

Pipeliners Club of Atlanta January 8, 2018



Williams Speakers

- James Mathis PE, PMP, Dalton Expansion Project Manager
- Kristen Drew PE, PMP, Manager of Projects



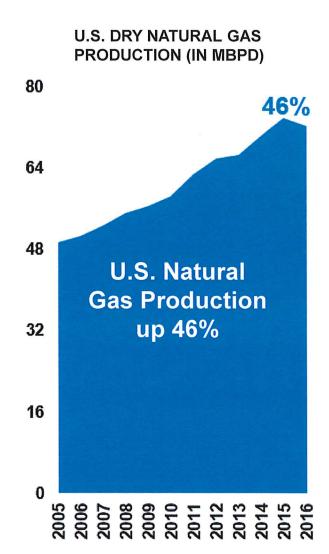
Agenda

- Industry Overview
- Introduction to Williams
- Dalton Project Summary
- Regulatory Process
- Successes
- Questions



Natural gas fueling U.S. energy revolution

- Low prices and the public's desire for cleaner burning fuel has lead to the growing popularity of natural gas
- U.S. leads the world in natural gas production
- Natural gas fuels one-third of electric power generation in the U.S. and heats half of all homes.
- Increasing demand for natural gas has fueled need for additional pipeline infrastructure to connect emerging supply areas with established consuming markets



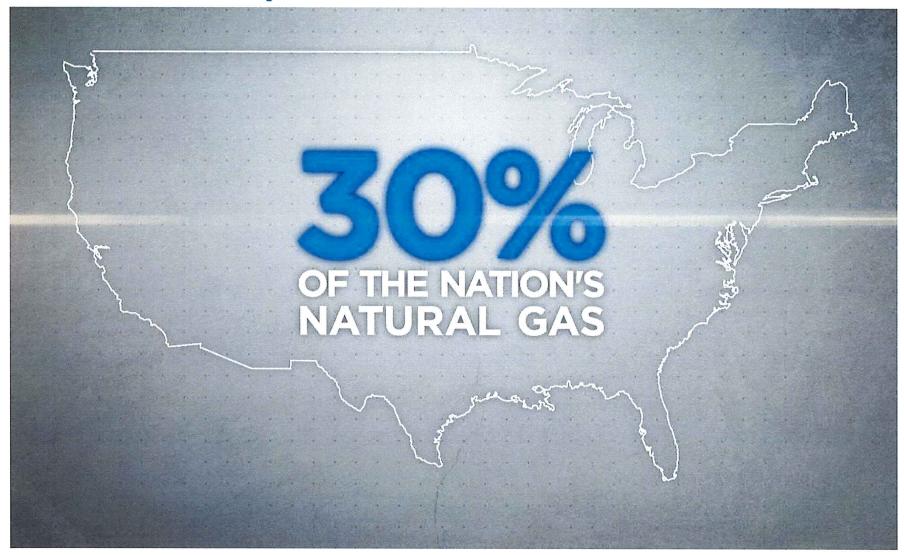


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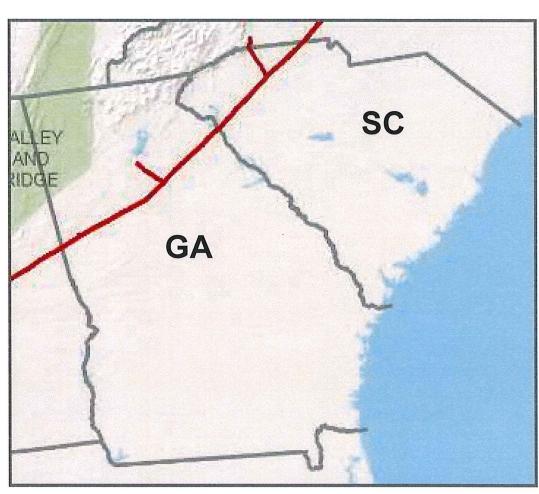




Dalton Expansion Project We make energy happen:

Williams has reliably served Georgia for more than 60 years

- Reliably served Georgia for more than 60 years
- Provides service to major local distribution companies such as Atlanta Gas Light -the largest natural gas distribution company in the Southeast
- Delivered 40% of the natural gas consumed in Georgia in 2016
- Operates 821 miles of transmission pipe
- Delivered 299 billion cubic feet in 2016



