OGA Conference: The Winter of 2013-2014 & the Evolving Marketplace

James R. Eckert,
VP Commercial Operations

Columbia Pipeline Group℠

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The Winter of ’13-’14 / Evolving Marketplace

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Agenda

- Infrastructure Overview
- 2013-2014 Winter Operations
- Storage Refill Progress
- Evolving Marketplace
- Conclusions

CPG Infrastructure

An Overview

15,000 Mile Network of Interstate Natural Gas Pipelines

One of the Nation's Largest Market-Area Storage Systems

Unparalleled Strategic Footprint in the Marcellus and Utica Shale

Pipeline

- Columbia Gas ("TCO): 12,000 miles
- Columbia Gulf ("Gulf"): 3,400 miles
- Millennium: 182 miles
- Crossroads: 202 miles

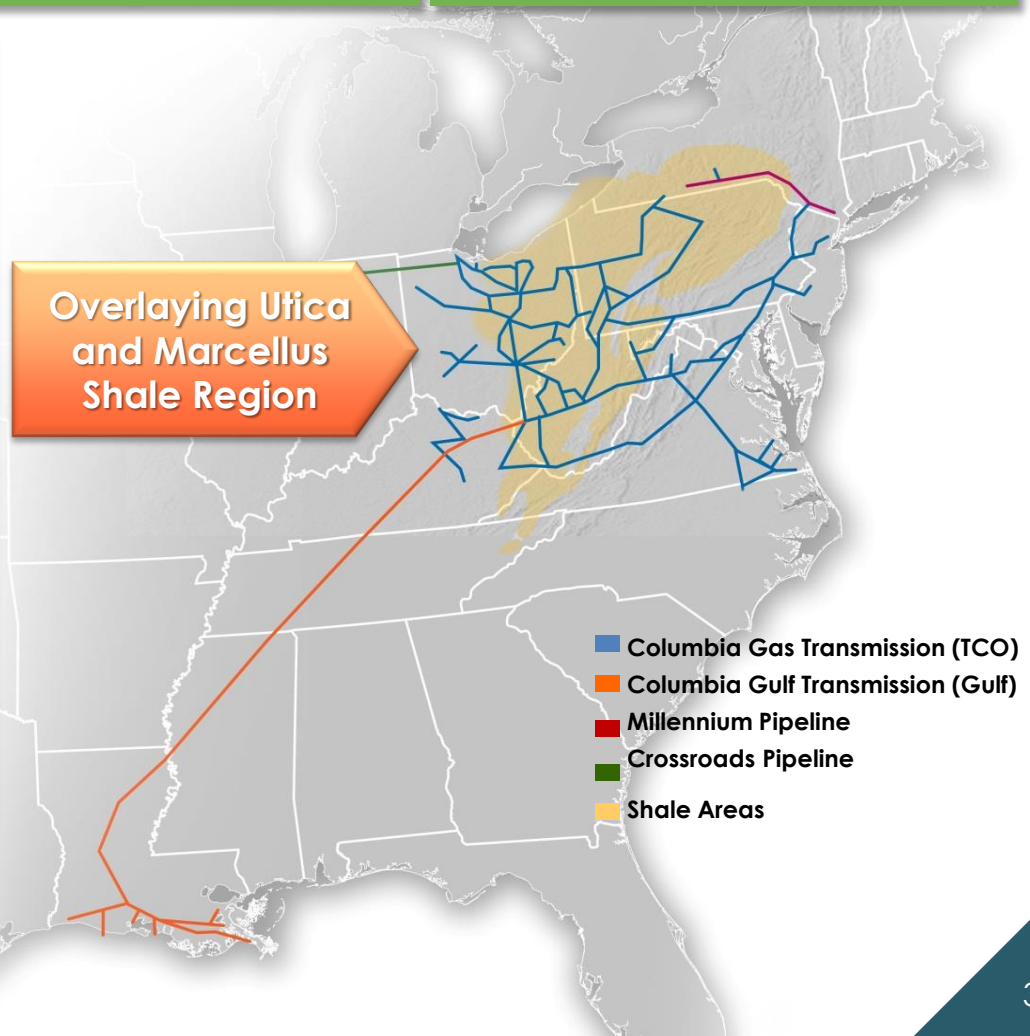
- Delivers approximately 1.3 Tcf per year
  - 5% of U.S. market
  - Serves customers in 16 states

