

Expectations High as Transco Tackles Challenges, Opportunities in 2017

By Gary Duvall
Commercial Vice President
Williams Eastern Interstates

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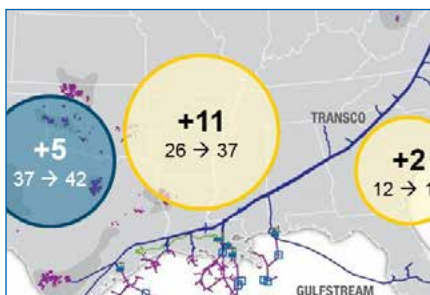
Prior to taking on this role in January 2017, I had the opportunity to lead Transco's Business Development group. That experience provided me with a front-row seat to the incredible changes the system has experienced during the past decade.

When I joined our Business Development group back in 2005, it was well known that domestic natural gas supply was dwindling. Transco's system capacity was 8.1 billion cubic feet per day (Bcf/d), with the majority of its supply originating in the Gulf of Mexico. Internally, our group was busy looking to the global liquefied natural gas market to fill the projected supply gap.

Read the full story on page 2.

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Connecting Growing Gas Demand with Best-in-Class Production Basins

According to energy analysts, the Transco pipeline is well-positioned to capture future emerging, demand-side opportunities.

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Read the full story on page 4.

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Fast-forward to today. Thanks to the shale revolution, U.S. natural gas production has surged more than 50 percent, establishing our country as the world's top natural gas

producer. And the Transco pipeline, with its infrastructure skirting some of the most prolific supply basins in the world, now has an opportunity to even further distinguish itself as the nation's premier pipeline system.

I understand when you're the best, expectations are high. I'm absolutely committed to helping our Commercial team capitalize on this incredible opportunity to grow our system while providing our customers with the same reliable, excellent service they have come to expect from Transco.

One way we'll strengthen the reliability and safety of our system is through our modernization program. You'll be hearing more about this in the coming months, but essentially we're taking a strategic and defined look at Transco's facilities to identify opportunities to upgrade and/or replace critical compression and pipeline components. This may include facilities that require replacement due to a changing risk profile, or to meet new compliance standards. It will also include facilities needed to improve reliability and meet future flow conditions.

The modernization effort won't happen overnight. It will be a long-term program, focusing on capital optimization with an eye toward facility life-cycle. It will also include an evaluation of the various cost recovery methods acceptable under FERC policy.

Our modernization effort becomes even more critical when you consider we're currently reversing the flow of the Transco mainline, to accommodate the growth in northeast shale production.

Today, the Transco mainline consistently flows gas from north to south during times of reduced Zone 6 loads. Although a handful of our compressor stations are currently configured to compress gas southward or northward, our Atlantic Sunrise project will even further allow us to accommodate bi-directional flow, allowing Pennsylvania-produced natural gas to travel as far south on our system as Alabama.

Atlantic Sunrise isn't the only system expansion we are currently pursuing. Not hardly. There are 10 major expansions we're aiming to place into service before 2021, which will increase Transco's system design capacity from about 12 to 17 Bcf/d.

Yes, it is certainly a challenging and exciting time to be part of our industry. I'm looking forward to working with our customers to manage the challenges and capitalize on the amazing opportunities which lay before us, ensuring that we continue to deliver the same high quality of service our customers have come to expect from the nation's premier interstate pipeline system. [w](#)

TRANSCO CUSTOMER Connection



Connecting Growing Gas Demand with Best-in-Class Production Basins

According to energy analysts, the Transco pipeline is well-positioned to capture future emerging, demand-side opportunities.

Wood Mackenzie's second half 2016 forecast highlights regional production and demand changes from 2016 to 2021.

Transco's northeast forecasts a 65 percent production increase thanks to the continued development of the Marcellus and Utica basins, climbing from 23 billion cubic feet per day (Bcf/d) in 2016 to 38 Bcf/d in 2021.