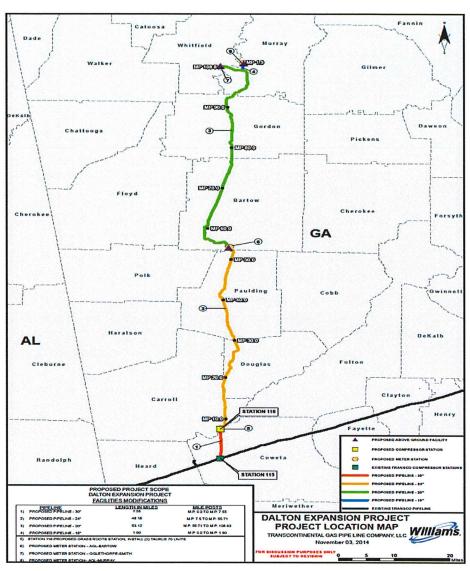


Dalton Expansion Project

 Designed to transport approximately 448,000 dekatherms of natural gas per day (enough natural gas to meet the daily needs of about 2 million homes).

Customers:

- Atlanta Gas Light (local distribution)
- Oglethorpe Power Corp. (electric generating)
- City of Cartersville (municipality)
- Permit application filed with the FERC in March 2015
- Construction started late 3Q 2016; Inservice date: August 1, 2017





Dalton Expansion Project We make energy happen.

Project Scope

- Approximately 115 miles of new transmission pipeline
- Greenfield 21,800 HP compressor station (Compressor Station 116) consisting of two gas turbine-driven compressors in Carroll County.
- Three new meter stations in Paulding (1) and Murray (2) Counties.
- Additional equipment associated with the new pipeline include mainline valves and pig launchers/receivers facilities.
- Modifications to Transco's existing mainline facilities in Virginia and North Carolina to enable transportation of natural gas to the Dalton Lateral.







Land Facts

Affected landowners

- Total affected tracts: 770
- Landowners within 600' survey corridor: 1,333

Collocation in existing right of way

 The Dalton pipeline is adjacent to or collocated with existing utility corridors for approximately 55% of the 115 miles

Landowner relationships

 Critical to treat landowners fairly and with respect, maintaining communications with them throughout the construction process



Land Civil, Environmental and Cultural Surveys

Used to Collect Critical Information in Route Development

- With permission, each property was visited by various specialists in land, engineering, cultural, and environmental sciences.
- All information collected was used to help Williams determine the location of the proposed pipeline facilities.
- Survey corridor was 600 feet in width.
- Worked closely with the GA SHPO, Native American Tribes, GDNR, FERC, and other stakeholders to mitigate any adverse effects.





Environmental meetings with county, state and federal agencies

As part of the permitting process, Williams worked closely with:

- Federal Energy Regulatory Commission (FERC)
- US Fish & Wildlife (USFWA) Service
- Georgia Department of Natural Resources (GDNR)
- US Army Corps of Engineers (USCE)
- Georgia Environmental Protection Division (GEPD)
- Other various state / county environmental agencies

Williams gave a "Pipeline 101" course to explain general pipeline construction methodologies and waterbody crossing techniques.



Dalton Expansion Project We make energy happen.⁶

Pipe Storage Yard





Dalton Expansion Project We make energy happen:

Pipeline Construction



Dalton Expansion Project We make energy happen?

Pipeline Construction





Compressor Station Construction



Successes

- Project Team overcame a five month FERC delay in schedule
 - Utilized Georgia Writ of Entry laws to gain access to survey 98% of route.
 - Received all other federal, stat and local permits in advance of FERC Certificate.
- Built and leveraged relationships and environmental mitigation strategies with state and local agencies.
 - Worked with USFWS to write the Biological Opinion (BO) before FERC officially requested "consultation" to begin, resulting in the BO being submitted to FERC a few weeks later instead of the typical 150 days.
 - Worked with USFWS and the state agencies to fund a white nose bat syndrome field study.
- Compressor Station 116 executed with minimal change orders, no safety issues.
 - Pre-built foundation forms offsite to allow for concrete to be poured quickly.
 - Incentivized contractor for both schedule and safety.
 - Contractor was able to be mechanically complete and pre-commissioned in 7 ½ months.
- Earned Value Management (EVM) helped mitigate Extra Work Requests (EWRs).
- Successfully crossed the Etowah River with a wet, open cut.
 - Completed the crossing of the river with no issues and on time for the Lake Altoona Dam to begin normal releases in the spring.
- Customer confidence and coordination with Operations.
 - Successfully cleaned, dried, commissioned system with no customer impacts or delays.



Questions?

and

Thank you

