



Making Everyday Life Better SM

Customer Seminar • September 21, 2017

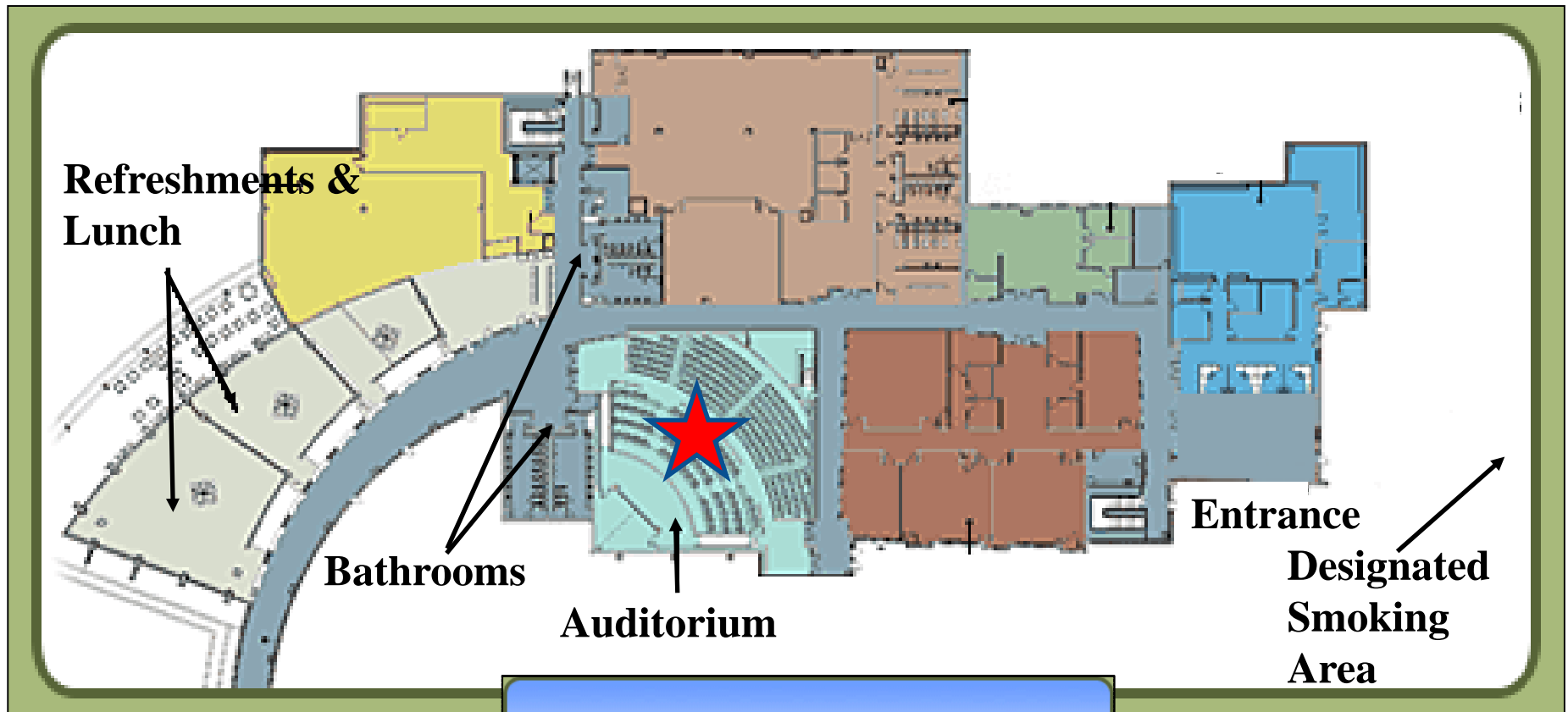




WELCOME

WE'RE GLAD YOU'RE HERE

Navigating Building E



Meeting Agenda

8:00 – 9:00 am	REGISTRATION & CONTINENTAL BREAKFAST	
9:00 – 9:15 am	Welcome & Introductions	Bill Watkins, SCE&G Manager, Large Customer Accounts & Services
9:15 – 9:45 am	Natural Gas Outlook	Rose Jackson, SCE&G General Manager – Supply & Asset Management
9:45 – 10:15 am	Transco Business and Capacity Update	Steven Baroni, P.E., Williams, Atlantic Gulf (Transco) Business Development Lead
10:15 – 10:30 am	BREAK	
10:30 – 11:00 am	Pipeline Integrity and LNG Operations	Mike Greene, P.E., SCANA Services General Manager – Engineering Services
11:00 – 11:30 am	System Modeling for Expansions and New Business	Ashley Forte, SCE&G Manager – Central Gas Operations
11:30 – 12:00 noon	Winter Curtailment Outlook and Updated Egas Procedures	David Meetze, SCE&G Supervisor – Gas Control
12:00 noon	Closing Remarks	Felicia Howard, SCE&G Vice President – Gas Operations
	LUNCH FOLLOWING	

Natural Gas Market Update

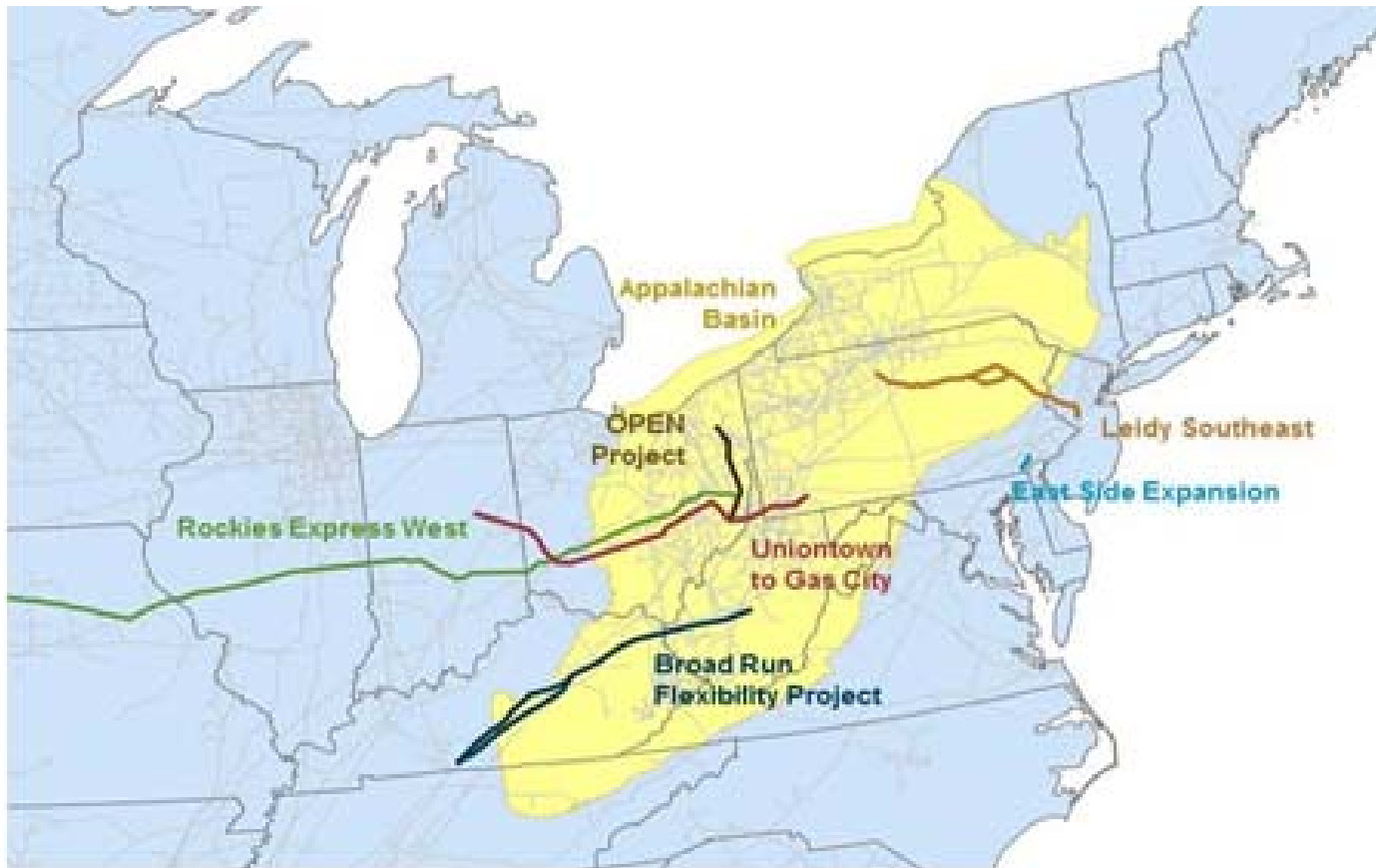
September 21, 2017

Rose Jackson, GM-Supply & Asset Management



Getting Shale Gas to Markets

New natural gas pipelines expand Northeast production, flow



 Source: U.S. Energy Information Administration

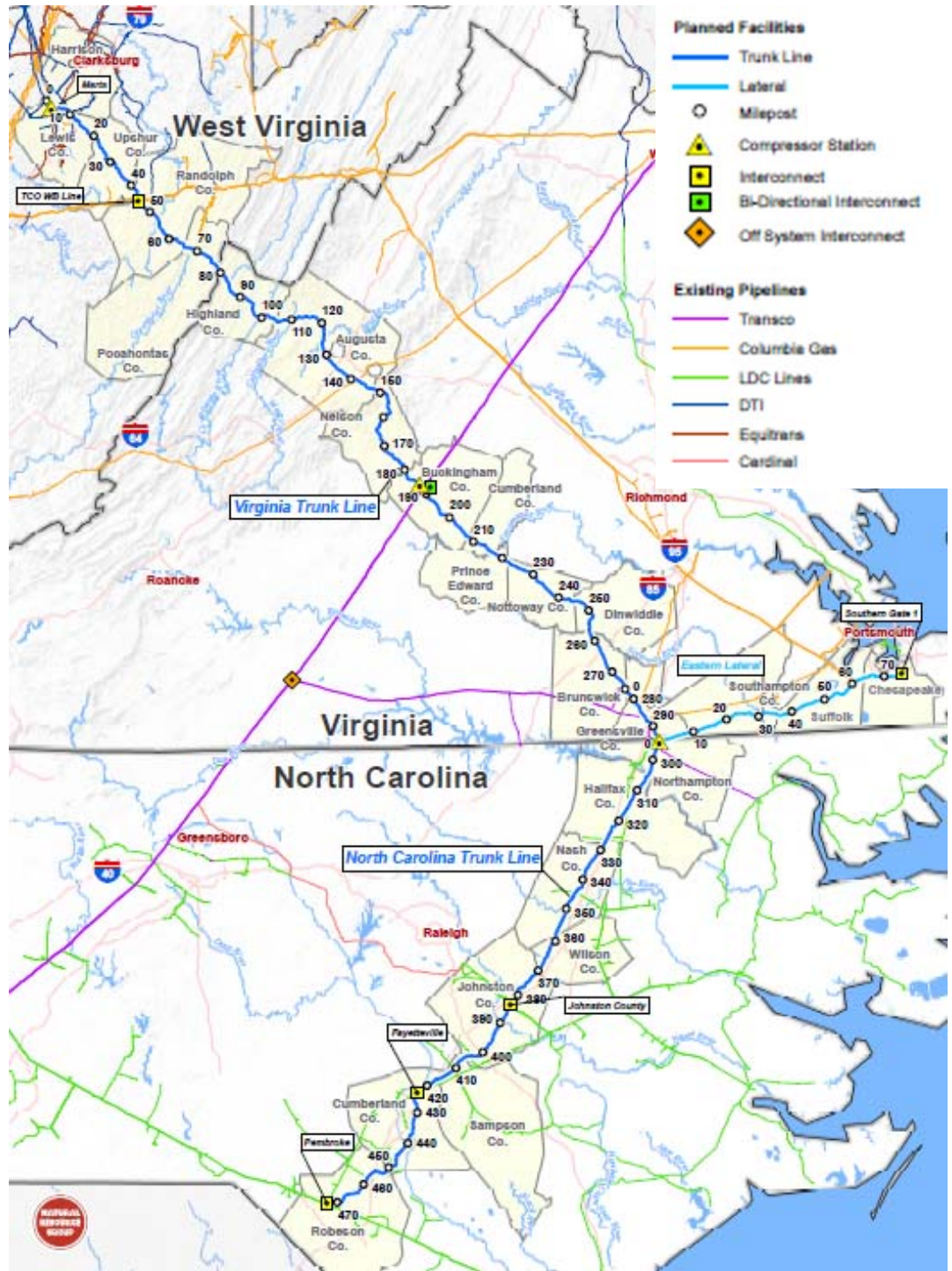
4.2 billion cubic feet a day (Bcf/d)
of flowing-gas capacity came
online in late 2015 or early 2016

Interstate Pipeline Capacity

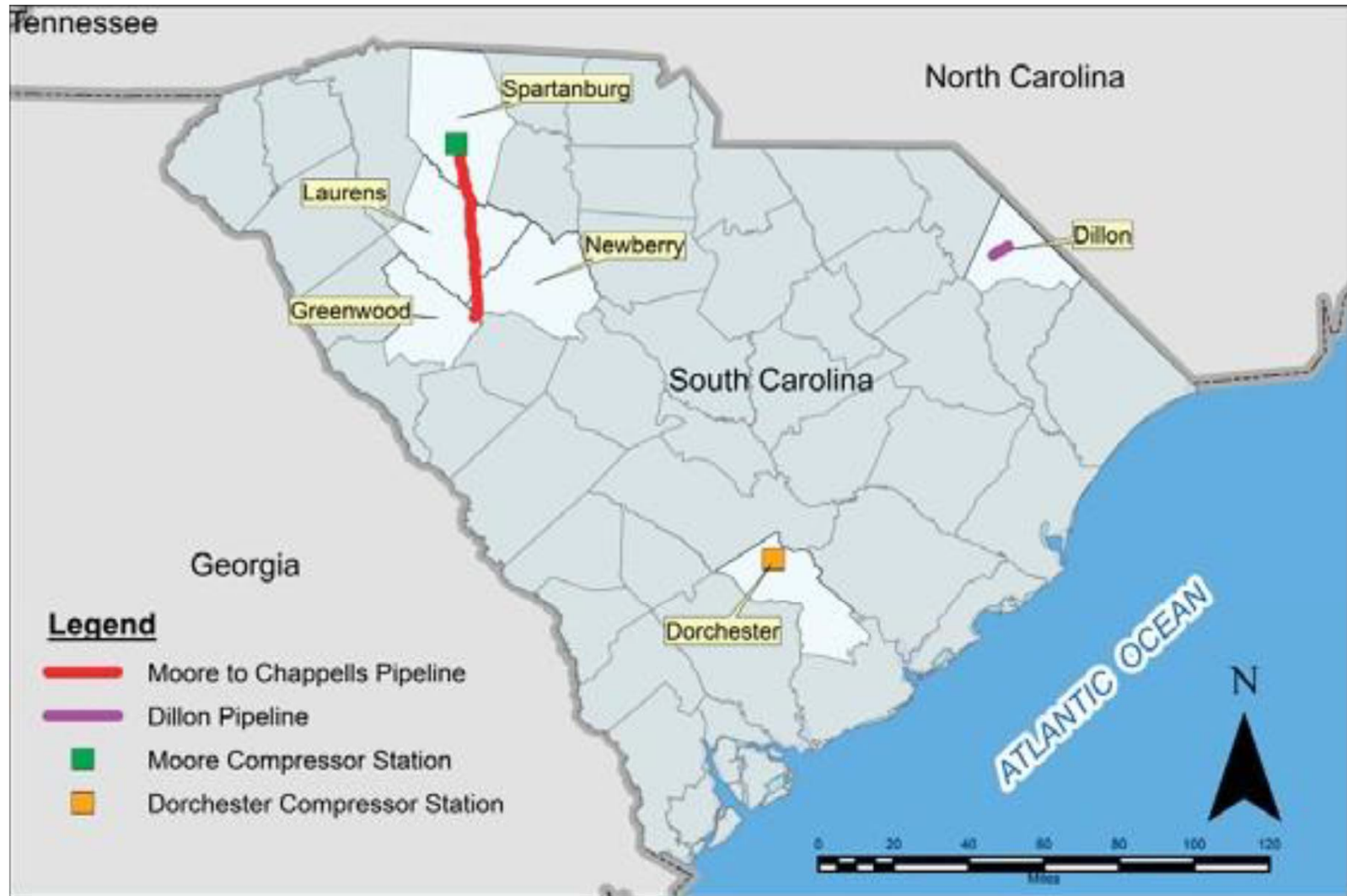
- ▶ Shale production drives need for new pipeline capacity & shifts in pipeline flows
- ▶ New greenfield pipeline capacity is required to ensure delivery of new shale supply
- ▶ Longer FERC timeline due to environmental requirements & increased public comment
- ▶ Firm transport cost will increase dramatically
- ▶ Low commodity cost creates Producer credit concerns