Storage - +280 BCF

- Columbia Gas: 36 fields in four states
- Hardy Storage: 1 storage field

Compression - 1.1 Million HP

- 104 stations



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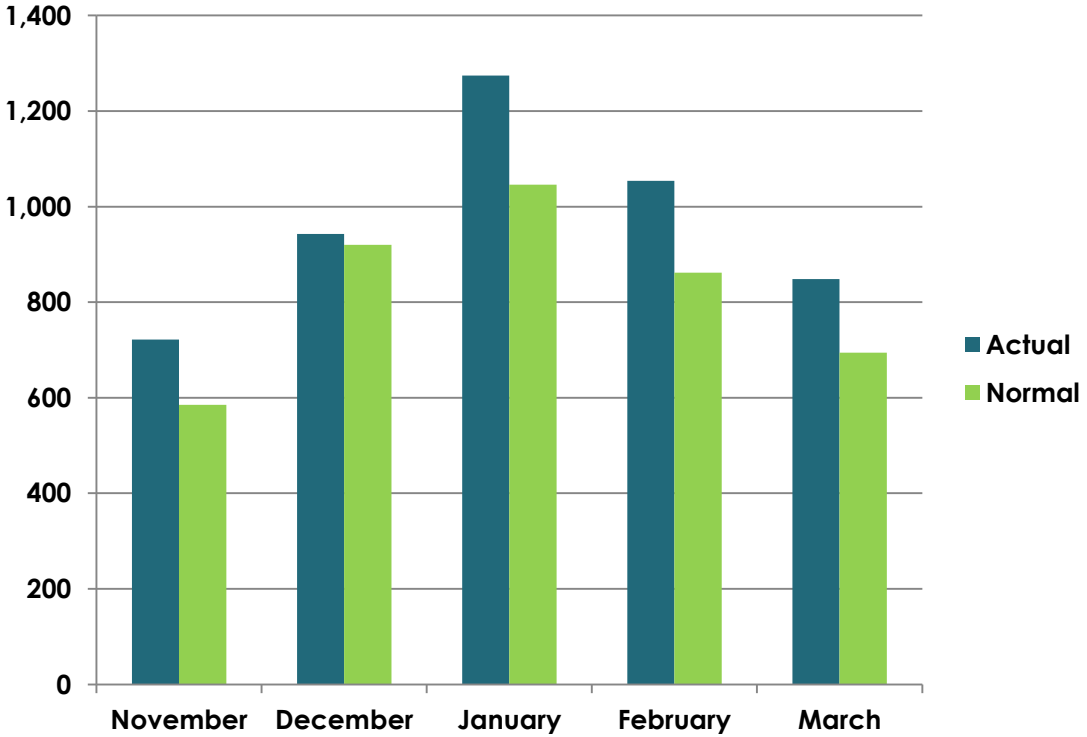
2013-2014 Winter Operations

Delivering During Demanding Times

Columbia Gas Transmission
Actual vs. Normal Degree Days

Winter
2013-2014



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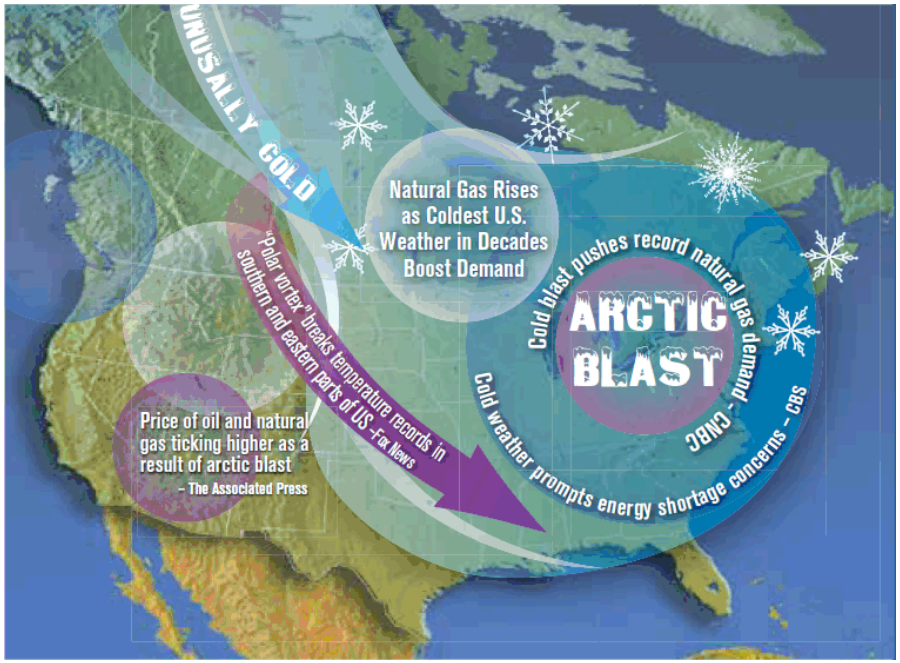
Coldest Winter Season Since 1977-78

2013-2014 Winter Operations

January Winter Storm Overview

Coldest Weather in 20 Years

- Jan. 6: system weighted temperature of 3°
- Jan. 7: system weighted temperature of 7°
- Northern Ohio had 36 consecutive hours of temperature below zero
- Coldest hourly temperature experienced: -15° in Toledo



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Coldest Winter Season Since 1977-78

2013-2014 Winter Operations

Market and System Extremes

Market Impact

- Intra-day gas traded over $100 per dth; power prices traded over $1,750 per MWh
- Peak storage withdrawal of 4.4 MMDth on Jan. 7
- Peak throughput of 7.8 MMDth on Jan 28
- 5 Days in January among top 10 all-time highest peak days in over 30 years

Throughput & Storage Withdrawals

Date	Market (MMDth)	Storage W/D (MMDth)
January 6	7.4	4.1
January 7	7.7	4.4
January 27	7.1	3.0
January 28	7.8	3.3
January 29	7.2	3.3

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2013-2014 Winter Operations

People and System Performance

- Exemplary Safety Performance – zero safety incidents
- All Systems and Employees Prepared
  - CPG Ops field personnel manned more than 50 critical facilities; responded to approximately 425 calls that required immediate attention
  - Constant contact with customers prior to, and during, extreme cold weather event
- 2013 Modernization Projects Contributed to Reliability
  - New compression 100% reliable
  - New control panels provided real-time monitoring of compression fleet
  - WB pipeline cleaning enhanced reliability