Production in the southern portion of Transco's system along the Gulf Coast and

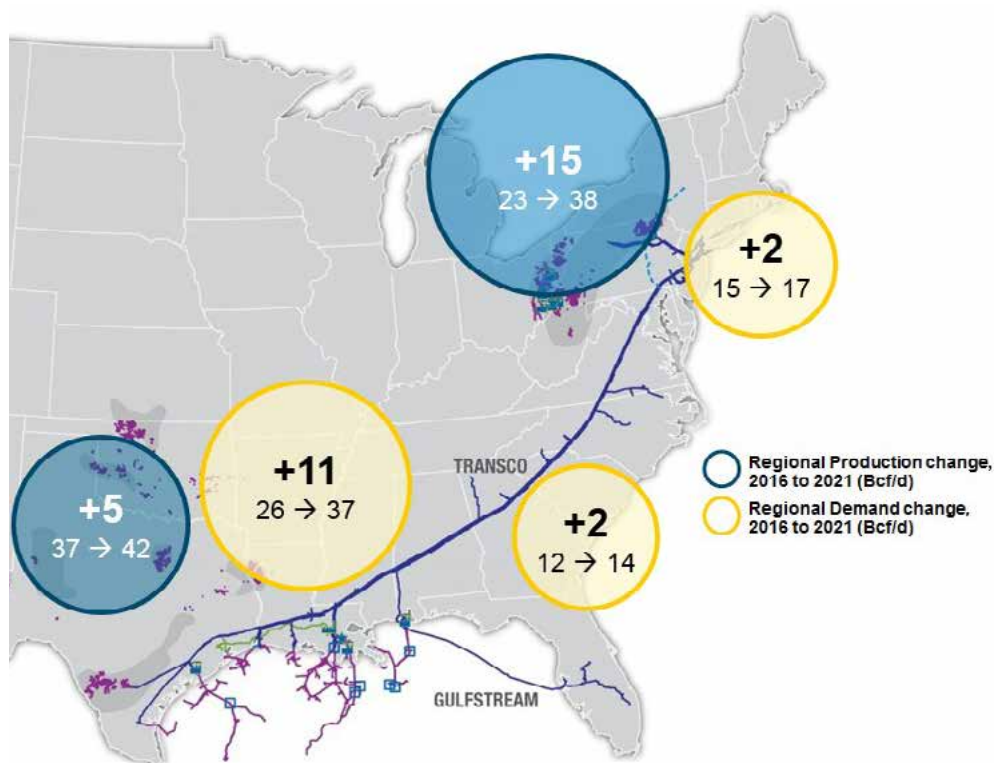
Mid-Continent is forecasted to climb 14 percent, from 37 Bcf/d to 42 Bcf/d.

"Pipelines are just like any other business. It's all about location, location, location," says Transco Customer Services Director Hector Alatorre. "Fortunately for Transco, we are well-positioned between some of the most prolific supply areas and some of the fast-growing demand centers in the country."

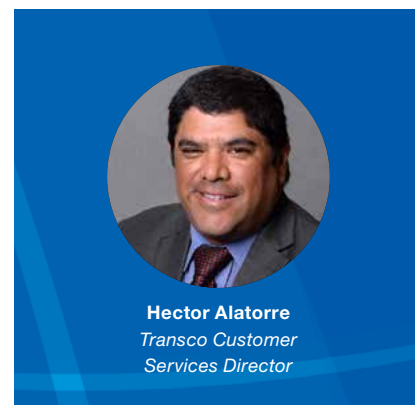
Wood Mackenzie forecasts a total of 15 Bcf/d of regional demand increases in markets served by Transco – the majority of which is projected to come along the Gulf Coast.

Transco's southern market forecasts a 42 percent increase in growth, from 26 Bcf/d to 37 Bcf/d in 2021. Meanwhile, demand in the southeastern U.S. is expected to climb from 12 Bcf/d in 2016 to 14 Bcf/d in 2021.