Atlantic Coast Pipeline

- ▶ New pipeline joint venture formed by Dominion, Duke Energy, Piedmont Natural Gas & Southern Gas Company
- ▶ Projected capacity of 1.5 Bcf/day
- ▶ Projected Cost of \$4.5 billion - \$5 billion has increased
- ▶ Approximately 550 miles of new pipe (42-inch-diameter in W. VA & VA; 36-inch-diameter in NC); 3 compressor stations
- ▶ Estimated in-service date delayed from Nov. 2018 to Nov. 2019



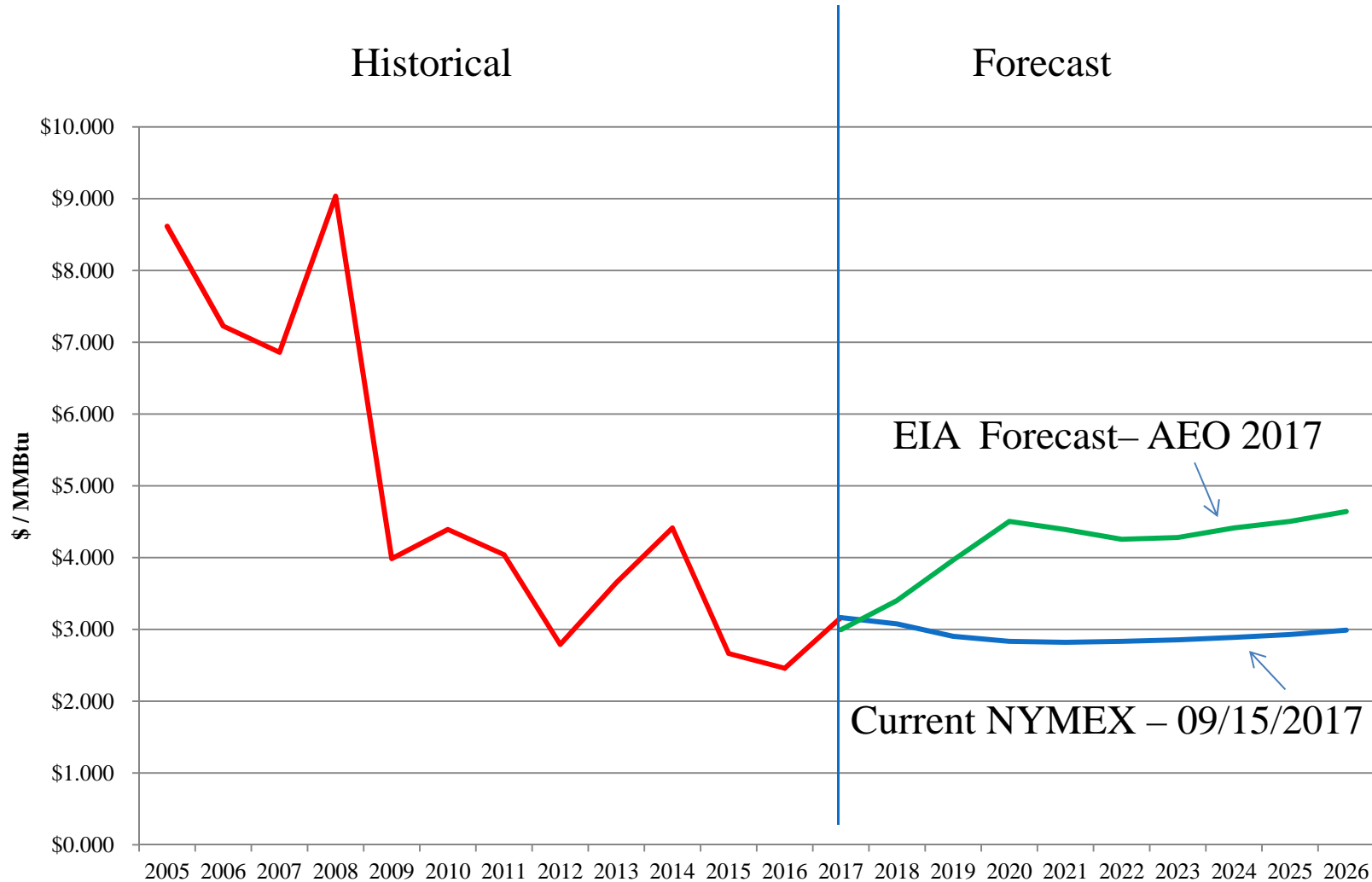
DECGT Transco to Charleston Project



DECGT Transco to Charleston Project

- ▶ New Facilities include
 - Moore to Chappells Pipeline
 - Approx. 55 miles of new 12-inch pipe
 - Dillon Pipeline- 5 miles of new 4-inch pipe
 - Moore Compressor Station- add 2 new 1,400 hp compressors
 - Dorchester Compressor Station- new compressor station with (3) 1,050 hp compressors
- ▶ Total Project capacity of 80,000 Dts/day
 - SCE&G has contracted for 75,000 Dts/day (50,000 Dts/day for LDC; 25,000 Dts/day for Fossil Hydro)
- ▶ Dec. 23, 2017 is the latest estimated in-service date

Henry Hub Average Annual Prices



Source: NYMEX & EIA



Electronic Bulletin Board “EBB”

- ▶ SCE&G ‘s EBB went live on July 25, 2016
- ▶ Marketers processed nominations for the month of August 2016
- ▶ Marketer training was conducted in July 2016
- ▶ Automated the manual nomination process that used spreadsheets and email
- ▶ Provides daily measurement data via email
- ▶ Provides daily imbalance calculation

EBB Access

- ▶ SCE&G's EBB system consists of 2 web sites:
 - Informational Postings - <https://ebb.SCEG.com>
 - Customer Activities - <https://ebb.SCEG.com/SCEGCA>
- ▶ Requesting access to the EBB
 - Go to the Customer Activities web site
 - Click login button in the upper right hand corner
 - Click New User? Link
 - Print EBB Access Authorization form, complete & sign
 - Send EBB Access Authorization form to SCEGTRANSADMIN@SCANA.com

Daily Measurement Reports

Manage Profile - Custom Notifications – Create Notifications

Custom Notification Create Cancel Submit

Notification Name
DailyMeasurementDetail

Select Format

Embed report into body of Email (ASCII)
 Attach report to email

Attachment Type
XML Spreadsheet 2003

Select Scheduling

Notification Frequency
Day

Notification Expiration Date
1/1/4000

Notification Run Time (HH:MM AM) 2 1 PM

Select Report Parameter(s)

Customer

Predefined Date(s)
Month to yesterday

Preview Dates (based on current date) 09/01/2017 - 09/14/2017

Use this page to subscribe to receive custom notifications via email. Automated delivery of Reports can be set up here.

Note: We suggest entering 2:00PM for daily meter readings to provide sufficient time for measurement collection & review.

The Select Notification Parameter if available can be used to determine the data that will be displayed on the requested report. For example, the Daily Measurement Detail report has a start date parameter.

If a user would like for that specific report to display data from the beginning of the month, select the following parameters: Month to yesterday. Click Preview Dates to verify the dates requested are correct.

Questions?





Transco Business and Capacity Update (SCE&G – Natural gas Seminar)



Transco Station 515, Leidy Southeast Project in PA
Photo by Williams employee, Peter Poarch, Engineer

Forward Looking Statements

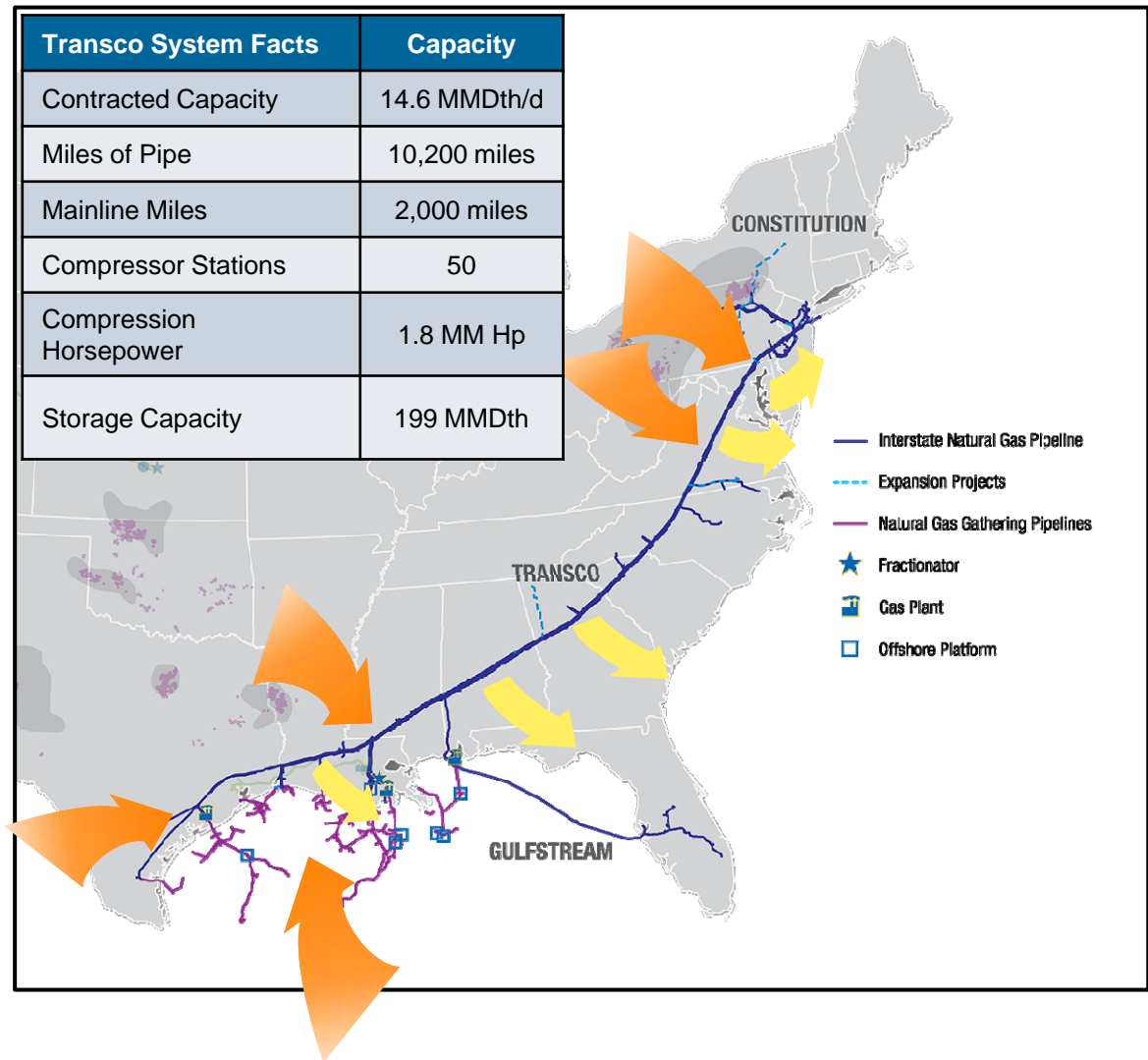
- > The reports, filings, and other public announcements of The Williams Companies, Inc. (Williams) and Williams Partners L.P. (WPZ) may contain or incorporate by reference statements that do not directly or exclusively relate to historical facts. Such statements are “forward-looking statements” within 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 facts, 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” or 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:
 - Expected levels of cash distributions by WPZ with respect to general partner interests, incentive distribution rights and 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 of our business and operations;
 - Financial condition and liquidity;
 - Business strategy;
 - Cash flow from operations or results of operations;
 - Seasonality of certain business components;
 - Natural gas, natural gas liquids, and olefins 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 the level of cash distributions, including incentive distribution rights, that we expect;
 - Whether Williams is able to pay current and expected levels of dividends;
 - Whether we will be able to effectively execute our financing plan including WPZ’s establishment of a distribution reinvestment plan (DRIP) and the receipt of anticipated levels of proceeds from planned asset sales;
 - Availability of supplies, including lower than anticipated volumes from third parties served by our midstream business, and market demand;
 - Volatility of pricing including the effect of lower than anticipated energy commodity prices and margins;
 - Inflation, interest rates, fluctuation in foreign exchange 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 our capital projects and other investment opportunities in accordance with our forecasted capital expenditures budget;
 - Our ability to successfully expand our facilities and operations;
 - Development of alternative energy sources;
 - Availability of adequate insurance coverage and the impact of operational and developmental hazards and unforeseen interruptions;

Forward Looking Statements (cont'd)