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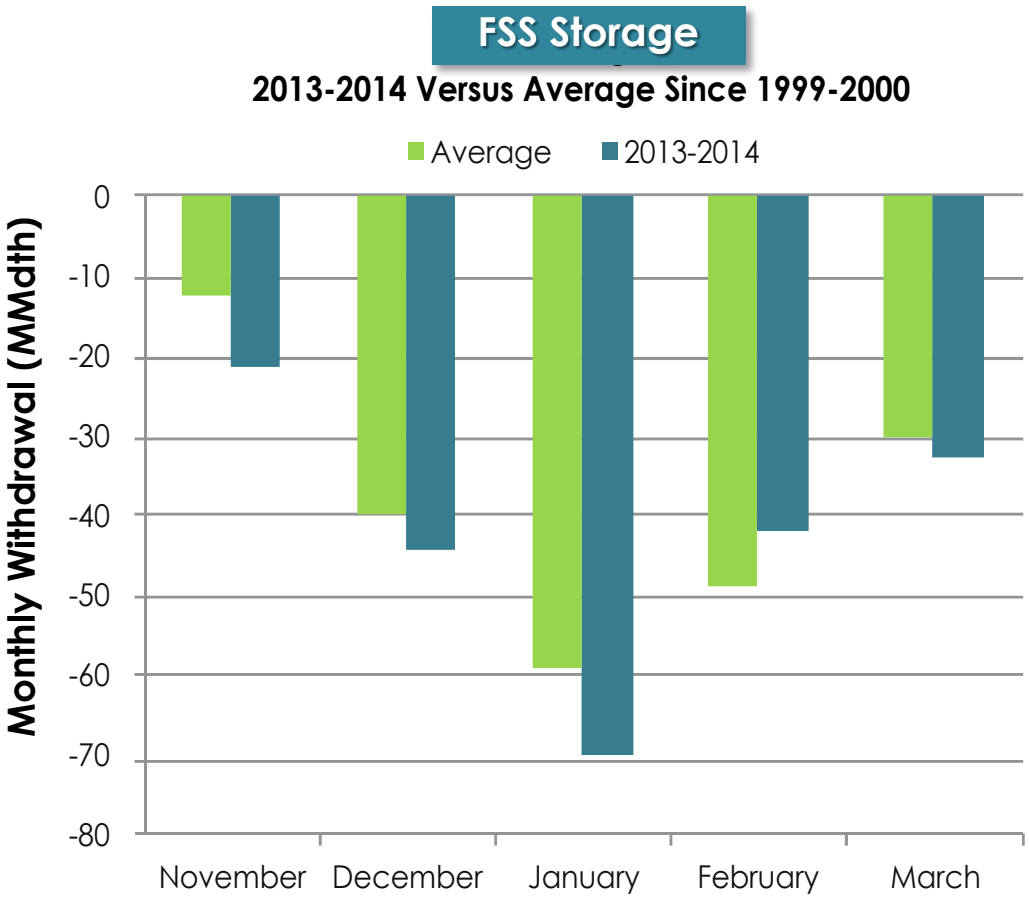
TCO Firm Storage Activity



November

- Coldest in TCO operating region since 1996
- Largest Nov. withdrawal from storage since 2000

December

- Temperatures were average
- Greater than average storage drawdown

January

- Coldest since 2000-01
- Top 5 storage drawdown

February

- Second coldest Feb. since 1979-1980
- Modest storage drawdown (result of supply increase)

March

- Coldest since 1995-96
- 8th largest March storage drawdown since 1993-94

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Lessons Learned

Winter 2013 - 2014

- Communication is Critical
- Modernization Program Paid Dividends
  - Facilities placed in-service in 2013 contributed to reliability during Winter 2013-2014
- Limit Winter OFO's
  - Looking into ability to target offending parties first to minimize impact to entire system
- Ensure Penalties Discourage Behavior
  - Tiered Penalty Structure incorporating nominal penalties for Unauthorized Overrun and more substantial penalties during OFO