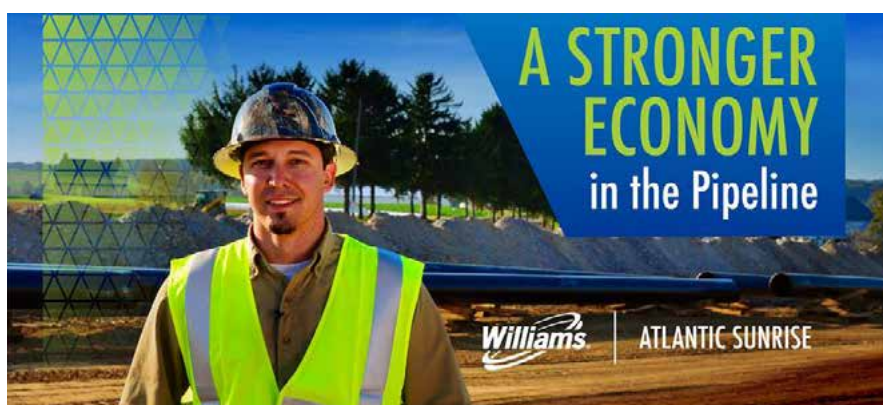
The vast majority of the projected demand pull along Transco's system is expected to come from LNG exports. Wood Mackenzie expects LNG export demand to account for about 50 percent of total demand growth along Transco through 2020. [w](#)



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



New Ad Campaign Promotes Benefits of Atlantic Sunrise



As Williams moves closer to breaking ground on its multi-billion dollar Atlantic Sunrise pipeline project, the company is taking a unique step to better educate communities about the project's significant economic benefits.

Earlier this year Williams launched a multi-tiered advertising campaign in Pennsylvania promoting the benefits of the Atlantic Sunrise project. The campaign includes advertisements appearing on television, radio, newspaper and billboards.

"We have a good story to tell," says Project Director Chris Springer. "This effort is an effective way for us to tell our story and ensure the public and other important stakeholders fully understand the economic ripple that a nearly three billion dollar investment has within a region."

According to a study authored by researchers at The Pennsylvania State University, the design and construction of the Atlantic Sunrise project will generate

approximately \$1.6 billion in additional wages, revenues and investments to the regional and state economies of Pennsylvania and Virginia. The project could also support approximately 8,000 jobs and an associated \$870 million in economic value added during the construction period.

The ad campaign will develop over the next several months and will illustrate what

infrastructure projects mean for regional economies, the state's manufacturing and related industries and the lives of thousands of Pennsylvanians.

Williams Public Outreach Manager Mike Atchie says the campaign is a unique step for Williams, but necessary to ensure communities fully understand the value of large-scale energy infrastructure projects.

"This is the first time we've done a campaign of this scale," says Atchie. "Atlantic Sunrise is getting a lot of attention in the region. With construction of the greenfield portion of the project getting ready to kick off, we felt the timing was right for us to clearly amplify the positive aspects of the project while emphasizing our commitment to the communities where we operate."

[Click here](#) to view the Atlantic Sunrise television commercial and express your support for the project.



[Click here](#)
to play the
Atlantic Sunrise
TV ad.

TRANSCO CUSTOMER Connection



From the Archives: Transco in the Beginning



Explore the pages of Transco's [second annual report](#), printed in 1950, for a look back at the humble beginnings of the nation's largest pipeline system.

"This report marks the transition of Transcontinental from a great pipeline construction project to an operating company," the report begins.

It continues, "The first delivery of natural gas out of our system was made Dec. 5, 1950, to the City of Danville, Virginia. Regular service to our New York distributors began Jan. 16, this year, formally signaling completion of the world's longest pipeline."

It notes that total deliveries were expected to climb to a total 505 million cubic feet per

day by May 1951. Of that volume, "50 million cubic feet per day of capacity has been authorized principally for distribution to customers in the southern States."

The report also references a 27-mile "New England extension" designed to extend the northern portion of Transco's system from Patterson, Nj, to Greenwich, Ct. This extension was certificated in Nov. 1950 but never constructed.