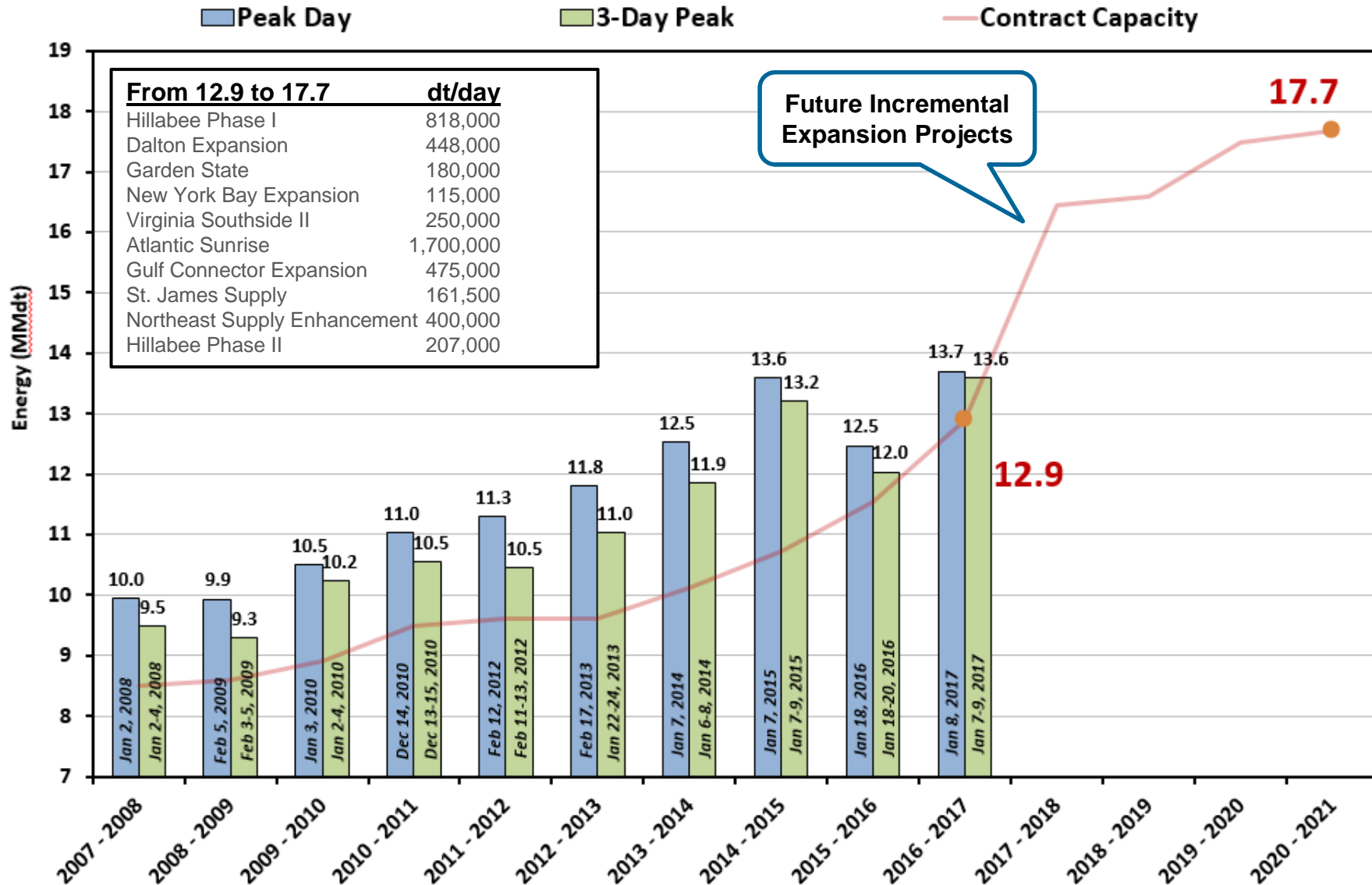
- The impact of existing and future laws, regulations, the regulatory environment, environmental liabilities, and litigation, as well as our ability to obtain permits and achieve favorable rate proceeding outcomes;
 - Williams' costs and funding obligations for defined benefit pension plans and other postretirement benefit plans;
 - WPZ's allocated costs for defined benefit pension plans and other postretirements 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 and referred to below 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 26, 2016 and in Part II, Item 1A. Risk Factors in our Quarterly Reports on Form 10-Q available from our offices or from our website at www.williams.com.

Transco: Access to Cost-effective Supplies 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.



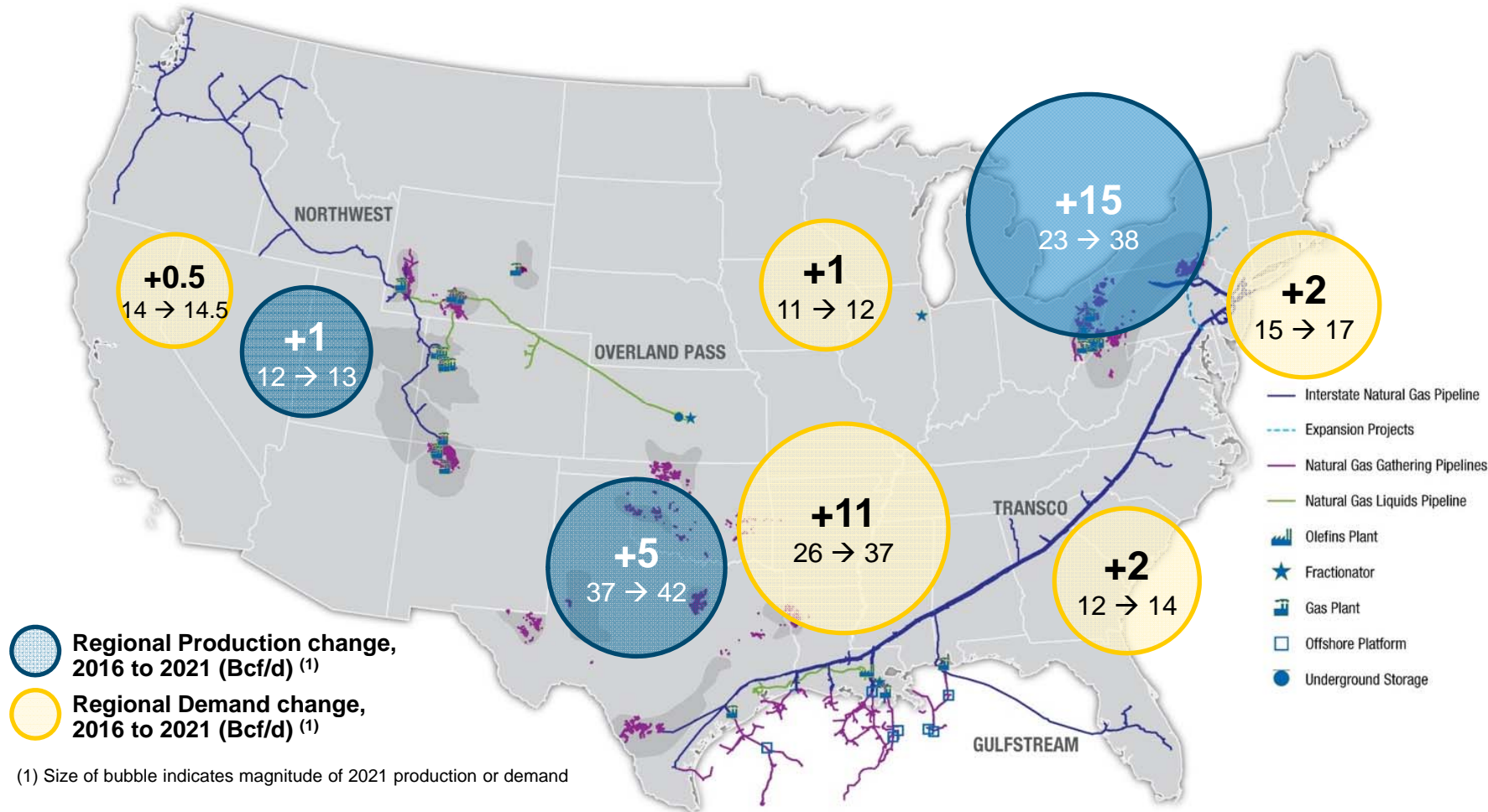
Transco Peak Day Deliveries and System Capacity



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

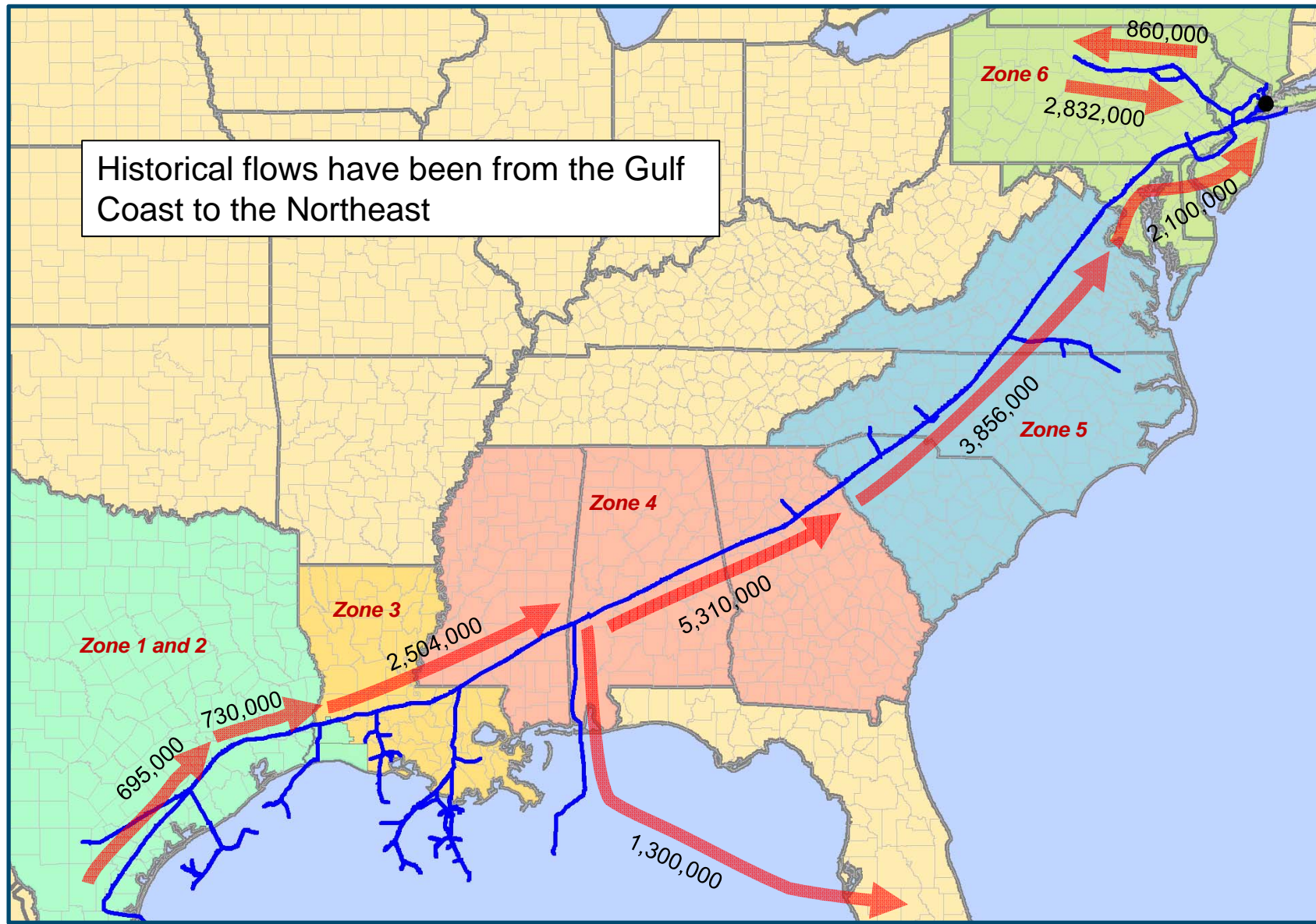
Connecting Growing Regional Natural Gas Demand with Best-in-class Production Basins

Poised to capture emerging, demand-side opportunities



Source: Wood Mackenzie 2H 2016, excludes impact of net Canadian imports

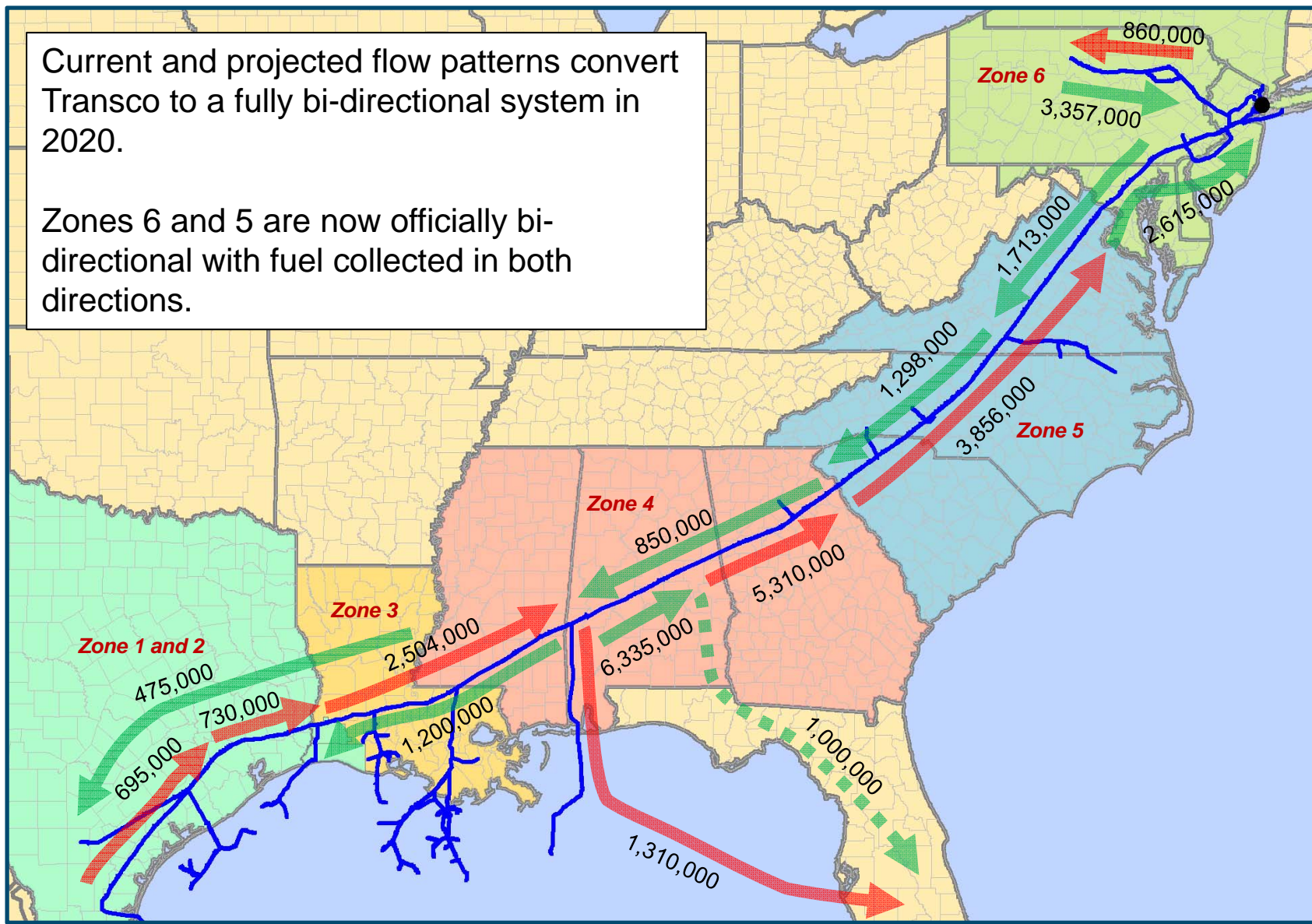
Transco Volumes and Capacity Flow Map ~2014