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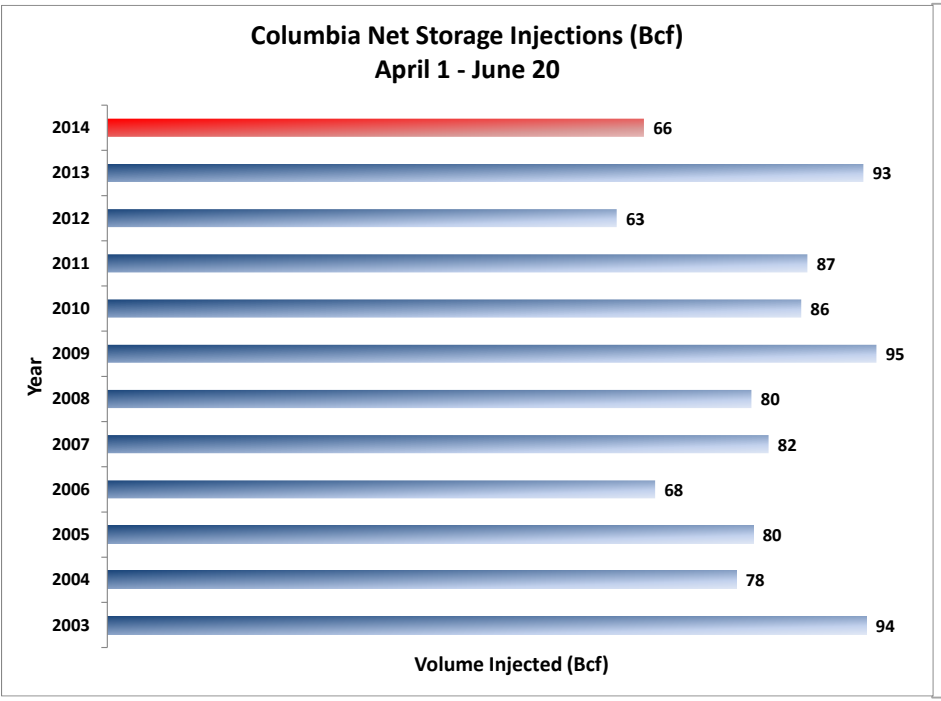
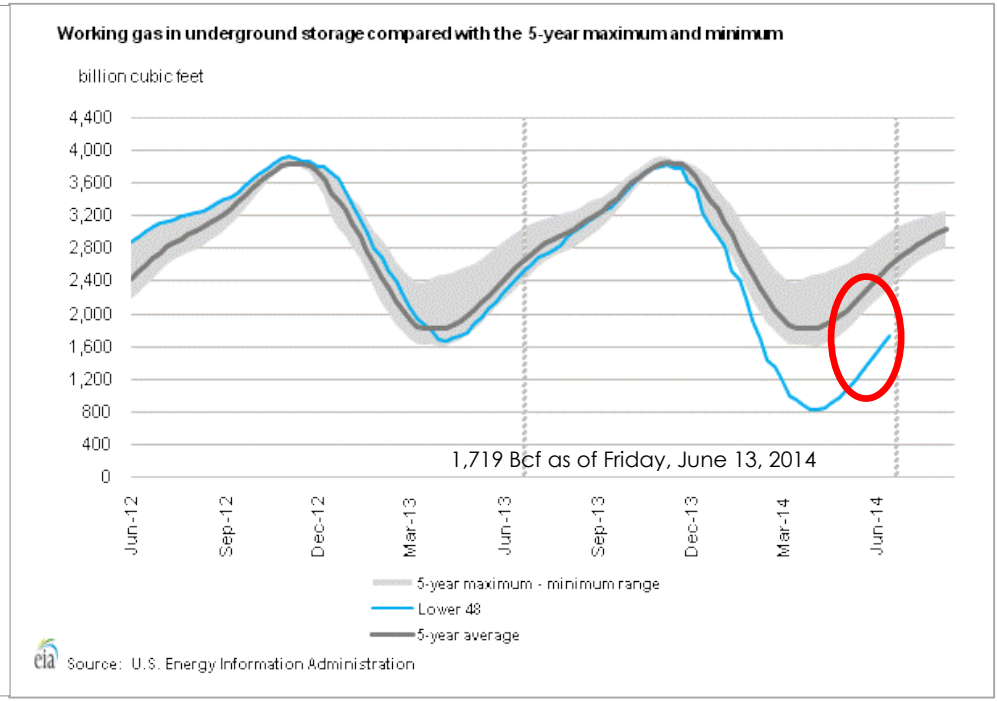
Storage Refill Progress

Date	Storage Inventory (MMcf)
6/20/2014	97,278
6/21/2013	142,951
6/22/2012	165,530





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Storage Continues Short, but Gap is Slowly Closing

Storage Inventory

2014 VS 2013 by Operating Area

Operating Area	2014 Percent Full	YOY Difference (2014 – 2013)	2014 Percent Injected Since April 19, 2014
2 (NY)	61%	-8%	26%
3 (WV)	23%	-38%	20%
4 (S Central PA)	53%	-14%	41%
5 (N OH)	35%	+3%	26%
7 (OH)	36%	-16%	24%
8 (SW PA / NW WV)	62%	-1%	34%
10 (E WV)	30%	-20%	13%
Total Storage	36%	-18%	23%

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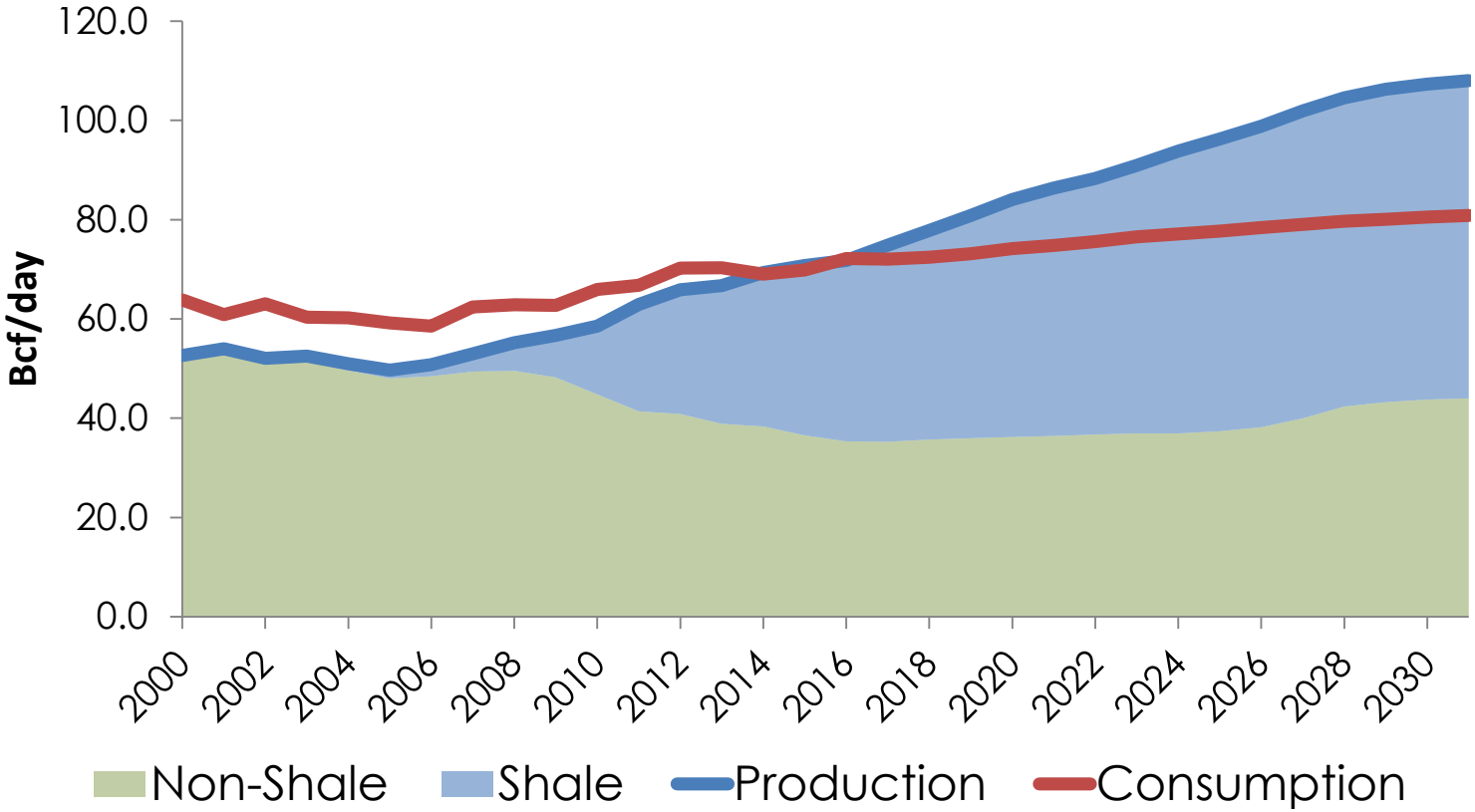
Areas 4 and 8 Filling too Rapidly

