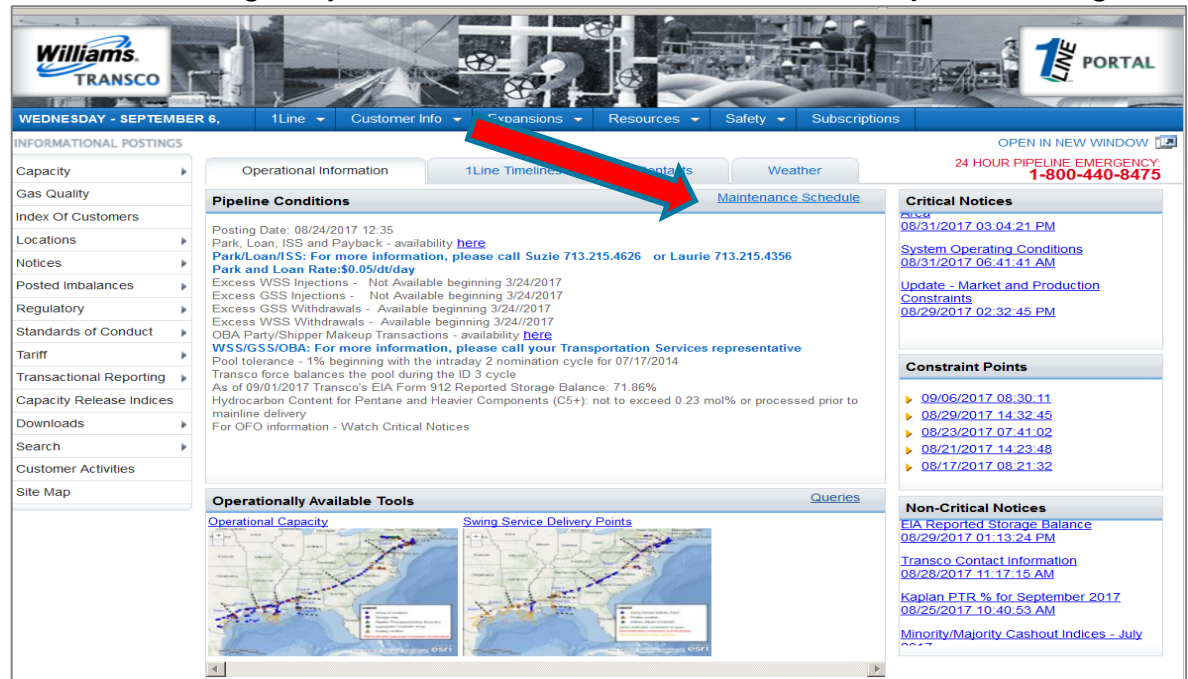
- Project work to increase pipeline capacity
  - compressor station modifications, installation of new pipe, valve work, etc.
- Pipeline inspections (pigging, hydrotesting, visual inspections)
- Anomaly repairs

## > 2018 will be another maintenance-intensive year

- Check the Maintenance Schedule on the EBB regularly for scheduled work as dates are subject to change

## > To view or download the Maintenance Schedule:

- [www.1Line.Williams.com](http://www.1Line.Williams.com)
- Select Info Postings
- Click on Maintenance Schedule
- Check frequently for updates!



The screenshot shows the Williams Transco 1Line Portal website. The top navigation bar includes links for Capacity, Gas Quality, Index of Customers, Locations, Notices, Posted Imbalances, Regulatory, Standards of Conduct, Tariff, Transactional Reporting, Capacity Release Indices, Downloads, Search, Customer Activities, and Site Map. A red arrow points to the 'Maintenance Schedule' link in the 'Operational Information' section. The 'Pipeline Conditions' section displays posting dates and availability information for various services. The 'Operational Capacity' and 'Swing Service Delivery Points' maps are visible at the bottom. The right sidebar contains 'Critical Notices' and 'Non-Critical Notices' sections.

# Now What?

## > Individual Project Updates

- Job numbers and outage dates are subject to change
- Transco's 1Line closer to job start date

## > Further Questions?

- Ross Sinclair (Manager, Pipeline Control)
  - 713-215-2688
  - Ross.M.Sinclair@Williams.com
- Ashutosh "AJ" Joshi (Supervisor, System Planning Atlantic/Gulf)
  - 713-215-2721
  - Ashutosh.Joshi@Williams.com
- Your Transco Representative

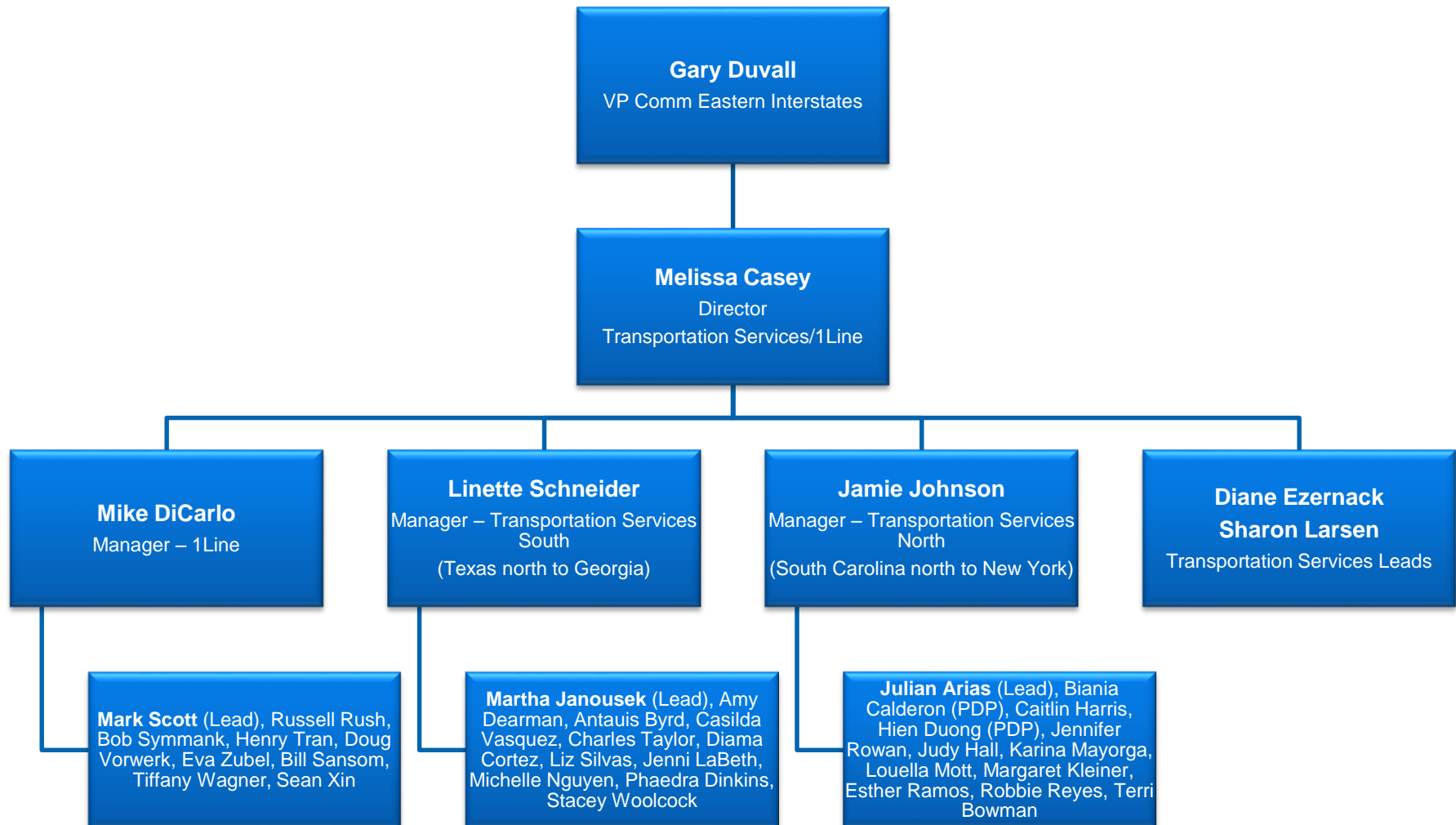


# Transportation Services

# Topics

- > **Transportation Services Organization**
- > **Imbalance Management**
- > **Active Confirmations & Location Specific OFOs**
- > **E-Contracting**
- > **Atlantic Sunrise Project**
- > **Priority of Service**
- > **Proposed Tariff Filings**
- > **AIM**
- > **Newsletters**

# Transportation Services/1Line Org Chart



# Imbalance Management

## > **Imbalance swings on transportation contracts outside of our pipeline flexibility puts the integrity of our firm service at risk**

- Transco may not confirm everything nominated at a receipt point when undersupplied
- Transco may not confirm everything nominated at delivery points when low burning
- Utilize Zone Specific OFOs to manage imbalances

## > **Available tools to manage the integrity of the pipeline, per the Tariff**

- OFO
  - Imbalance OFO By Zone, Shipper, Location
  - Scheduling OFO By Zone, Shipper, Location
  - Consecutive OFO (Due To one day and Due From immediately following or vice versa)
  - Combo (Due To and Due From) OFO with varying percentage
- Limiting Make-up
  - Open by zone, line or segment
  - Closed by zone, line or segment
  - Packages by zone, line or segment

# Active Confirmations & Location Specific OFO's

## > Transco plans to start using additional tools currently existing in the tariff to target locations that are causing imbalance issues.

- Under-burns – Due To Shipper – Long
  - Active Confirmations
    - In accordance with GT&C 28.9
  - DT Location OFO
    - In accordance with GT&C 52
- Over-burns – Due From Shipper – Short
  - DF Location OFO
    - In accordance with GT&C 52
  - Priority of Service
    - In accordance with the proposed draft filing

## > Location Operators

- Confirm close to anticipated flow
- Adhere to the OFO Warnings - System Operating Conditions
  - “Transco has limited flexibility to manage imbalances and strongly encourages all parties not to create imbalances and proactively balance their supply and demand requirements on a daily basis.”
- Location OFOs

# Electronic Contracting in 1Line

- > Electronic contracting for Transco firm transportation agreements implemented in 1Line 1st Quarter 2017.
- > New firm contracts are now able to be executed electronically within 1Line. The executed agreement will be stored in 1Line as a .pdf.

Contracts/Amendments

Contracts > Contracts/Amendments

**Filters**

Svc Req Prop:

Rate Schedule/Service:

Rate Schedule Type: None Selected

Delivery Zone: None Selected

Category: None Selected

Status: None Selected

Request/Contract Number:

Document Registry Number:

Contract Origin: None Selected

Contract Type: None Selected


For Dates:

Retrieve Clear

Download ☐ Include Nested

Search successfully completed. Records found: 1

| Contract ID | Category | Service Requester ID | Service Requester Name | Rate Schedule/Service | Contract Origin | Contract Type | Status | Commence Date | Document Expiration Date | Delivery Zone | Maximum Contract Qty (dt)* |
|-------------|----------|----------------------|------------------------|-----------------------|-----------------|---------------|--------|---------------|--------------------------|---------------|----------------------------|
|             | Contract |                      |                        |                       | Original        | None          | ACTIVE | 09/01/2017    | 06/30/2018               |               |                            |

| Amendment Number | Effective Date | Termination Date | Amendment Status | Submit Date | Amendment Type | Auto Amendment | Correction | Document Registry Number | Executed E-Contract   |
|------------------|----------------|------------------|------------------|-------------|----------------|----------------|------------|--------------------------|---|
| 0                | 09/01/2017     | 12/31/2999       | ACTIVE           | 08/30/2017  |                |                | No         |                          |  |

\*Rate Schedules IT, ICTS and IDLS volume represents an estimated daily flow volume that will be used for administrative purposes pending availability of actual flow volumes.

- > To approve a pending service agreement the Business Associate must have a user id with the **Contract Execute** role.
- > Open access storage rate schedules (WSS, ESS, EESWS, & LNG) will be supported by electronic contracting in 4Q 2017 or 1Q 2018.



# Electronic Contracting in 1Line – Firm Transportation Delivery Points

- > **As a part of the conversion of original Transco firm contracts to electronic contracting Exhibit A, B, and C service agreement data was loaded into 1Line.**
- > **The receipt, delivery, and special terms information for original Transco firm contracts can be found:**
  - Contracts/Amendments page by selecting the contract row and “View eContract” option
  - View Contract page accessible from the Contracts/Amendments page via Review
- > **Enhancements to the “Contracts By Location” page are scheduled for 4th Quarter 2017 to show ALL receipt and delivery path and exhibit information.**
- > **Permanent capacity release replacement contracts are now available to be executed electronically within 1line**

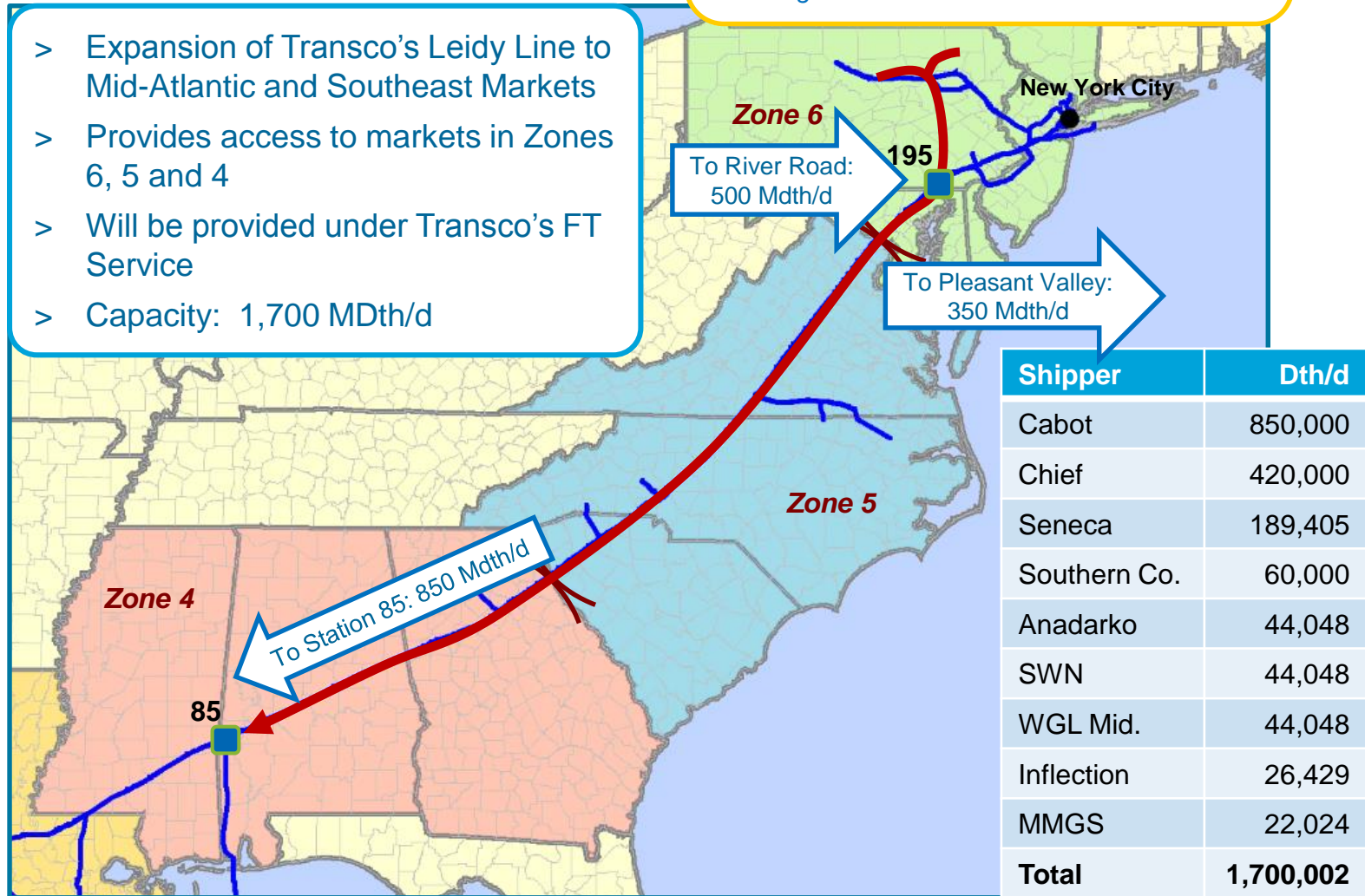
# Atlantic Sunrise



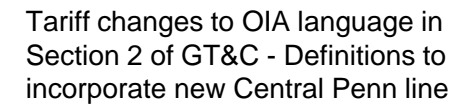
## Status:

- Mainline construction has commenced.
- All permits have been received and expect to start greenfield construction in September 2017.
- Target In-Service Date: H2 2017 <sup>(1)</sup>.

- > Expansion of Transco's Leidy Line to Mid-Atlantic and Southeast Markets
- > Provides access to markets in Zones 6, 5 and 4
- > Will be provided under Transco's FT Service
- > Capacity: 1,700 MDth/d



(1) We placed a portion of the mainline project facilities into service on September 1, 2017 for 400 MDth/d from River Road to Station 85. We are targeting a full in-service during mid-2018, assuming timely receipt of all necessary regulatory approvals.



# Atlantic Sunrise Route Options

## > Shipper Zone 6 Flexible Path Options

- The Atlantic Sunrise project will introduce an additional line off Transco's mainline in Zone 6 to be called the Central Penn Line (CPL)
- With three possible paths (Central Penn, Leidy, or Mainline), shippers receiving from or delivering to Zone 6 will need to designate their path for 1Line to determine the priority of service for that transaction.
- Firm shippers in Zone 6 will have secondary rights on the Central Penn Line. Atlantic Sunrise shippers will have secondary rights on Leidy and the Zone 6 Mainline.
- A new NAESB nomination element called ROUTE will be required for all affected Zone 6 transactions. This element is Business Conditional (BC)
  - NAESB WGQ Standard 1.4.1 - Nominations
- This element will be available in flat file, EDI X12 and online with the implementation of the Atlantic Sunrise full in-service targeted for mid-2018.

## Priority of Service – Proposed Tariff Filing

- > **Transco posted a draft Tariff filing, presentation video explaining the filing, and answers to frequently asked questions on the Informational Postings page**
  - Filing, presentation & video posted on 2/16/17; FAQs updated October 2017
  - Links: [Draft Tariff filing](#), [presentation](#), [video](#) and [FAQ's](#)
  - Webinars were held in March 2017
  - Customer visits were conducted March through June 2017
- > **To be filed: Fall 2017**
- > **Implementation is planned for no earlier than April 1, 2018**
- > **Highlights of Draft Tariff Filing**
  - Establishing High Burn Limit Values (HBLV) at a point (no path)
  - Clarification of traditional and non-traditional rights
  - Defining priorities specifically for HBLVs
  - Establishing ability to allocate HBLVs by location or segment
  - Eliminating overlapping HBLVs at a nominatable point
  - Establishing ability to allocate capacity at a TSB by segment (nominations)

## Priority of Service – 1Line Changes

- > **There will be multiple 1Line changes needed for the upcoming priority of service changes:**
  - Identifying traditional delivery information on all original and replacement firm transportation agreements.
  - High burn PDA contingency nomination will be changed to a new transaction type 22 (No-Notice Service (NNS) NAESB WGQ Standard 1.4.1).
  - New no-notice constraints and different existing constraint packages and notices.
  - Changes to existing PDA and Confirmation screens. Currently, discussing separating the two pages to simplify the confirmation and PDA process.
  - Billing and imbalance page changes to show activity on the new transaction type 22.



# Failure of Electronic Equipment – Proposed Tariff Filing

- > **Transco filed tariff records with FERC on 3/24/17 to clarify Transco's business practice when the 1Line system is unavailable and unable to process nominations.**
- > **Prior to a final FERC acceptance, Transco received feedback and interventions from a number of customers and therefore we withdrew the filing on 4/10/17 to solicit further information from customers.**
  - Concerns included:
    - Absence of force majeure language
    - Inability to submit written nominations if Shipper's system went down
- > **Transco values its customer feedback and after obtaining additional information, has posted a draft of the revised language to Transco's Info Postings Page.**
  - Feedback is requested by the end of October 2017

# Failure of Electronic Equipment – Proposed Tariff Filing

## > What is an outage?

- A 1Line outage is a period of time in which the system is unavailable to both internal Williams employees and to our shippers and operators.

## > Minimizing down time for unplanned outages of 1Line

- After the extended 1Line outage in July 2014, Transco has further enhanced their disaster recovery efforts since 2014 by proving that 1Line could be operated remotely and return to its home servers.
- The 1Line system is able to convert to backup servers located in an alternate site from the location of the daily production servers.
- If 1Line had a major disruption of service, we are able to move to the disaster recovery site within four-six hours and run 1Line from that site until the production environment is repaired and tested.
- For a full week in mid-May, 2015 and mid-April, 2017, the 1Line system operated from our disaster recovery alternate location.
- Transco's shippers and operators experienced zero incidents associated with the change and both of these tests proved to Transco that we have a prudent disaster recovery plan in place should 1Line experience a major unplanned outage.

# Failure of Electronic Equipment – Proposed Tariff Filing

- > **Why can't Transco handle written nominations during or after a 1Line outage?**
  - The 1Line system processes ~12,000+ nominations and PDAs daily with a large number of those transactions being transmitted via EDI or X-12.
- > **What if there are other issues accessing 1Line?**
  - If 1Line is not available to Williams employees, but is available to shippers and operators, we will keep 1Line running for our shippers and operators and extend nomination deadlines as described in GT&C section 28.1(a).
  - If our shippers or operators are unable to connect to 1Line and 1Line is NOT having an outage, Transco will continue to accept requests from our shippers as proposed in Transco's GT&C Section 28.1(a) of our tariff:
    - “In the event Buyer experiences a failure of electronic communication equipment, Internet, or third party service provider, or other similar emergency event which constitutes an event of force majeure pursuant to Section 11.1 of the General Terms and Conditions, Seller shall handle requests from Buyer for emergency treatment, including written nominations, on a not unduly discriminatory basis.”

# Failure of Electronic Equipment – Proposed Tariff Filing

## > What Transco can do after a 1Line outage is complete

- Transco will post that 1Line has returned to service.
- Transco will notify shippers and operators what data was recovered and what processes were completed.
- Transco may accept POST\* and RETRO\* cycles changes to accommodate those times when a cycle or cycles have been missed due to a system outage.
  - Transco also offers shippers rolling nominations and the ability to submit multi-date ranged nominations.
  - Operators have features such as subsequent cycle indicator, rolling confirmations and auto confirmation.
  - All of these items are designed to help ensure customers have ample opportunity to accurately reflect their business transactions.

## > Draft filing can be found on Transco's Informational Postings Page>Regulatory>Tariff Filings> Proposed Drafts>Failure of Electronic Equipment

\* Acceptance of nomination changes are subject to cycle deadlines as described in Transco's GT&C section 28

# AIM

- > AOL Instant Messenger is shutting down on December 15, 2017**
- > AIM has been a primary method of communication between Transco and its customers**
- > Transco is currently working on a transition plan and soliciting feedback from customers**
- > Customers will be notified of the transition plan once finalized**

# Newsletter

## > 1Line Fall 2017 in Focus newsletter (September):

- This newsletter provides insights into recent programming changes to the 1Line system, tips and tricks, upcoming expansion projects, and general information on training and important dates.

## > Williams Summer 2017 Connect newsletter:

- This newsletter provides insights into all of Williams ongoing projects throughout the different operating areas.
  - To subscribe, please email [CustomerEngagement@Williams.com](mailto:CustomerEngagement@Williams.com)

## > Transco's Summer 2017 Customer Connection newsletter:

- This newsletter provides insights into Transco's ongoing projects, the people helping to make Transco a reliable and safe pipe, as well as our community involvements.