Transco Volumes and Capacity Flow Map ~2020

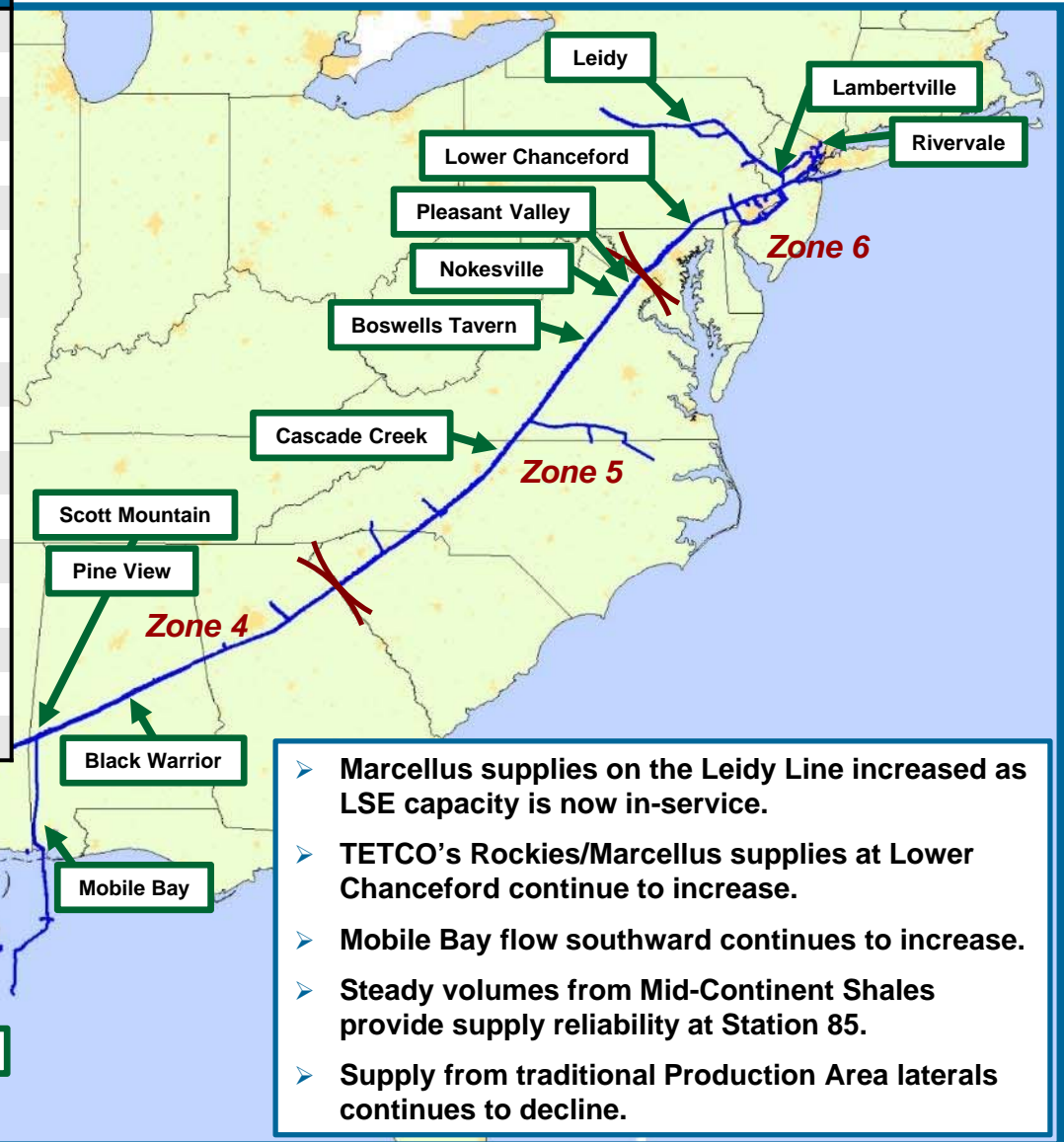
Current and projected flow patterns convert Transco to a fully bi-directional system in 2020.

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



Transco System Supplies

Receipt or Lateral	Volume (MMscf)		
	Receipt or Receipt / Delivery / Net		
	02-12-2015 to 02-12-2016	02-12-2016 to 02-12-2017	% Chg
McMullen	150 / (20) / 130	63 / (15) / 48	(63%)
CTGS	262 / (99) / 163	214 / (89) / 125	(23%)
SWLA	205 / (163) / 42	110 / (84) / 26	(38%)
CENLA	152 / (15) / 137	100 / (4) / 96	(30%)
SELA	265 / (92) / 173	191 / (95) / 96	(45%)
Scott Mountain	986	1,026	4%
Pine View	820	813	(1%)
Mobile Bay	535 / (1,199) / (664)	549 / (1,339) / (790)	19%
Black Warrior	26	24	(8%)
Cascade Creek	150	115	(23%)
Boswells Tavern	124	168	35%
Nokesville	68	68	0%
Pleasant Valley	37	67	81%
Lower Chanceford	820	830	1%
Lambertville	74	68	(8%)
Rivervale	191	213	12%
Leidy	2,782 / (1,185) / 1,687	2,952 / (974) / 1,978	17%

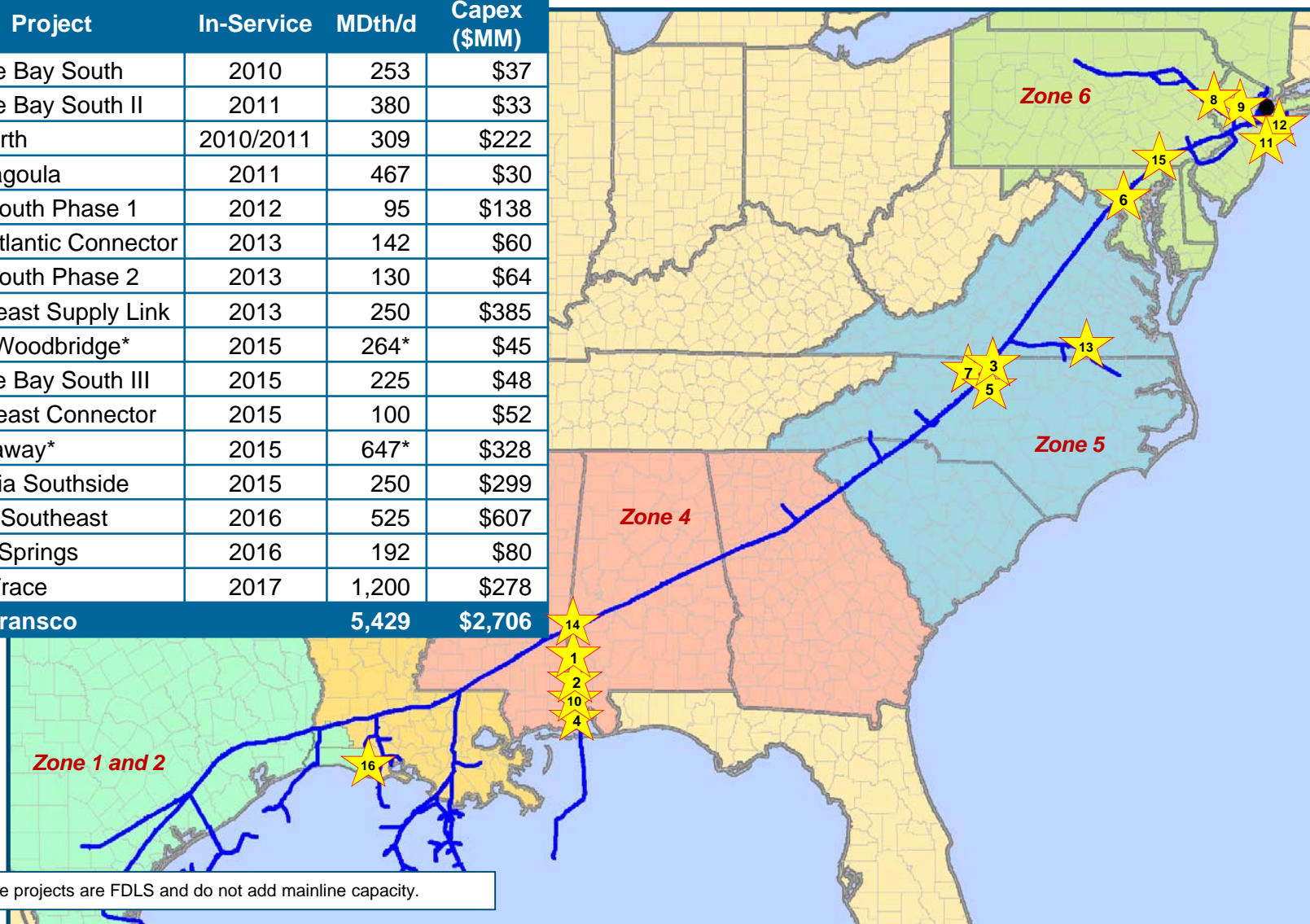


- Marcellus supplies on the Leidy Line increased as LSE capacity is now in-service.
- TETCO's Rockies/Marcellus supplies at Lower Chanceford continue to increase.
- Mobile Bay flow southward continues to increase.
- Steady volumes from Mid-Continent Shales provide supply reliability at Station 85.
-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

Over \$2.7 Billion In Transco Expansions (2010-2017)

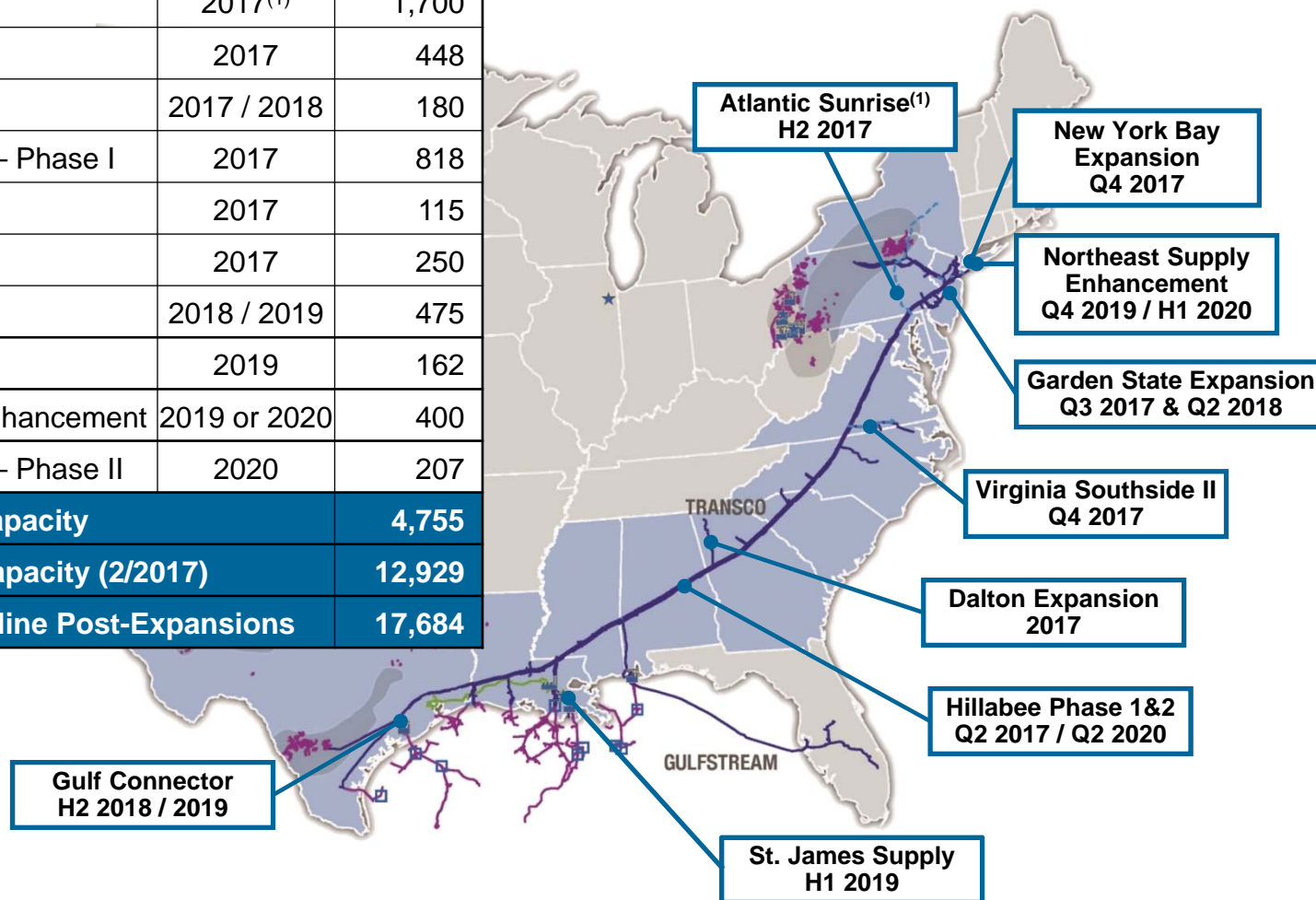
Strong track record of successfully building system expansions to meet customers' needs... when they need it.