EVOLVING MARKETPLACE

Abundant Natural Gas Supply in the US



Source: Natural gas consumption by sector in the Reference case, 1990-2040: History: U.S. Energy Information Administration, *Monthly Energy Review*, September 2013, DOE/EIA-0035(2013/09). Projections: AEO2014 National Energy Modeling System, run REF2014.D102413A.

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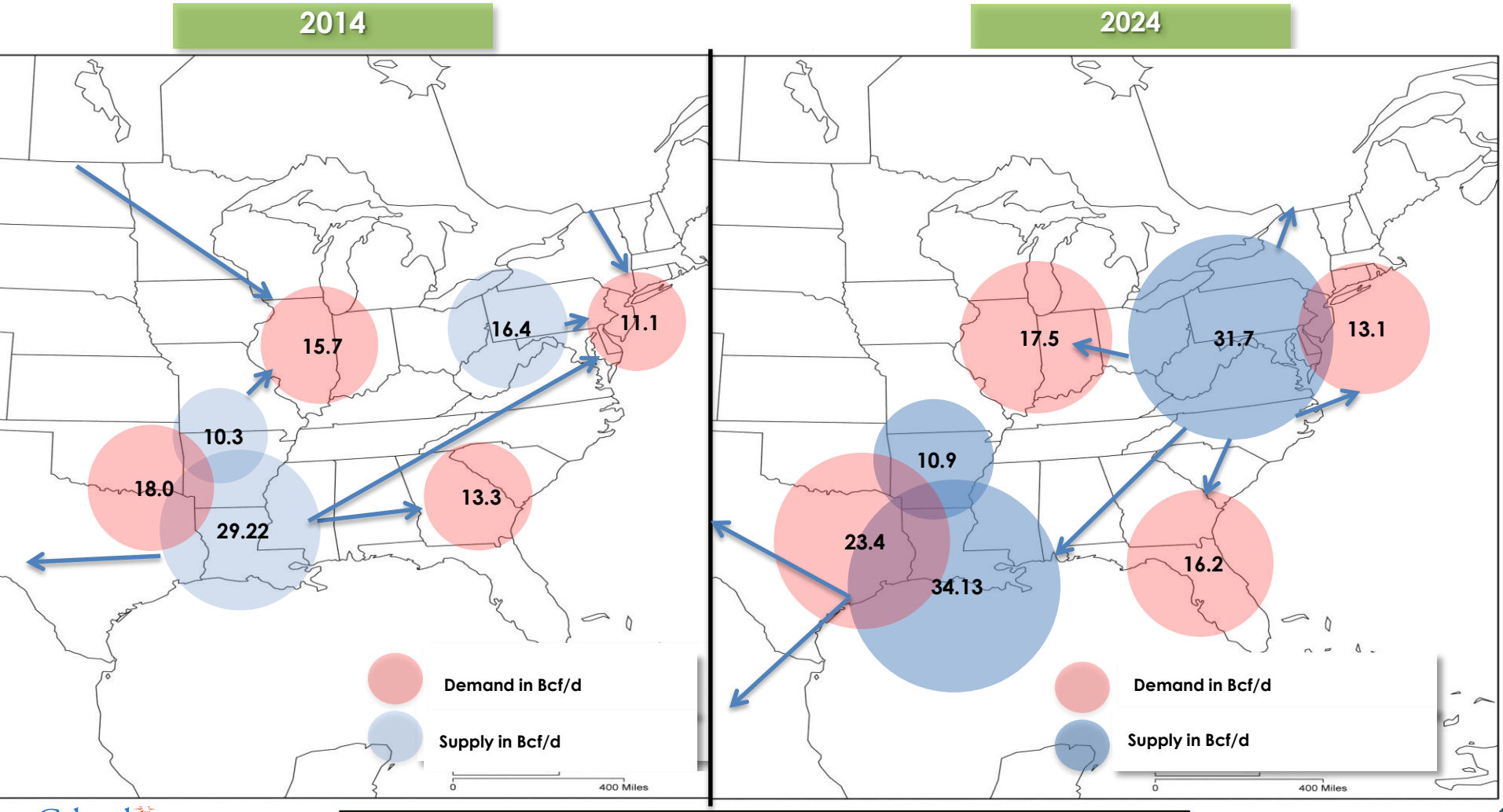
Gas Supply Will Outpace Demand