## > These three newsletters, along with any previously published newsletters, can be found on Transco's Info Postings Page>Customer Info>Newsletters





WE MAKE ENERGY HAPPEN

# 2017 Winter Operations Meetings

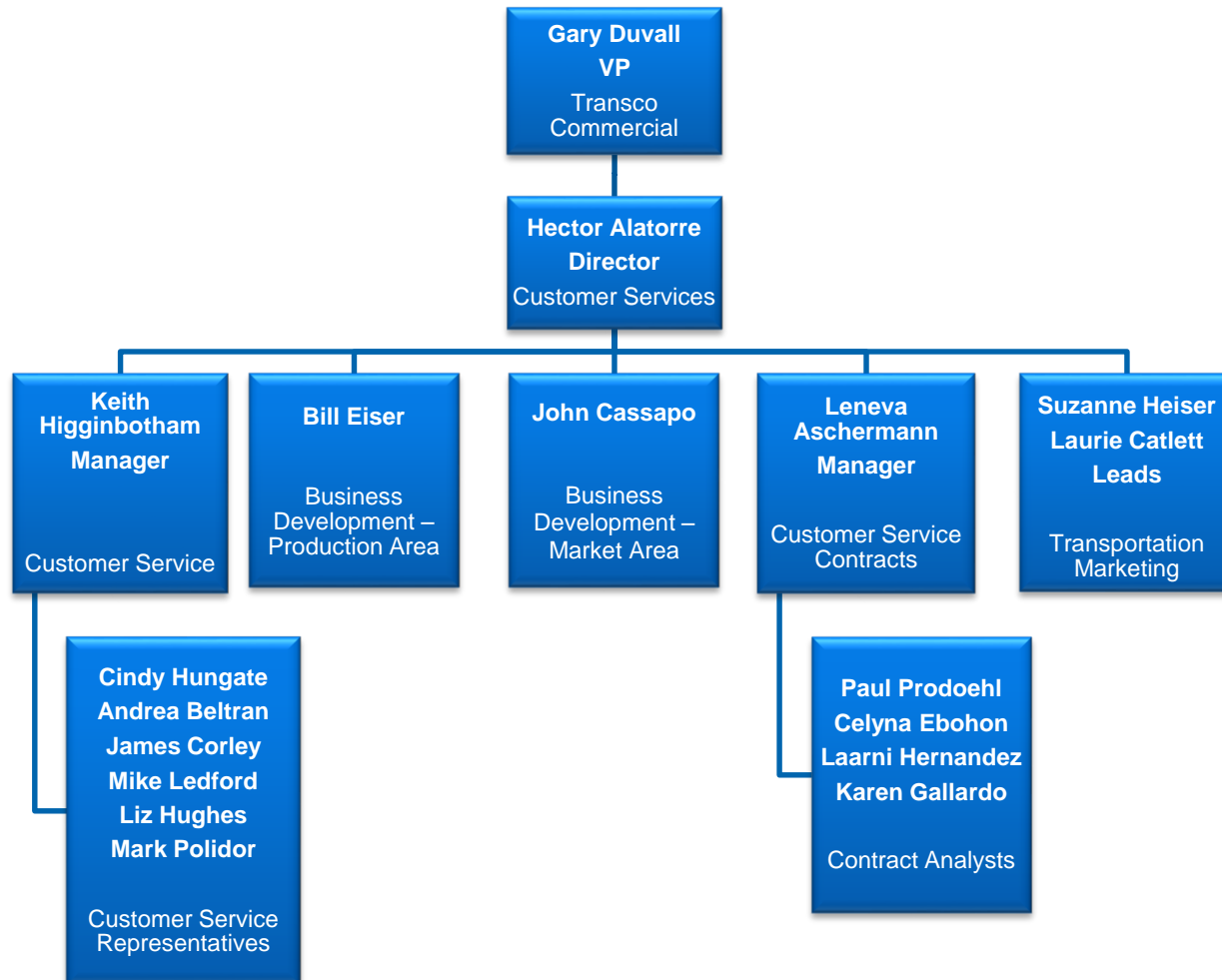
## Break

NYSE: WMB  
[williams.com](http://williams.com)



# Customer Services

# Commercial Operations – Customer Services



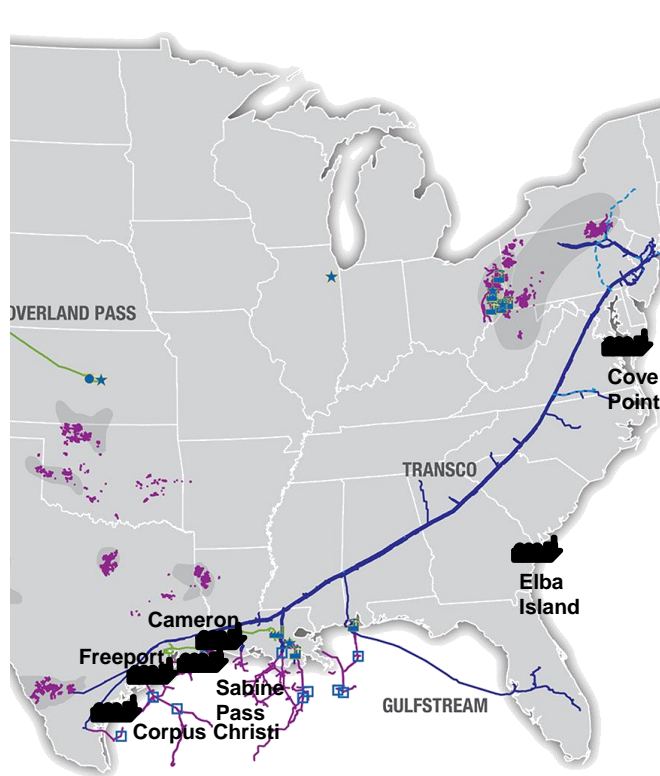
# 5 Year Throughput Trends by Sector / Industry Type

| Location Type    | 2012                 | 2013                 | 2014                 | 2015                 | 2016                 |
|------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Industrial       | 26,698,666           | 32,753,961           | 34,010,259           | 41,863,059           | 50,863,210           |
| Power Generation | 601,952,692          | 589,281,608          | 612,292,964          | 779,652,795          | 906,946,495          |
| LDC              | 1,421,827,560        | 1,524,280,339        | 1,554,724,459        | 1,331,732,853        | 1,323,482,576        |
| Municipality     | 4,719,403            | 5,133,052            | 7,338,223            | 9,288,441            | 9,511,070            |
| <b>Total</b>     | <b>2,055,198,321</b> | <b>2,151,448,960</b> | <b>2,208,365,905</b> | <b>2,162,537,148</b> | <b>2,290,803,351</b> |

Allocation Deliveries by Location Type



# Well Connected to LNG Export Terminals

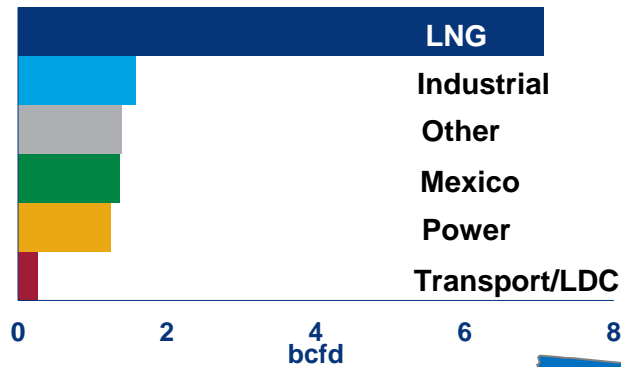


The gas demand to serve LNG export facilities along Transco is expected to grow by ~10 Bcf/d through 2019

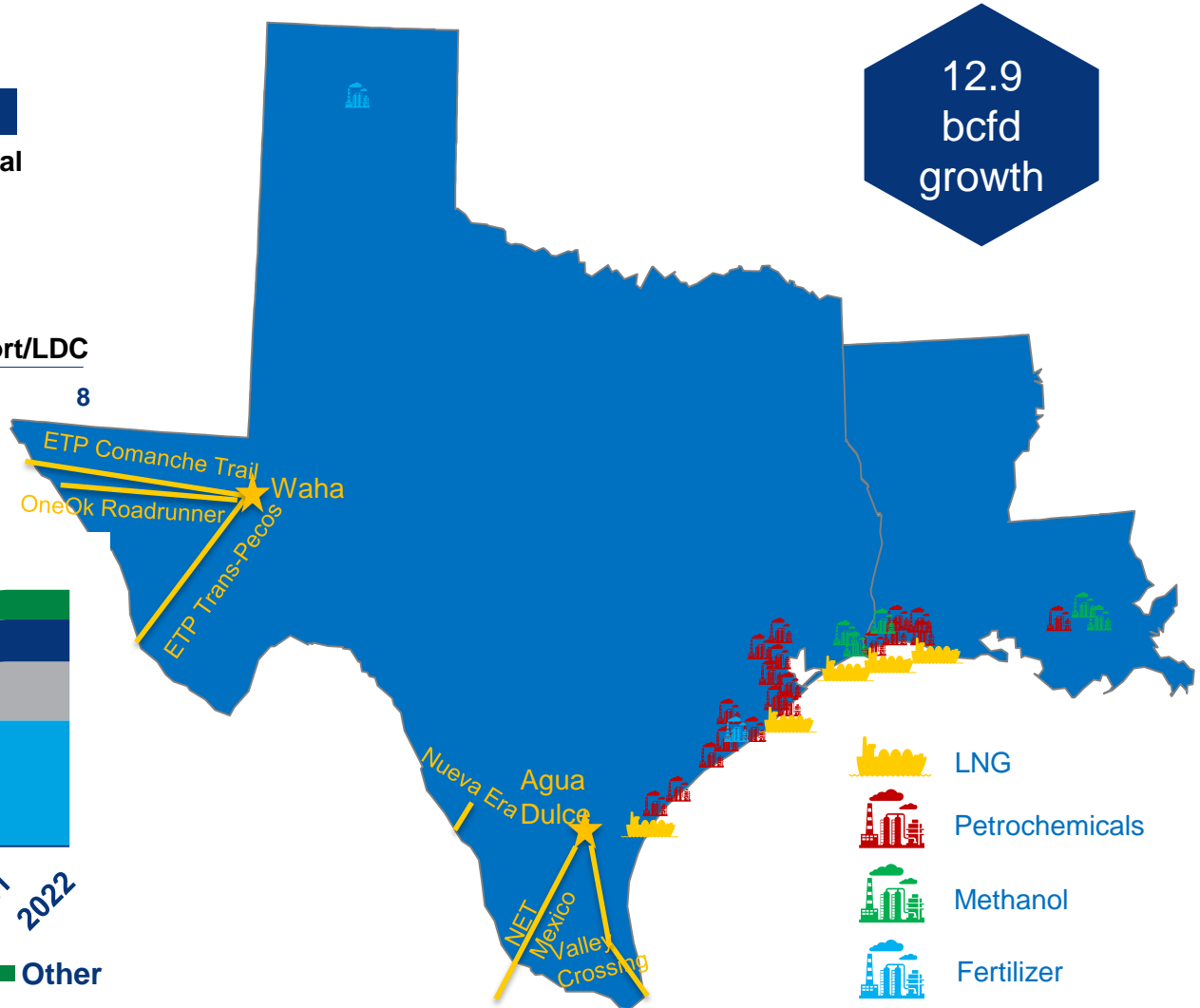
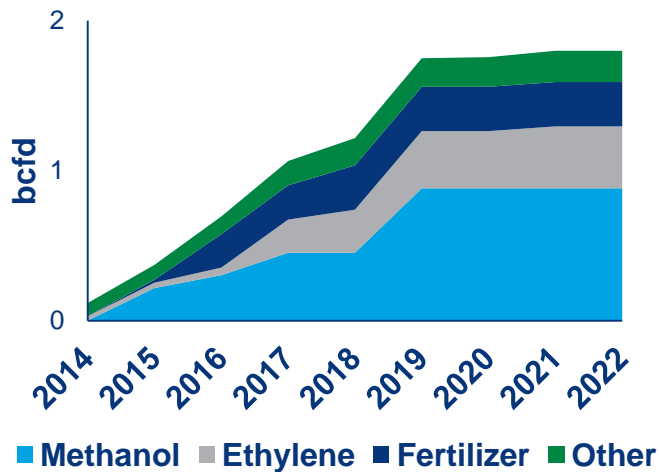
|                | LNG (MTPA) | Natural Gas Supply (BCF/d) | Begin Service | Facility Complete |
|----------------|------------|----------------------------|---------------|-------------------|
| Sabine Pass    | 22.50      | 3.5                        | 2016          | 2018              |
| Cove Point     | 5.75       | 0.77                       | 2017          | 2017              |
| Cameron        | 14.95      | 2.10                       | 2018          | 2019              |
| Elba Island    | 2.50       | 0.35                       | 2018          | 2019              |
| Freeport       | 13.20      | 1.80                       | 2018          | 2019              |
| Corpus Christi | 9.0        | 1.40                       | 2018          | 2019              |
| Total          | 71.90      | 10.20                      |               |                   |

# Texas and Louisiana account for 76% of demand growth along the Transco corridor

Growth between 2017 and 2027



Industrial growth from major projects in Texas and Louisiana





# Mainline Reversal Flow Update

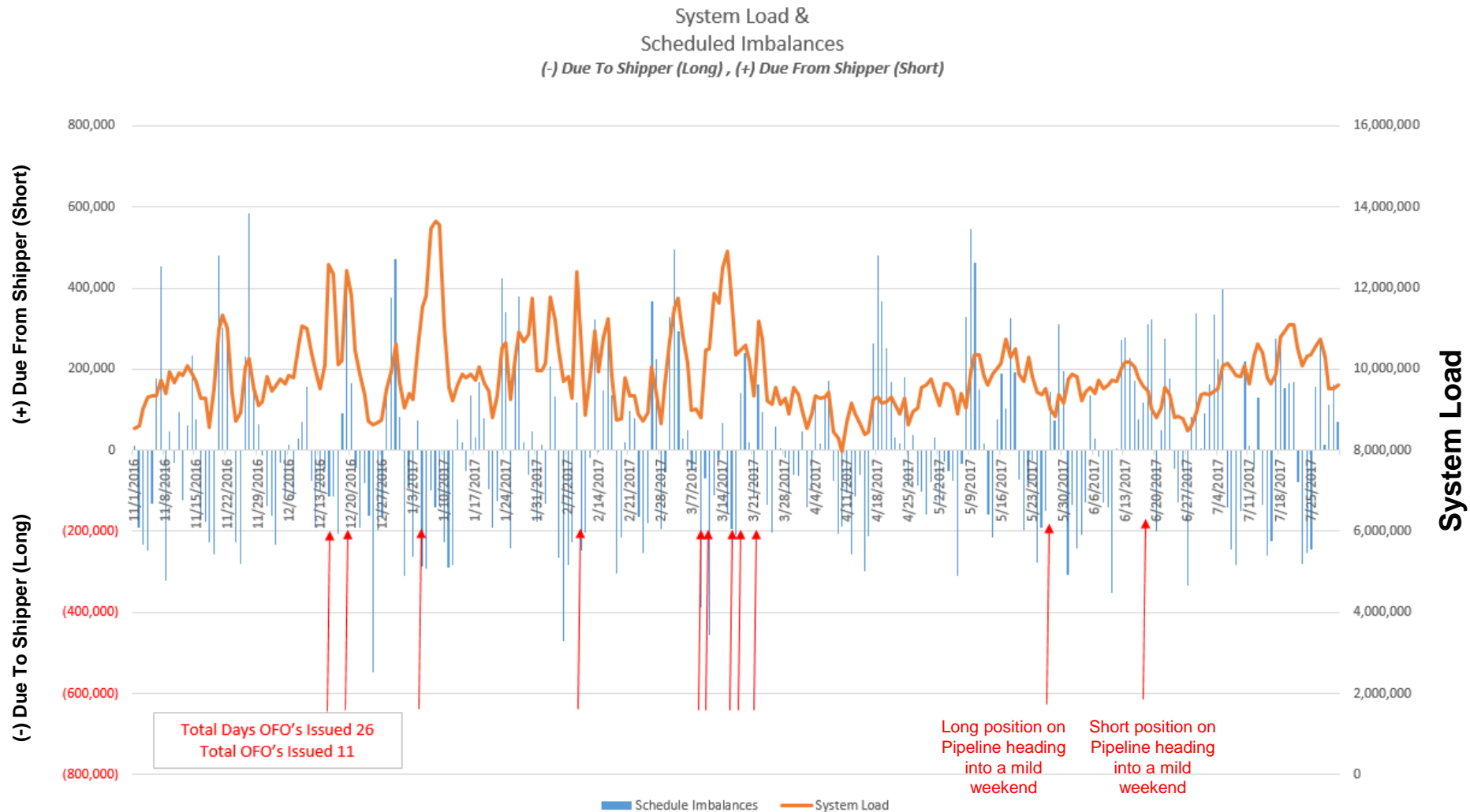
## > Odorization

- Odorization work to monitor and adjust for varying levels of odorant.
- Current odorization facilities that will not change:
  - Leidy Storage Facility – will continue to odorize the gas stream flowing from west to east
  - Station 200 – will continue to odorize the gas stream flowing from south to north
  - Receipt locations north of Station 195 (including the Leidy Line) will continue to be fully odorized.
- Odorization facilities that will change due to project scopes:
  - Dalton Project – Station 160 to Station 165 (including the SVL)
  - Atlantic Sunrise – Mainline Valve 140-10 to Station 160
  - Virginia Southside II – Station 140 to Mainline Valve 140-10 (including the Tryon Lateral)
  - Southeastern Trail – Mainline Monitoring facilities

## > Discussion

- From a monthly average perspective, Transco expects the following:
  - Traditional south to north flow into Zone 5 (South Carolina) continuing for all seasons (Winter, Spring, Summer, and Fall) through Fall of 2019.
  - North to south flow expected to be consistently flowing into North Carolina for all seasons (Winter, Spring, Summer, and Fall) beginning around the Winter of 2017/2018.
  - North to south flow expected to be more tightly constrained in the Spring and Fall seasons and to a slightly lesser extent in the Summer season.

# System Imbalances, System Loads and OFO Comparison



# Modernization Program

## > Modernization Program – Evaluation

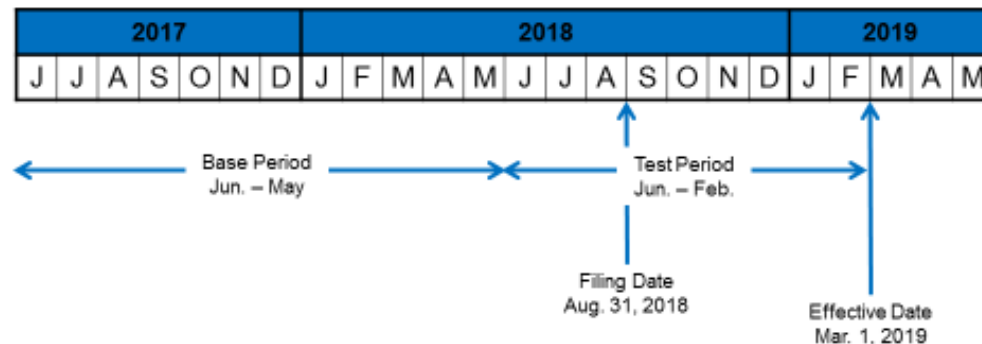
- Transco is engaged in an effort to evaluate its assets, prioritize modernization needs, and develop a risk-based modernization program, with the primary goal of maintaining pipeline safety and service reliability through the implementation of high priority projects. The implementation of strategic facility and pipeline projects will address potential risks to the reliability of Transco's firm transportation service.
- Transco will prioritize eligible projects through the evaluation of a facility's impact to system deliverability and where benefits are the more widely distributed.
- The prioritization strategy is based on 3 broad categories: the asset's condition, the asset's strategic fit in Transco's value-creating growth opportunities and the asset's ability to meet current and emerging air emissions regulations
- Transco will continue to keep Customers updated on the progress of the modernization program

# Rate Case Update

- > As agreed in Article VI of the Stipulation and Agreement in Docket No. RP12-993, et al., Transco will file a NGA Section 4(e) general rate case no later than August 31, 2018.
- > Assuming that the filing date is August 31, 2018, the base period for the rate case will be June 1, 2017 – May 31, 2018 and the test period will be June 1, 2018 – February 28, 2019.
- > Assuming a full five month suspension period for the new rates, the effective date of the rates will be March 1, 2019.

## Transco Base and Test Periods

Assumes August 31, 2018 Filing Date



**Filing Date:** August 31, 2018  
**Base Period:** June 1, 2017 – May 31, 2018  
**Test Period:** June 1, 2018 – February 28, 2019  
**Effective Date:** March 1, 2019

Maintenance Capital must be closed to plant/in-service no later than Feb. 28, 2019 to be included in rates.

# Transco Production Area Abandonments



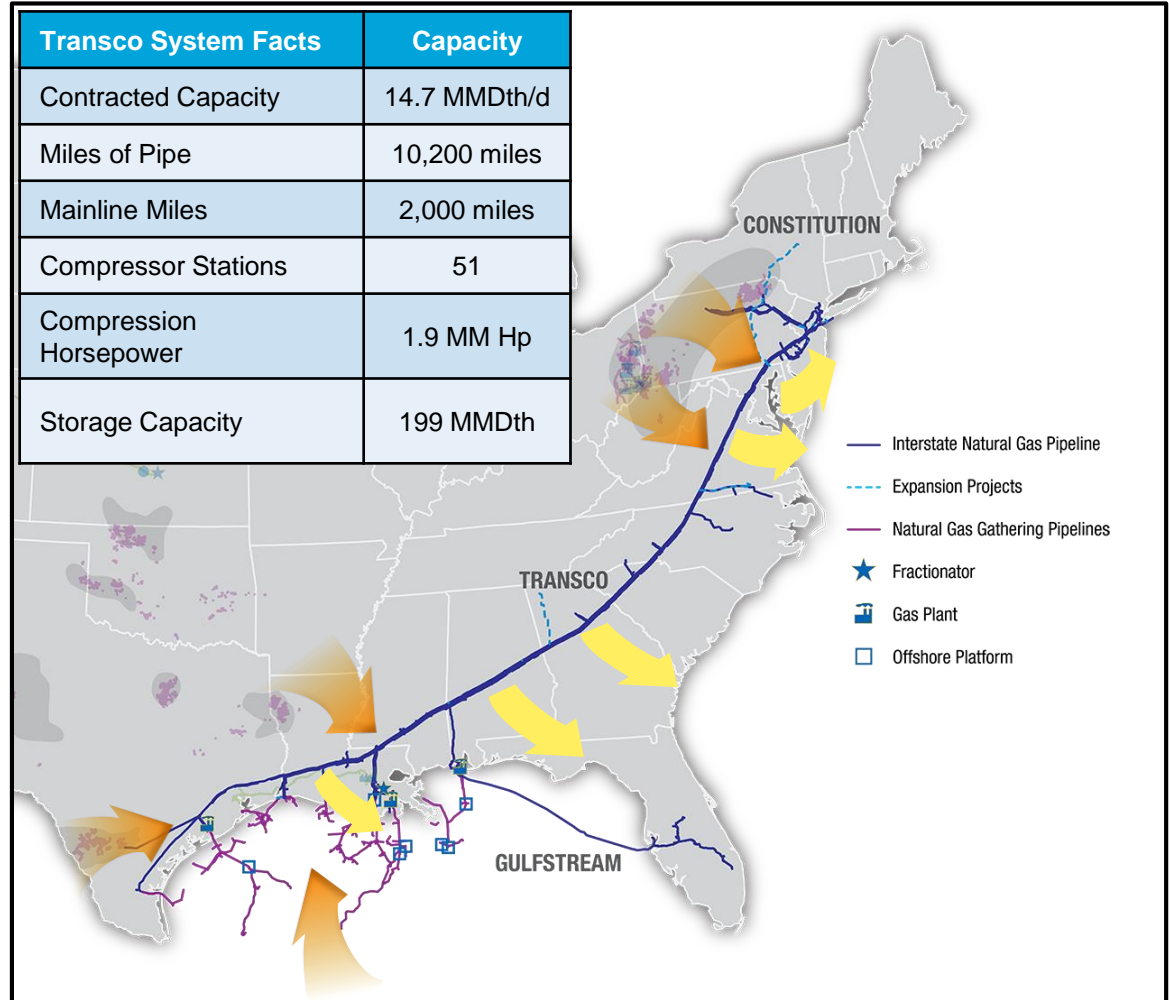
| Offshore Abandonments Timeline | 2017 |    |      |    | 2018 |    |           |    | 2019 |    |       |    |
|--------------------------------|------|----|------|----|------|----|-----------|----|------|----|-------|----|
|                                | Q1   | Q2 | Q3   | Q4 | Q1   | Q2 | Q3        | Q4 | Q1   | Q2 | Q3    | Q4 |
|                                |      |    | CTGS |    |      |    | NPI & NHI |    |      |    | CENLA |    |

Today

# Business Development

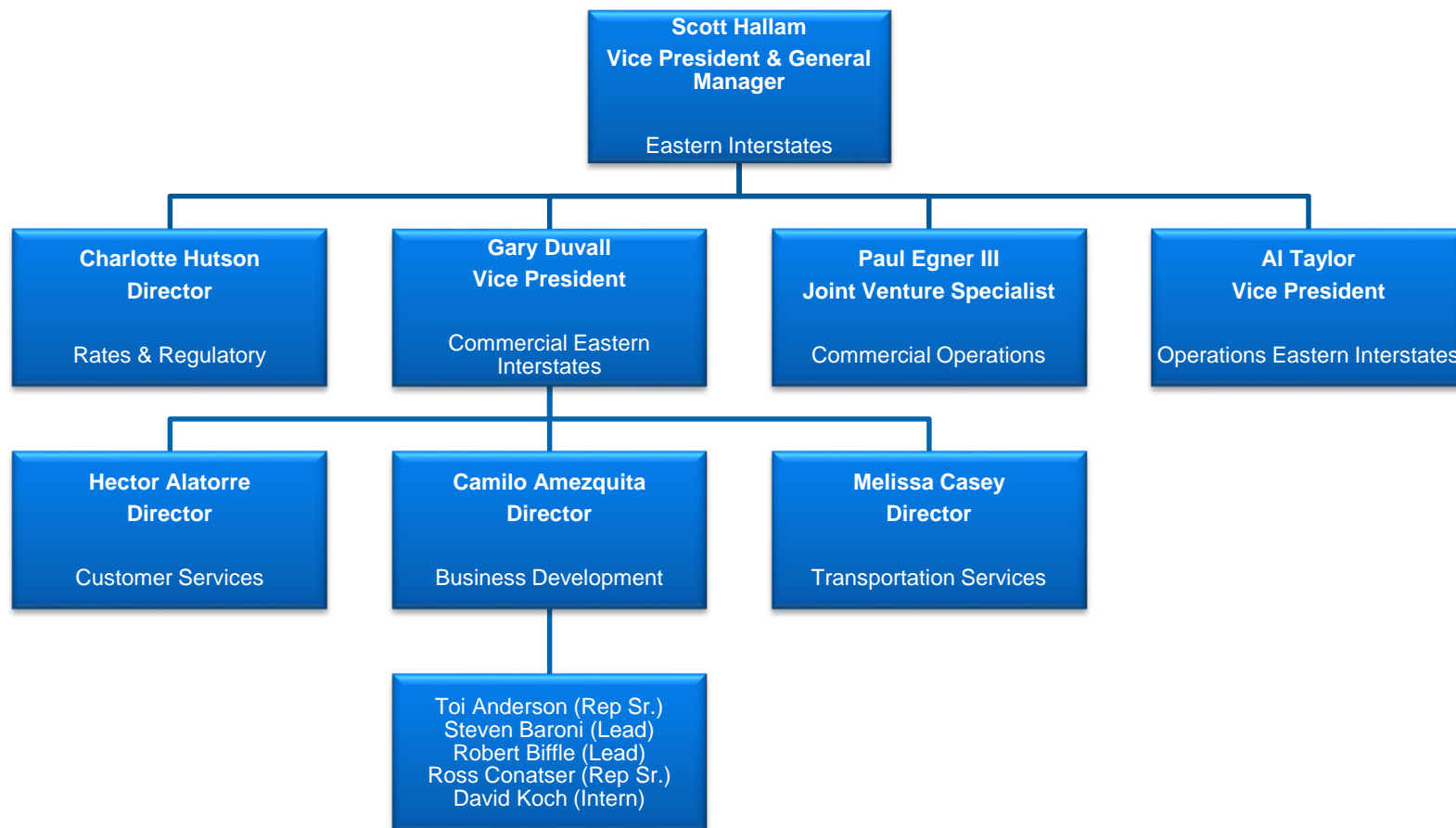
# Transco: Access to Cost Effective Supply and Premium Markets

- > Nation's largest-volume natural transmission gas pipeline
- > Extends 1,800 miles from South Texas to New York City
- > Delivers approximately 10% of U.S. gas to major markets like New York City, Philadelphia & Washington D.C.