#	Project	In-Service	MDth/d	Capex (\$MM)
1	Mobile Bay South	2010	253	\$37
2	Mobile Bay South II	2011	380	\$33
3	85 North	2010/2011	309	\$222
4	Pascagoula	2011	467	\$30
5	Mid-South Phase 1	2012	95	\$138
6	Mid-Atlantic Connector	2013	142	\$60
7	Mid-South Phase 2	2013	130	\$64
8	Northeast Supply Link	2013	250	\$385
9	CPV Woodbridge*	2015	264*	\$45
10	Mobile Bay South III	2015	225	\$48
11	Northeast Connector	2015	100	\$52
12	Rockaway*	2015	647*	\$328
13	Virginia Southside	2015	250	\$299
14	Leidy Southeast	2016	525	\$607
15	Rock Springs	2016	192	\$80
16	Gulf Trace	2017	1,200	\$278
Total Transco			5,429	\$2,706



Fully Contracted Expansions in Markets Served by Transco

Project	In-Service	Mdt/d
Atlantic Sunrise	2017 ⁽¹⁾	1,700
Dalton Expansion	2017	448
Garden State	2017 / 2018	180
Hillabee Expansion – Phase I	2017	818
New York Bay	2017	115
Virginia Southside II	2017	250
Gulf Connector	2018 / 2019	475
St. James Supply	2019	162
Northeast Supply Enhancement	2019 or 2020	400
Hillabee Expansion – Phase II	2020	207
Total Expansion Capacity		4,755
Current Transco Capacity (2/2017)		12,929
Total Transco Mainline Post-Expansions		17,684

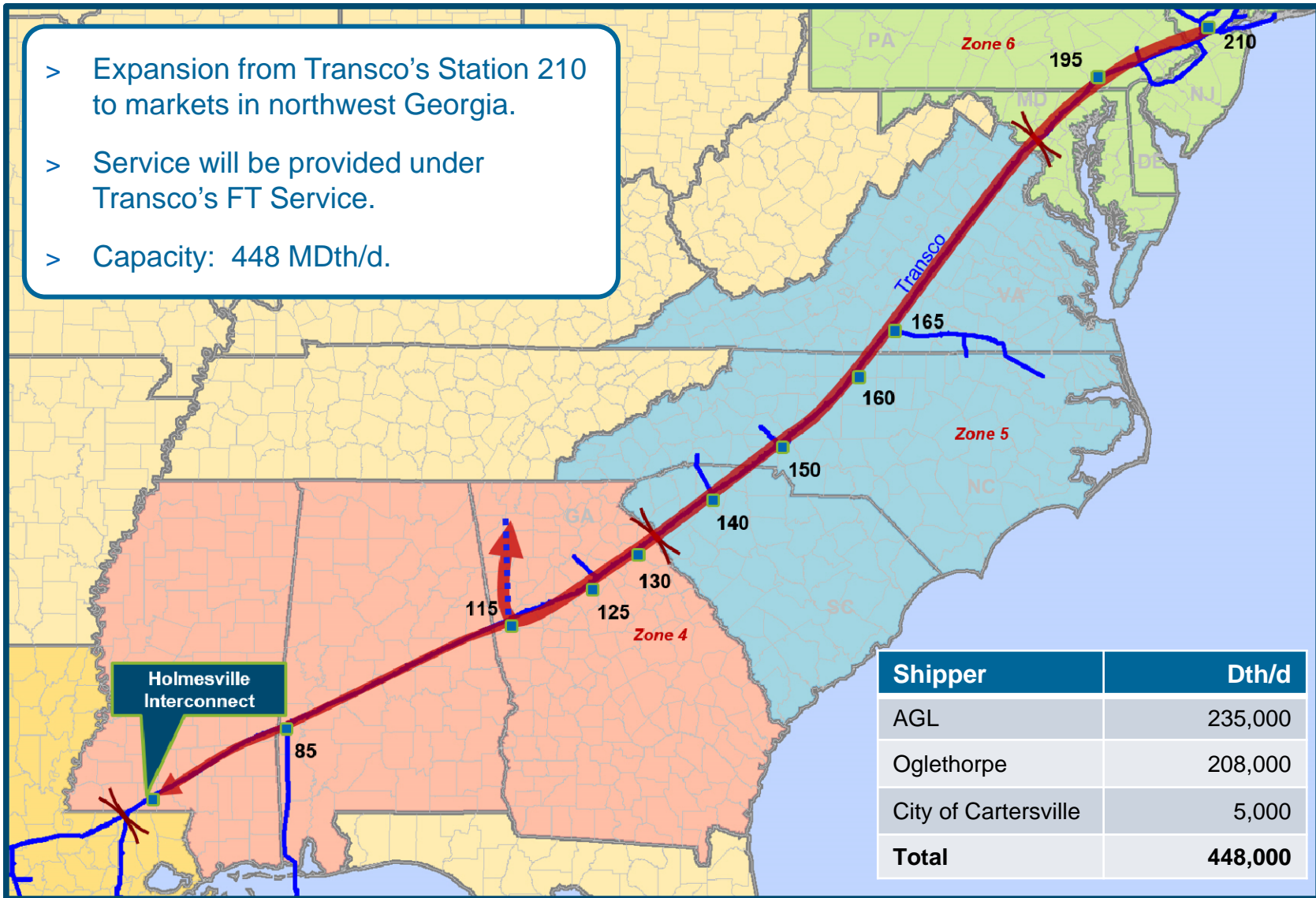


⁽¹⁾We expect to place a portion of the mainline project facilities into service during the second half of 2017 and are targeting a full in-service during mid-2018, assuming timely receipt of all necessary regulatory approvals.

Dalton

Status:

- Full project went in service on August 1, 2017

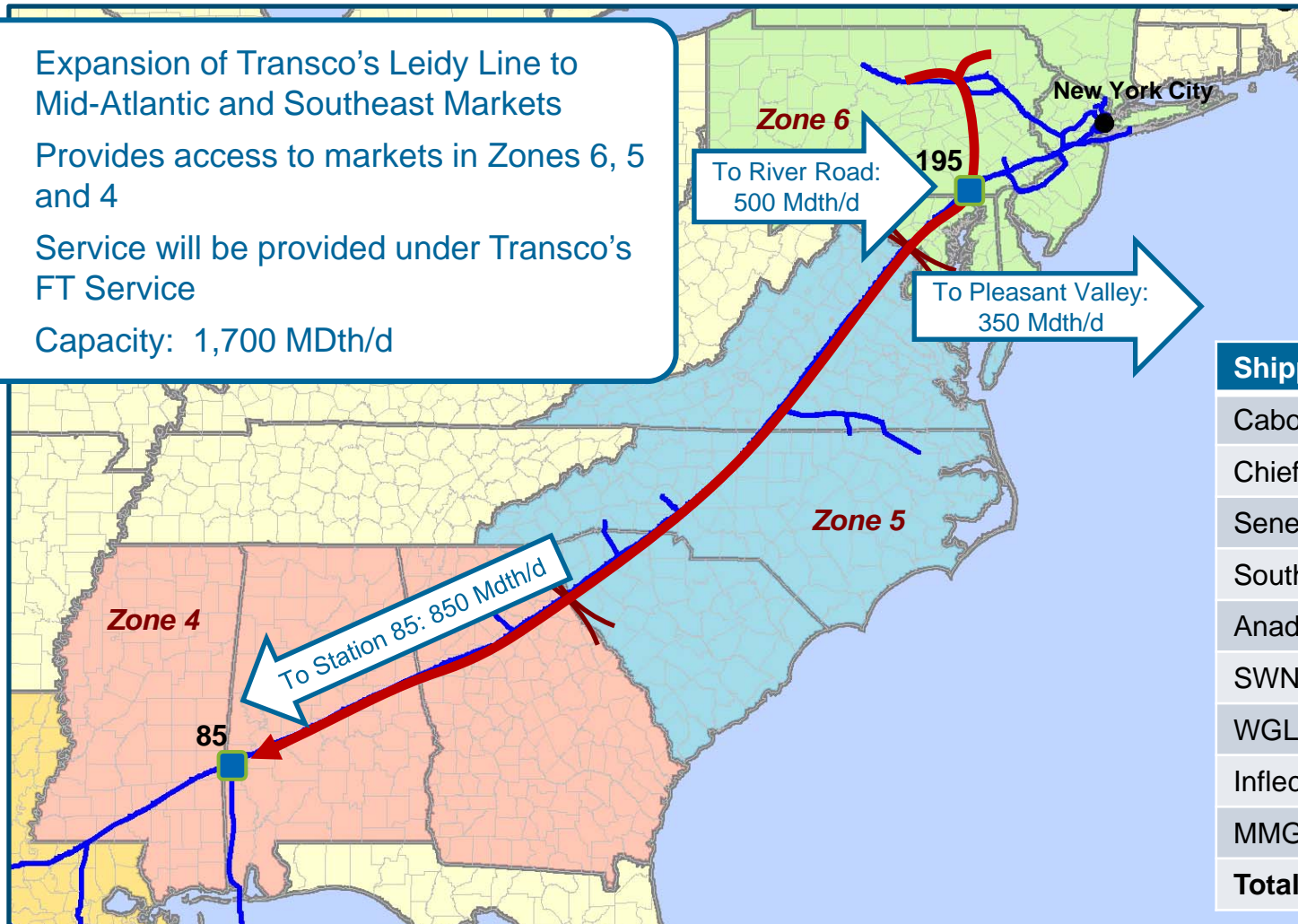


Atlantic Sunrise

Status:

- FERC Order received on February 3, 2017.
- Recently placed into service 400 MDth/d of mainline south capacity.
- Full Project Target In-Service Date: H2 2018.

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



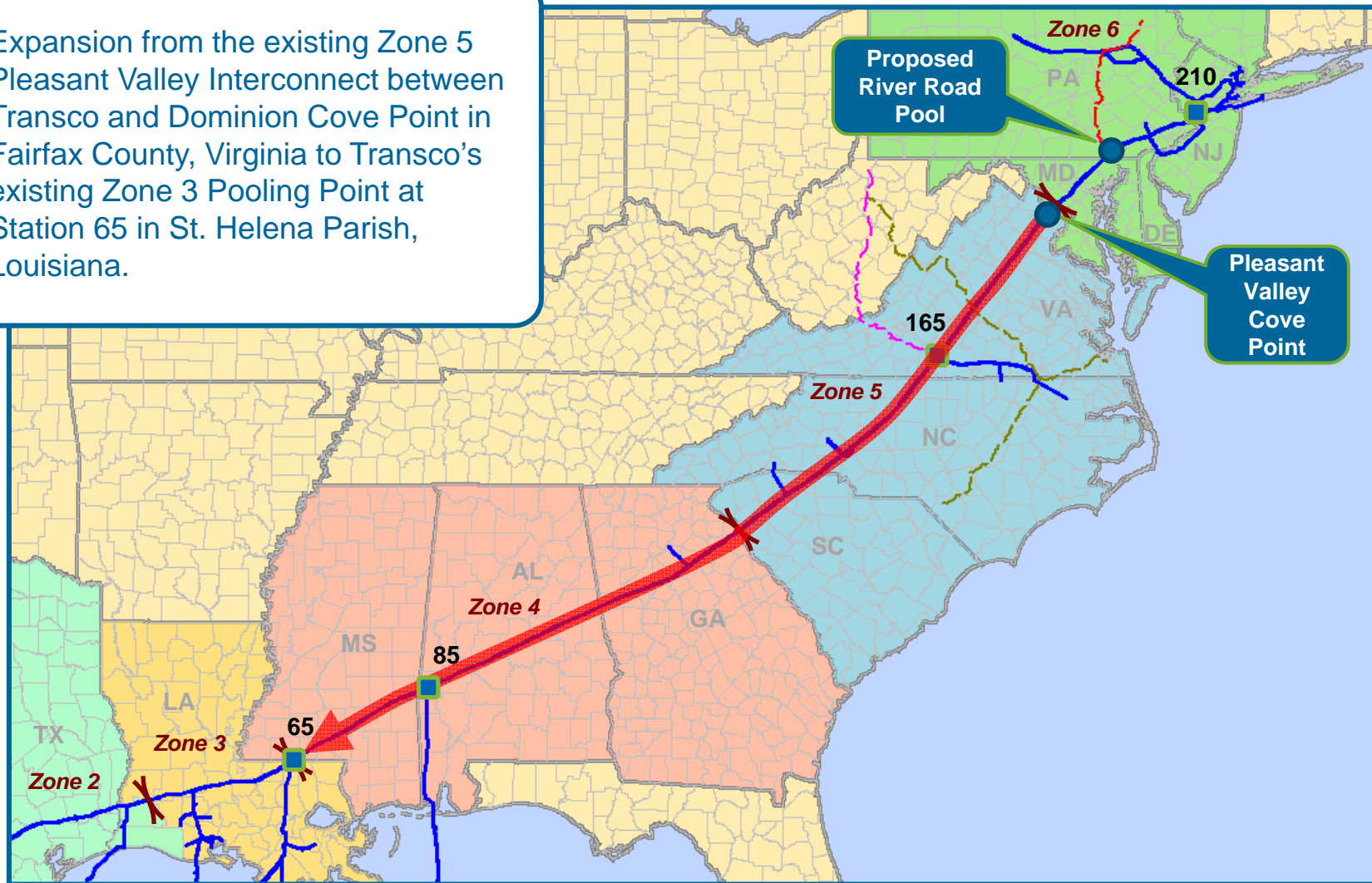
Shipper	Dth/d
Cabot	850,000
Chief	420,000
Seneca	189,405
Southern Co.	60,000
Anadarko	44,048
SWN	44,048
WGL Mid.	44,048
Inflection	26,429
MMGS	22,024
Total	1,700,002

Proposed: Southeastern Trail

Status:

- Open Season Complete
- Negotiating PAs
- Projected In-Service: November 1, 2020

> 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.



Questions?

South Carolina Electric and Gas Company – LNG Plants

Mike Greene, P.E.

General Manager – Engineering Services

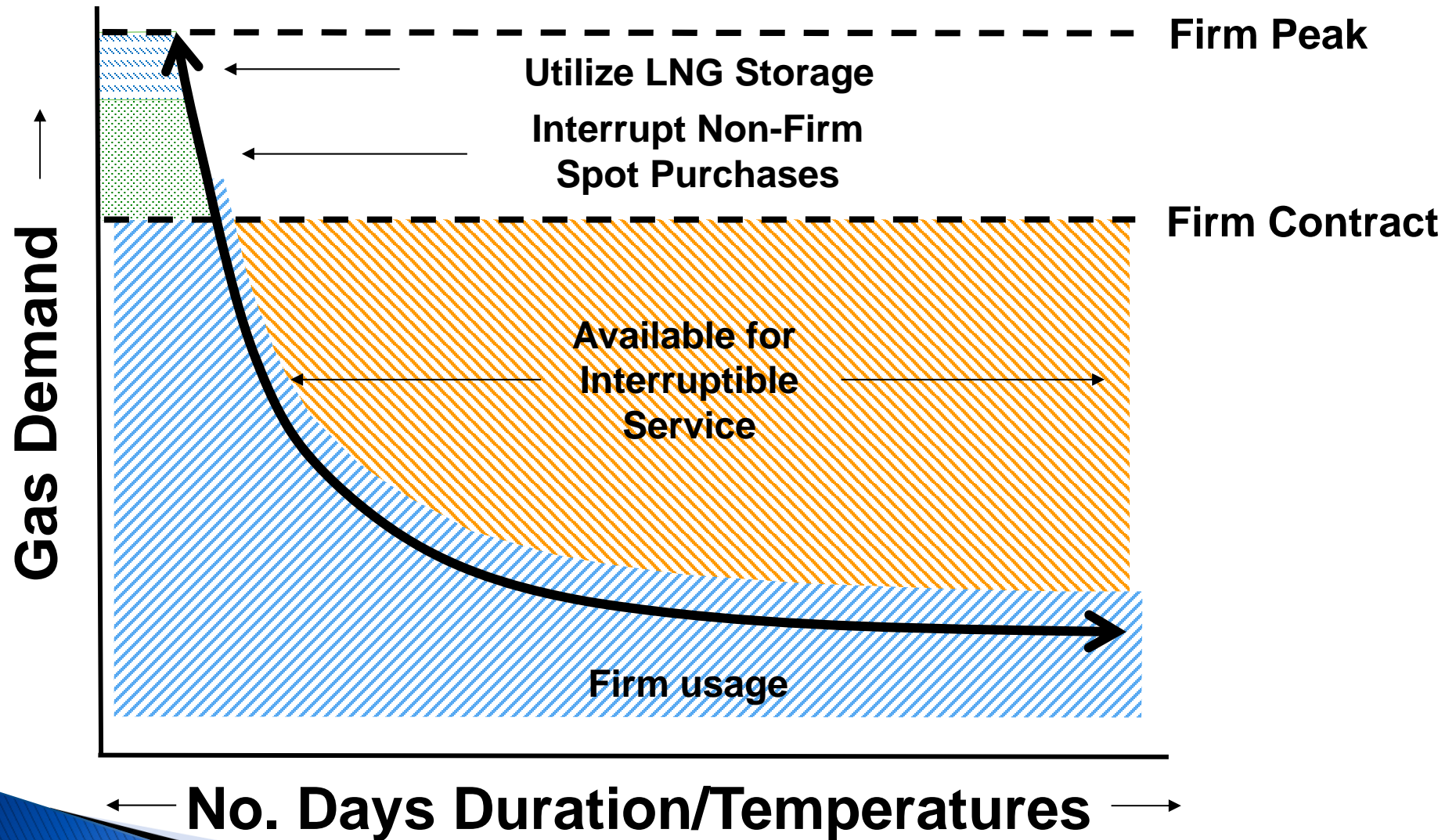




Agenda

- ▶ How and why we use LNG Storage
- ▶ LNG Basics
- ▶ LNG Plant Basics
- ▶ Protecting the Plant and People

How and why does SCE&G utilize LNG?