New Supply Sources Drives New Pipeline Infrastructure



Source: EIA US State-to-State Pipeline Capacity

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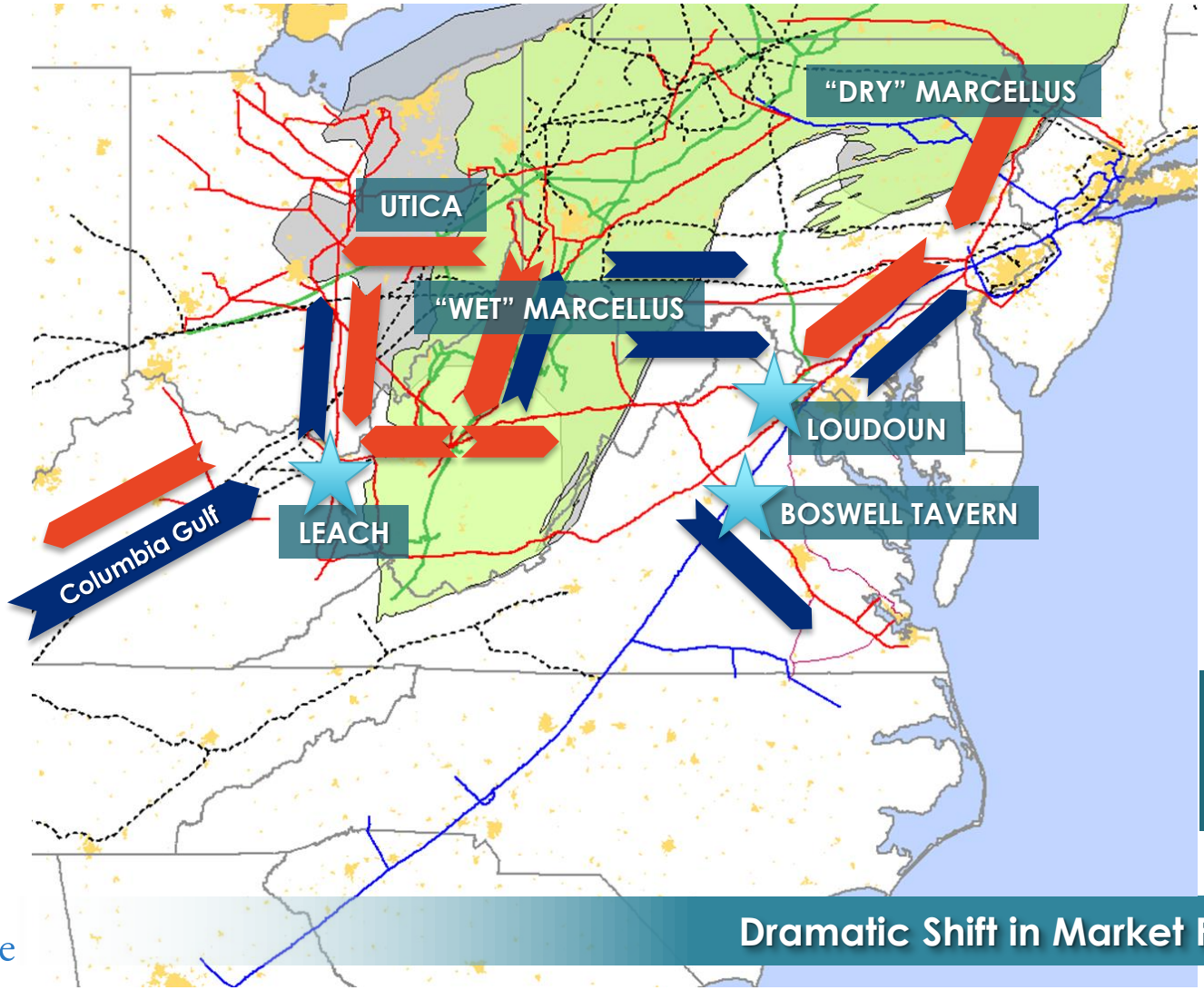
Pipeline Flows are Changing