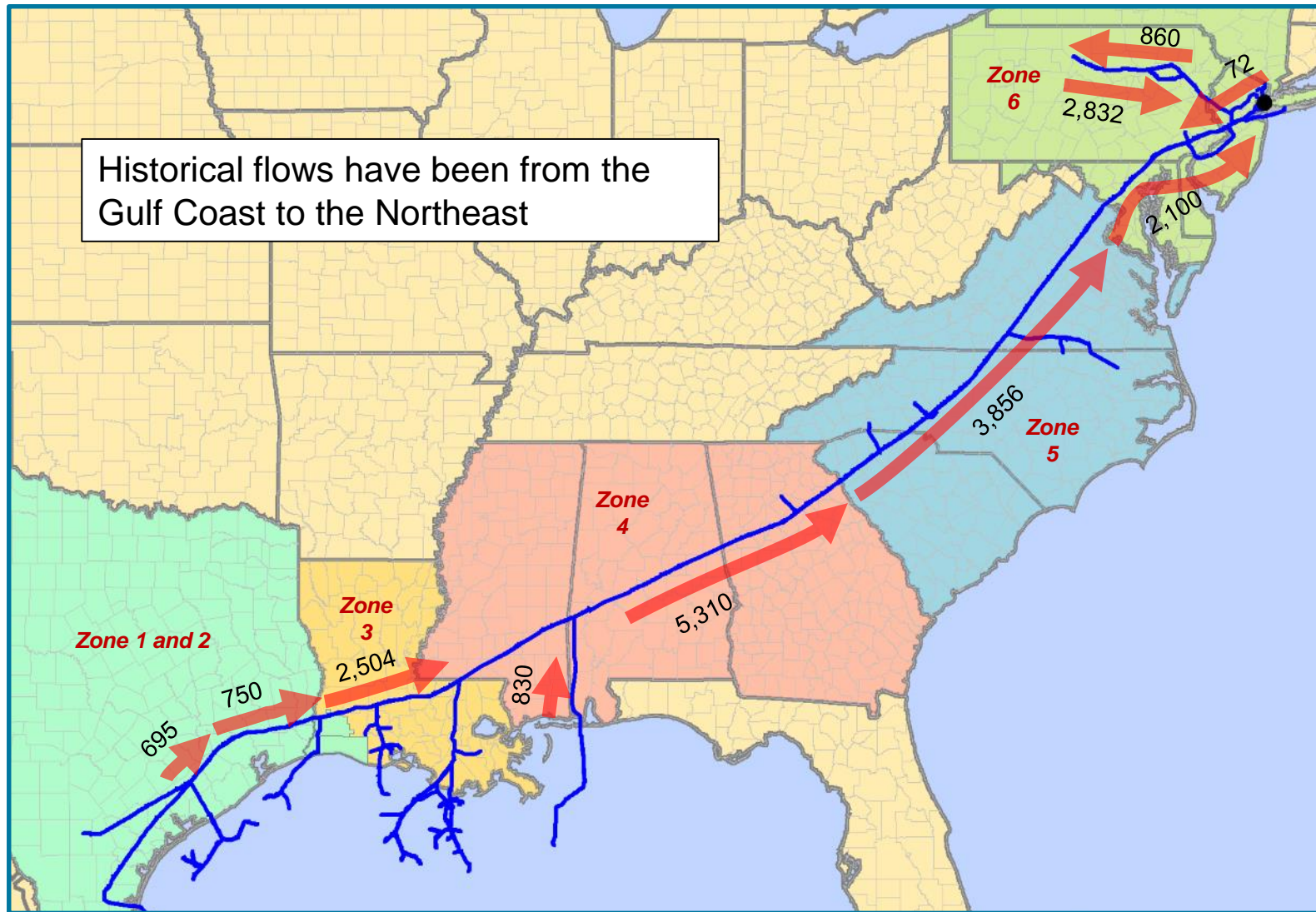




# Eastern Interstates – Business Development



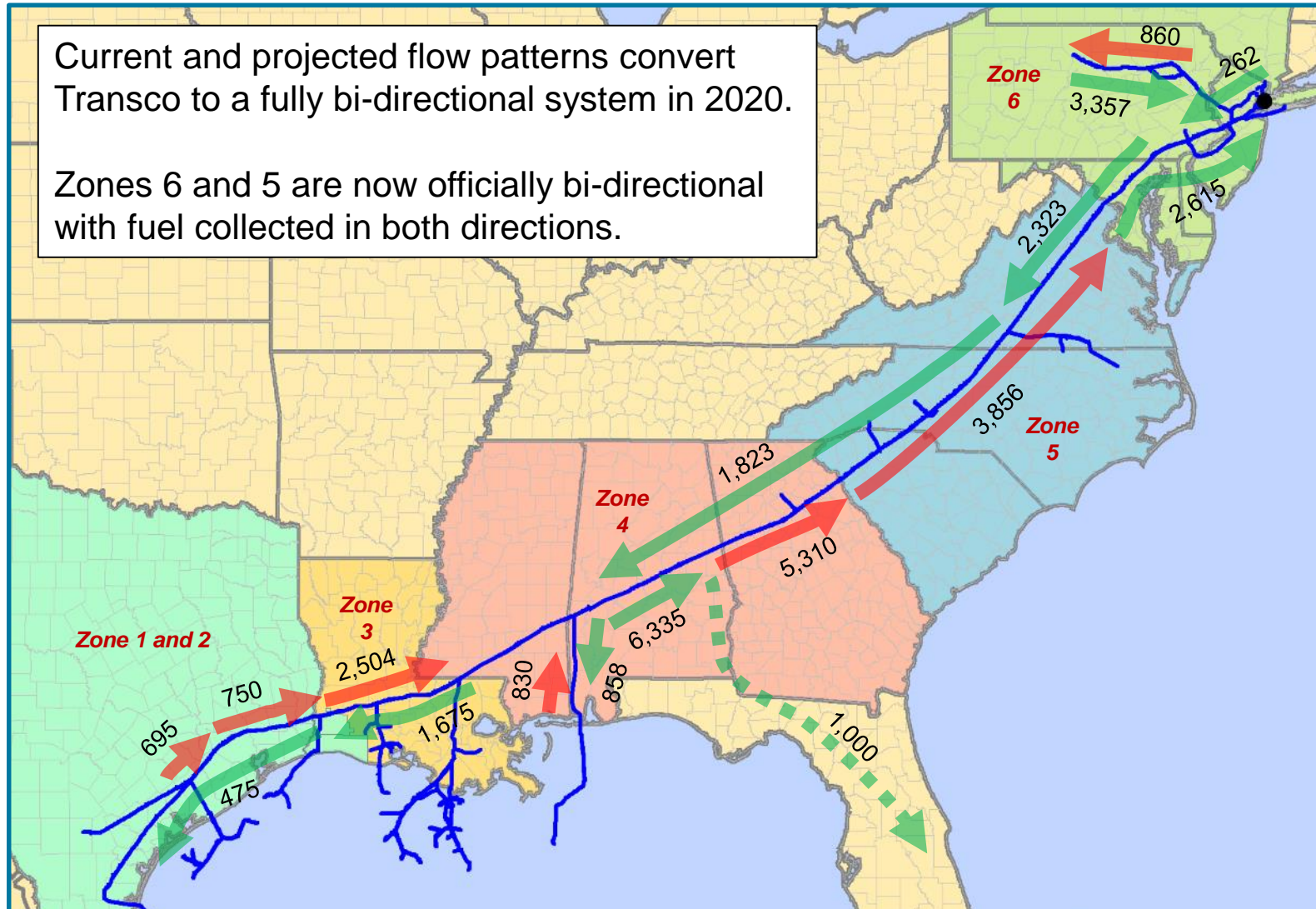
# Transco Volumes and Capacity (MDth/d) Flow Map ~2014



# Transco Volumes and Capacity (MDth/d) Flow Map ~2020

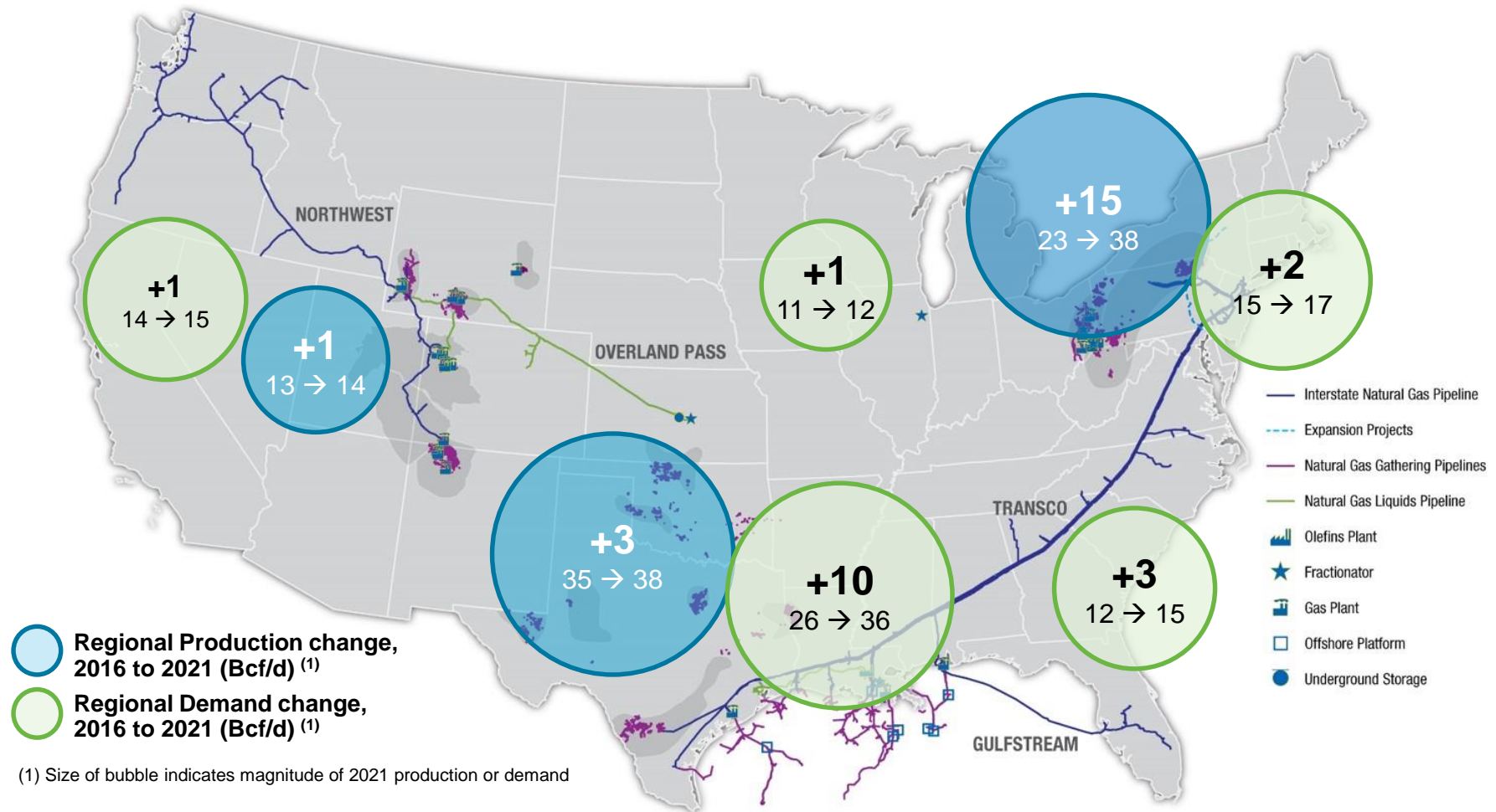
Current and projected flow patterns convert Transco to a fully bi-directional system in 2020.

Zones 6 and 5 are now officially bi-directional with fuel collected in both directions.





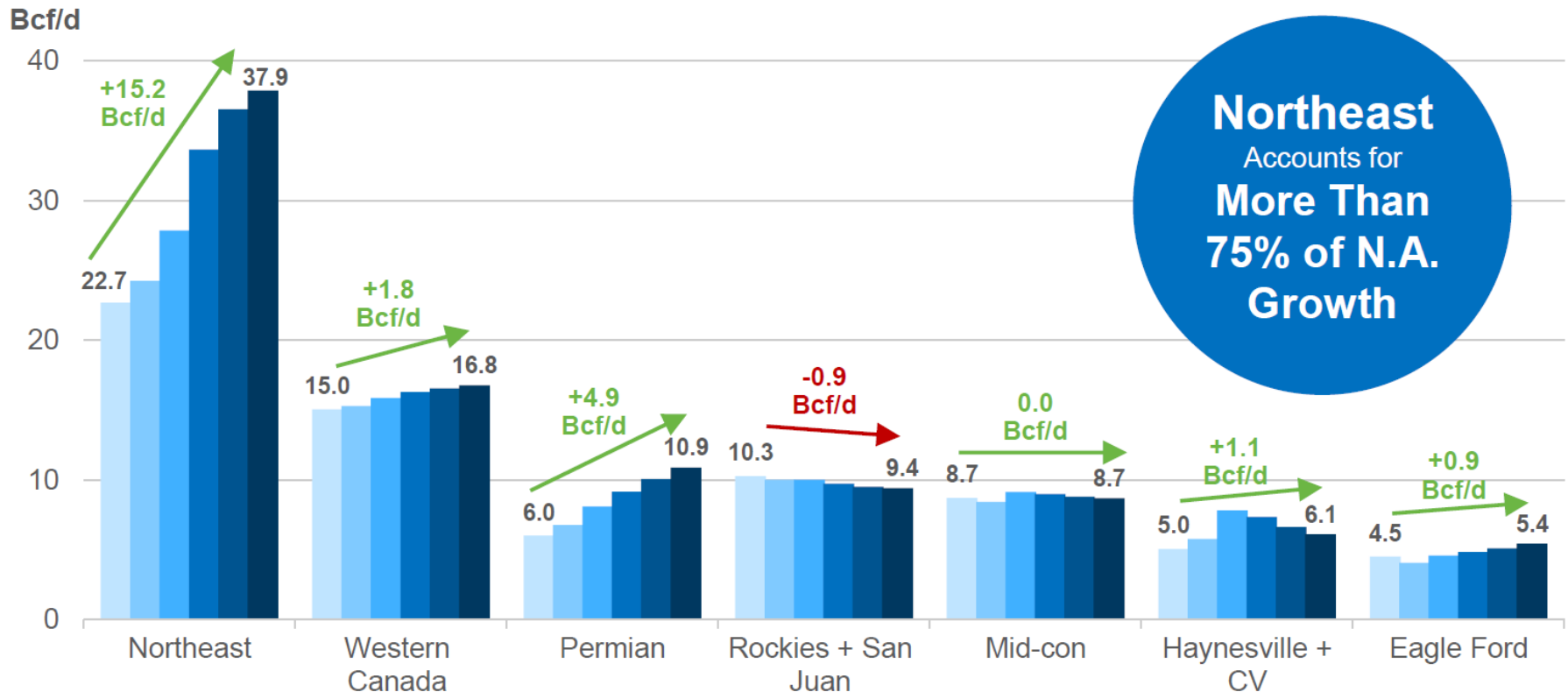
# Growing regional natural gas demand requires additional infrastructure to connect with production basins



Source: Wood Mackenzie 1H 2017, excludes impact of net Canadian imports

# Williams Positioned to Benefit from Significant Opportunities in Northeast and Other Basins

## Natural Gas Forecasted Production by Region (2016–2021)



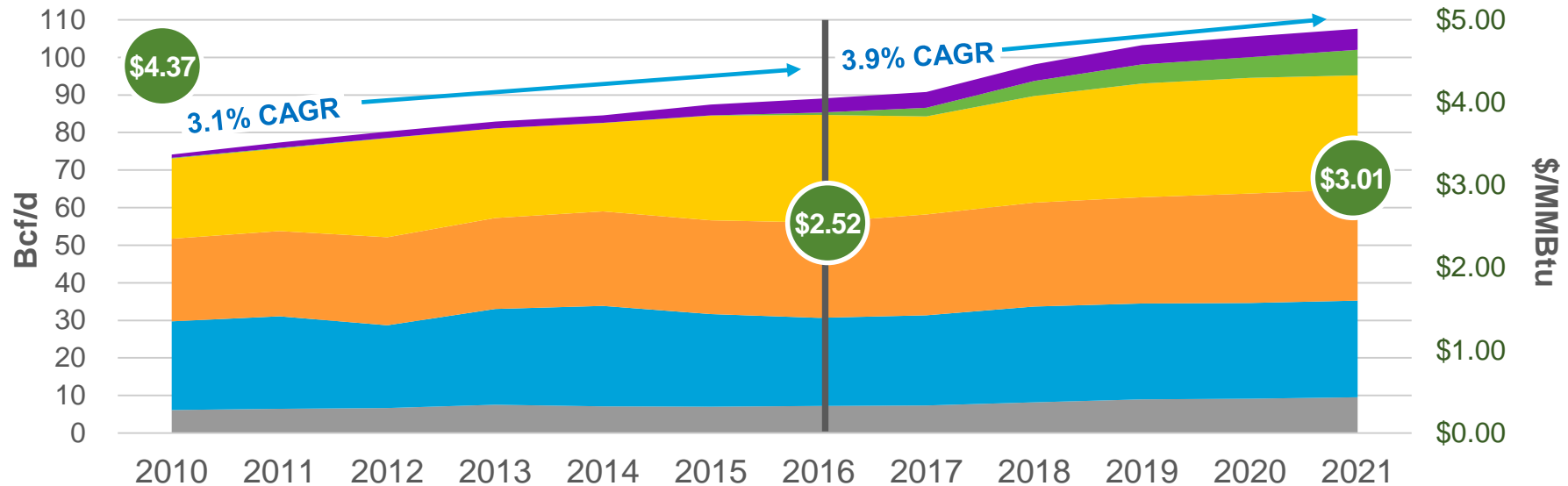
Note: Chart excludes Eastern Canada, Alaska, West Coast, Barnett, Williston, Gulf Coast conventional and GOM production that amounts to a decline of 2.9 Bcf/d through 2021;

CV=Cotton Valley

Source: Wood Mackenzie

# Natural gas demand, not price, driving Williams' growth

## North American Natural Gas Demand by Sector (2010–2021)



Residential/  
Commercial



Industrial



Power  
Generation



LNG  
Exports



Mexico  
Exports



Transport/  
Other

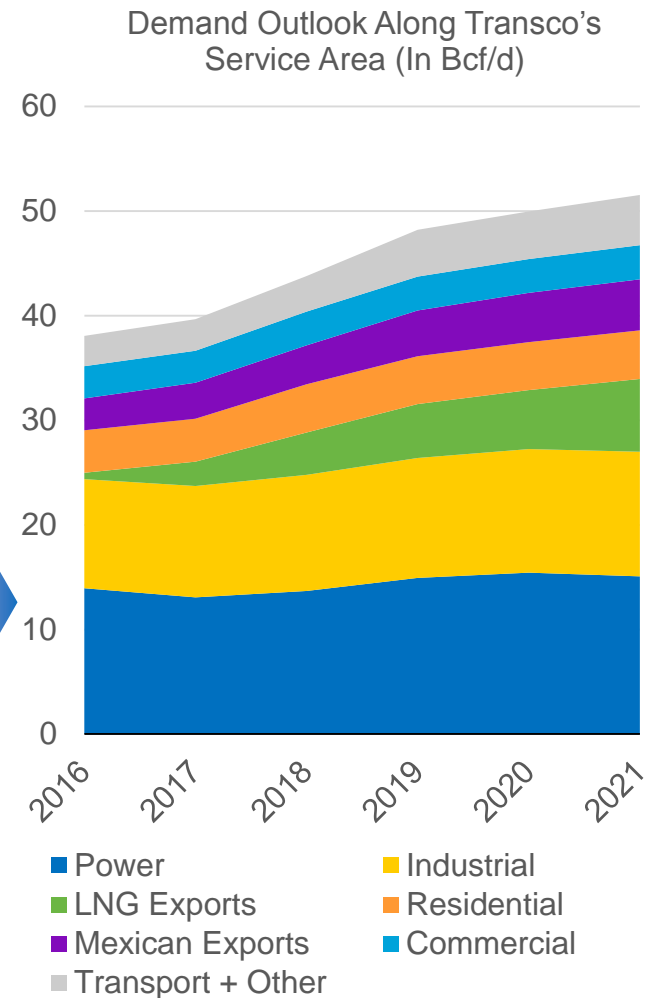
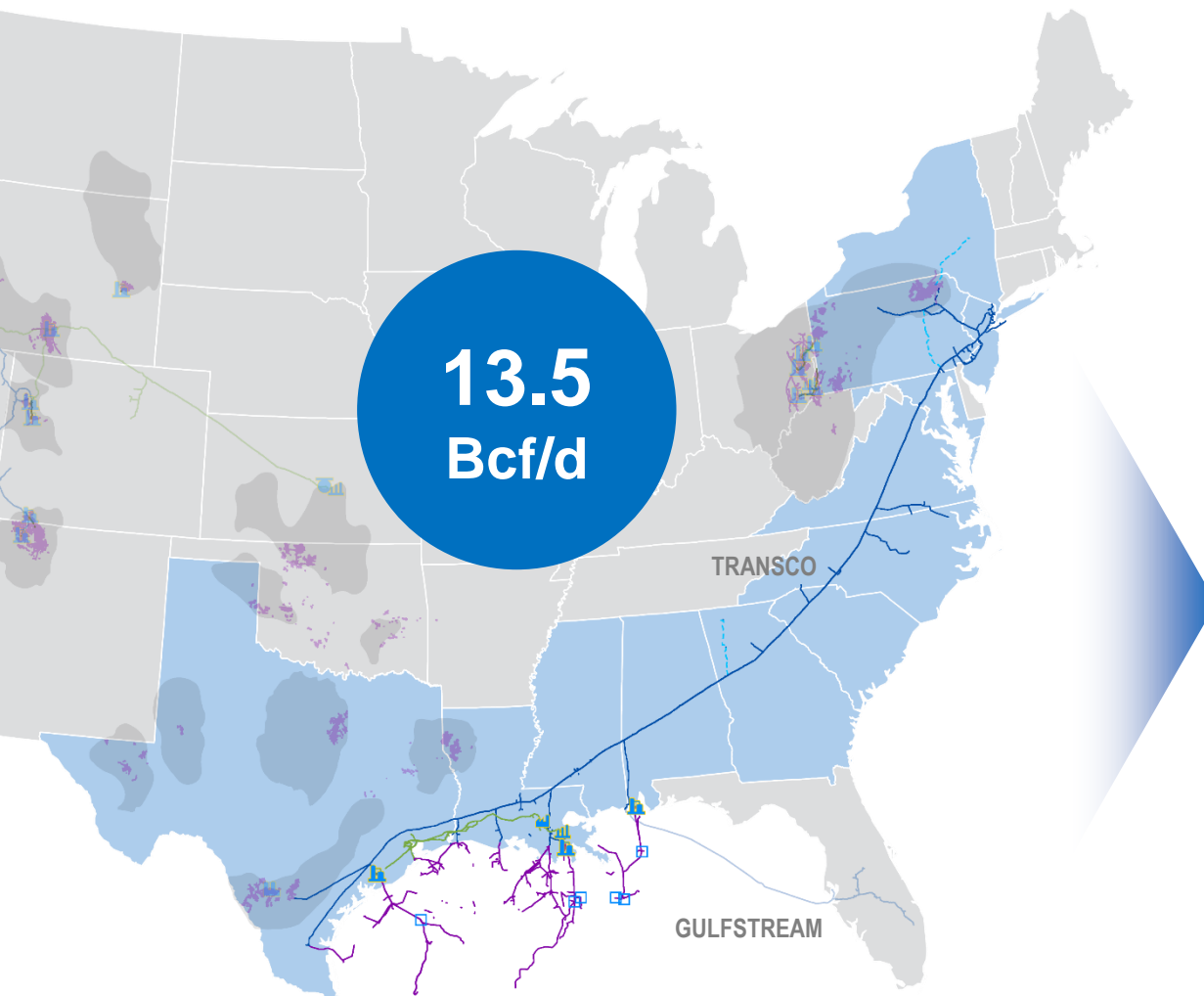


Henry Hub  
Price

Sources: Wood Mackenzie 1H2017; historical Henry Hub natural gas price per the EIA

Data contained in this slide is property of Wood Mackenzie. Per Williams' agreement, data may only be used for individual customer meetings unless prior consent is received. Do not duplicate or alter information in any way.