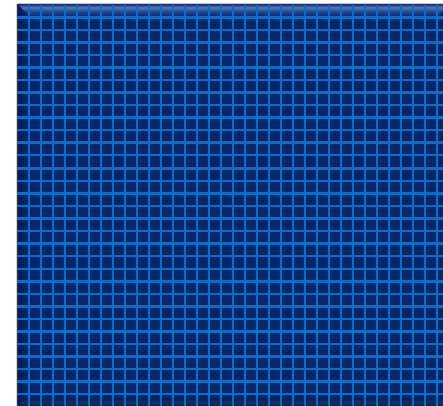


What is LNG?



What is LNG?

- ▶ 90-95% methane
- ▶ Cryogenic
- ▶ Colorless, odorless, and non-toxic
- ▶ Expands at a ratio of 600:1 when vaporized
- ▶ Vaporizes rapidly
- ▶ LNG does not burn or explode

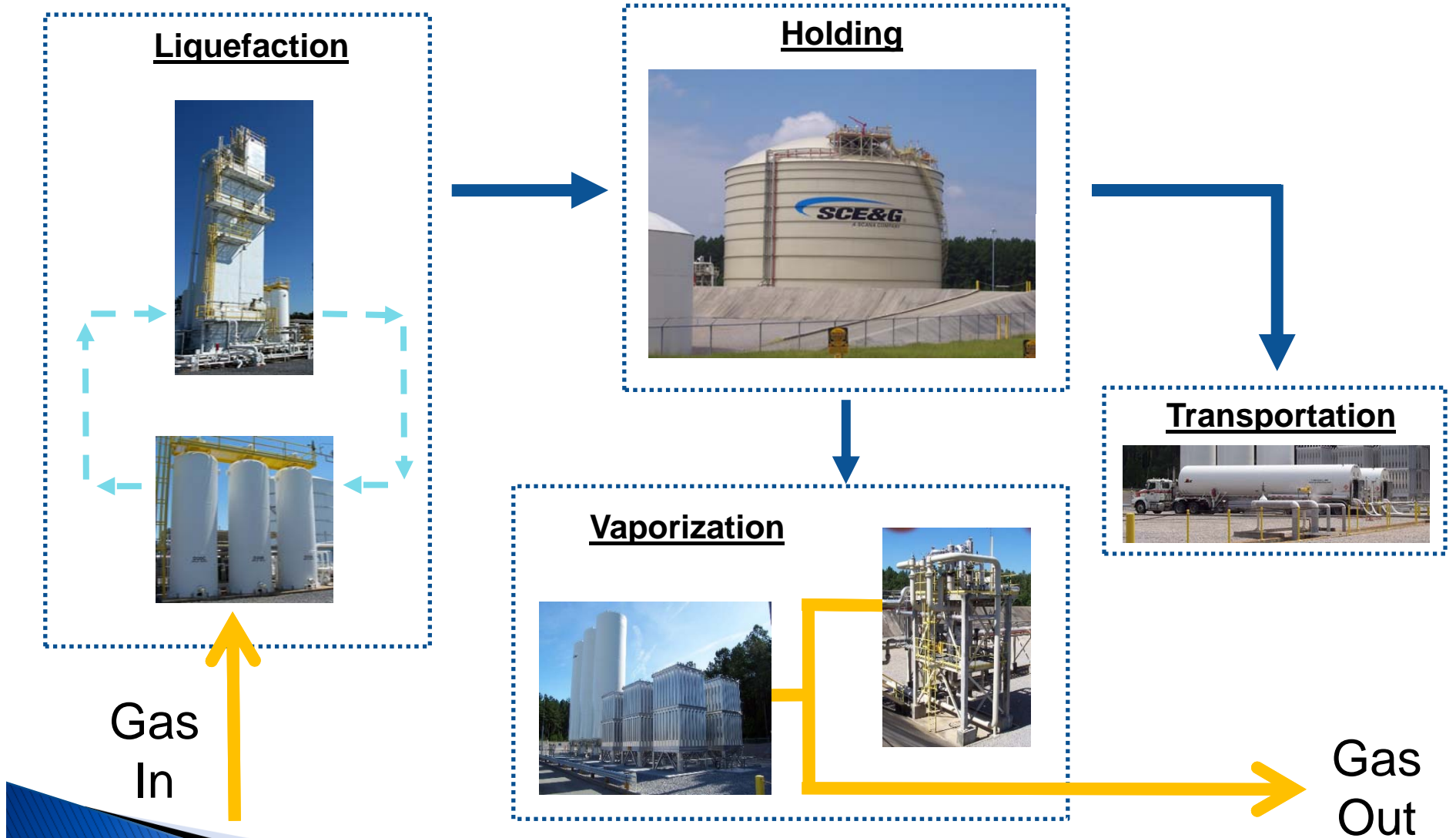


SCE&G's Two LNG Facilities

	BUSHY PARK	SALLEY
Constructed	1975	1993
Storage Capacity	980,000 mcf	900,000 mcf
Vaporization Rate	60,000 mcf/d	45,000 mcf/d
Days To Empty	16	20
Liquefaction Rate	6,000 mcf/d	N/A
Months to Refill	6	7

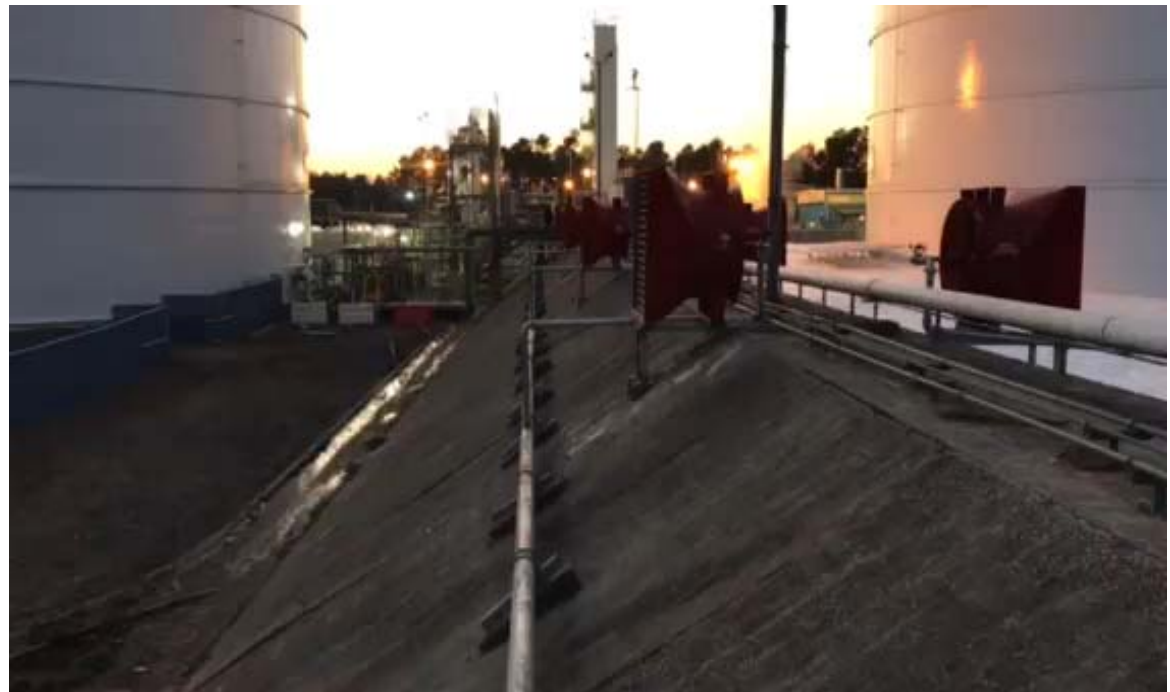


How Do The Plants Work?



Safety and Security Systems

- ▶ Gas and flame detection networks
- ▶ Redundant water supply
- ▶ Spill containment
- ▶ Foam systems
- ▶ Deluge systems
- ▶ Fail safe shutdown
- ▶ Restricted access
- ▶ Fence vibration
- ▶ Motion detectors
- ▶ Video monitors
- ▶ Property controls



Safety and Security Systems



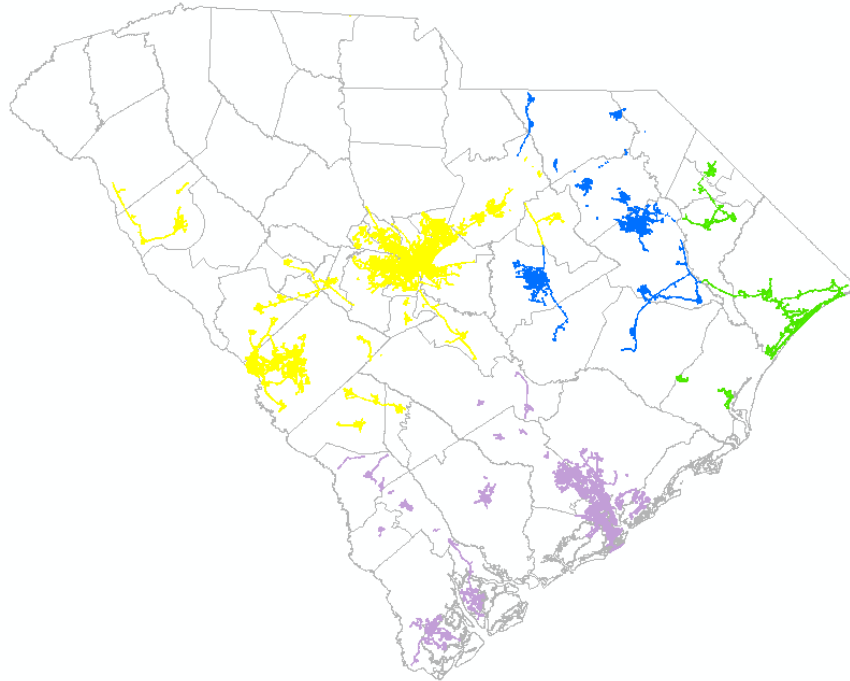
Challenges of An LNG Plant

- ▶ Safety
- ▶ Thermal cycles
- ▶ Managing capacity
- ▶ Changing gas compositions

Questions?