New Supplies, New Flow Patterns



Current Flow

Evolving Flow

Dramatic Shift in Market Fundamentals

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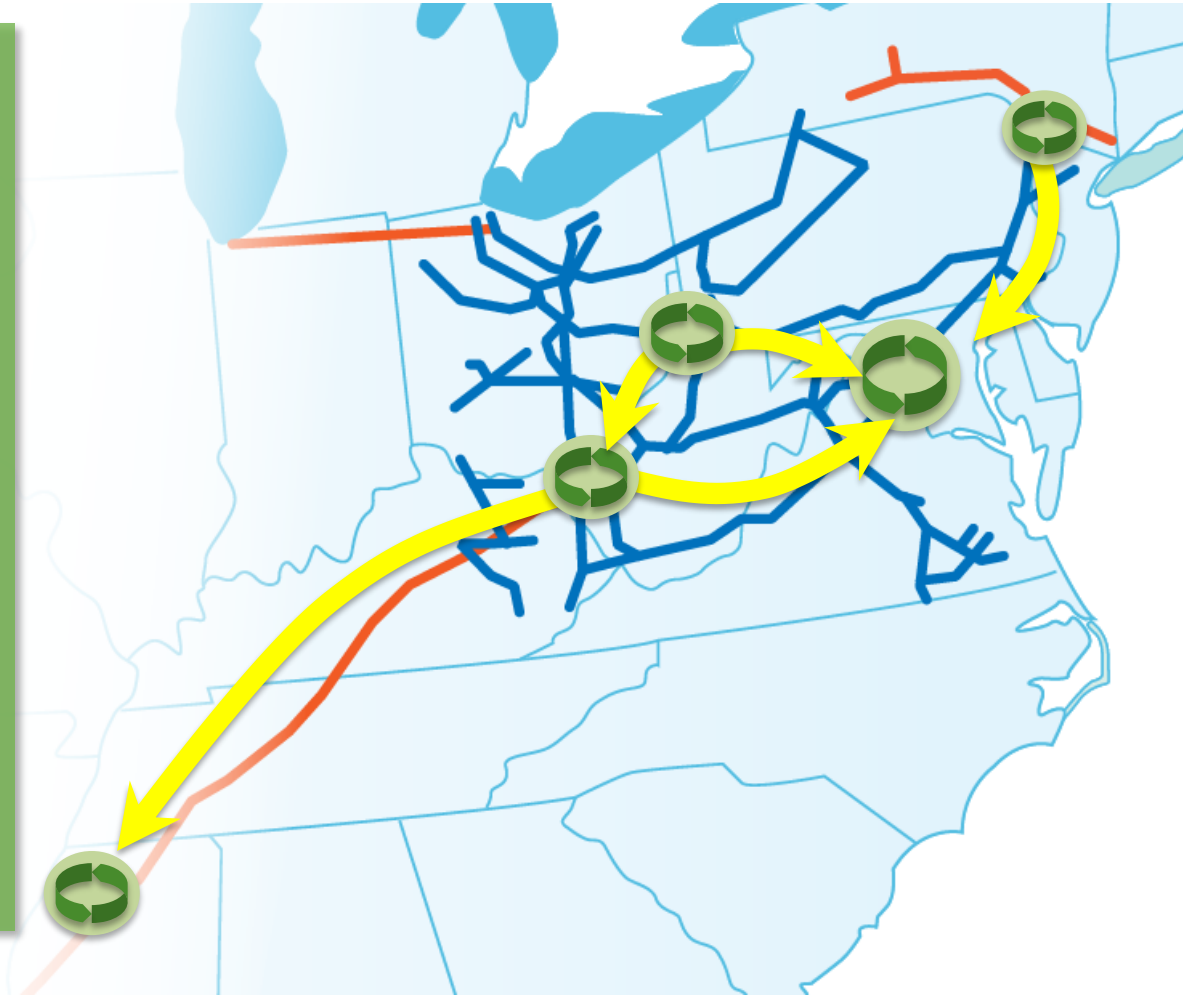
Responding To A Changing Market

Market Trends to Shape Our Strategy

- Maintain Base Business Contracting
- Extend and Expand Modernization
- Attach Directly to Attractive Destination Markets
- Expand Access to Liquidity at Strategic Locations



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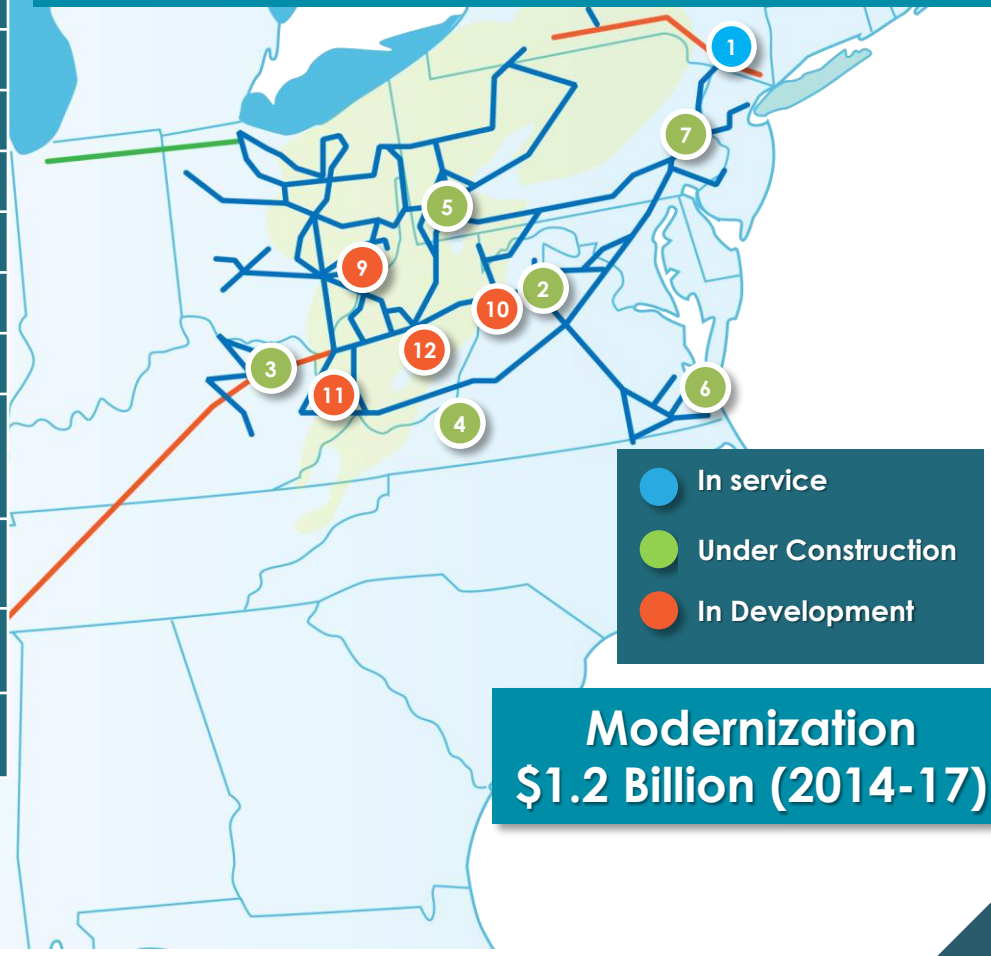
Changing Fundamentals Create Opportunities & Challenges