# Robust domestic and international demand drives Transco growth through 2021

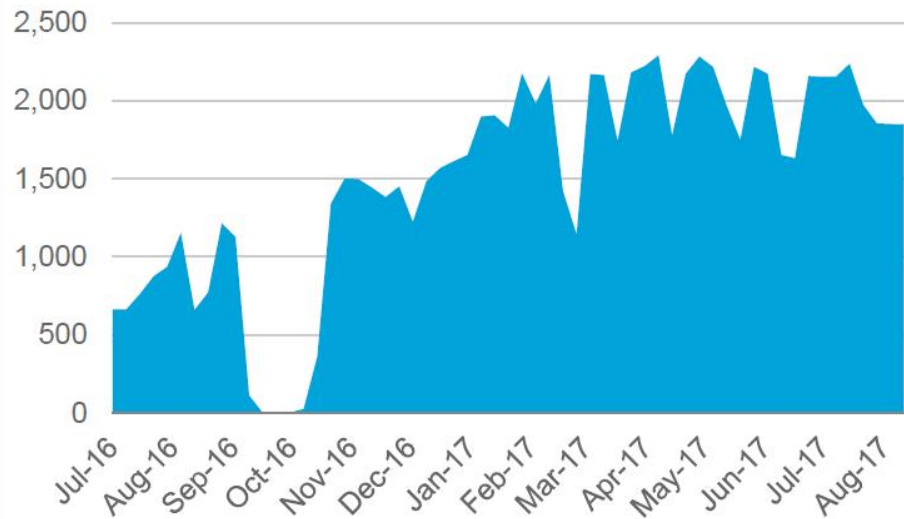


Source: Wood Mackenzie 1H 2017



# LNG Demand Growth Begins: Williams Positioned to Serve LNG Export Terminals

## Gas Flows to Sabine Pass in MMcf/d



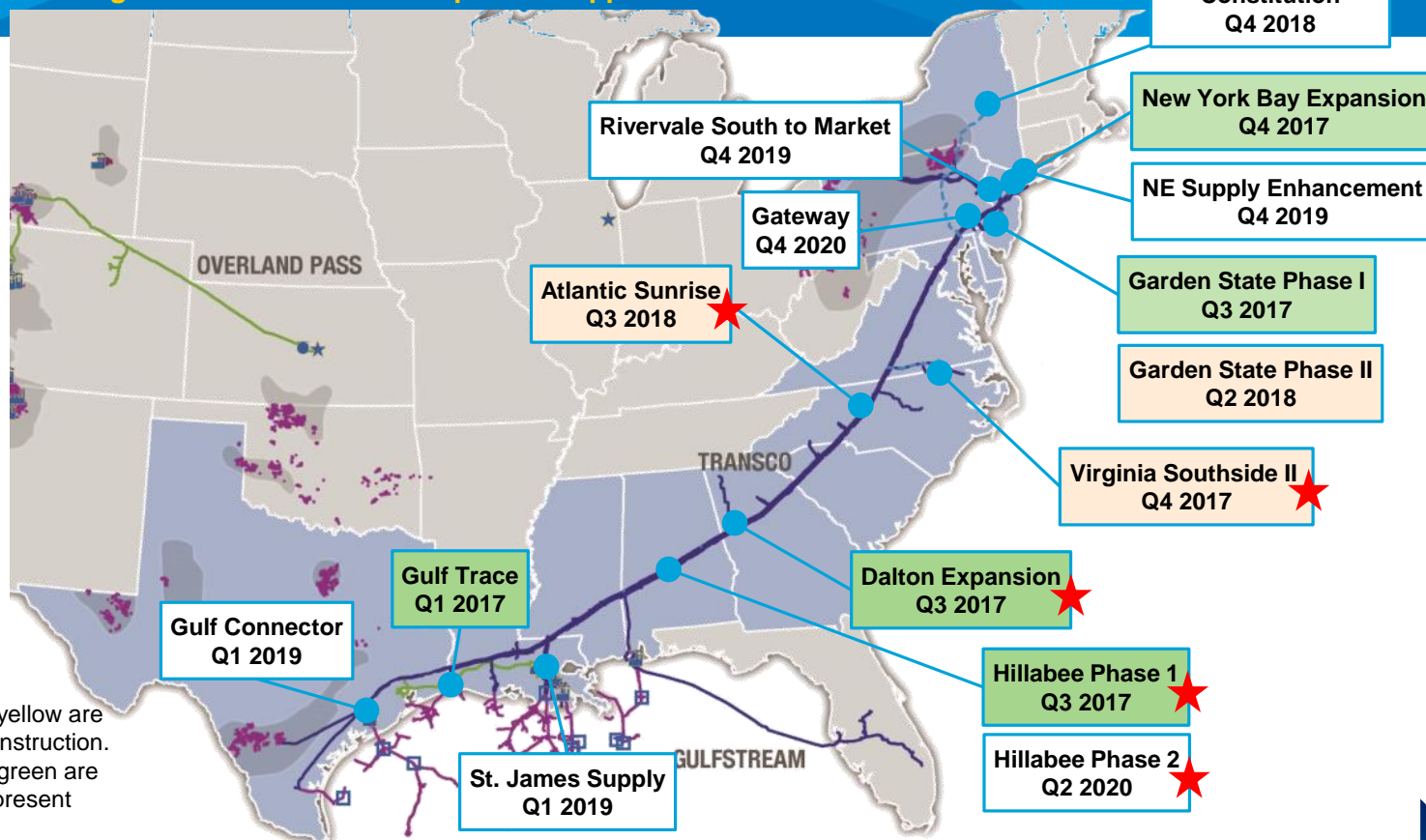
Contracted with  
**4 of 6**  
LNG Facilities In-service  
or Under Construction  
(~2 Bcf/d)  
Market Access to Other 2

- Sabine Pass, Contracted
- Other Contracted
- Market Access

Source: PointLogic.

# Eastern Interstates – Fully Contracted Expansion Projects

We are currently executing a total of 10 different expansion opportunities



Shipper  
Commitments

FERC Certificate  
Application Filed

FERC  
EIS / EA

FERC  
Certificate

Major  
Construction  
Activities

In-service

## REGULATORY MILESTONES FOR FULLY CONTRACTED REGULATED EXPANSIONS

**Gateway**  
Executed 9/17

**NE Supply Enhancement**  
Filed 3/17  
**Rivervale South to Market**  
Filed 9/17

**St. James Supply**  
Received 7/17  
**Gulf Connector**  
Received 9/17

**Constitution**  
Received 12/14  
**Hillabee Ph 2**  
Received 2/16

**VSS II -** Began 10/16  
**Garden St Ph 2 -** Began 2/17  
**Atlantic Sunrise -** Began 3/17

**Gulf Trace -** ISD 2/17  
**Hillabee Ph 1 -** ISD 7/17  
**Dalton -** ISD 8/17  
**Garden St Ph 1 -** ISD 9/17  
**New York Bay -** ISD 10/17

# Projects in Execution

## Project

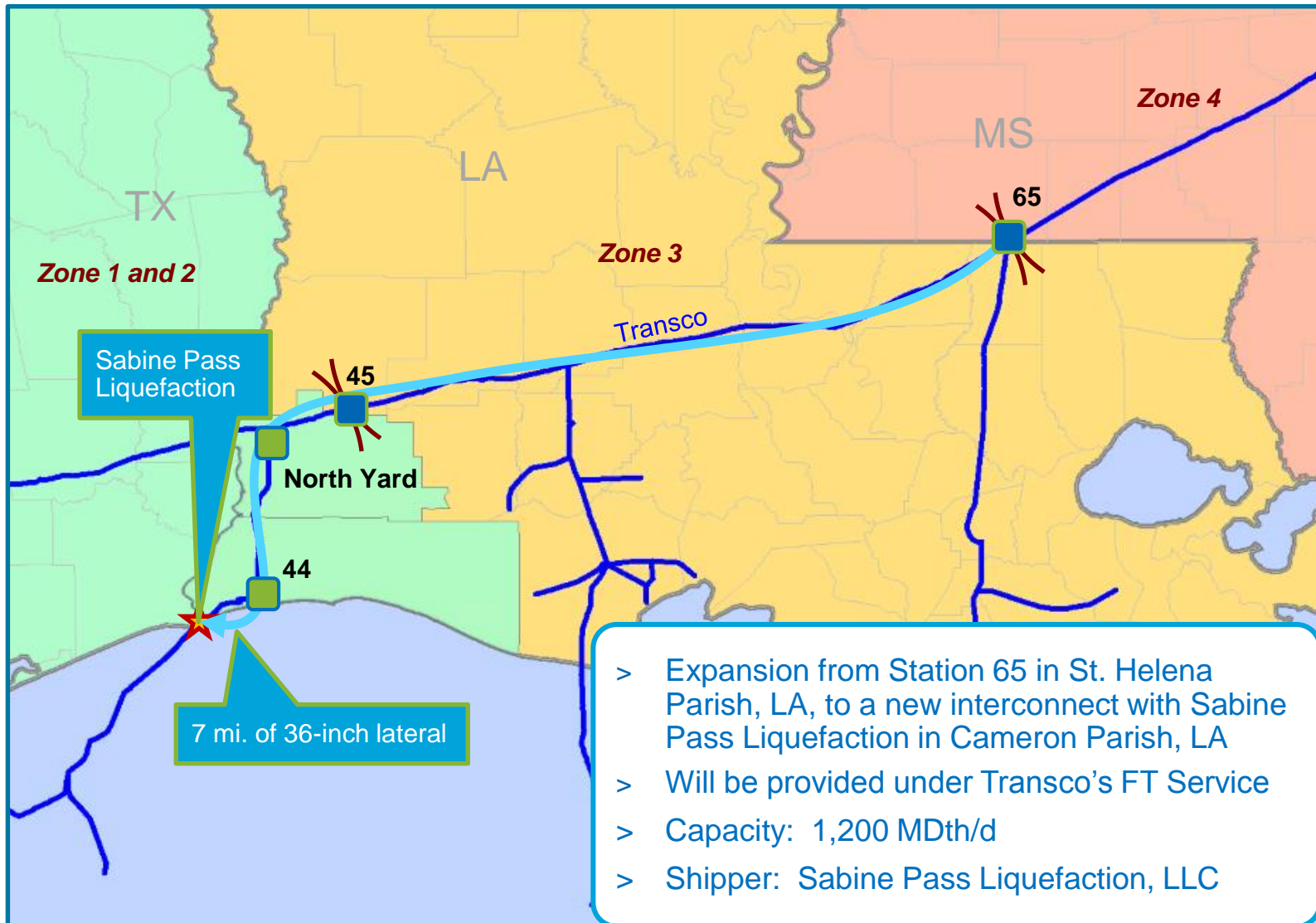
1. Transco – Gulf Trace
2. Transco – Hillabee Expansion Phase 1
3. Transco – Dalton
4. Transco – Garden State
5. Transco – New York Bay Expansion
6. Transco – Virginia Southside II
7. Transco – Atlantic Sunrise
8. Transco – St. James Supply
9. Transco – Gulf Connector
10. Transco – Rivervale South to Market
11. Transco – NE Supply Enhancement
12. Transco – Hillabee Expansion Phase 2
13. Transco – Gateway
14. Constitution

## Status

In Service  
In Service  
In Service  
Phase I In Service / Phase II In Construction  
In Service  
In Construction  
In Construction  
Waiting on FERC Order  
Waiting on FERC Order  
Waiting on FERC Order  
Waiting on FERC Order  
FERC Order Accepted  
Preparing FERC 7(c) Filing  
FERC Order Received / Court Proceedings

- Full project went in service on February 1, 2017

# Gulf Trace

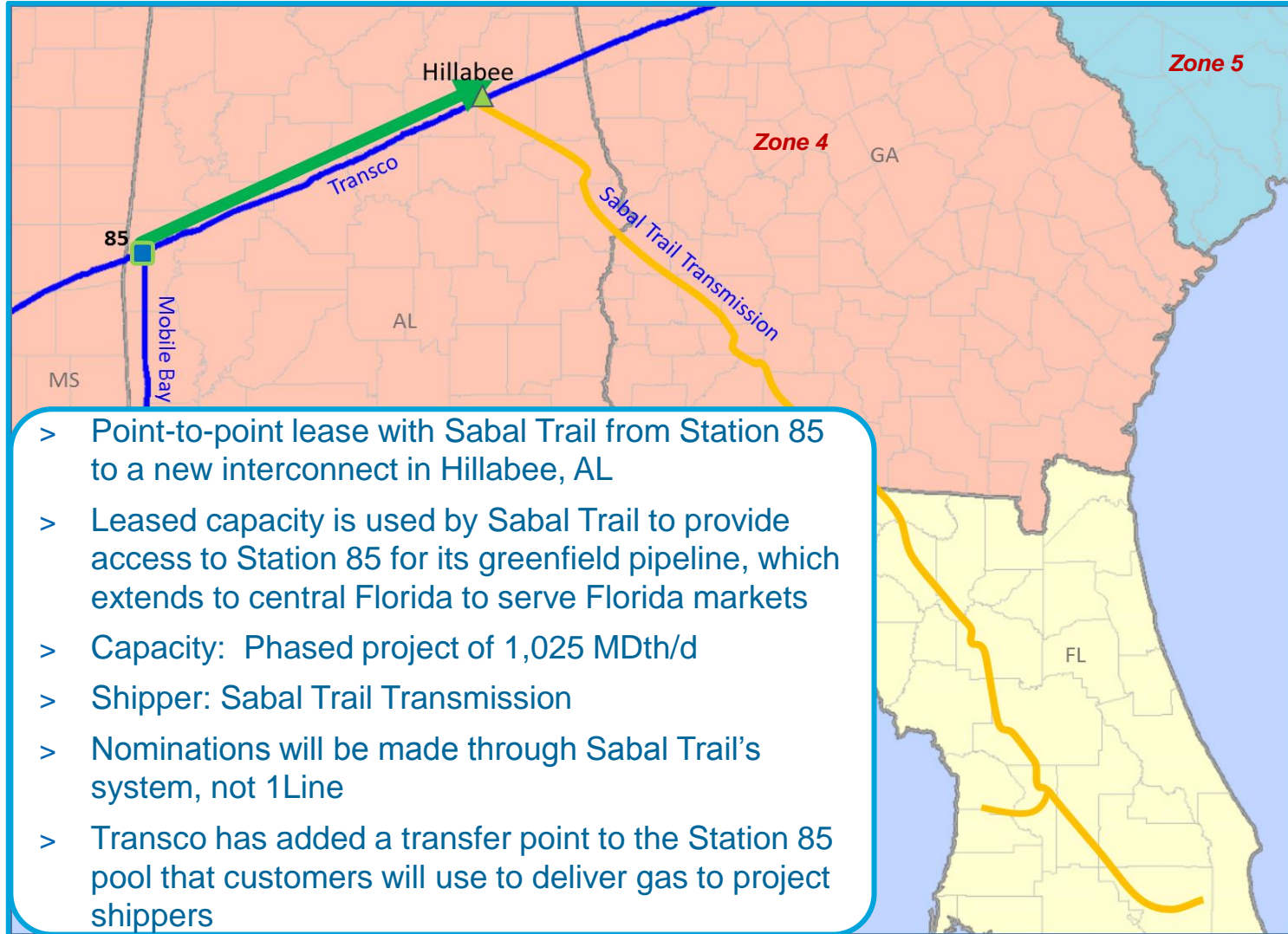




# Hillabee Expansion Phases I and II

**Status:**

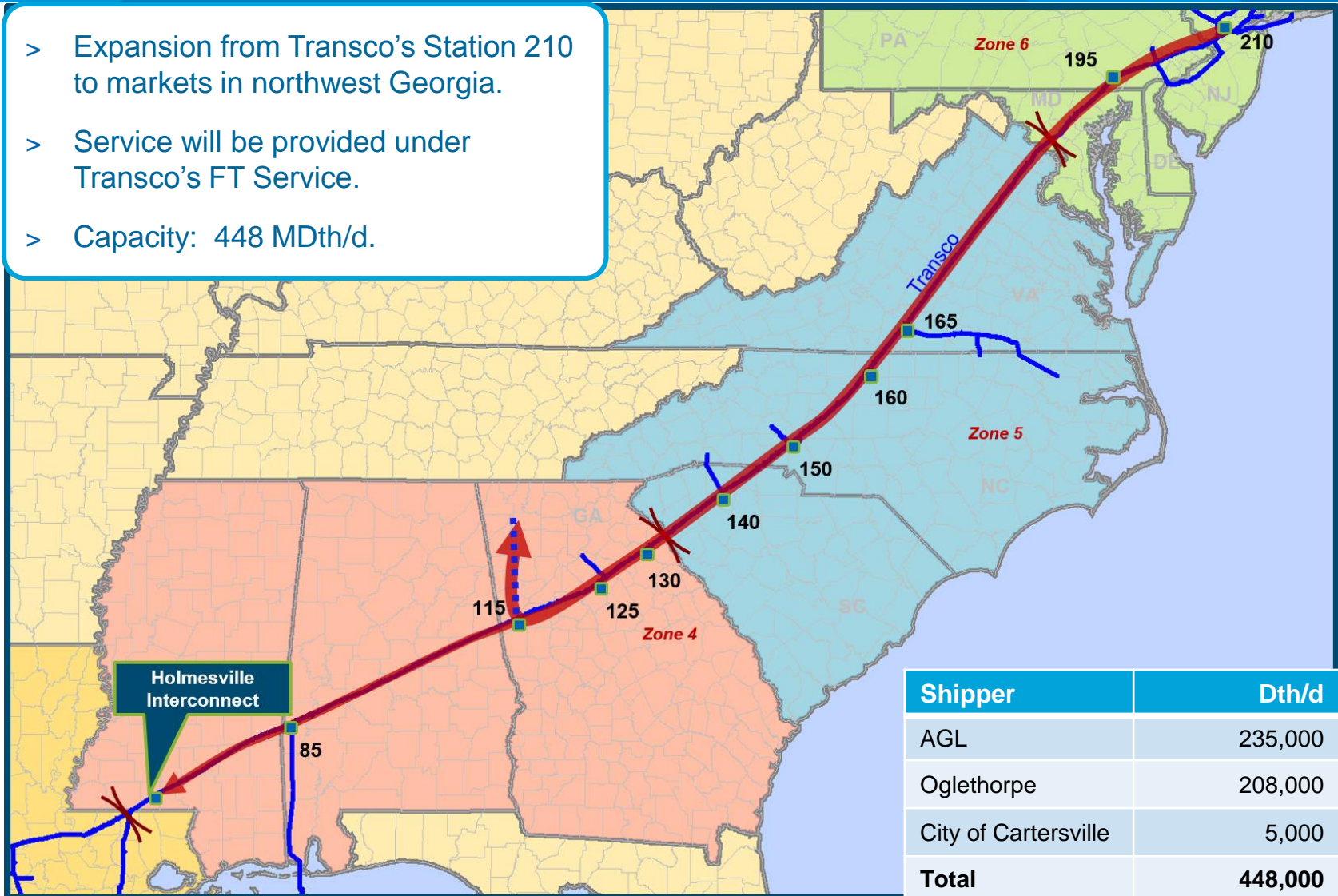
- **Target In-Service Date:**
  - Phase I went in service July 11, 2017 (818 MDth/d).
  - Phase II in Q2 2020 (207 MDth/d).



- Full project went in service on August 1, 2017

# Dalton

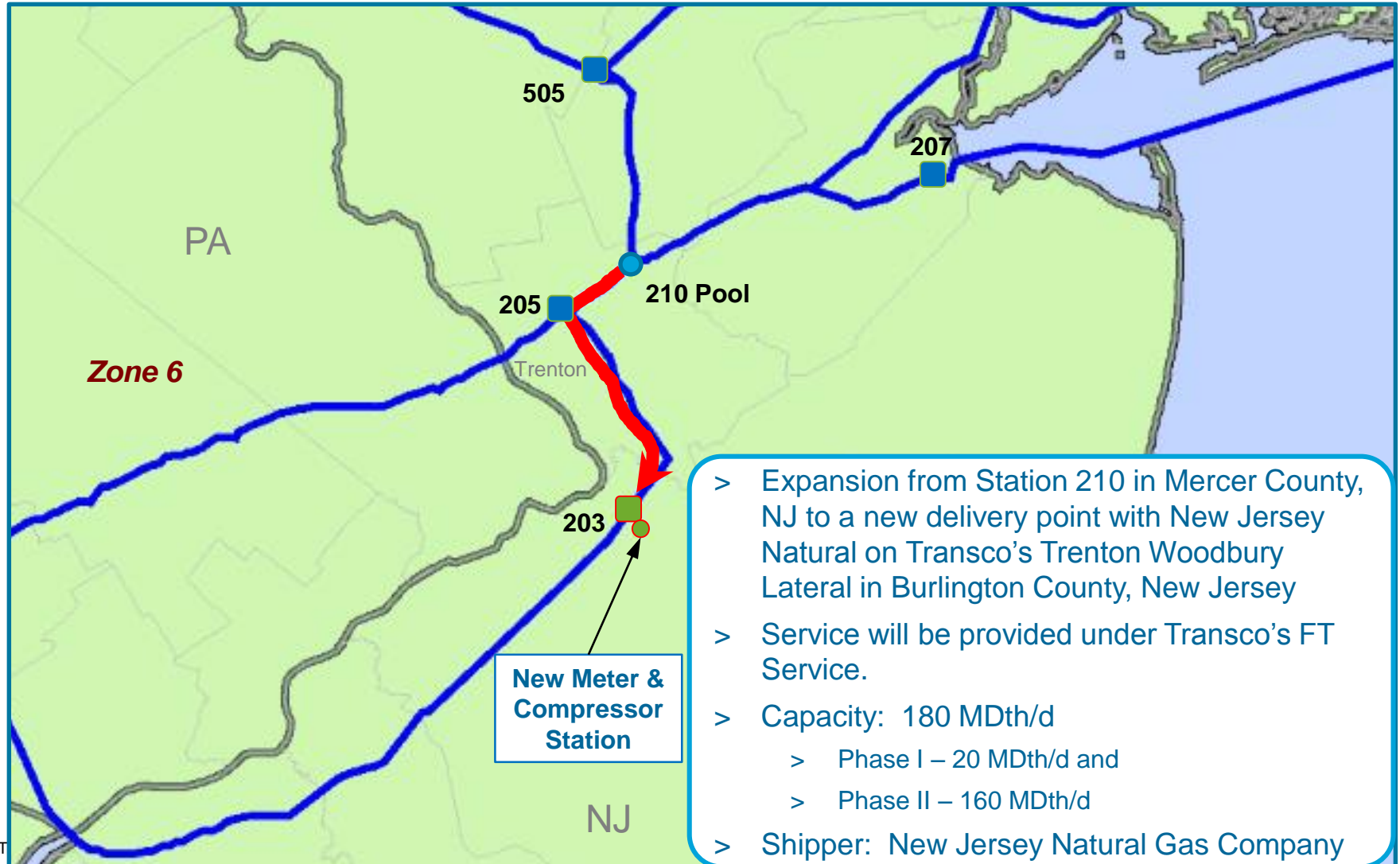
- > Expansion from Transco's Station 210 to markets in northwest Georgia.
- > Service will be provided under Transco's FT Service.
- > Capacity: 448 MDth/d.



# Garden State Phases I and II

**Status:**

- **Target In-Service Date:**
  - Phase I went in service on September 9, 2017 (20 MDth/d).
  - Phase II in Q2 2018 (160 MDth/d).





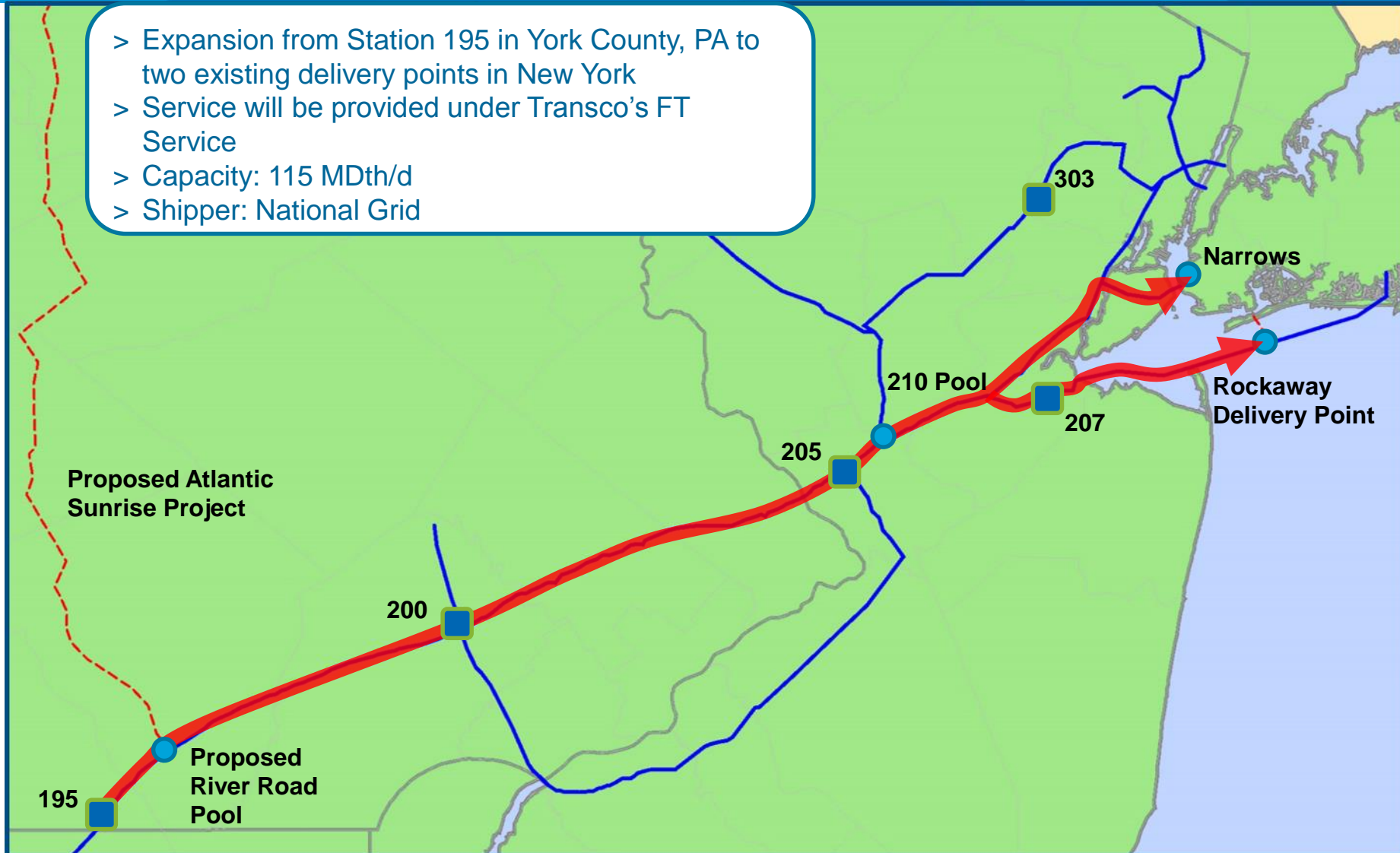
## Status:

- Full project went into service on October 6, 2017.