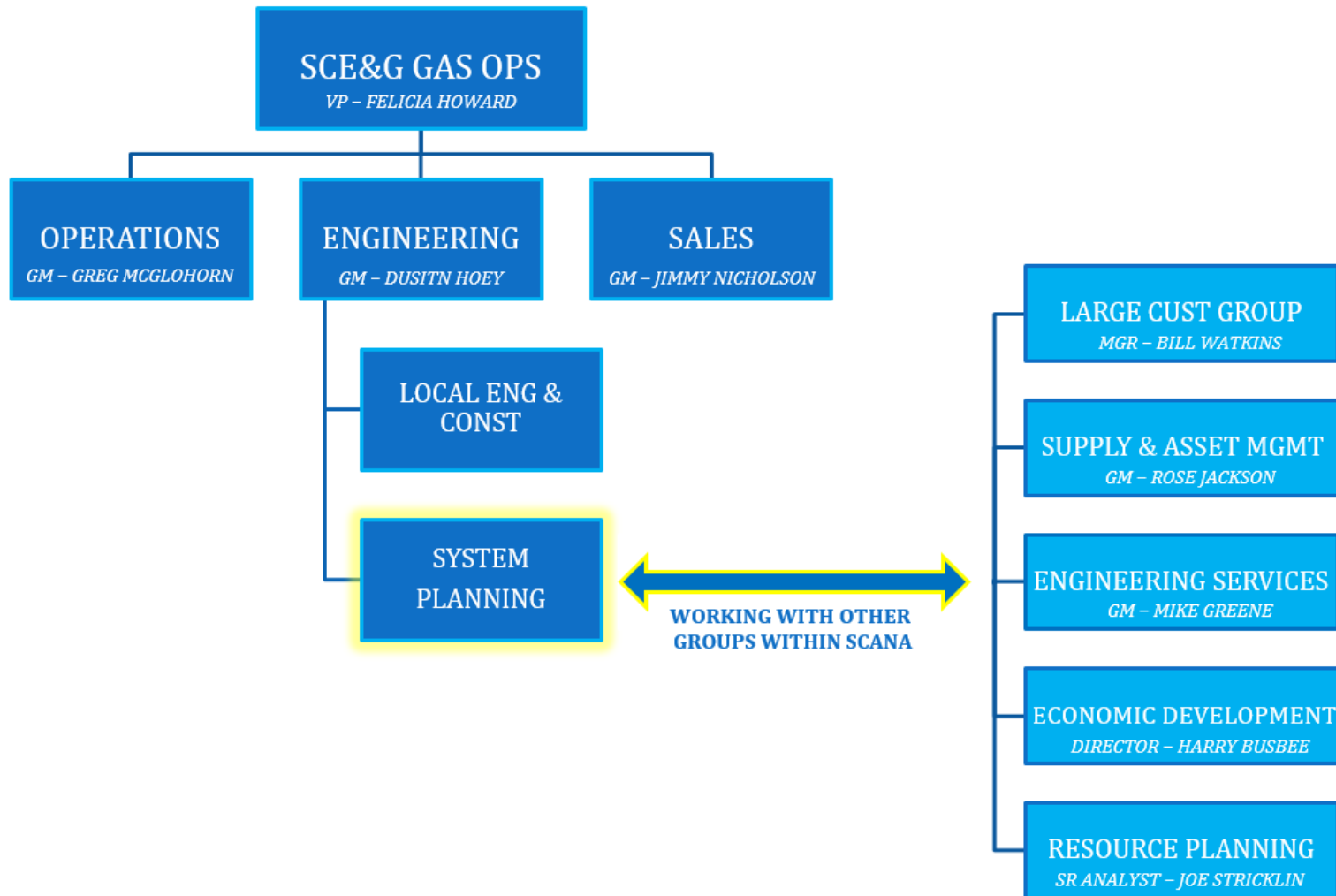


System Modeling for Expansions & New Business



Ashley Forte, P.E.
Operations Manager, Columbia Gas

Organization Overview

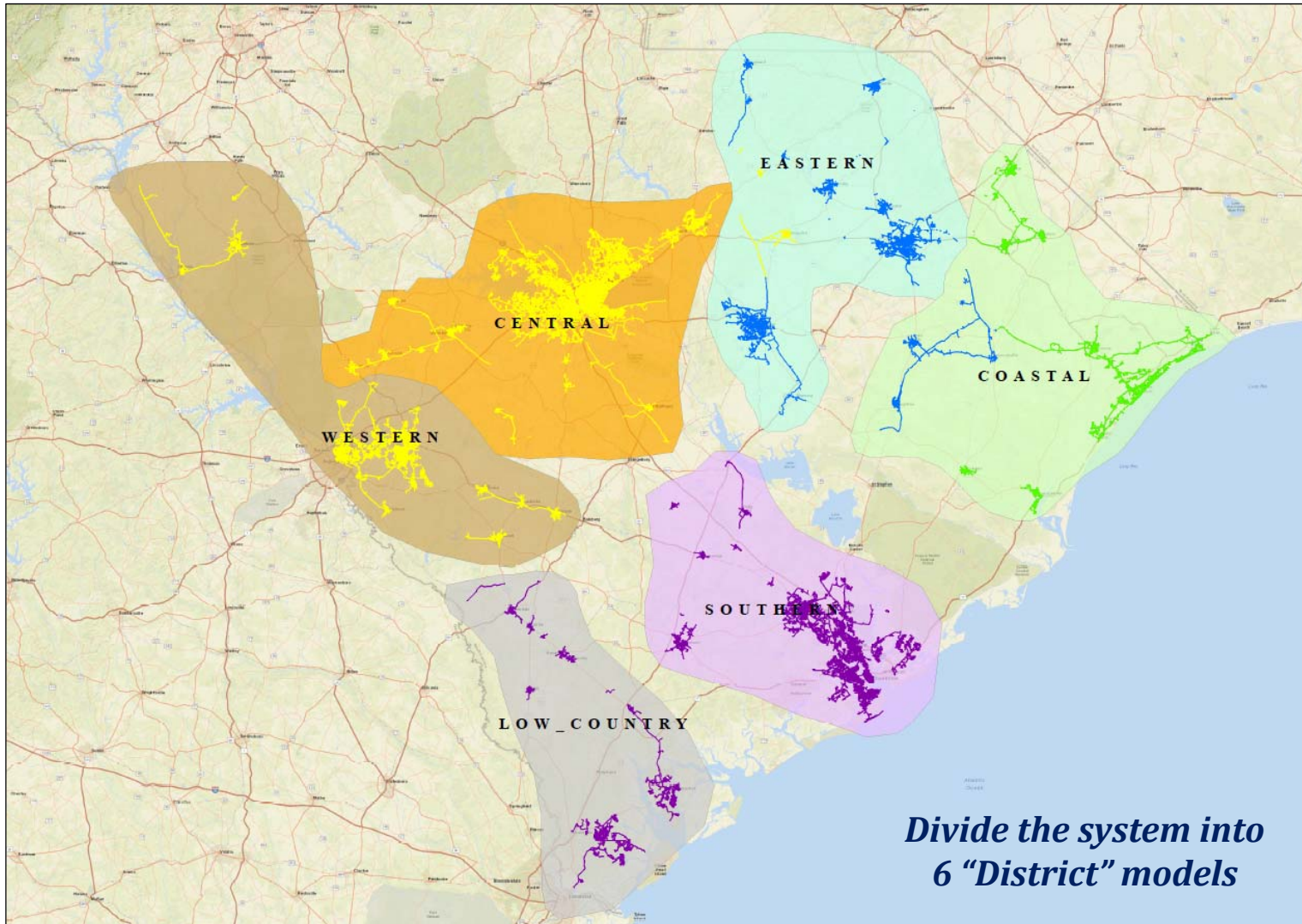


Role of System Planning

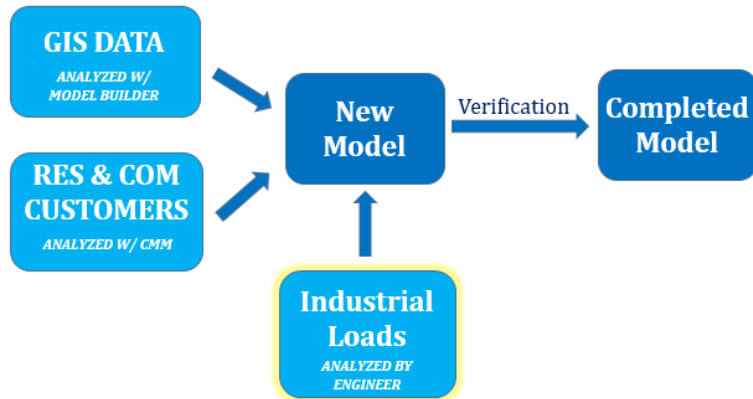
- Hydraulic modeling of SCE&G's statewide gas system (*Synergi*)
 - Build & maintain the models
 - Modeling for low pressure areas (*Peak & Shoulder days*)
 - Infrastructure Planning & Growth Modeling
 - Meter & Station Capacity Reviews
 - **Large Customer Requests**
 - **Expansions, New Business, & Service Changes (*Int → Firm*)**
 - Economic Development
 - CNG & NGV projects
 - Local Ops, Engineering, & Sales requests
- Analyze upstream capacity, projected system reserve margins, & system capacity allocations
- Review SCADA pressures & flow alarms for Gas Control



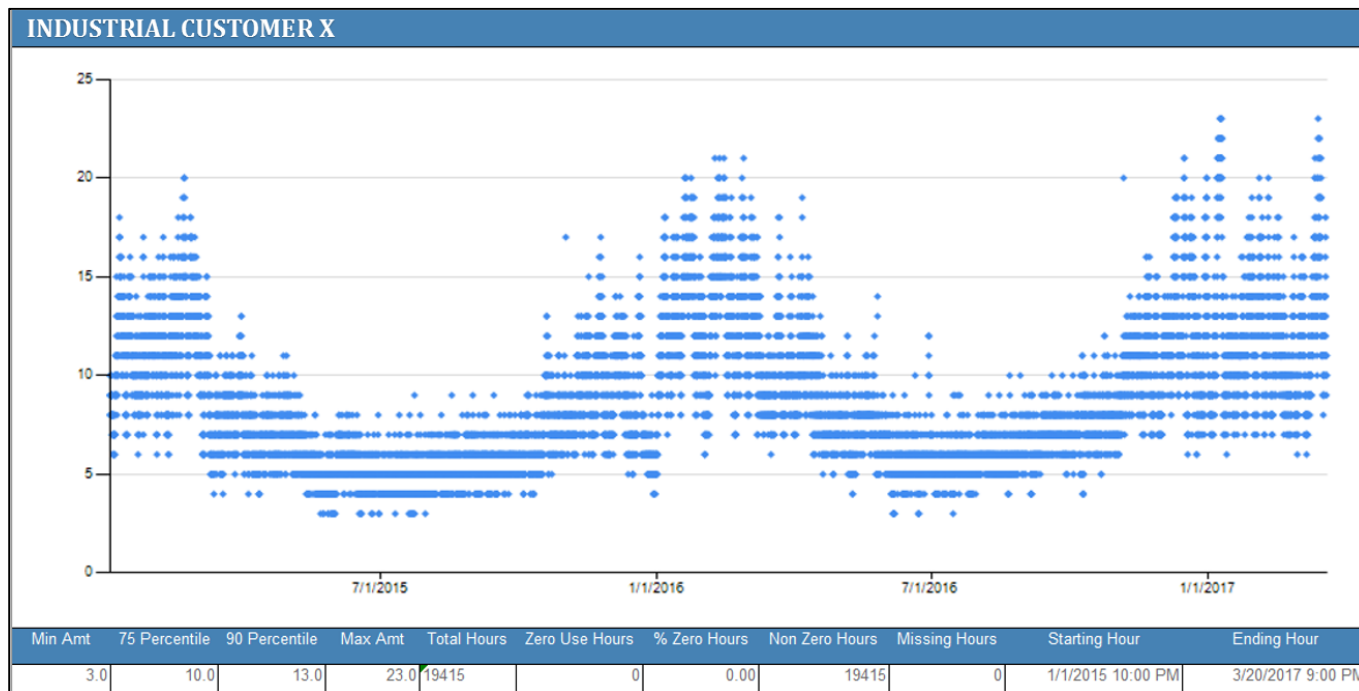
SCE&G Synergi Models



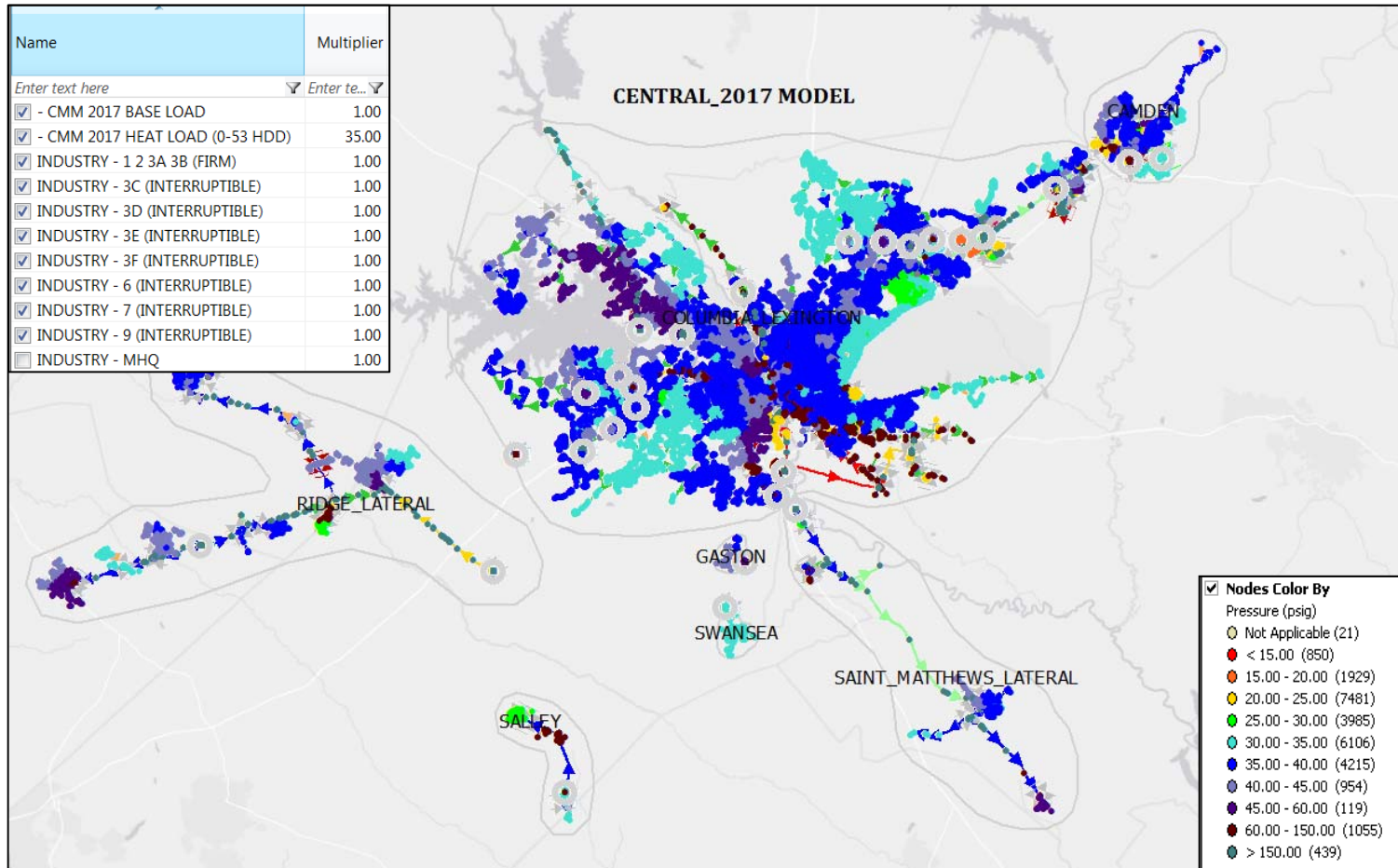
Rebuild Models Annually



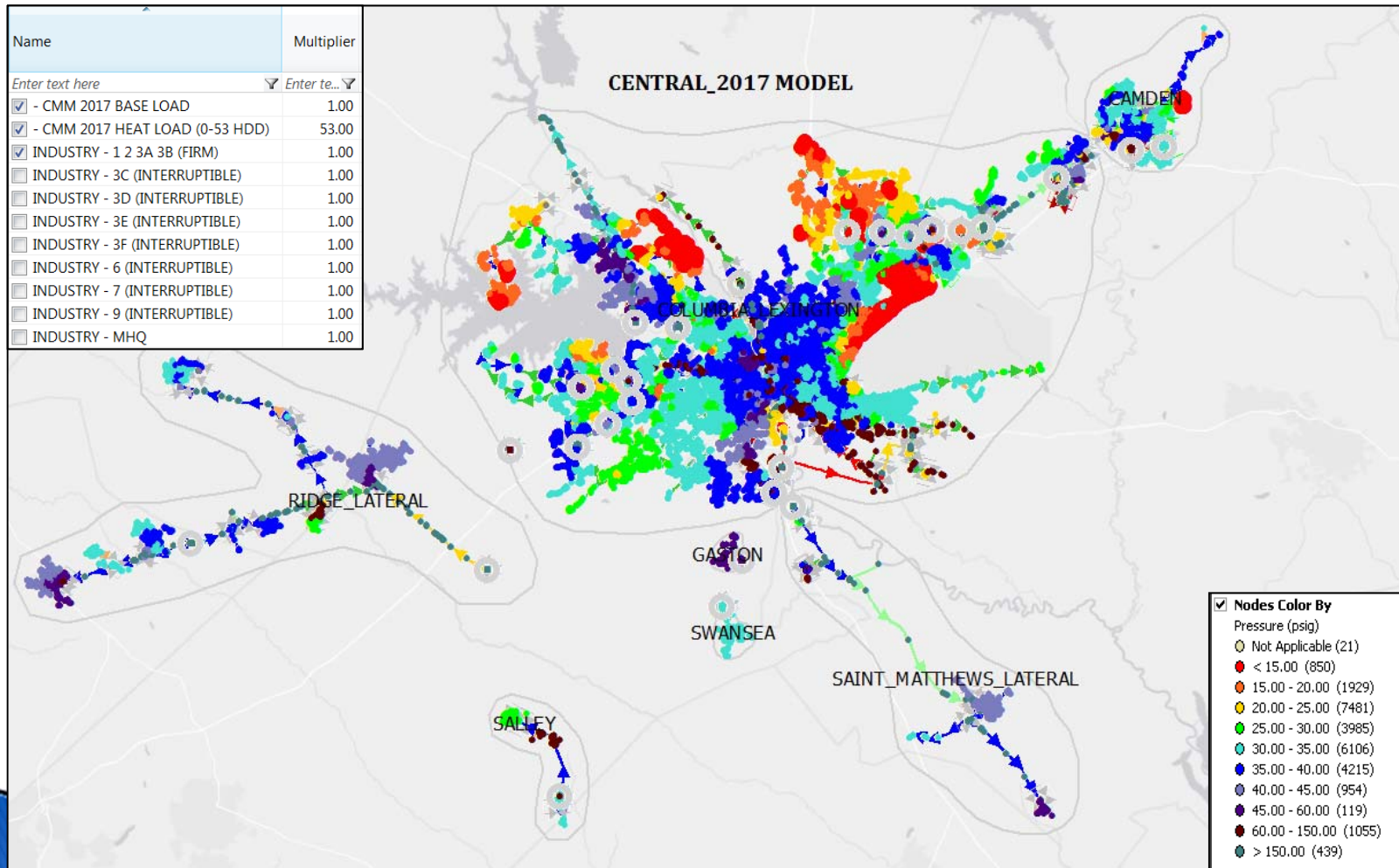
- Analyze 2+ years of hourly usage to determine “90th Percentile Load”
- 90th % vs. MHQ
- 545 customer stations analyzed for 2017 rebuild