Other notable highlights:

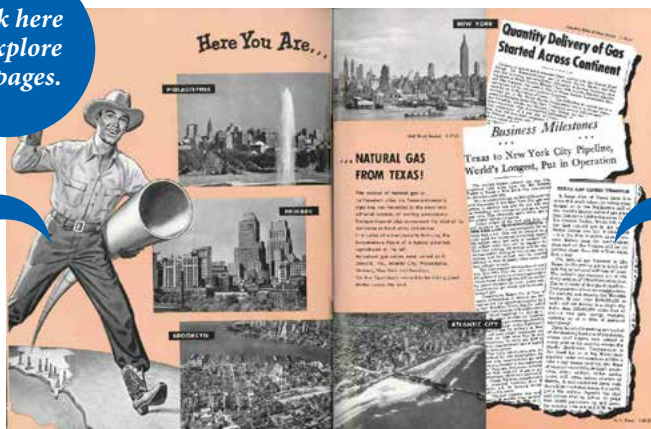
- Expenditures for construction as of Dec. 31, 1950, approximated \$233 million.
- Seven compressor stations were fully operational.
- In January 1951, Transco was delivering 250 million cubic feet per day, half of which was destined for New York.
- The report notes that the system taps 54 natural gas fields in Texas and Louisiana, with total gas reserves estimated "in excess of 60 trillion cubic feet – enough to supply Transcontinental for nearly 300 years!" ^W



"The Transcontinental story of 1950 was a panorama of gigantic earth-moving, river-crossing and pipe-laying operations... We are doubly proud of a big job completed and the opening of a vast new energy resource to one of the country's most important markets at a time of national emergency..."

- Transco 1950 Annual Report

Click here to explore the pages.



Business Briefs

Project Development

Transco Files NESE Project

In March 2017, Williams announced that the Transco pipeline had filed an application with the Federal Energy Regulatory Commission (FERC) seeking authorization for its [Northeast Supply Enhancement project](#), which would create 400,000 dekatherms per day of incremental firm transportation capacity to markets in the northeastern United States for the 2019/2020 winter heating season.

Transco has executed precedent agreements with subsidiaries of National Grid – the largest distributor of natural gas in the northeastern U.S. – for firm transportation service under the project. Once complete, the project will help meet the growing natural gas demand in the northeast, including the 1.8 million customers served by National Grid in Brooklyn, Queens, Staten Island and Long Island. [w](#)

[Read More ▶](#)

Williams Still Committed to the Constitution Project

Williams received disappointing news in March 2017 when the U.S. District Court for the Northern District of New York dismissed Constitution Pipeline Company's claim that permit requirements under New York Environmental Conservation Law were preempted by the federal Natural Gas Act, and that those permits are not required for the project to go forward.

Judge Norman Mordue ruled that Constitution Pipeline does not have standing to sue for permits that the New York State Department of

Environmental Conservation (NYSDEC) hasn't yet decided upon.

While the Court's decision is disappointing, the action does not impact the status of Constitution Pipeline's appeal, currently pending before the U.S. Court of Appeals for the 2nd Circuit.

Williams anticipates a decision on the appeal from the 2nd Circuit as early as the second quarter of this year. [w](#)

Transco Expands Pipeline Capacity to Deliver Natural Gas to Cheniere's LNG Export Facility at Sabine Pass



In February 2017, Transco successfully placed into service its Gulf Trace project, a 1.2 million dekatherm per day expansion of the Transco pipeline system to serve the Cheniere Energy Partners, L.P. Sabine Pass Liquefaction export terminal in Cameron Parish, La.

The Sabine Pass liquefaction terminal is the first large-scale LNG export facility in operation in the United States.

The Gulf Trace project allows Transco's production area mainline and southwest Louisiana lateral systems to flow gas bi-

directionally from Station 65 in St. Helena Parish, La. to Cameron Parish, La. Cheniere has subscribed to all the firm capacity for the project.

[Read More ▶](#)

FERC Approves Atlantic Sunrise Project

In February 2017, the Federal Energy Regulatory Commission (FERC) issued a certificate of public convenience and necessity authorizing the Atlantic Sunrise expansion project – an expansion of the existing Transco natural gas pipeline to connect abundant Marcellus gas supplies with markets in the mid-Atlantic and southeastern U.S.