# New York Bay Expansion

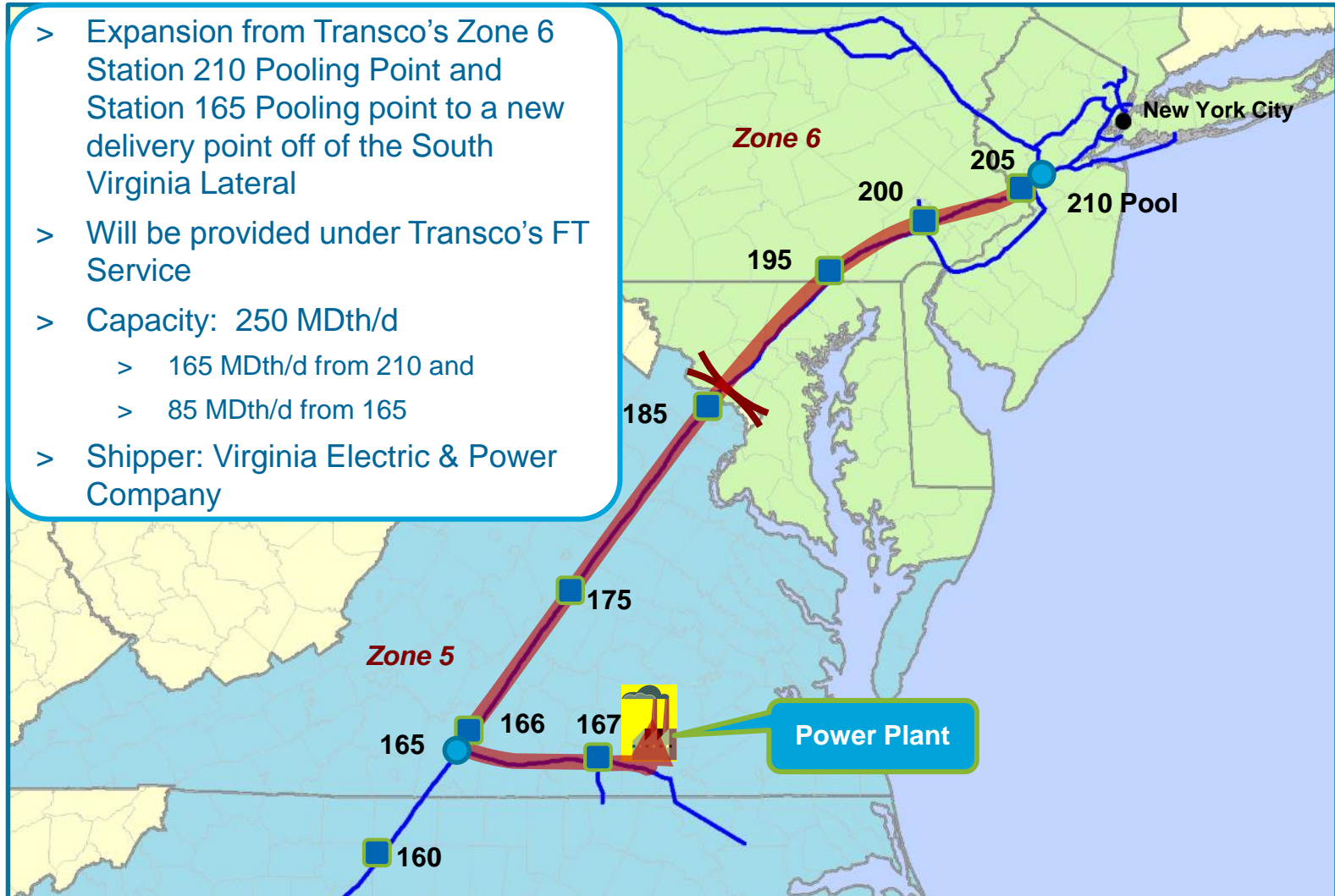
- > Expansion from Station 195 in York County, PA to two existing delivery points in New York
- > Service will be provided under Transco's FT Service
- > Capacity: 115 MDth/d
- > Shipper: National Grid



- Under Construction.
- Target In-Service Date: Q4 2017.

# Virginia Southside II

- > Expansion from Transco's Zone 6 Station 210 Pooling Point and Station 165 Pooling point to a new delivery point off of the South Virginia Lateral
- > Will be provided under Transco's FT Service
- > Capacity: 250 MDth/d
  - > 165 MDth/d from 210 and
  - > 85 MDth/d from 165
- > Shipper: Virginia Electric & Power Company



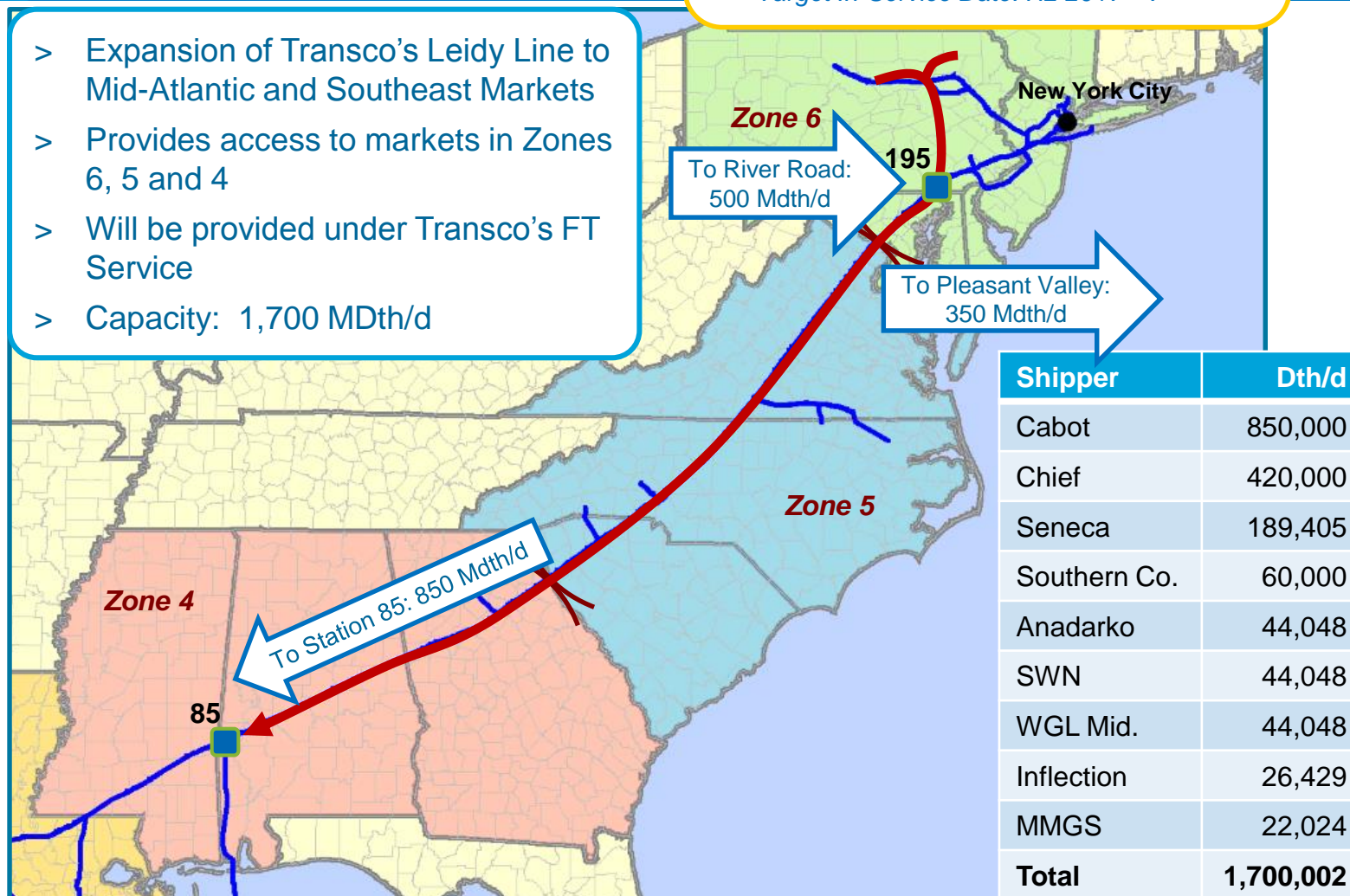
# Atlantic Sunrise



## Status:

- Mainline construction has commenced.
- All permits have been received and expect to start greenfield construction in September 2017.
- Target In-Service Date: H2 2017 <sup>(1)</sup>.

- > Expansion of Transco's Leidy Line to Mid-Atlantic and Southeast Markets
- > Provides access to markets in Zones 6, 5 and 4
- > Will be provided under Transco's FT Service
- > Capacity: 1,700 MDth/d



(1) We placed a portion of the mainline project facilities into service on September 1, 2017 for 400 MDth/d from River Road to Station 85. We are targeting a full in-service during mid-2018, assuming timely receipt of all necessary regulatory approvals.



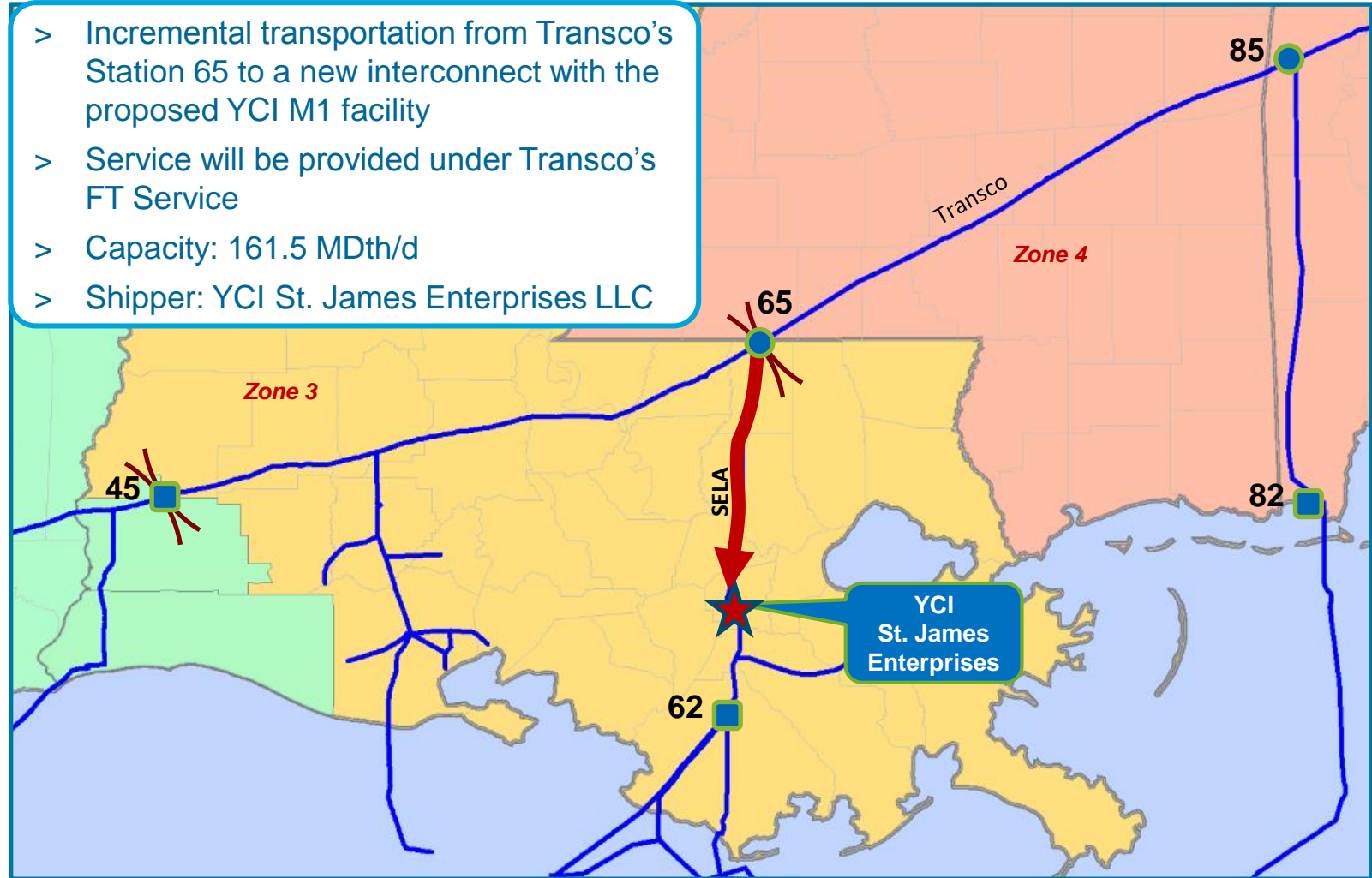
## Status:

- FERC Application filed February 7, 2017.
- Target In-Service Date: H1 2019.



# St. James Supply

- > Incremental transportation from Transco's Station 65 to a new interconnect with the proposed YCI M1 facility
- > Service will be provided under Transco's FT Service
- > Capacity: 161.5 MDth/d
- > Shipper: YCI St. James Enterprises LLC



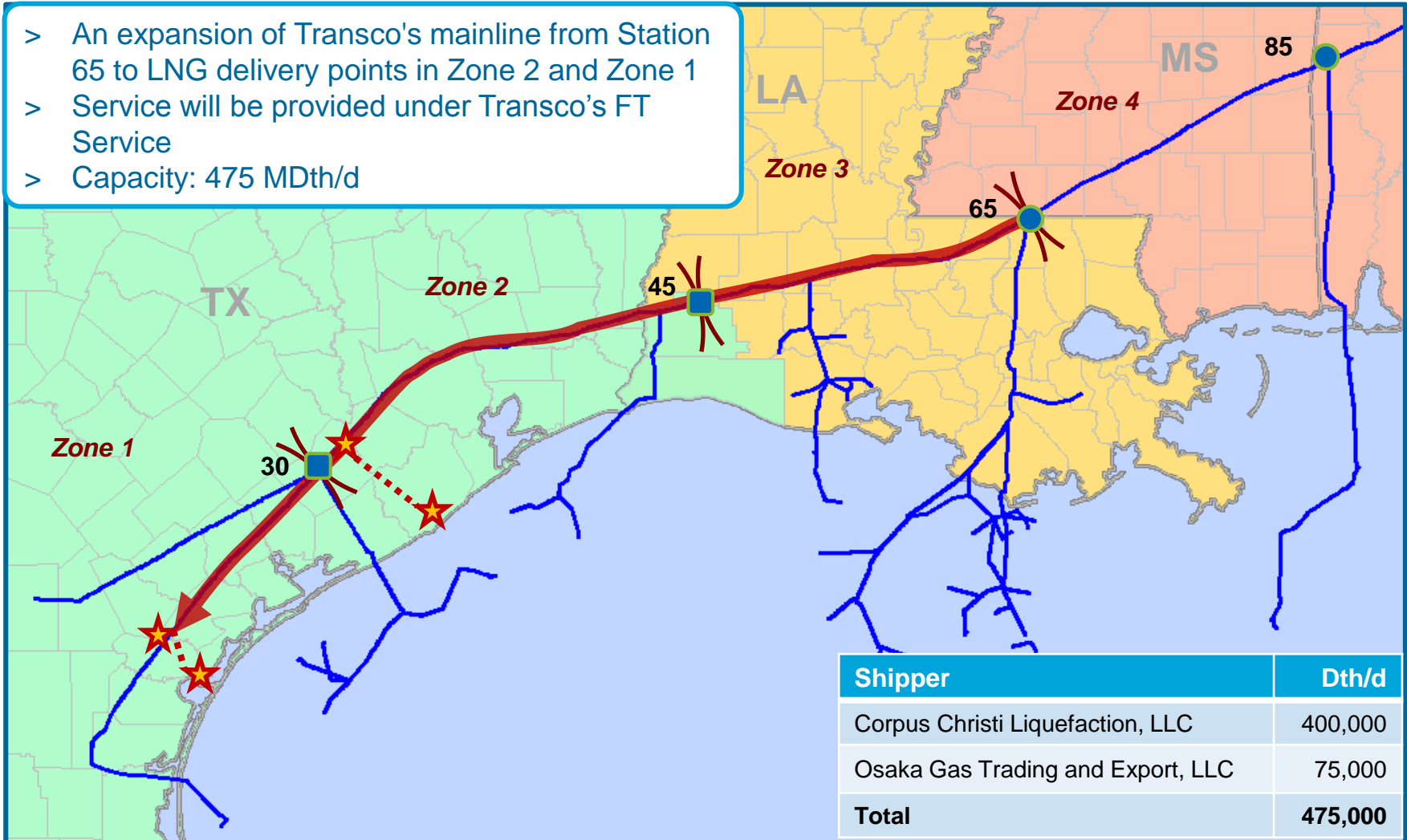
# Gulf Connector

**Status:**

- FERC Application filed August 16, 2016.
- Target In-Service Date:
  - Phase I Q1 2019 (75 MDth/d).
  - Phase II Q1 2019 (400 MDth/d).



- > An expansion of Transco's mainline from Station 65 to LNG delivery points in Zone 2 and Zone 1
- > Service will be provided under Transco's FT Service
- > Capacity: 475 MDth/d



# Rivervale

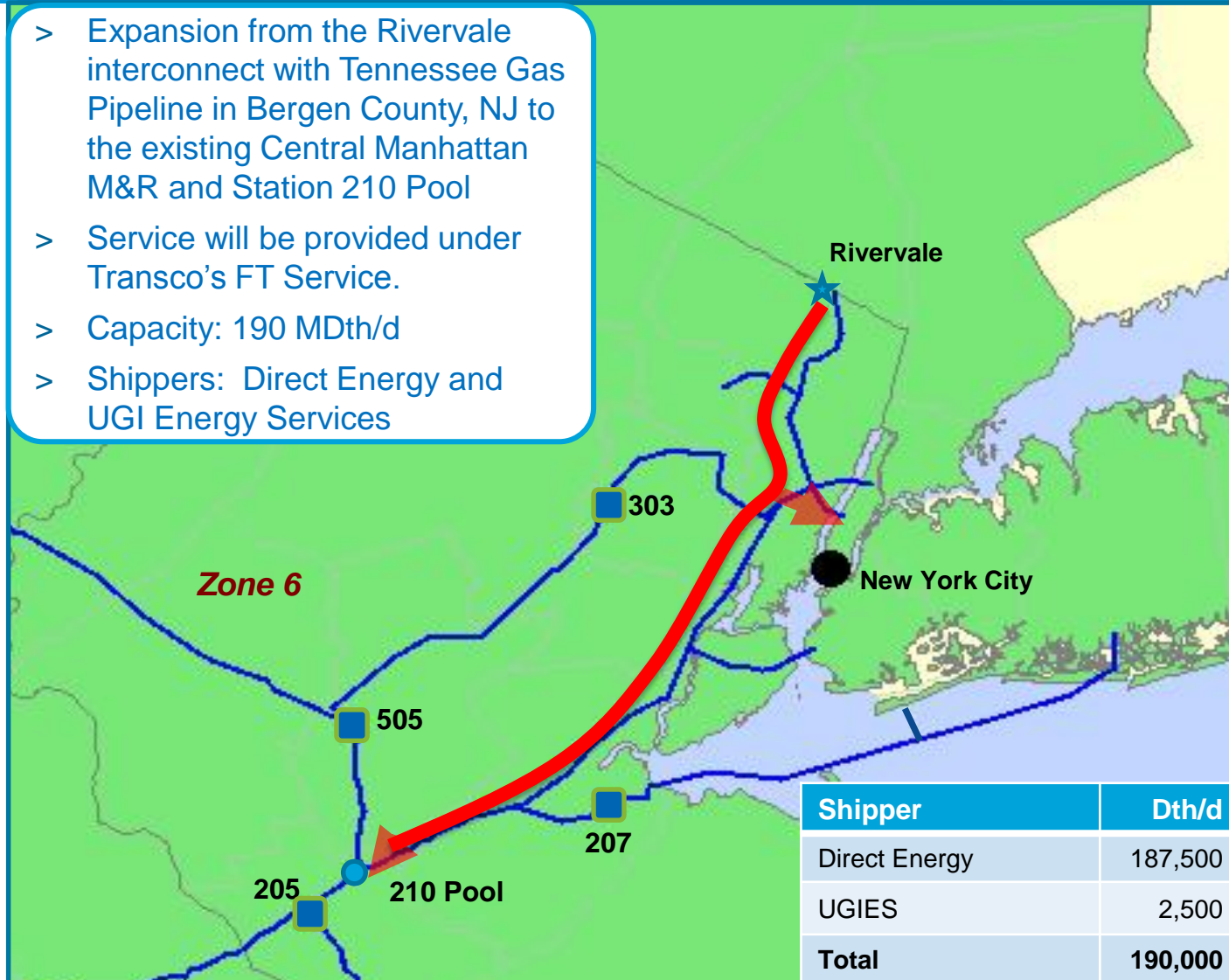
## South to Market

**Status:**

- FERC Application filed August 31, 2017.
- Target In-Service Date: Q4 2019.



- > Expansion from the Rivervale interconnect with Tennessee Gas Pipeline in Bergen County, NJ to the existing Central Manhattan M&R and Station 210 Pool
- > Service will be provided under Transco's FT Service.
- > Capacity: 190 MDth/d
- > Shippers: Direct Energy and UGI Energy Services



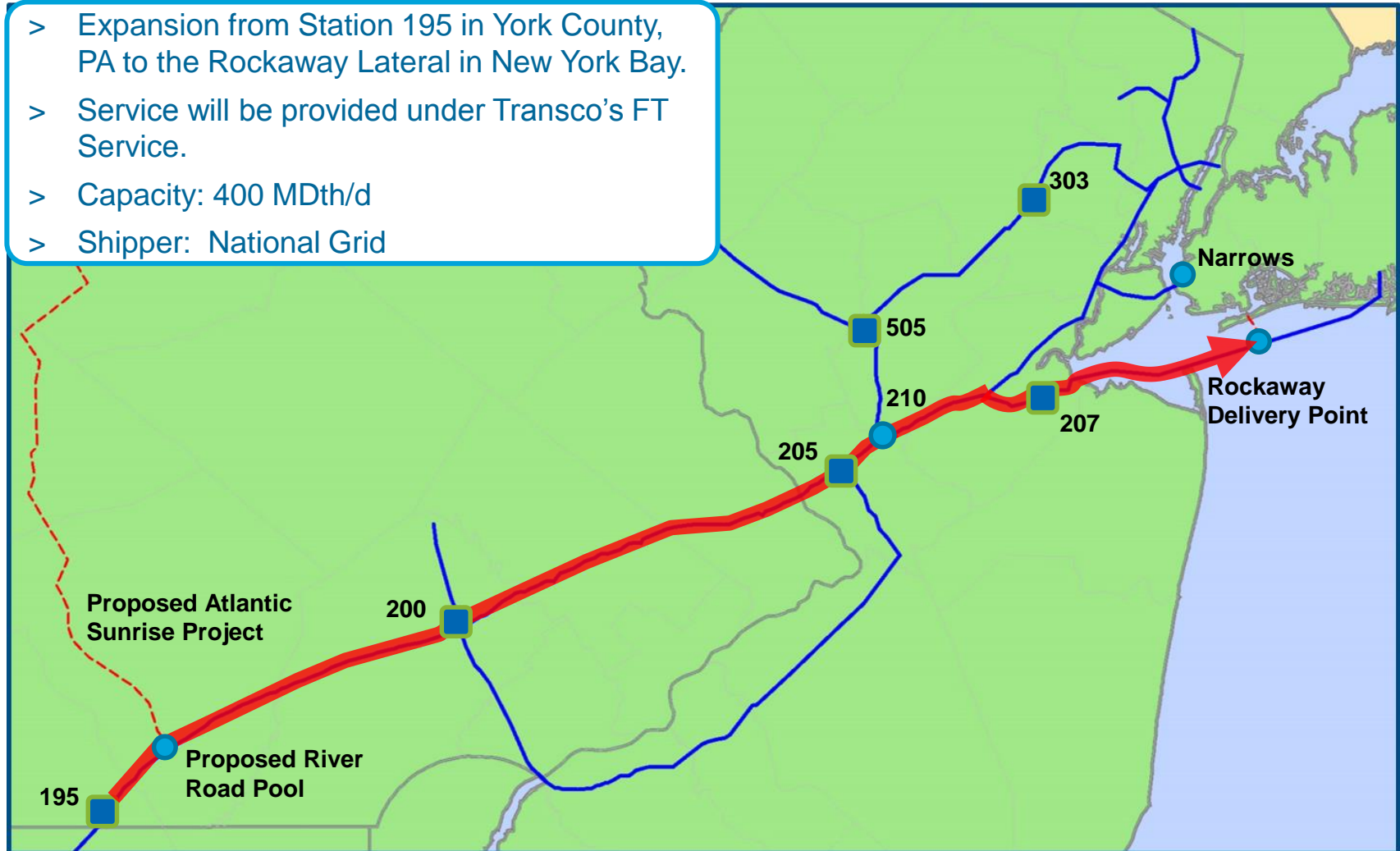
# Northeast Supply Enhancement

**Status:**

- FERC Application filed March 27, 2017.
- Target In-Service Date: late 2019 or H1 2020.