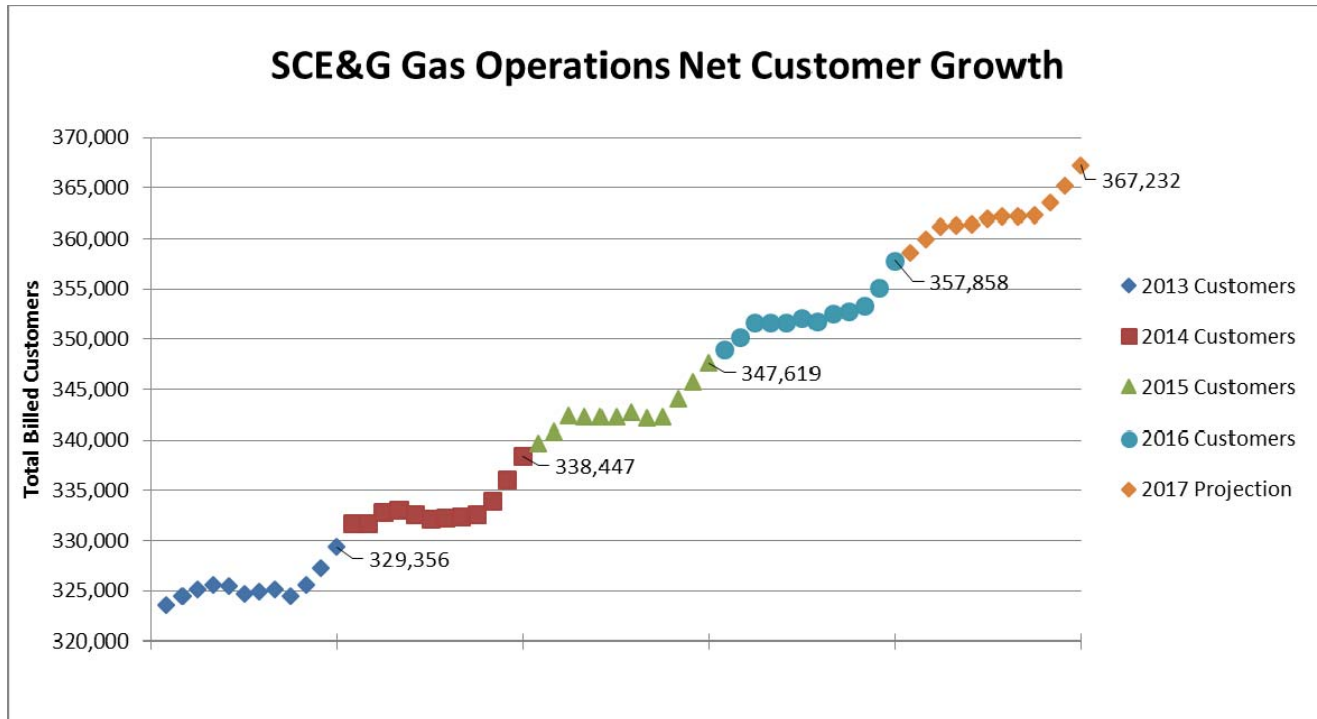
SHOULDER DAY- 35 HDD (avg. 30 °F)



PEAK DAY- 53 HDD (avg. 12 °F)



CUSTOMER GROWTH



YEAR	NET GROWTH	% GROWTH
2014	9,091	2.76%
2015	9,172	2.71%
2016	10,239	2.95%
2017	9,374	2.62%

Steady customer growth placing increased demands on our system and firm load capacity.



Analyzing Industrial Requests

Typical Requests:

- Existing customers
 - Expansions
 - Switching Interruptible → Firm Service
- New Business
 - New customer
 - Existing customer, new location



Information Needed

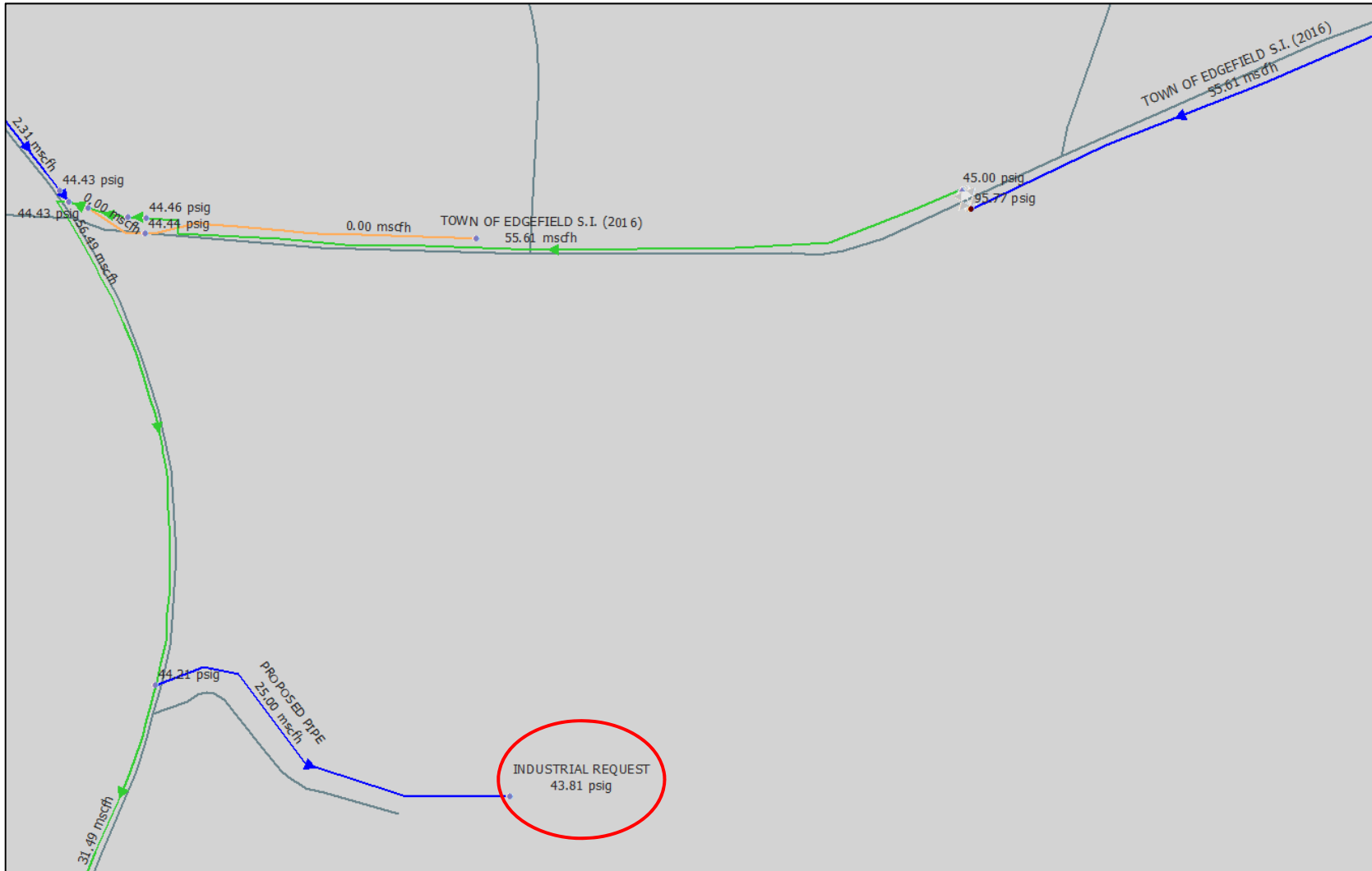
- Contract Loads
 - Annual – Large Customer Group, CIAC calculations
 - Daily (MDQ) – Needed to confirm available daily capacity
 - Hourly (MHQ) – Critical for System Planning
 - Determine if hydraulic system can handle hourly load
 - Provide cost estimate – size new pipe, customer stations & any required system improvements
 - Accuracy is important (MHQ → infrastructure & costs)
- Required Delivery Pressure
 - 5-20 psig standard
 - High pressure requests typically require additional infrastructure, important to know up front
- Firm or Interruptible service
- Location
- Need by date, if applicable
 - Permitting, Right-of-way acquisition, planning, construction, etc.

Analyzing Industrial Requests

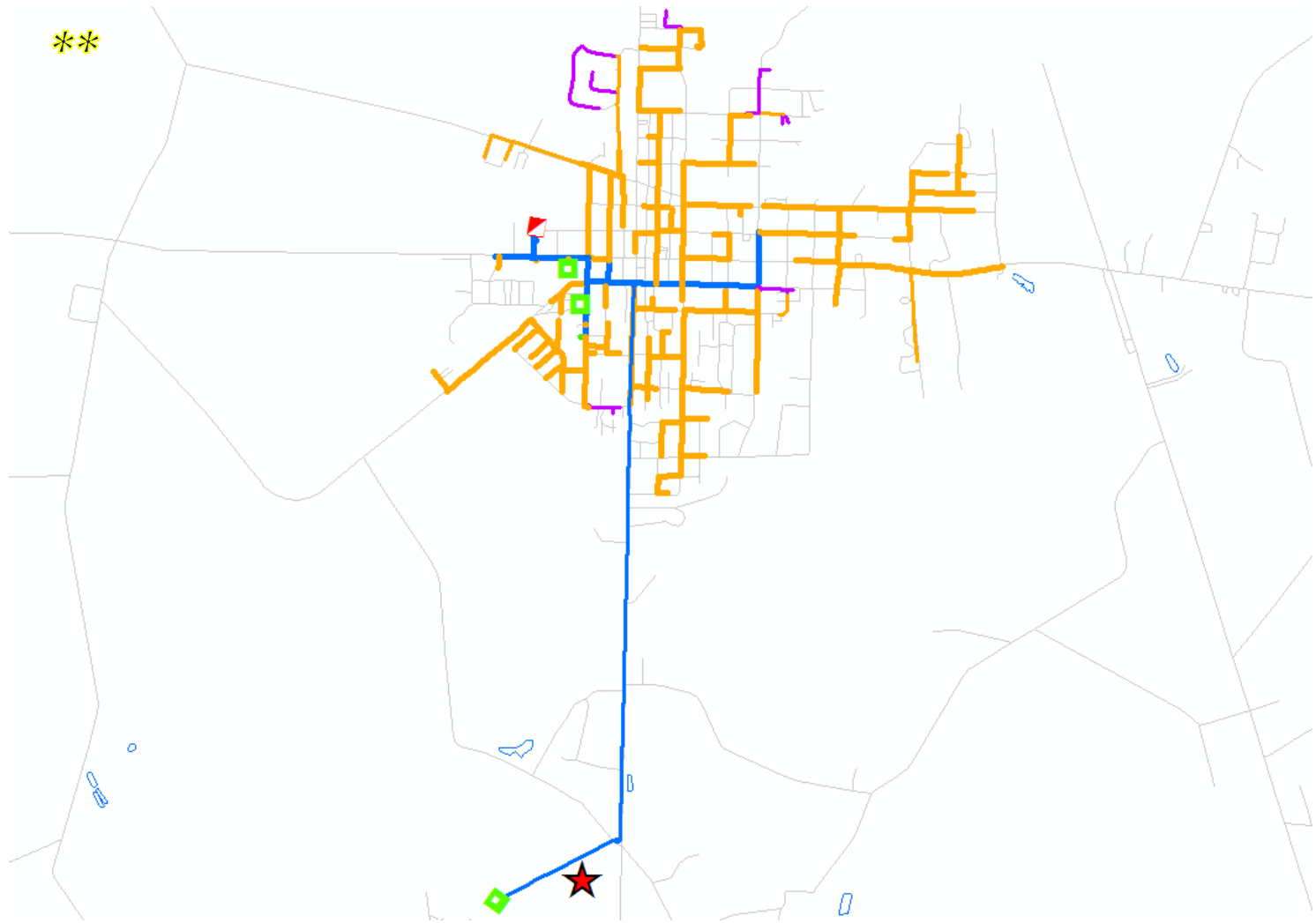
Each request reviewed individually with the information provided:

- Evaluate in the models
 - Interruptible = Shoulder Day
 - Firm = Peak Day
- Sizing new pipe, determine any necessary pressure increases or system improvements
- *Look at other contract MHQs in the area***
- Put together cost estimate & timeline to serve
- Estimate provided to Large Customer Group → Calculate:
 - Return on Investment
 - Rate of Return
 - If contribution is required (CIAC)

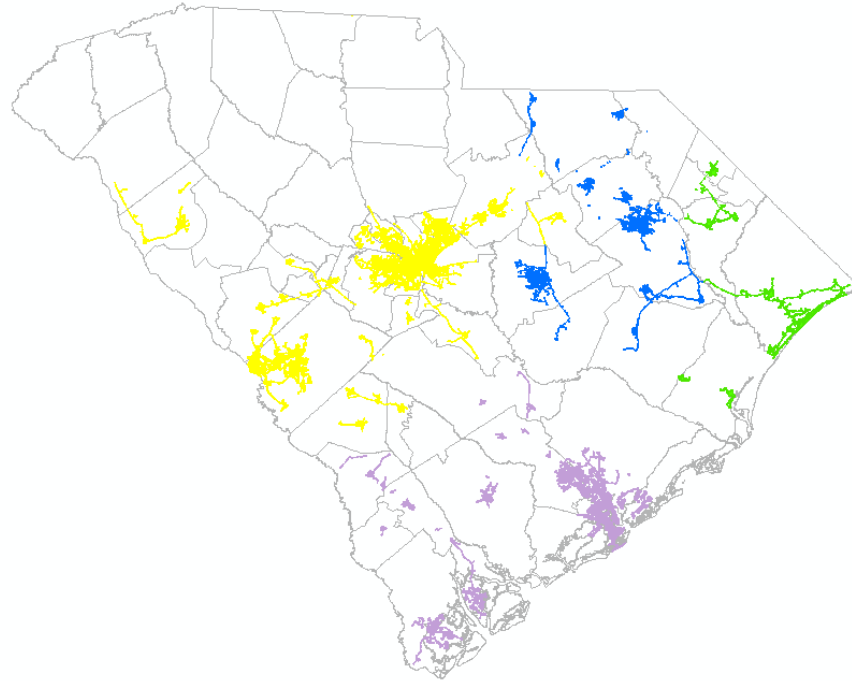
Example Request



Example Request



Questions?



Gas Control Operating Procedures & Curtailments

David Meetze, Supervisor – Gas Control



Questions?

Thank you for attending

Felicia Howard, Vice-President –
Gas Operations