The nearly \$3 billion project is the largest in Transco's history.

The company began construction on the mainline portion of the project facilities in March 2017. These mainline facilities will create a much-needed path from the northern part of the Transco system to markets along the Eastern Seaboard for a portion of the project capacity in time for the 2017/2018 heating season. In June 2017, the company received a notice to proceed from the FERC related to construction activities at Transco compressor stations 517 and 520. Construction on the Central Penn Line, the greenfield portion of the project, is targeted to begin in the 3rd Quarter of 2017, which would allow the full project capacity to be placed into service in mid-2018. [w](#)

[Read More ▶](#)

Business Briefs Continued

Corporate Citizenship

Innovative Partnership Helps Create, Enhance Nature Trails in Central, Northeast PA

An innovative partnership between Williams and conservation organizations in central and northeastern Pennsylvania is helping support the creation of almost eight miles of new nature trails expected to be used by around 200,000 people annually.

Through its Atlantic Sunrise Environmental Stewardship Program, Williams is voluntarily supporting conservation projects that will benefit natural resources and support communities within the [Atlantic Sunrise](#) project area.

In total, the program is supporting 17 conservation projects with more than \$2.5 million in funding to not only support the construction of new trails, but also to restore wildlife habitat along streams and prevent thousands of pounds of harmful nutrients from entering waterways. [w](#)

[Read More ▶](#)



Click here to play the Trail Enhancement Video.

For Williams and Employees, 2016 was a Year of Giving Back



Wherever we operate, Williams is recognized for our philanthropy and employee commitment to our communities. The year 2016 was no different as Williams' volunteerism and giving directly touched lives in 45 states. [w](#)

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American Kennel Club Posthumously Honors Last Surviving 9/11 Dog



In March 2017, the [American Kennel Club](#), the nation's largest purebred dog registry and leading advocate for dogs, posthumously presented the last surviving 9/11 search and rescue dog, which was owned and handled by Williams Engineering Manager Denise Corliss.

Denise's dog Bretagne was honored with the 2017 Empire State Award for Canine Excellence. This award recognizes canine heroes who have significantly impacted the community while serving in the Empire State.

Bretagne was the last surviving 9/11 search and rescue dog before her passing in June of 2016, at the age of 16. [w](#)

[Read More ▶](#)

Comic Strip Highlights Williams Environmental Initiative



Mark Trail is a long-running, nationally-syndicated comic strip that has been around since the 1940s, focusing on environmental and ecological themes.

Recently, the comic strip positively referenced an initiative Williams is funding in partnership with the U.S. Fish & Wildlife Service to treat endangered bats threatened by a deadly disease known as white-nose syndrome. [Click here](#).

Although Williams isn't mentioned in the comic, the federal and state agencies overseeing the project are very aware of the important role we are playing in supporting the ground-breaking research — underwriting the program being developed by researchers at [Georgia State University](#) (GSU). [w](#)

Business Briefs Continued

Operations

Leidy Line Returning to Service

Transco continues to work through the requirements of the PHMSA Corrective Action Order (CAO) following Transco's June 2015 failure of the 24" Leidy line "B" between Station 517 and Station 520. The company expects Leidy Line "B" to return to full service in the 3rd quarter of 2017.

In addition to CAO compliance activities, integrity testing was successfully performed on more than 325 miles of Transco's Leidy system. All Transco Leidy Lines (with the exception of Line "B" from Station 517 west to Leidy Storage) are now operating normally. [w](#)

Wharton Storage Assessment Underway

On Dec. 22, 2016, Transco provided notice of a force majeure event, pursuant to Section 11 of the General Terms and Conditions of its FERC Gas Tariff, resulting in an unplanned outage due to a fire at its Station 535, part of the Wharton Storage Facility in Potter County, Pa.

From a storage withdrawal perspective, the Wharton storage facility provides approximately 24% (257,750 DTs of the total 1,082,908 DTs) of the total withdrawal services provided under Rate Schedule GSS.