- > Expansion from Station 195 in York County, PA to the Rockaway Lateral in New York Bay.
- > Service will be provided under Transco's FT Service.
- > Capacity: 400 MDth/d
- > Shipper: National Grid





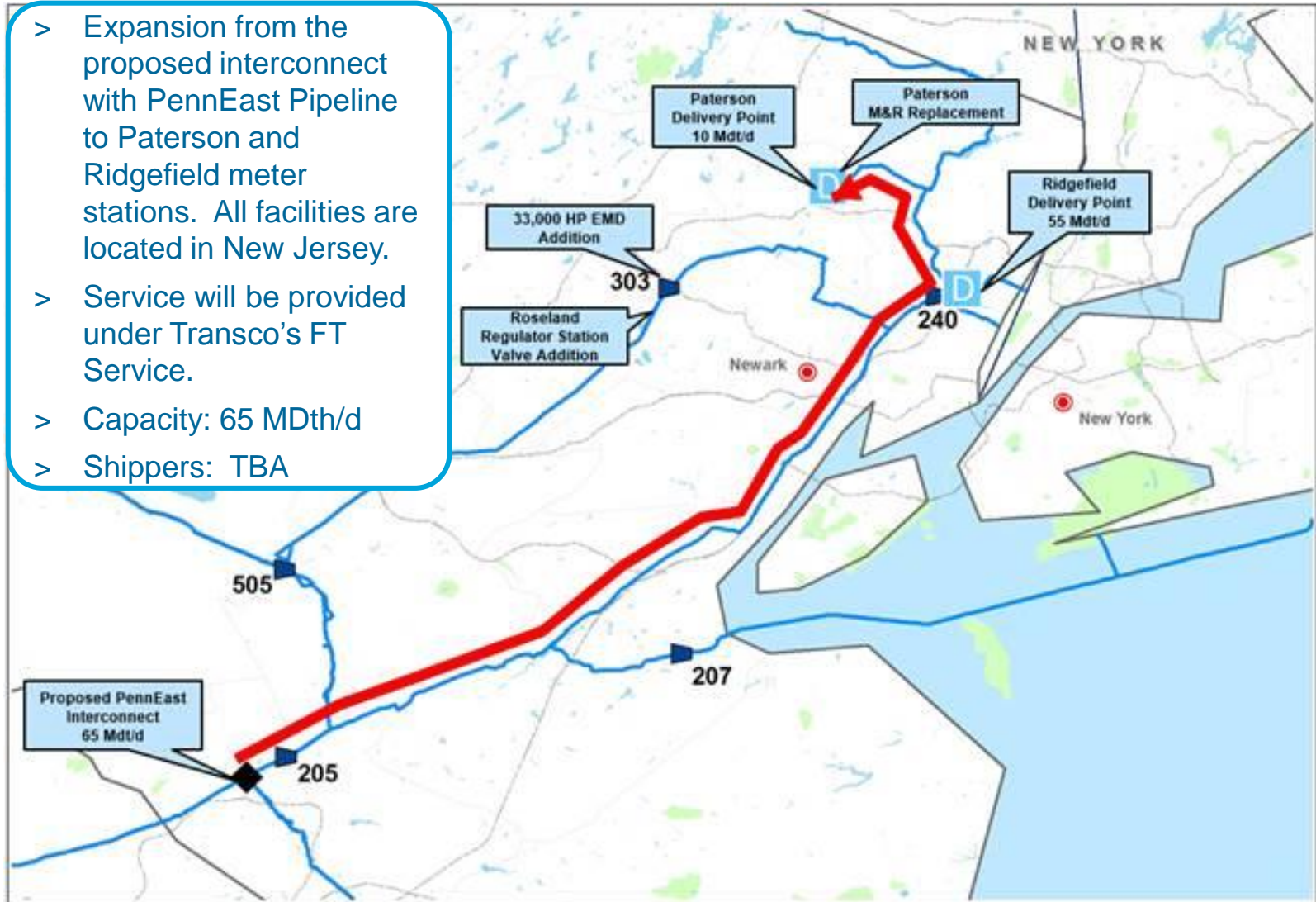
# Gateway

## Status:

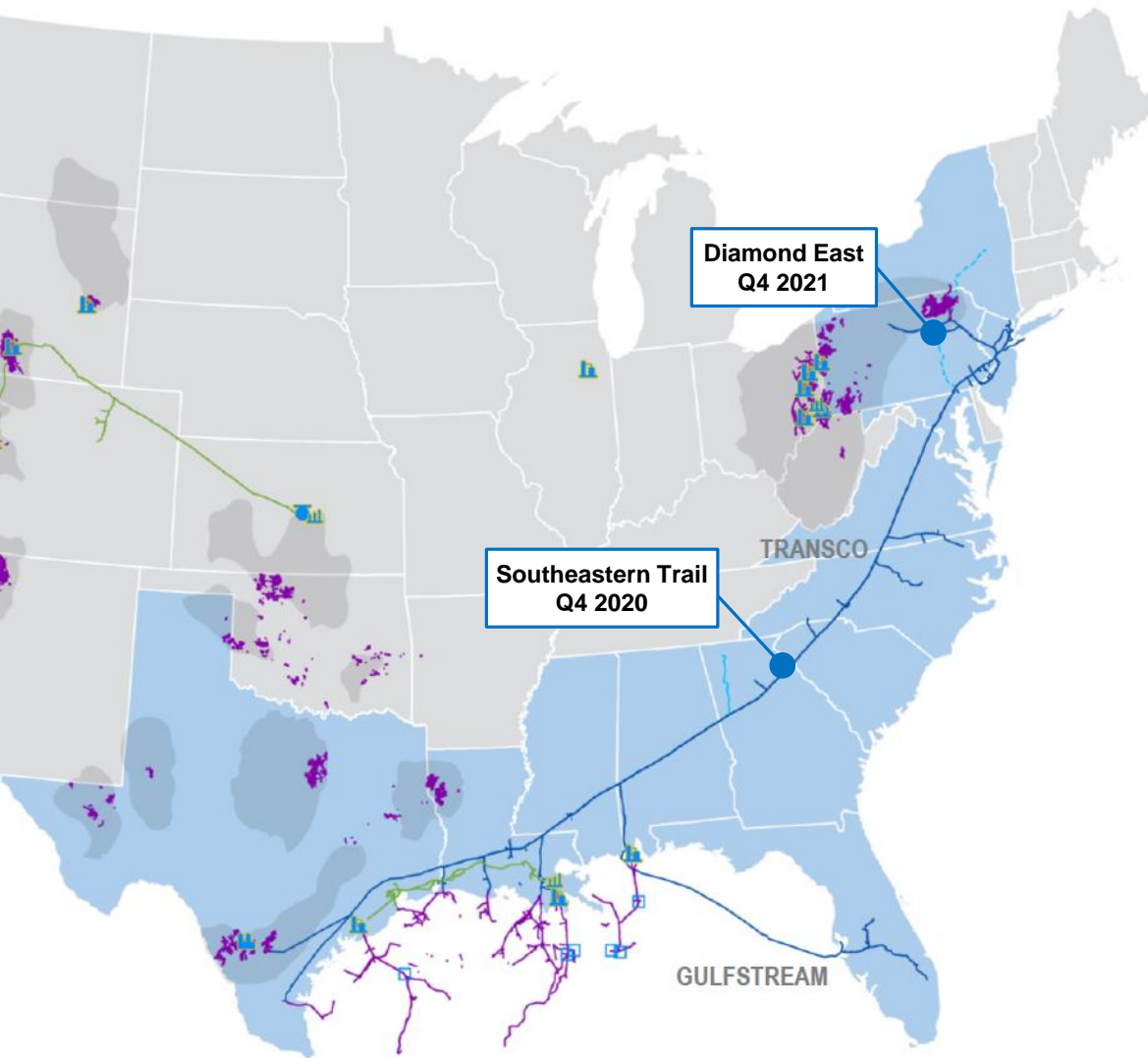
- Binding Open Season commenced on October 3, 2017
- FERC Application to be filed Q4 2017.
- Target In-Service Date: Q4 2020.



- > Expansion from the proposed interconnect with PennEast Pipeline to Paterson and Ridgefield meter stations. All facilities are located in New Jersey.
- > Service will be provided under Transco's FT Service.
- > Capacity: 65 MDth/d
- > Shippers: TBA



# Currently Pursuing 20+ Demand Driven Expansion Opportunities Across Eastern Interstates



## > Potential projects are primarily demand pull and along existing corridor

- Power generation, Industrial, LDC, LNG / Mexican exports

## > Project development updates:

- Southeastern Trail
  - Binding open season concluded; evaluating best option to meet customer demand
- Diamond East
  - Currently visiting potential shippers
  - Evaluating various receipt points on Leidy

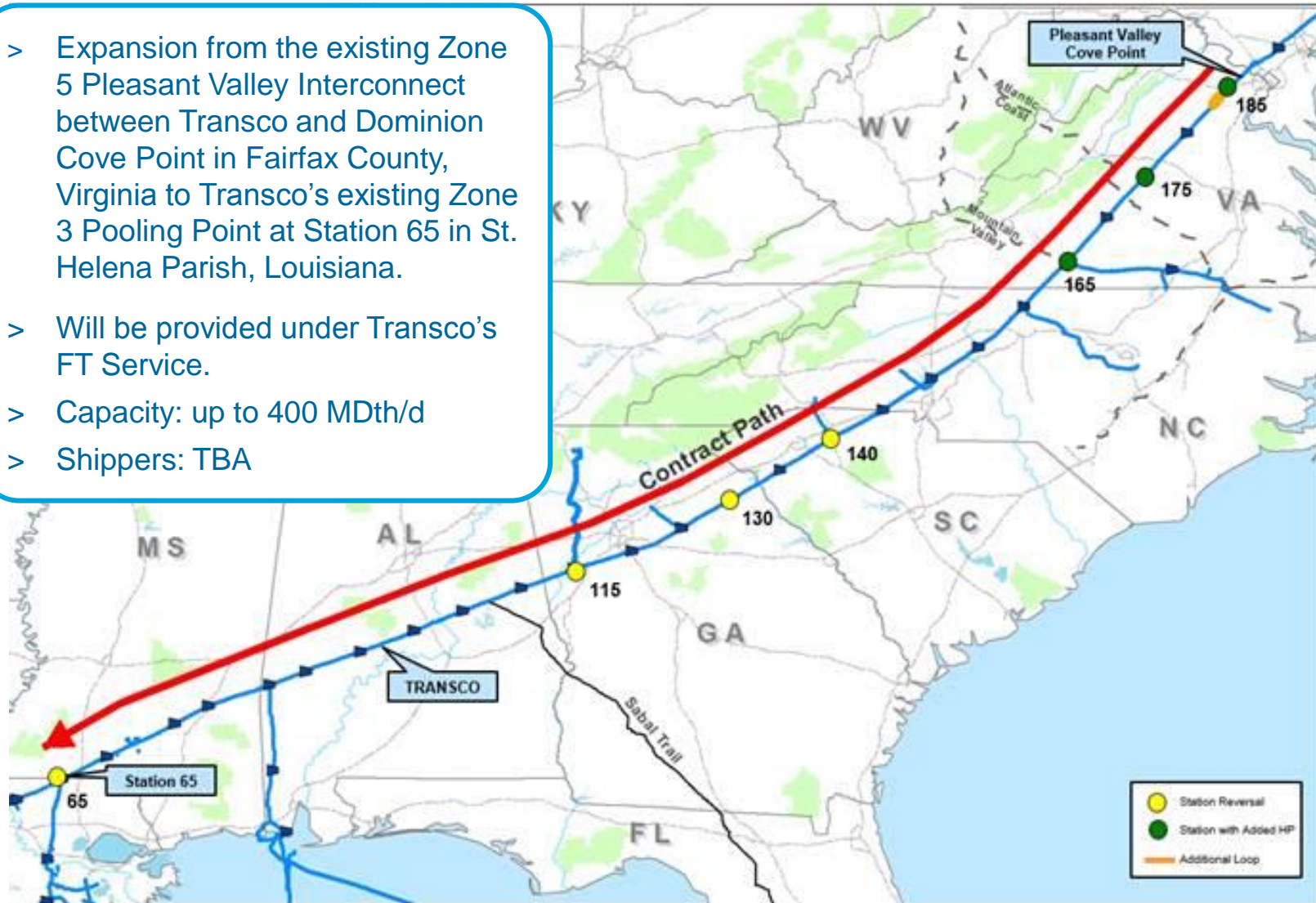
# Southeastern Trail

**Status:**

- Binding Open Season completed on August 3, 2017.
- Developing project scope from open season.



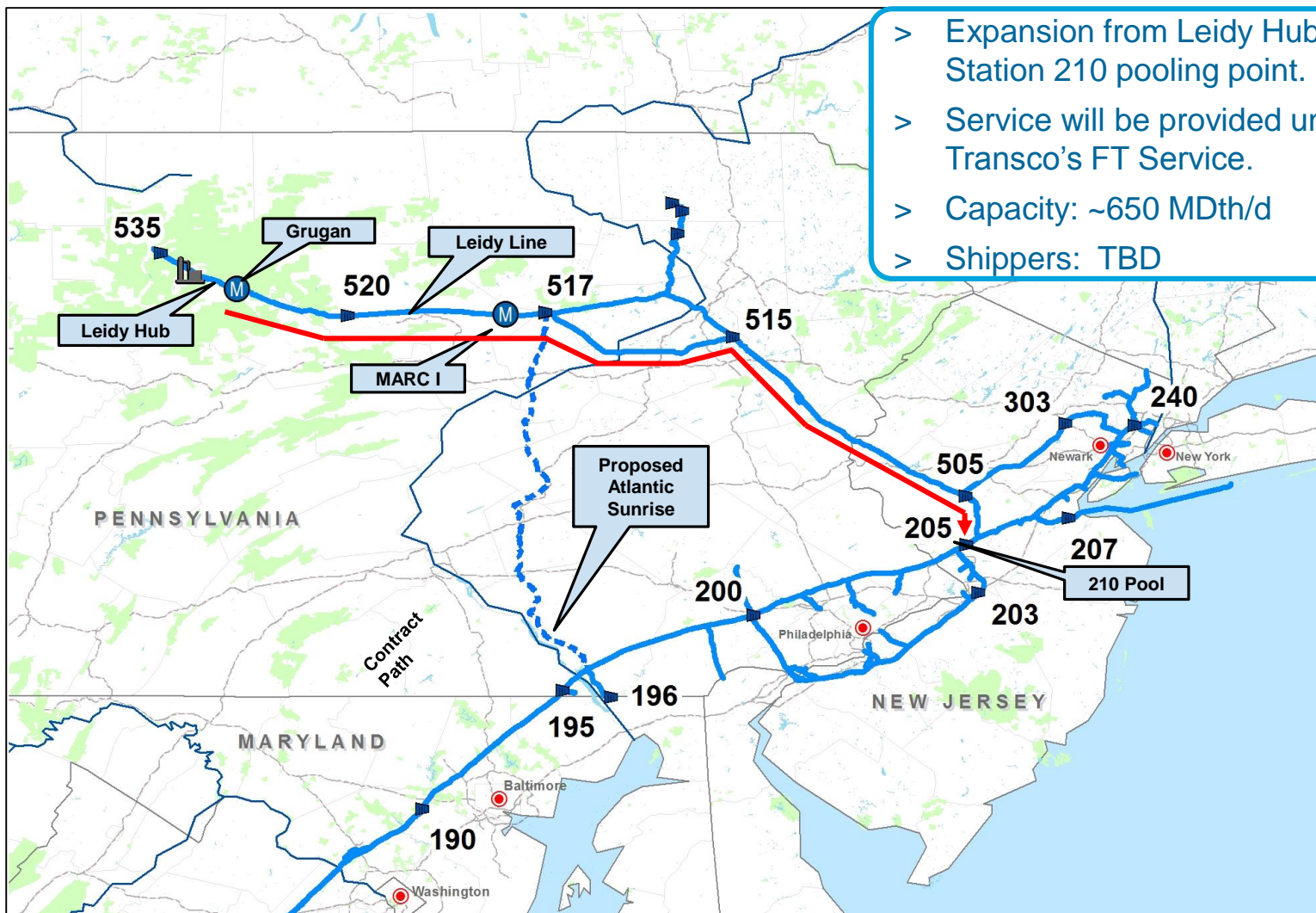
- > Expansion from the existing Zone 5 Pleasant Valley Interconnect between Transco and Dominion Cove Point in Fairfax County, Virginia to Transco's existing Zone 3 Pooling Point at Station 65 in St. Helena Parish, Louisiana.
- > Will be provided under Transco's FT Service.
- > Capacity: up to 400 MDth/d
- > Shippers: TBA





- Meeting with potential shippers.
- Target In-Service Date: Q4 2021.

# Diamond East



- > Expansion from Leidy Hub to Station 210 pooling point.
- > Service will be provided under Transco's FT Service.
- > Capacity: ~650 MDth/d
- > Shippers: TBD

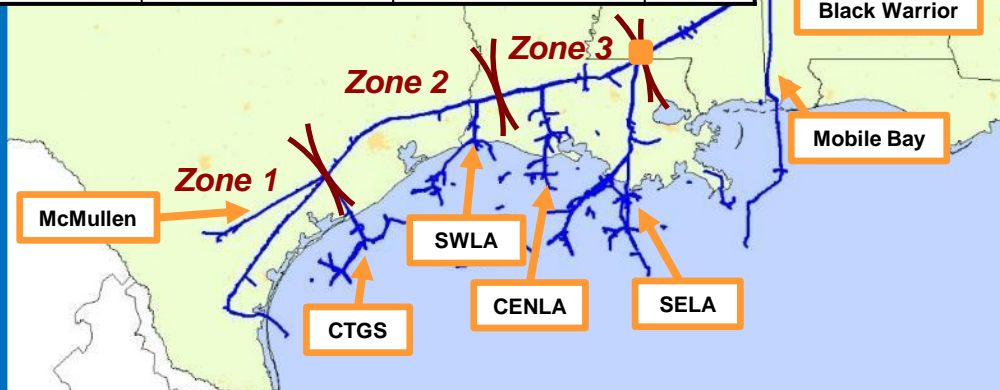
# Future State System Flow Projections

# Transco System Supplies



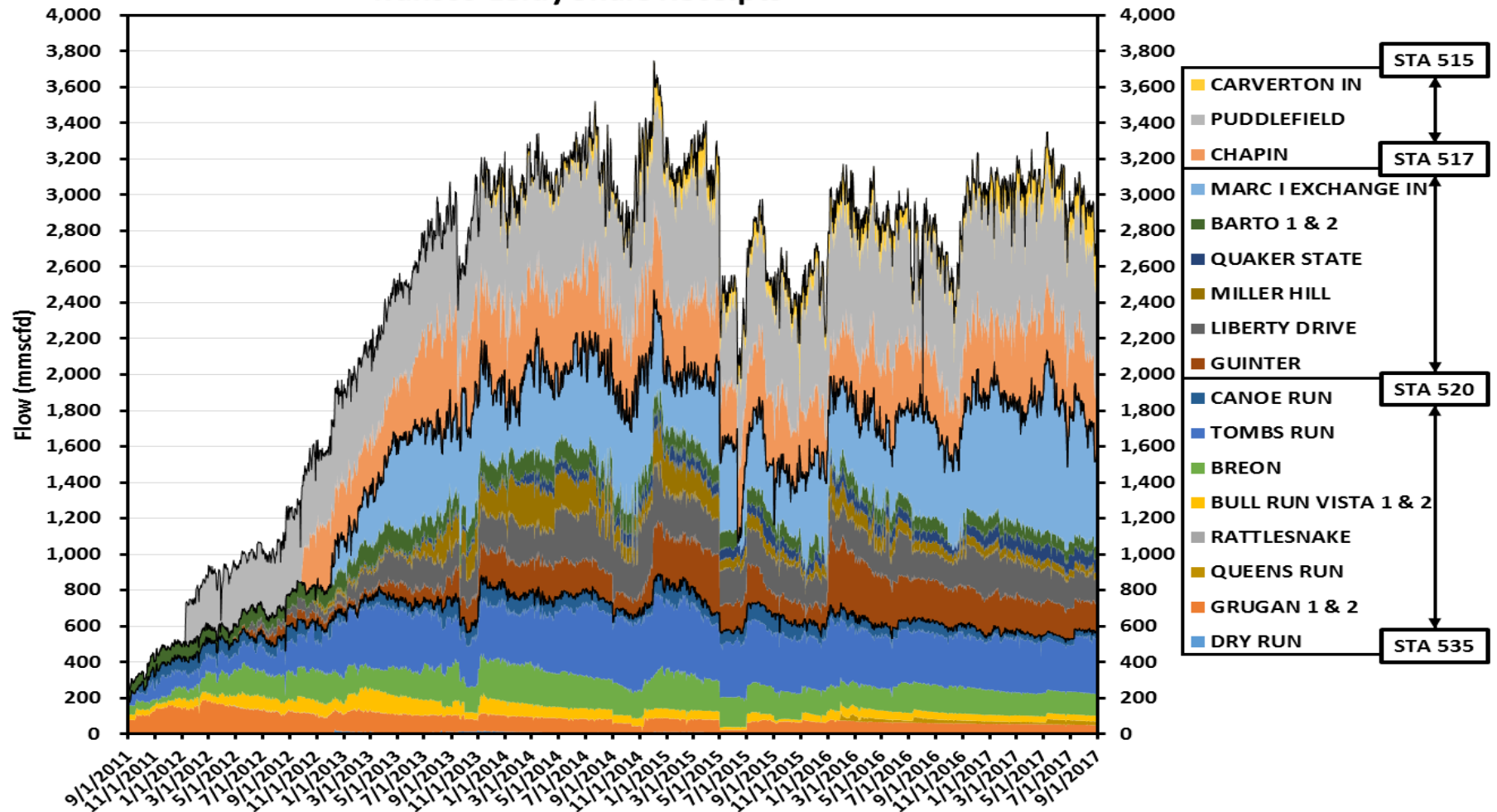
- Marcellus supplies on the Leidy Line continues to increase.
- TETCO's Rockies/Marcellus supplies at Lower Chanceford continue to increase.
- Mobile Bay flow southward remains stable.
- Steady volumes from Mid-Continent Shales provide supply reliability at Station 85.
- Supply from traditional Production Area laterals continues to decline.

| Receipt or Lateral | Volume (MMscf)<br>Receipt or Receipt / Delivery / Net |                          |        |
|--------------------|---|--------------------------|--------|
|                    | 09-01-2015 to 08-31-2016                              | 09-01-2016 to 08-31-2017 | % Chg  |
| <u>McMullen</u>    | 80 / (17) / 63  | 56 / (25) / 31           | (51%)  |
| <u>CTGS</u>        | 238 / (85) / 153                                      | 180 / (109) / 71         | (54%)  |
| <u>SWLA</u>        | 141 / (108) / 33                                      | 94 / (335) / (241)       | (830%) |
| <u>CENLA</u>       | 115 / (5) / 110                                       | 118 / (6) / 112          | 2%     |
| Zone 3 M/L Total   | 662   | 953                      | 44%    |
| <u>SELA</u>        | 193 / (90) / 103                                      | 137 / (64) / 73          | (29%)  |
| Scott Mountain     | 981   | 1025                     | 4%     |
| Pine View          | 827   | 878                      | 6%     |
| <u>Mobile Bay</u>  | 524 / (1,255) / (731)                                 | 561 / (1,279) / (718)    | (2%)   |
| Black Warrior      | 23  | 25                       | 9%     |
| Cascade Creek      | 131   | 111                      | (15%)  |
| Boswells Tavern    | 148   | 129                      | (13%)  |
| Nokesville         | 68  | 66                       | (3%)   |
| Pleasant Valley    | 39  | 83                       | 113%   |
| Lower Chanceford   | 814   | 831                      | 2%     |
| Lambertville       | 74  | 67                       | (9%)   |
| Rivervale          | 213   | 212                      | 0%     |
| <u>Leidy</u>       | 2,818 / (981) / 1,837                                 | 3,055 / (1,015) / 2,040  | 11%    |