CPG Growth Update

	Project	Market Pull/ Supply Push	In-Service
1	Millennium - Hancock	Supply	1Q 2014
2	Warren County	Market	2Q 2014
3	West Side	Supply	4Q 2014
4	Giles County	Market	4Q 2014
5	Line 1570 Upgrade	Supply	4Q 2014
6	Chesapeake LNG	Market	2015
7	East Side	Market	3Q 2015
8	Cameron LNG	Market	3Q 2017
9	Leach/Rayne Xpress	Supply	4Q 2017
10	WB Xpress	Supply/Market	4Q 2018
11	KY Power Plant	Market	2Q 2016
12	Utica Access	Supply	4Q 2016

$4.5+ Billion in Motion

+3.7Bcf/d of new supply and
+3.0 Bcf/d of new market additions



Modernization
$1.2 Billion (2014-17)

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Leach & Rayne XPress

FOCUS

Transport growing SW Marcellus and Utica supplies away from constrained production areas to liquid transactional points or markets

SCOPE

Leach Xpress: +1.3Bcf , ~130 miles greenfield line, ~65,000 HP

Rayne Xpress: +1Bcf, Various station modifications + ~40,000 HP

ADVANTAGES

Optimizes existing infrastructure

Increased liquidity at TCO Pool and to higher value liquidity markets off the CGT system.

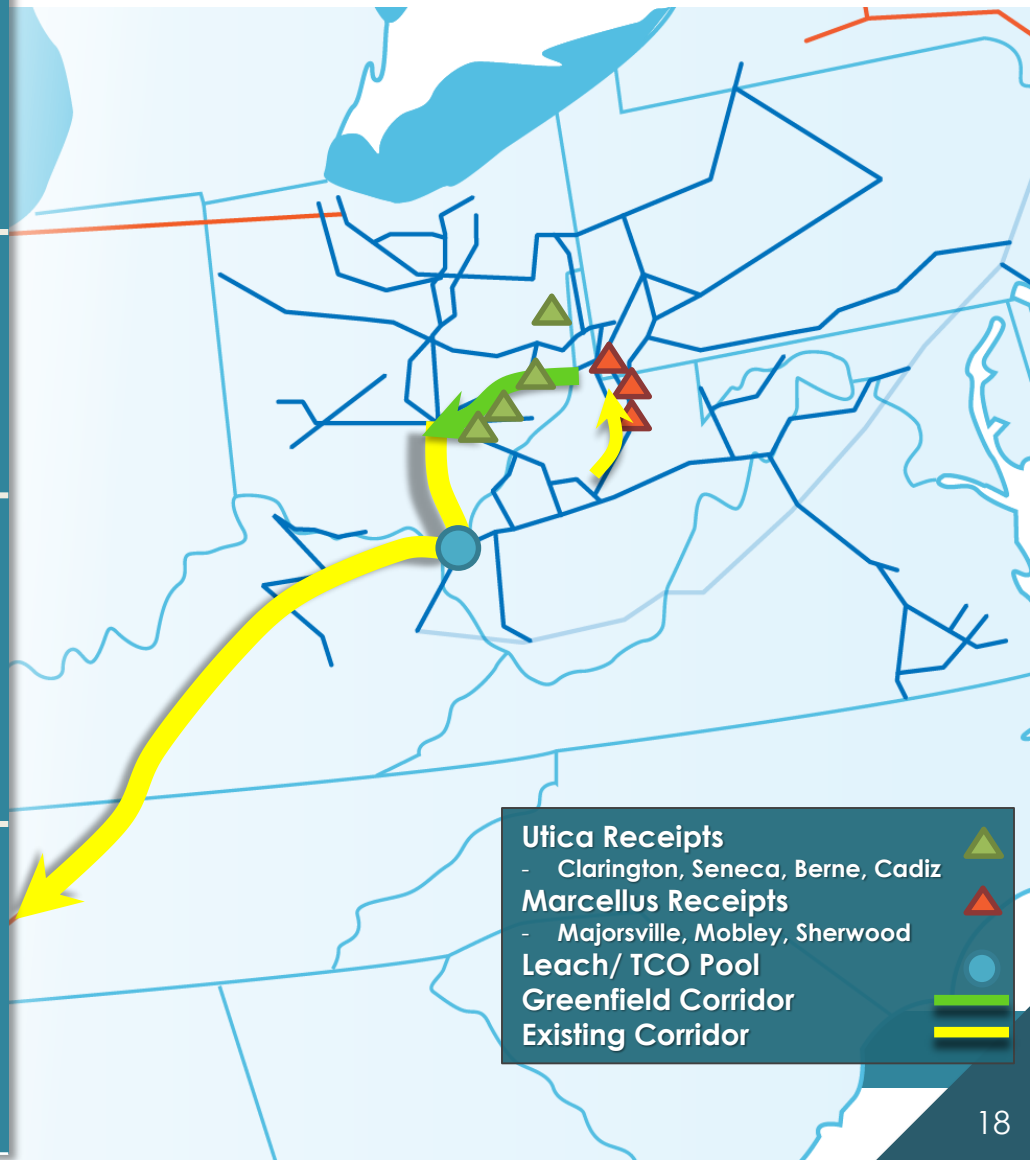
STATUS

Executed PAs with all 4 anchor shippers

Preliminary Engineering & Scoping

August BOD Approval

In-service: 2nd Half 2017



In Conclusion…

- Winter 2013-2014 tested the TCO system, but Modernization left us well prepared
- Work remains on storage refill in preparation for upcoming winter
- Changing market fundamentals are creating system opportunities and challenges
- Columbia's system is experiencing unprecedented growth
- Columbia is executing on a deepening project inventory

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