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 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. Check 1Line for any additional developments, including any limitations on the availability of storage services provided under Rate Schedule GSS. [w](#)

Rate Case Filing Targeted

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 Aug. 31, 2018.

Assuming that the filing date is Aug. 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 – Feb. 28, 2019.

Assuming a full five month suspension period for the new rates, the effective date of the rates will be March 1, 2019. [w](#)

Firm Contract Amendments to Remove Inactive Receipt and Delivery Locations in 2017

Customer Services is working with firm transportation customers to update contract Exhibit A's to reflect active locations only. Due to constant changes in the availability of receipt points, the shifting of gas supplies and the removal and addition of receipt point facilities on Transco's system, updates to the FT contracts have become necessary. This

amendment effort will preserve customer's original firm rights and access to all receipt points, within a customer's original contract path. Because these ongoing receipt point changes require constant amendments to service agreements (Rate Schedule FT Section 4.1), Transco is recommending that customers amend their firm transportation contracts to include only those receipt/capacity place holder points necessary to define the shipper's firm contract path or the shipper's contract entitlement within that path (Order on Compliance Filing Docket No. RP14-46-001 issued April 15, 2014). In addition, a small number of inactive delivery locations have also been targeted for removal from the firm transportation contracts. [w](#)

Mastio Survey Results

The Mastio Survey is an annual, industry-wide survey designed to measure the perceptions and needs of natural gas pipeline customers. Nearly 150 Transco customers participated in the 2017 survey, ranking Transco 7 out of 16 pipelines in its Mega Pipes category. In addition, Transco's overall Net Promoter Score (NPS) increased 9.5%, from 48.8% in 2016 to 58.3% in 2017. The NPS measures the percentage of Promoters and Detractors in response to the question, "How likely would you recommend to a colleague or another business?" Transco saw overall improvement in its rankings in 19 of 29 categories. Despite a challenging 2016, 66% of the respondents stated they were not disappointed with service provided by Transco.

"This survey is a valuable tool that helps Transco identify areas where we are performing well and opportunities for improvement," said Customer Services Director Hector Alatorre. "We are further evaluating the survey results and we appreciate the time our customers took to provide this valuable feedback." [w](#)

Did You Know?

Common Questions Fielded by Transco Customer Services Reps



Mark Polidor

Q: *Where can I find historical gas quality information for points along Transco's system?*

A: Historical gas quality information for select points along our system is available to our customers on Transco's 1Line Portal page under Gas Quality, accessible from the left hand navigation pane. Online Gas Quality data is available for 90 days or 3 months. [w](#)



Liz Hughes

Q: *Where can I see information regarding constraints on the Transco system and what packages/locations are open or closed?*

A: This information is posted on Transco's 1Line Portal page in two places. First, to locate the most recent postings about Transco's market and production area constraints, scroll continuously on the right hand pane labeled Critical Notices. Second, a customer can also select Notices > Critical on the left hand navigation pane, which will present the list of Transco's most recent notices. These notices are titled Market and Production Constraints. [w](#)



Mike Ledford

Q: *How can I minimize any potential delay in capacity release offers as it relates to recall/reput terms?*