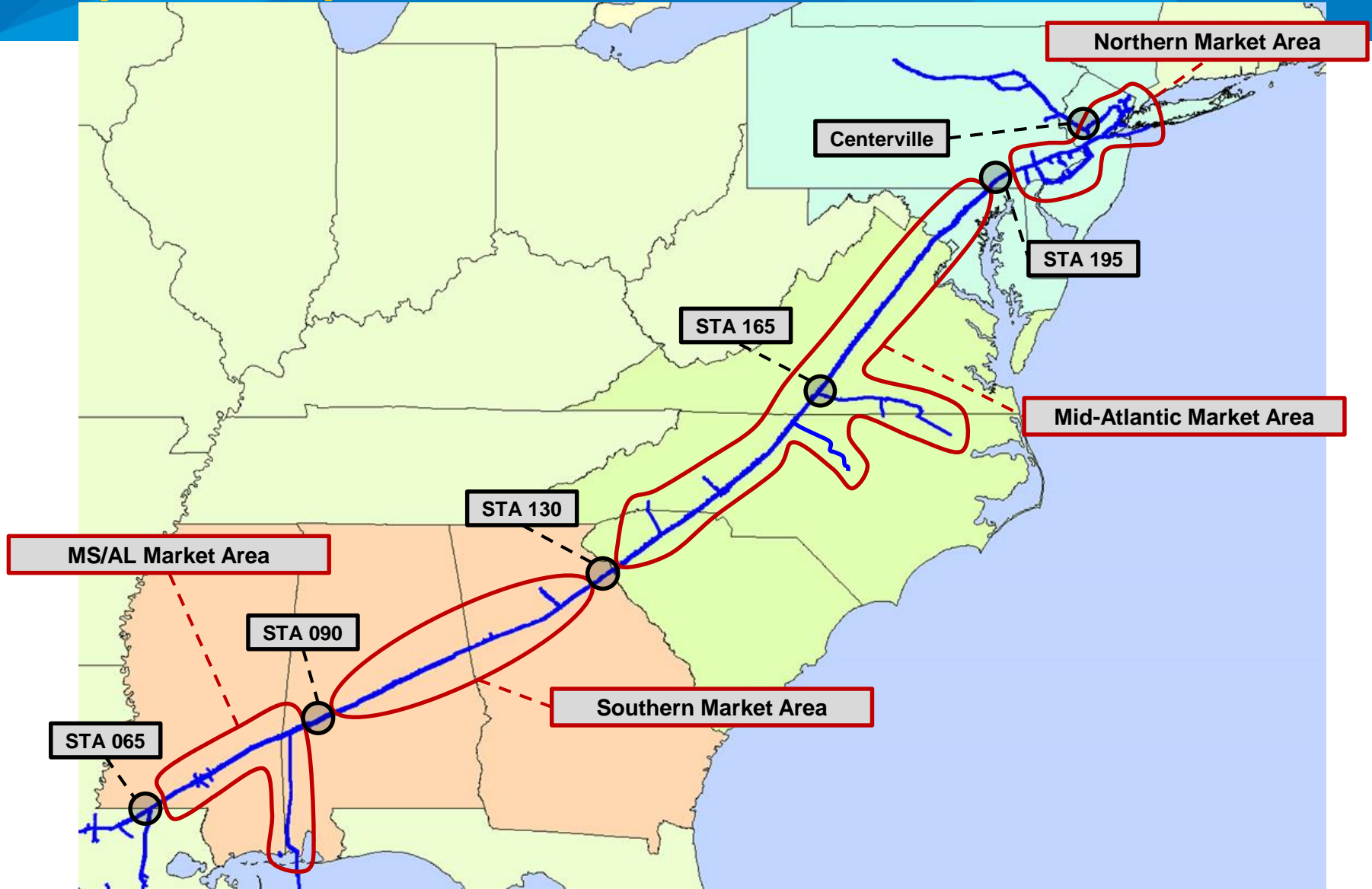
# Leidy Receipts

## Transco Leidy Shale Receipts

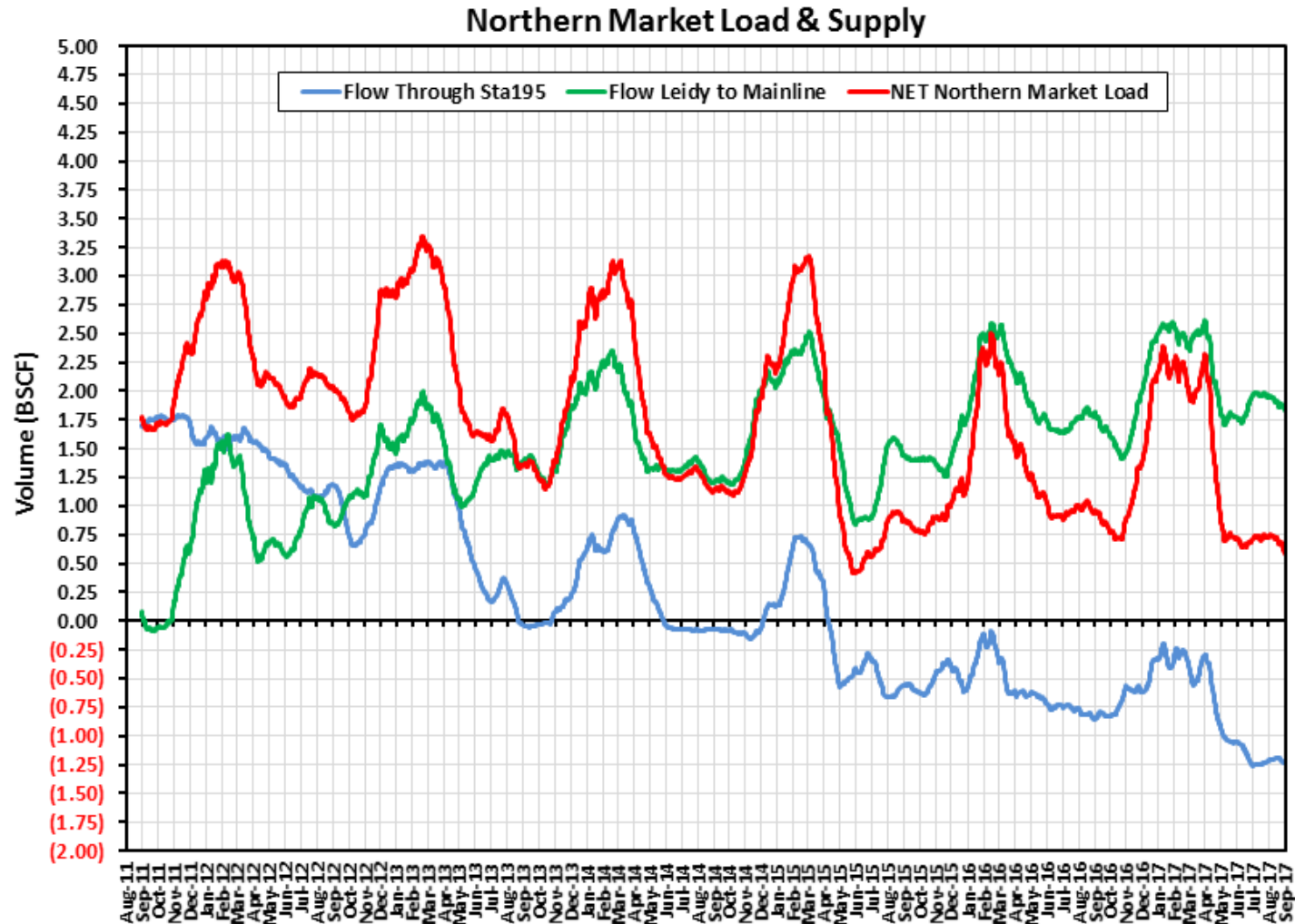




# Simplified Map

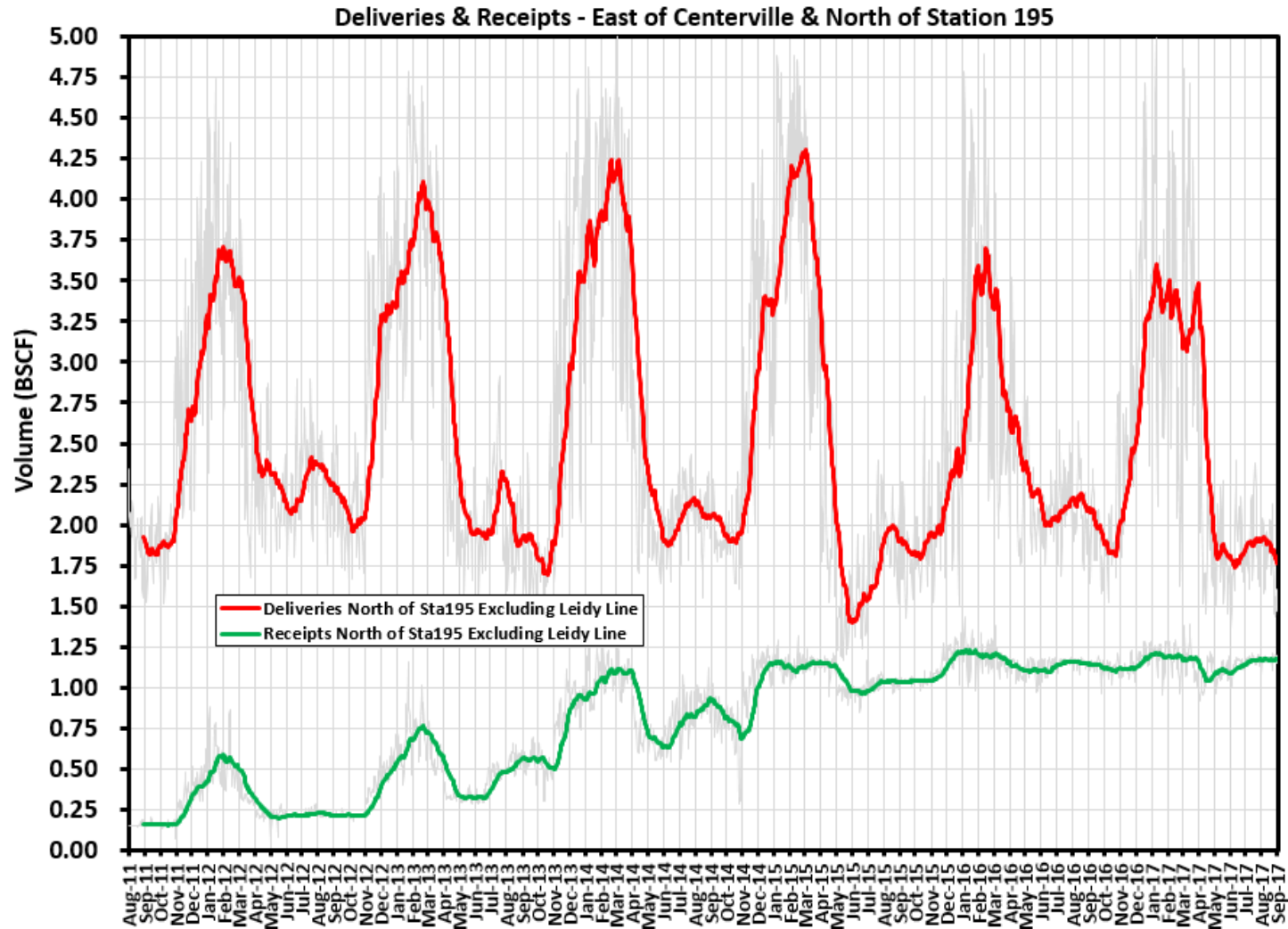


# System Throughput – Into North Market Area



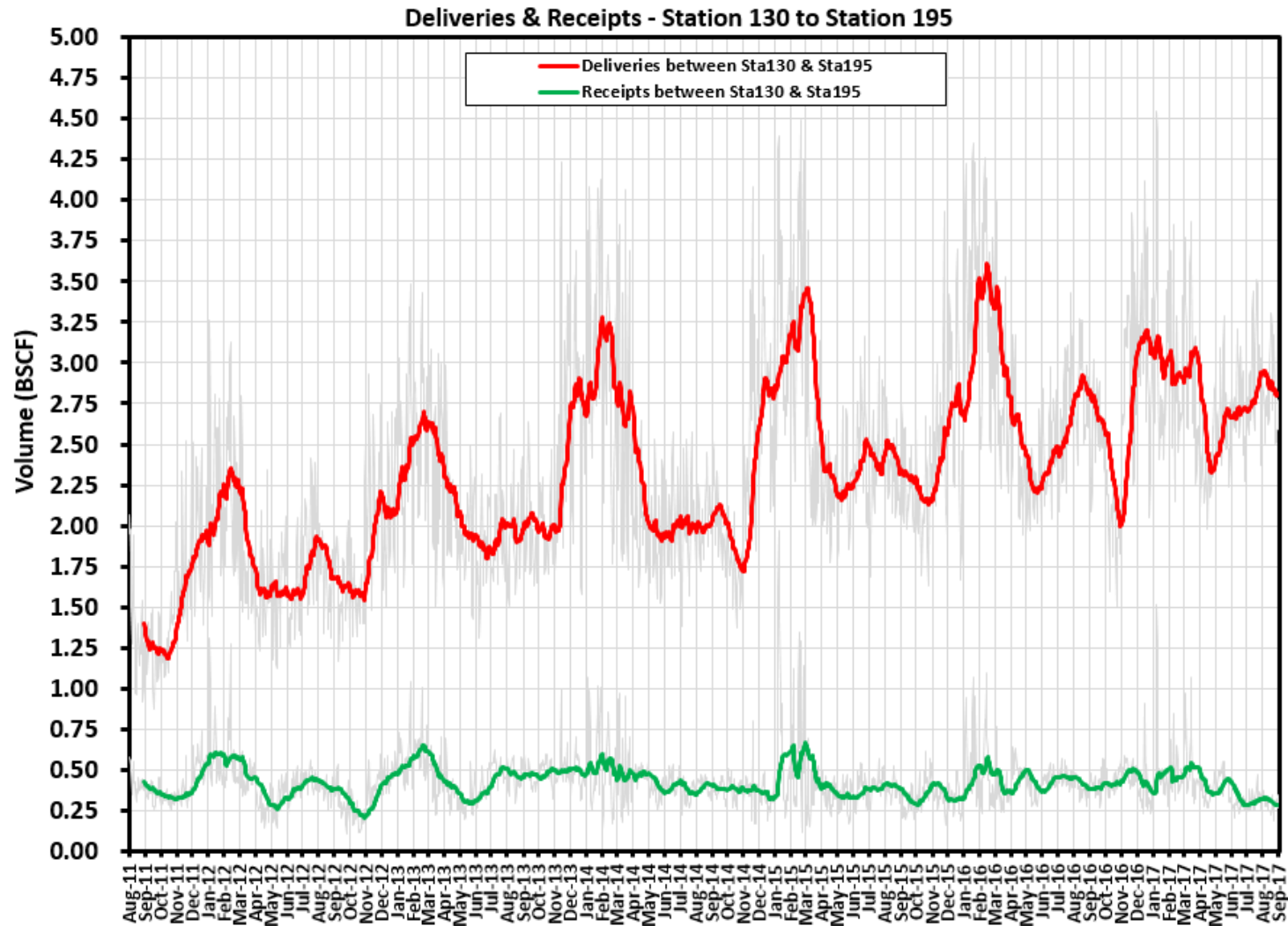
# System Load – Northern Market Area

## Growth in Northern Market Area



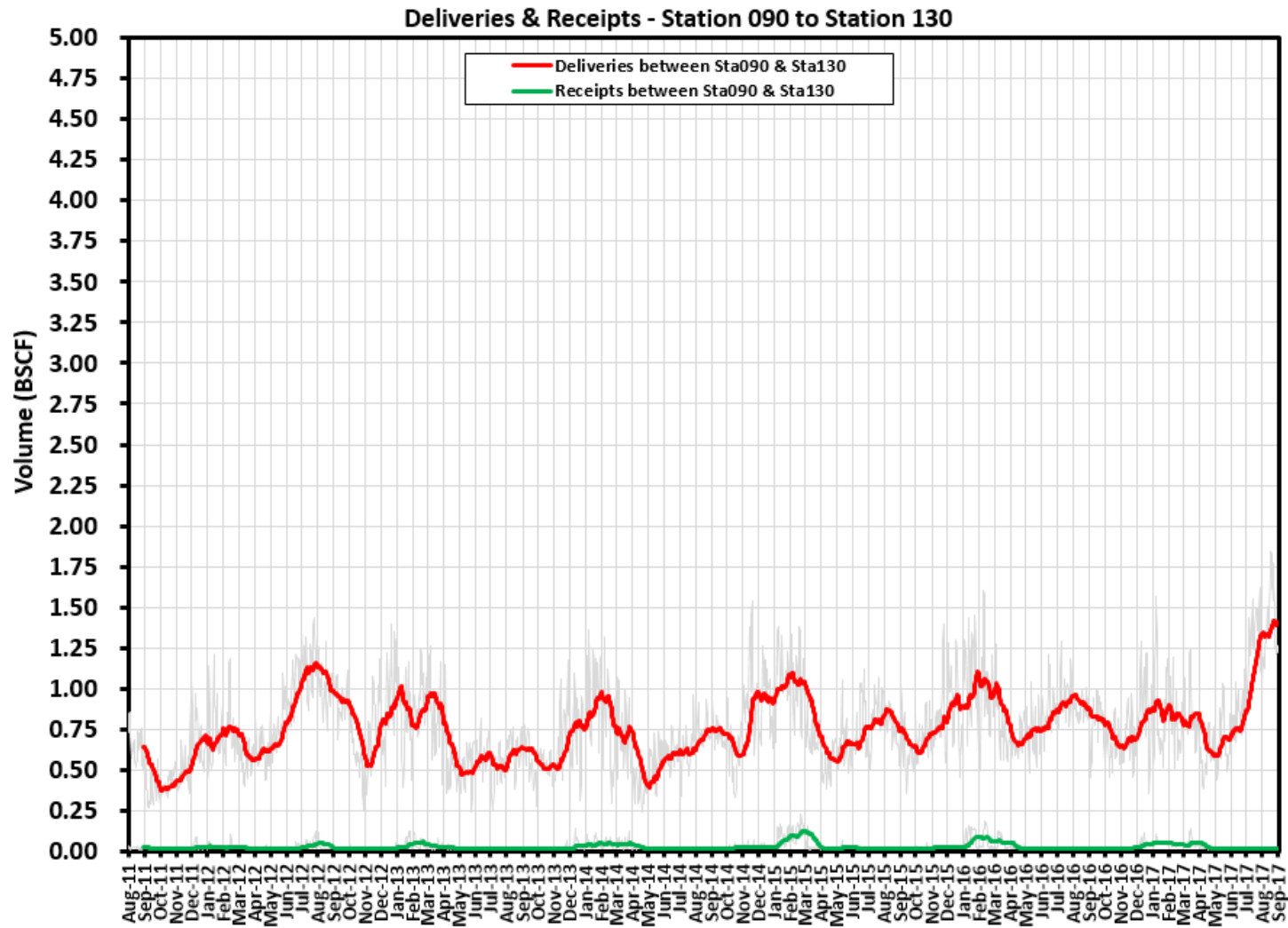
# System Load – Mid-Atlantic Market Area STA 130-195

## Growth in Mid-Atlantic Market Area



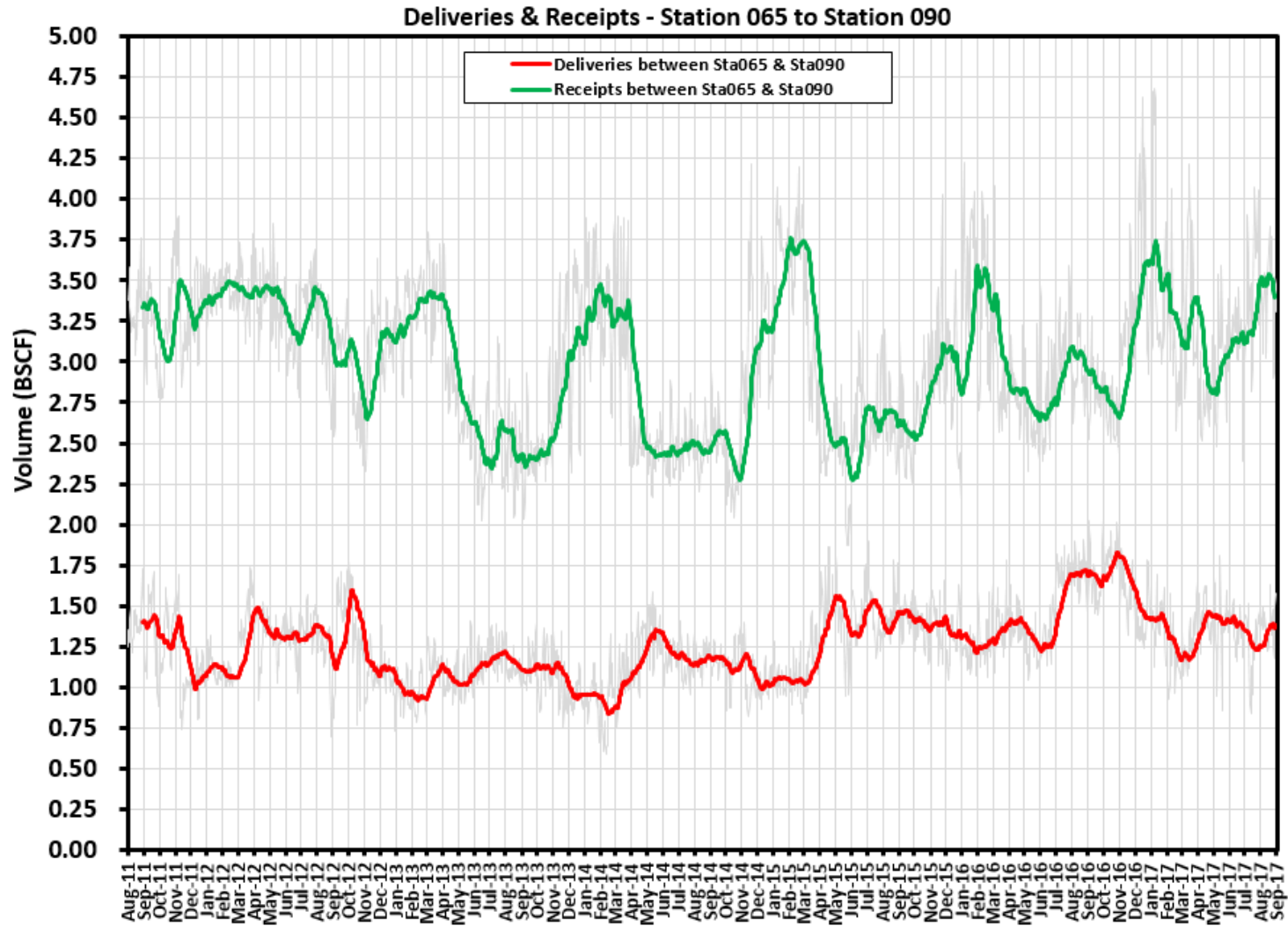
# System Load – Southern Market Area STA 90-130

## Growth in Southern Market Area



# System Load – MS/AL Market Area STA 65-90

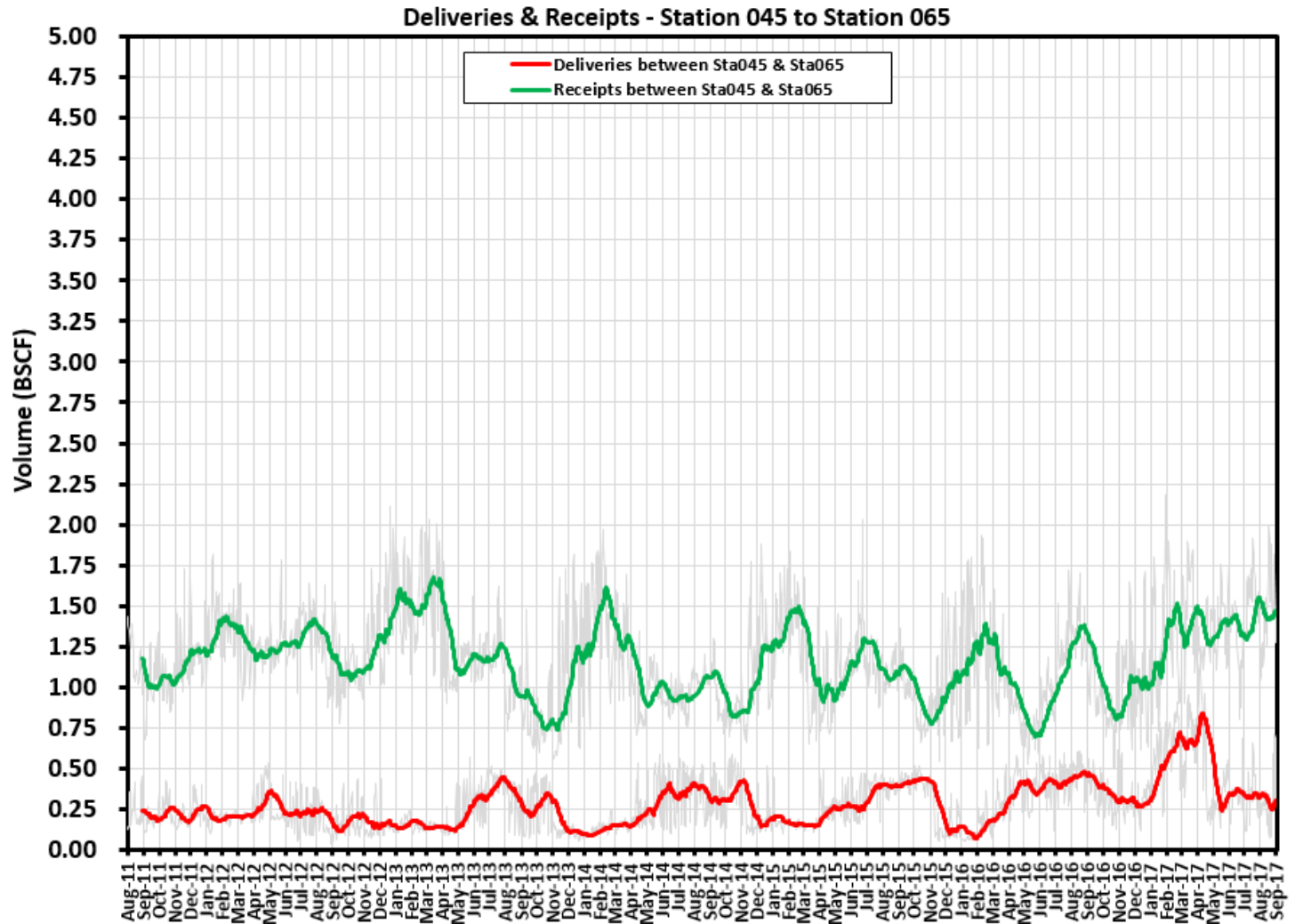
## Growth in MS/AL Market Area





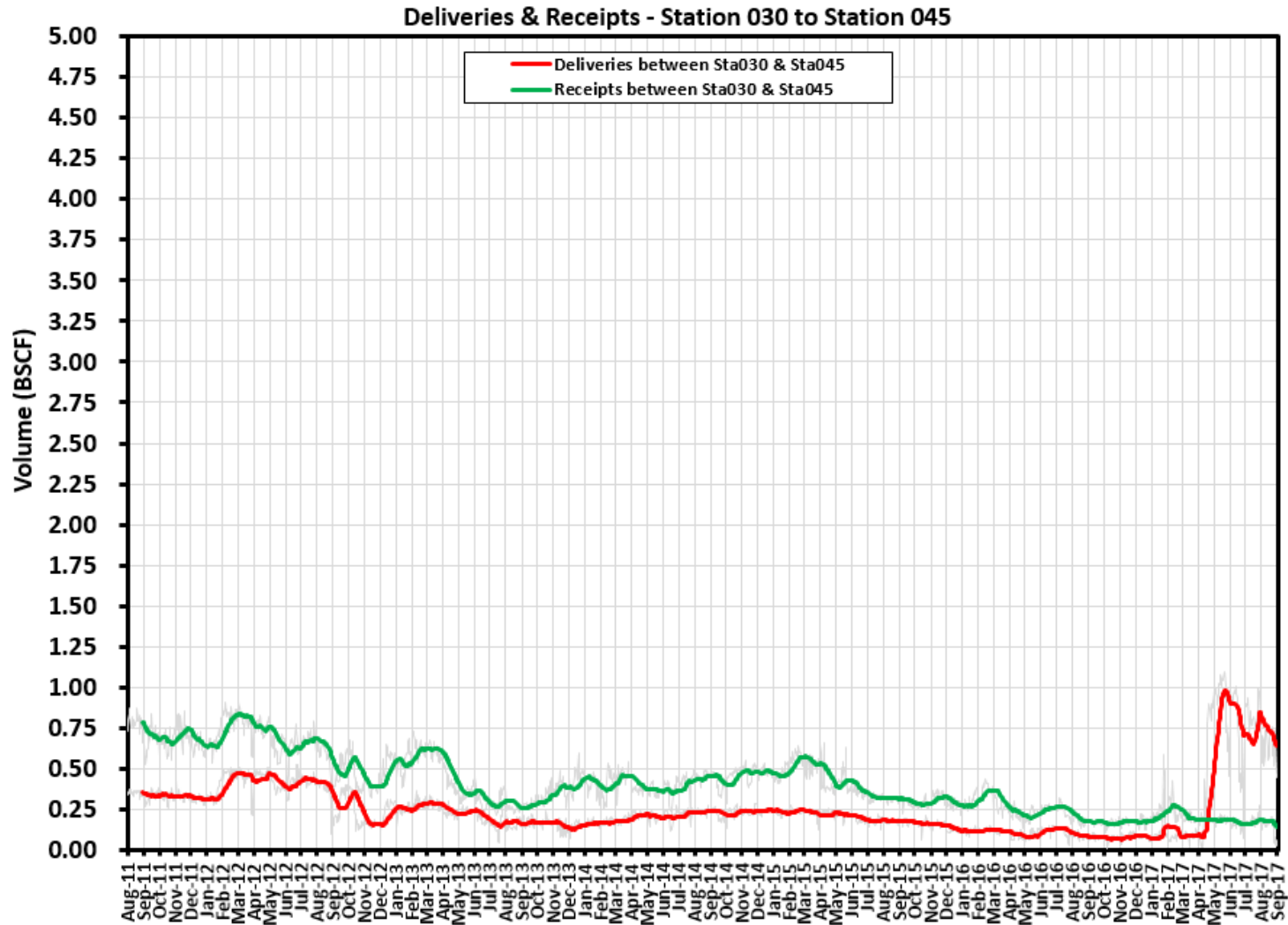
# System Load – Market Area STA 45-65

## Growth in Market Area



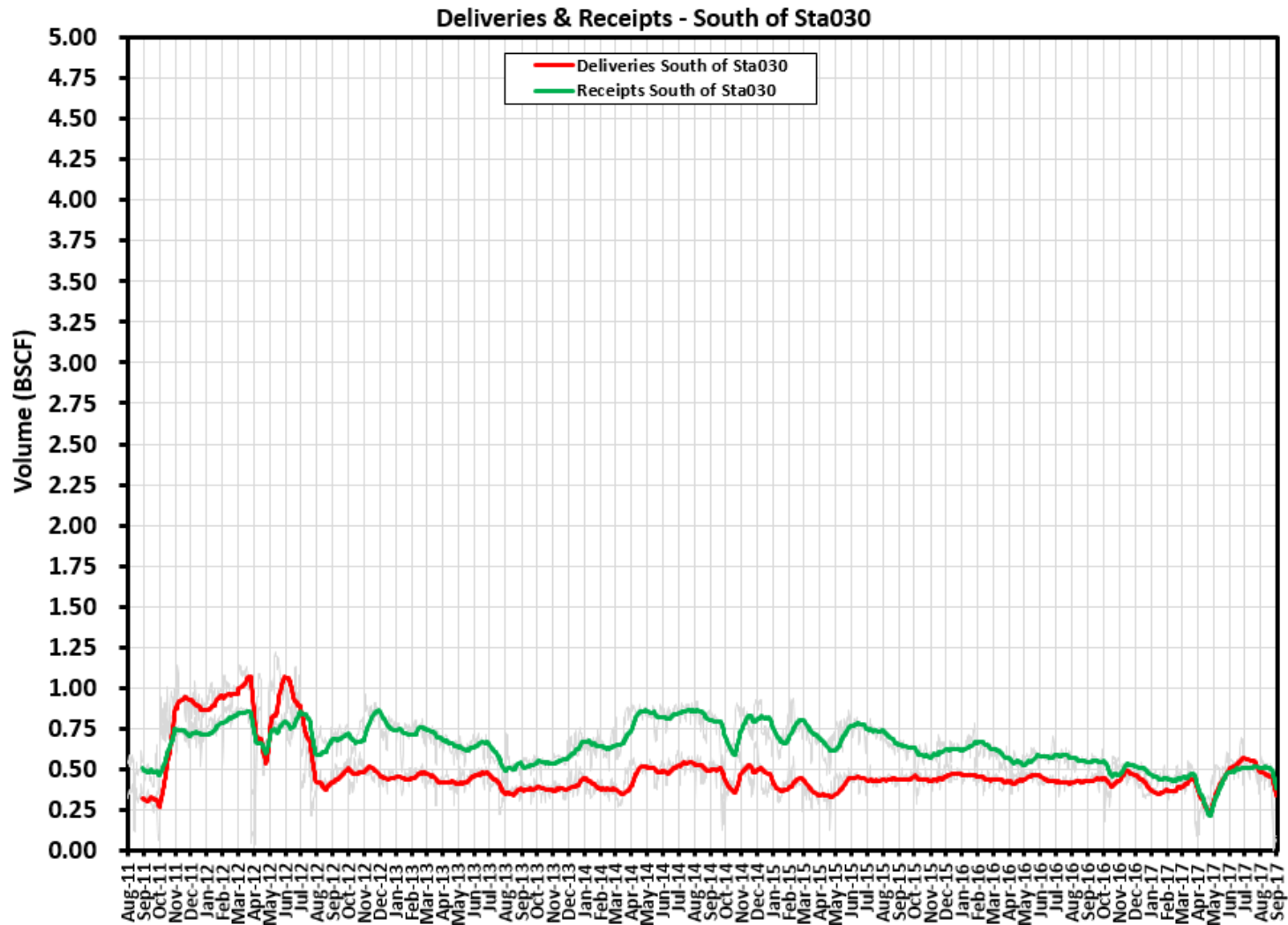
# System Load – Market Area STA 30-45

## Growth in Market Area

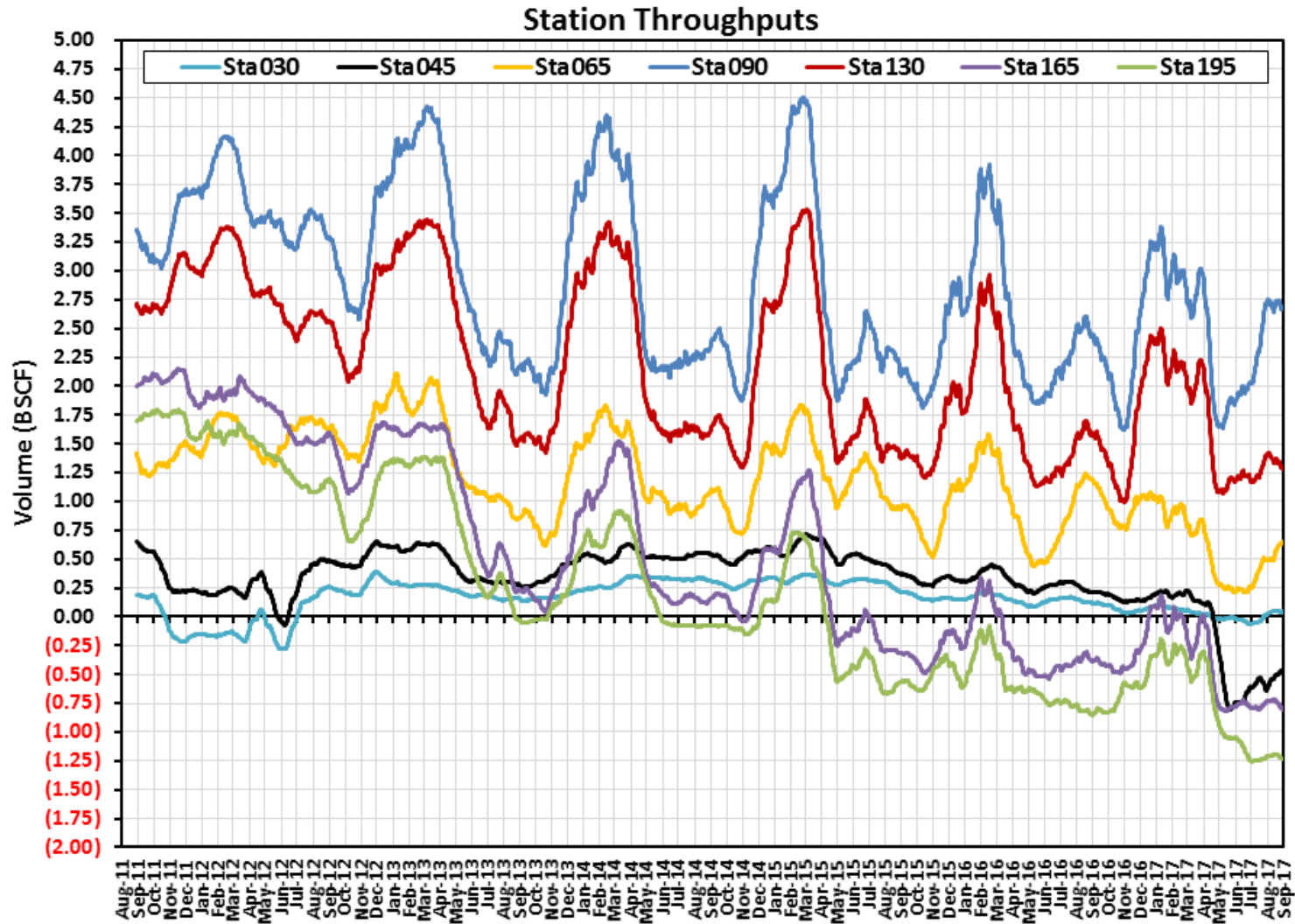


# System Load – Market Area South of STA 30

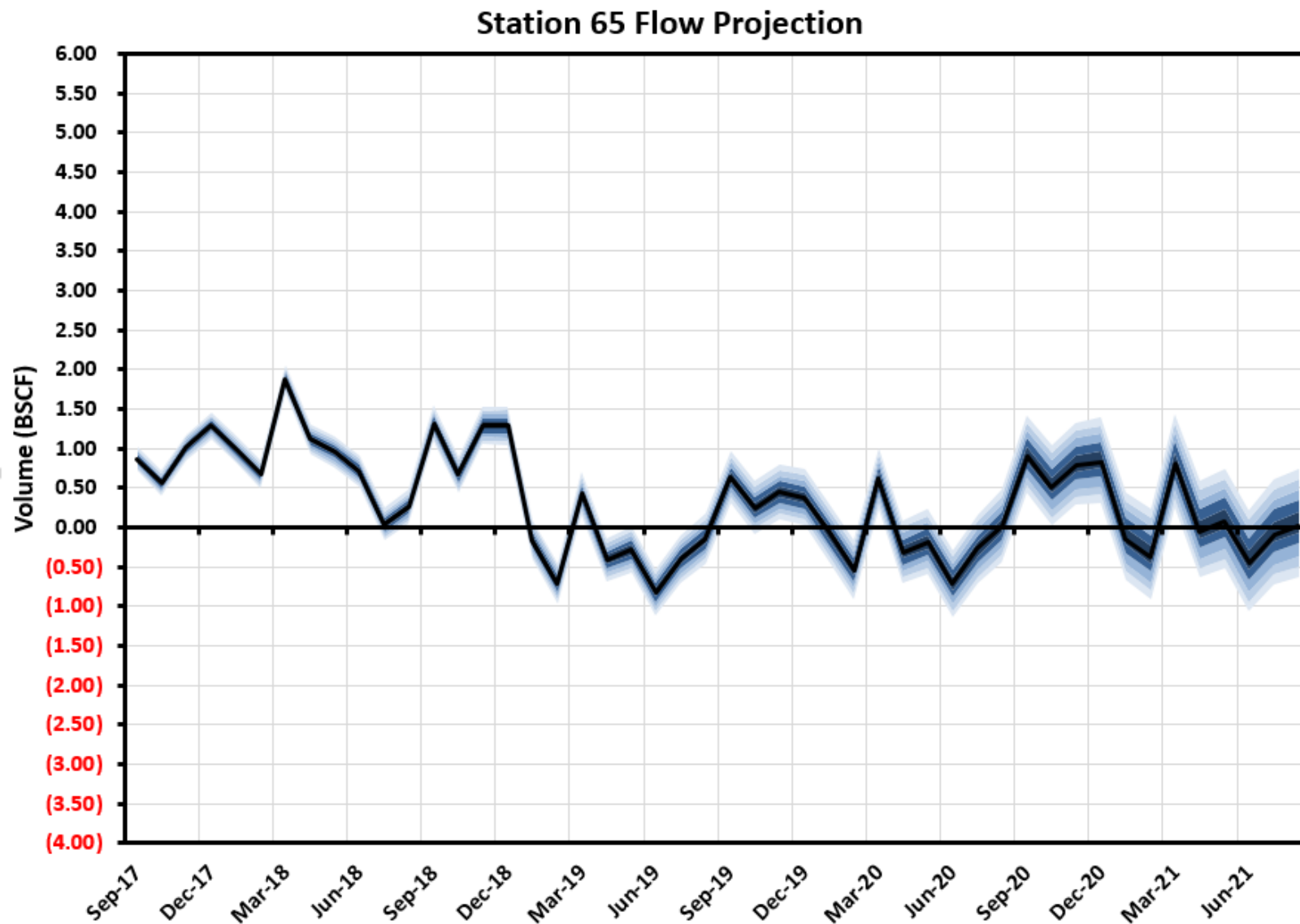
## Growth in Market Area



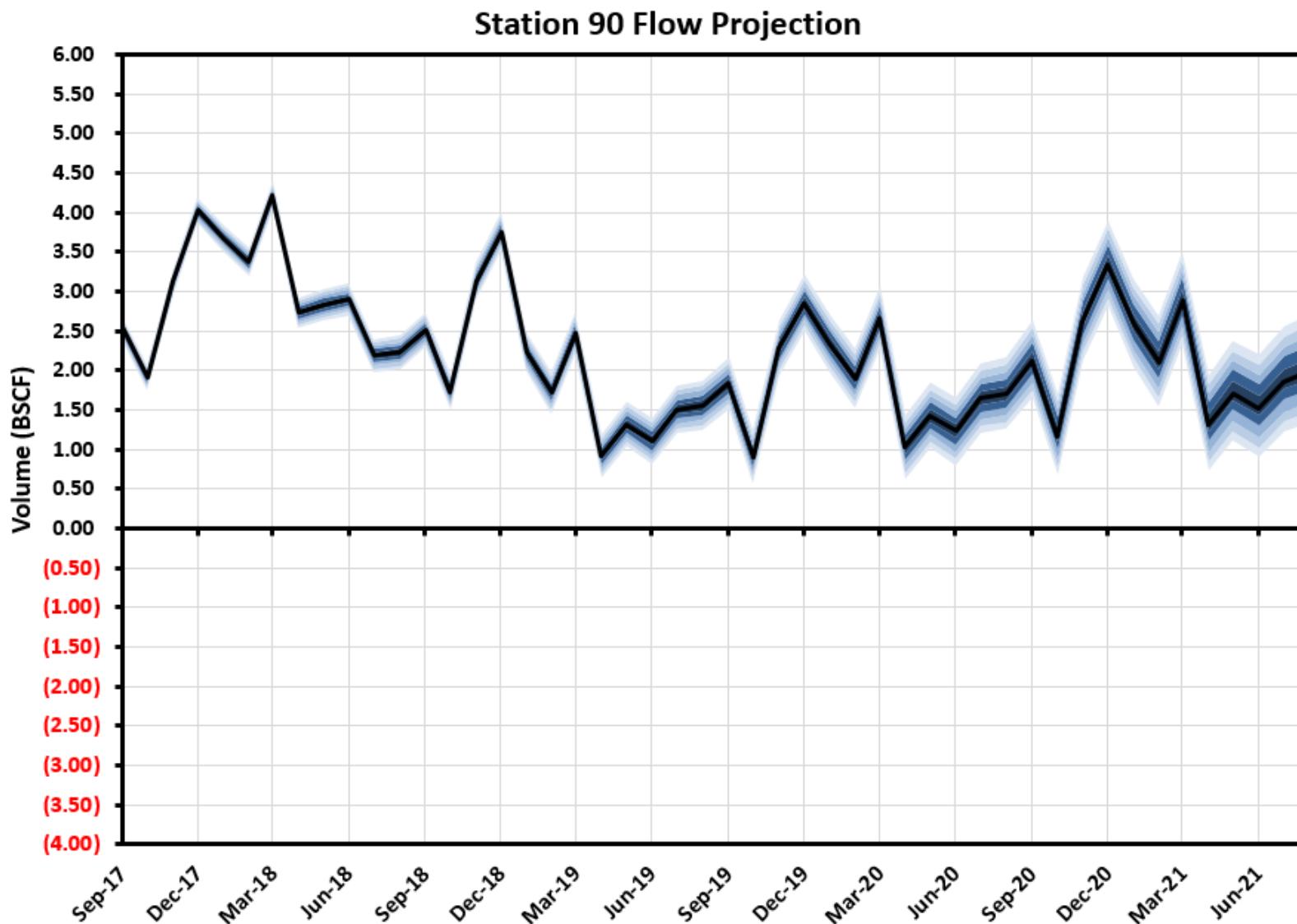
# System Throughput - Mainline



# Station 65 – Physical Flow Projection

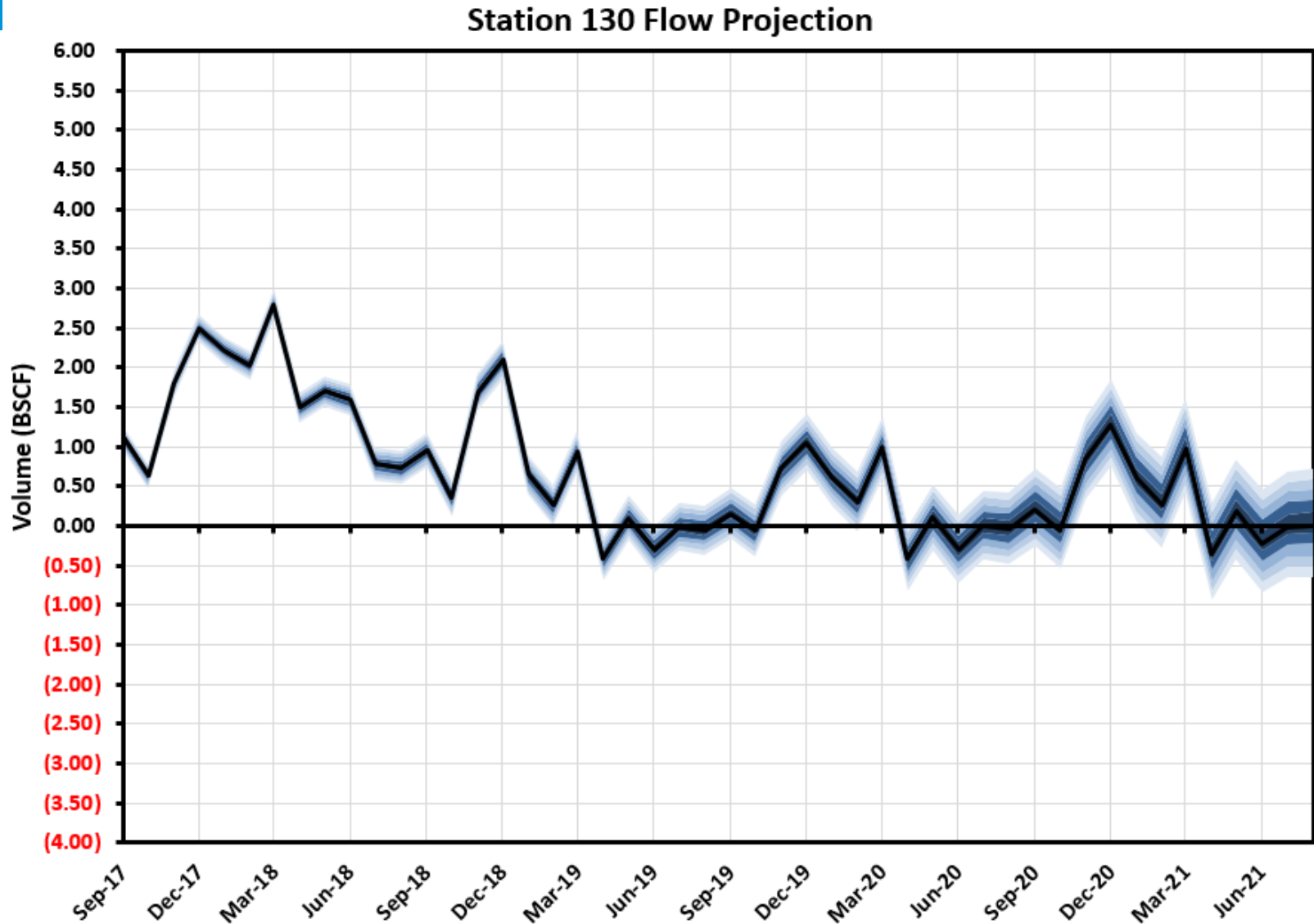


# Station 90 – Physical Flow Projection

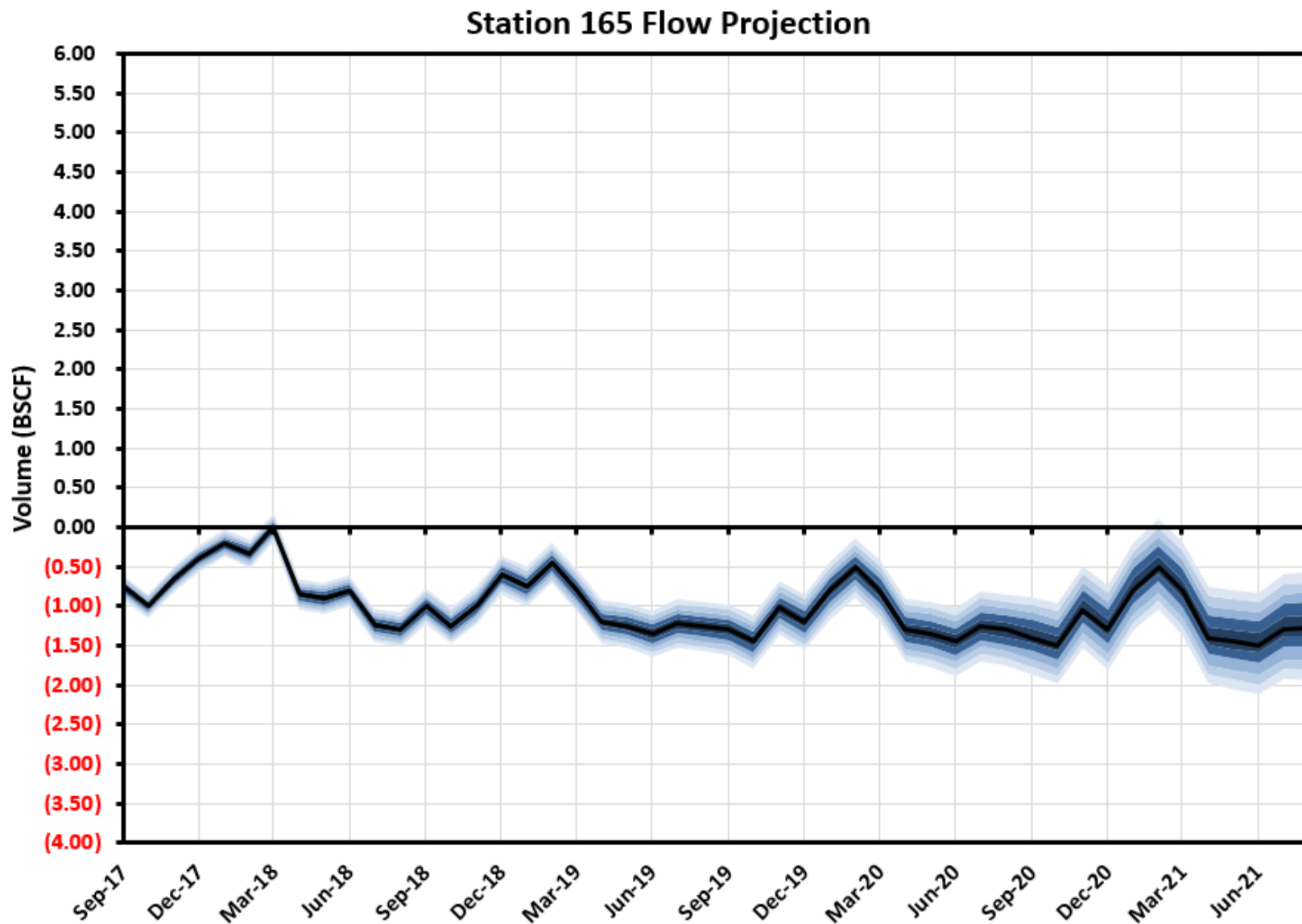




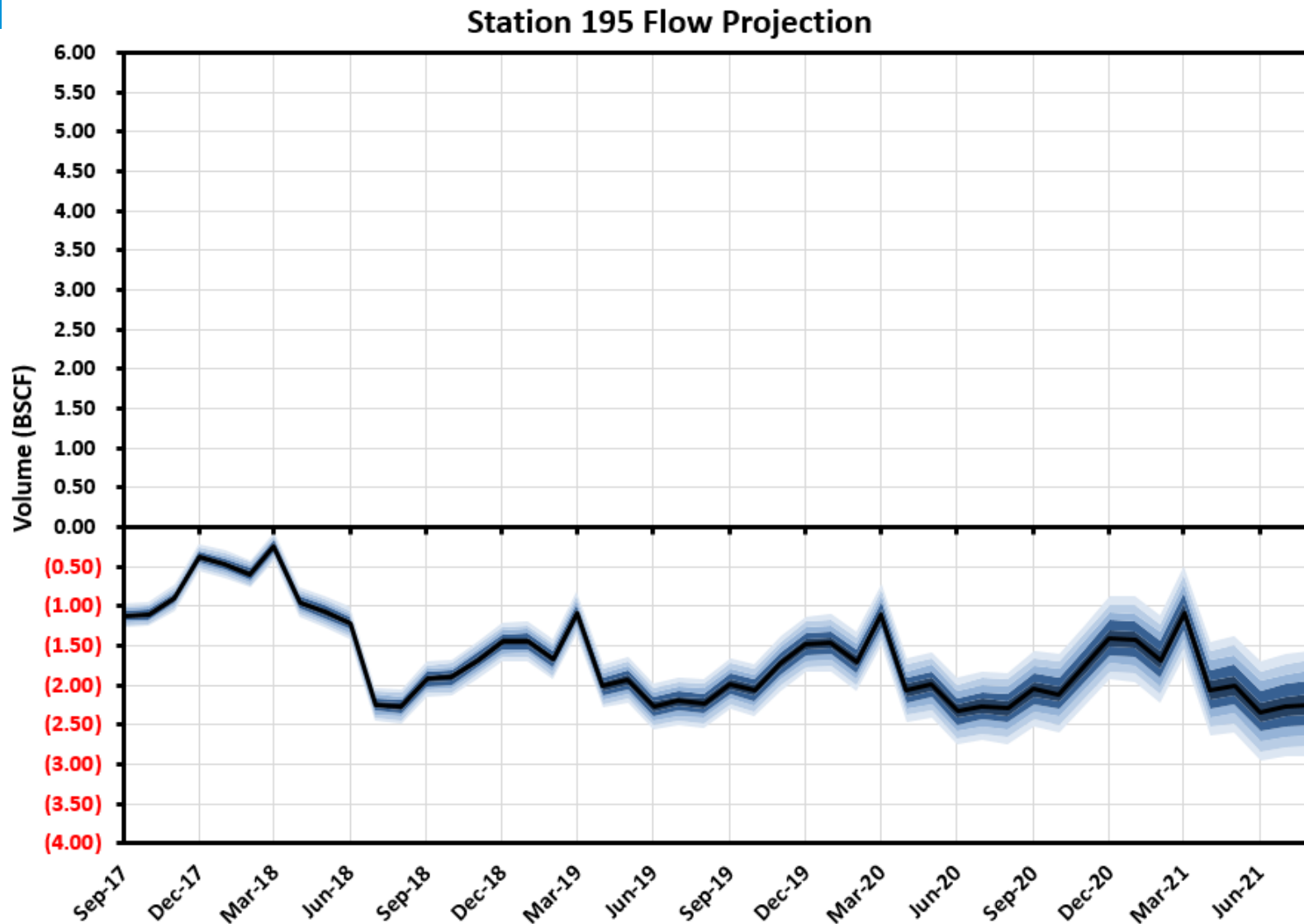
# Station 130 – Physical Flow Projection



# Station 165 – Physical Flow Projection



# Station 195 – Physical Flow Projection



# Mainline Reverse Flow Update

## > Discussion

- Transco's mainline between North Carolina and New Jersey has become bi-directional.
- From a monthly average perspective, it is expected that this bi-directional area will continue to grow by migrating south into South Carolina and potentially Georgia over the coming years due to the proliferation of shale drilling and corresponding projects to move ample supply to viable markets.
- In the South Carolina to Maryland area, north to south flow is expected to be more tightly constrained in the Spring and Fall seasons and to a slightly lesser extent in the Summer season.
  - On average, mainline constraints should be relaxed throughout the winter season in the north to south direction depending heavily on 3<sup>rd</sup> Party Projects, maintenance activities, and seasonal weather conditions.
- The mainline in Louisiana has become bi-directional and it is expected that the Texas mainline will also become bi-directional as future projects are put into service and should continue operating in that manner for the foreseeable future. It is expected that new constraints will need to be put into place to manage non-primary Firm Transportation capacity in Zone 3 and potentially adjacent zones.

# Questions?