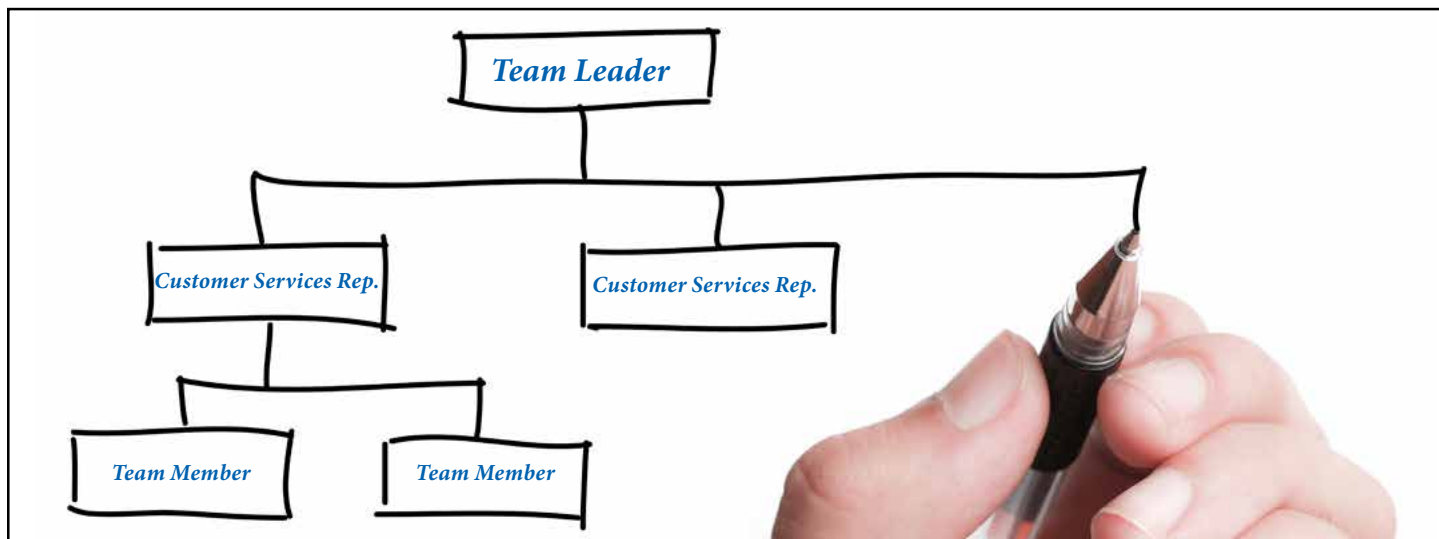
A: Transco has developed a list of legally approved language that represents commonly used recall/reput terms by our shippers. By selecting one of the pre-approved terms on the "Create Offers" page, this will eliminate the need for manual review/approval by the Transco Capacity Release administrator and allow the replacement shipper to accept the offer immediately. This is especially helpful in reducing delays for offers created just before the 9 a.m. bid period deadline. [w](#)

Click here to access Transco's 1Line Portal page, or go to www.1Line.Williams.com, then select Transco Info Postings.

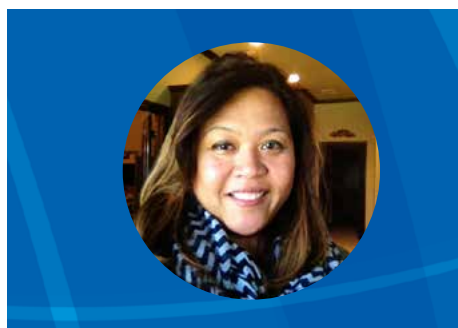
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People on the Move



Dale Davis retired from Williams on March 3, 2017, after a nearly 42 year career, spent predominantly in commercial departments. Dale started with Transco in 1975 in Marketing. After a 7 year stint in Regulatory Affairs, Dale moved to Commercial Operations in 1988 in the Scheduling group. Starting in 1996, Dale represented Transco, then ultimately, all of Williams as the GISB/NAESB representative. Dale continued as the NAESB representative until retirement, serving in various leadership roles, including Vice Chair of the Wholesale Gas Quadrant Executive Committee and Chair of various other subcommittees. [w](#)



Laarni Hernandez joined the Customer Service Contracts team in March 2017 and has been with Williams since September 2012. Laarni previously held a Commercial Contract Analyst position supporting Williams' Midstream assets in the Northeast. She has a B.A. degree in Business Management from California State University, Fullerton and has over 15 years of contract/compliance experience in the electric and energy industries. [w](#)



John Cassapo joined the Customer Service team as a Senior Business Development Representative in March 2017. John has 22 years of experience, with his most recent position as the Manager of Williams' Operational Excellence System Planning Group. John has a B.S. degree in Computer Engineering from New Jersey Institute of Technology and started with Williams as an intern in Field Operations at Station 240. He has also held positions in SCADA as a System Analyst and in the Compressor and Controls group as a Senior Engineer. [w](#)

Whom Should I Call?

