November 8, 2018

Via eFiling

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: Docket No. RP19-____
Fayetteville Express Pipeline LLC
Form No. 501-G

Dear Ms. Bose:

In compliance with Order No. 849 (Final Rule) and Section 260.402 of the Commission's Regulations under the Natural Gas Act, Fayetteville Express Pipeline LLC (FEP) submits herewith its FERC Form No. 501-G, One-time Report on Rate Effect of the Tax Cuts and Jobs Act, established in Docket No. RM18-11-000, for the twelve months ending December 31, 2017.

As further detailed below, pursuant to Option 3 of the Final Rule, FEP does not believe an adjustment is warranted at this time. Paragraph 216 of the Final Rule stated that under Option 3, a pipeline may explain why an adjustment in its rates is not warranted. As such, FEP submits an Addendum to its Form No. 501-G, which reflects certain adjustments that FEP believes are necessary to properly reflect its situation. FEP notes that all its firm natural gas transportation agreements are at negotiated rates, and Paragraph 247 of the Final Rule stated that "because the shipper's negotiated rate is not based on cost of service regulation, there is no reason why a reduction in the pipeline costs, including a reduction in its tax costs, should necessarily lead to a reduction in the negotiated rate." Also, the revenues generated under the negotiated rate agreements that were executed by the anchor shippers or their successors provided the support necessary for the original construction of the project.

FEP is owned 50% by ETC Fayetteville Express Pipeline, LLC, an indirect wholly-owned subsidiary of Energy Transfer Operating, L.P. and 50% by Kinder Morgan Operating Limited Partnership "A", a subsidiary of Kinder Morgan Energy Partners, L.P. (KM). FEP and KM's debt/capital structure does not qualify since not all of their debt is publicly traded. Consequently, the prescribed hypothetical capital structure is used in FEP's Form No. 501-G. Please note that FEP's strict adherence to the prescribed Form No. 501-G capital structure guidance without adjustment through the submission of an Addendum or otherwise is in no way an indication the FEP concurs with or supports the use of such capital structure or other cost and revenue inputs reflected in its Form No. 501-G for ratemaking purposes.

Based on FEP's individual facts and circumstances, as described in the Addendum to its Form No. 501-G, an adjustment to FEP's rates is not warranted at this time. This submission is being made solely to comply with the Final Rule. Nothing in this filing should be construed as being supported or proposed by FEP as the appropriate amount or level of costs, or the methodology for functionalizing, classifying, or allocating costs, or designing or establishing rates. This filing is without prejudice to any filings made on behalf of FEP in this proceeding or Docket No. RM18-11-000, as well as any petitions for rehearing, stay, or judicial review of any orders that may be issued in the referenced proceeding or this proceeding.

COMMUNICATIONS, PLEADINGS AND ORDERS

FEP requests that all Commission orders and correspondence as well as pleadings and correspondence from other parties concerning this filing be served on each of the following:

Michael T. Langston [1 2]
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Chief Regulatory Officer
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[1] Designated to receive service pursuant to Rule 2010 of the Commission's Rules of Practice and Procedure. FEP respectfully requests that the Commission waive Rule 203(b)(3), 18 C.F.R. § 385.203(b)(3), in order to allow FEP to include additional representatives on the official service list.

[2] Designated as responsible Company official under Section 154.7(a)(2) of the Commission's Regulations.

In accordance with Section 154.2(d) of the Commission's Regulations, a copy of this filing is available for public inspection during regular business hours at FEP's office at 1300 Main Street, Houston, Texas 77002. In addition, copies of this filing are being served electronically on jurisdictional customers and interested state regulatory agencies. FEP has posted this filing on its Internet website accessible via http://feptransfer.energytransfer.com under Informational Postings, Regulatory.

Pursuant to Section 385.2005(a) of the Commission's Regulations, the undersigned has read this filing and knows its contents, the contents are true as stated, to the best of his knowledge and belief, and possesses full power and authority to sign such filing.

Respectfully submitted,

FAYETTEVILLE EXPRESS PIPELINE LLC

By /s/ Thomas E. Long
Thomas E. Long
Chief Financial Officer

Enclosures

OMB No. 1902-0302 (Expires mm/dd/yyyy)
1 Date Prepared: October 31, 2018

FERC Form No. 501-G
One-time Report on Rate Effect of the Tax Cuts and Jobs Act
Cost of Service

2 Pipeline Company Name: **Fayetteville Express Pipeline LLC**

Line No.	(A) Description	(B) Form 2 Reference	(C) Calendar Year 2017 Actuals	(D) Net Amort. of Excess/ Deficient ADIT	(E) With Adjusted Tax Allowance
3	**CID** C001012				
4	**Is the Pipeline a separate income taxpaying entity?** Does it conduct business, realize net income or loss, pay income taxes and distribute profits to shareholders?		No		
	Cost of Service - Non Fuel				
	Operating, Maintenance and Administrative & General				
5	Total Production & Gathering	P. 317; L. 30, C. (b)	$ -		$ -
6	Total Products Extraction	P. 318; L. 58, C. (b)	-		-
7	Total Natural Gas Storage	P. 322; L. 177, C. (b)	-		-
8	(Less) UG Compressor Station Fuel & Power	P. 320; L. 106, C. (b)	-		-
9	(Less) Other Compressor Station Fuel & Power	P. 321; LL. 131 & 132, C. (b)	-		-
10	(Less) LNG Compressor Station Fuel & Power	P. 322; LL. 157 & 158, C. (b)	-		-
11	Net Storage Costs	L. 7 minus LL. 8-10	-		-
12	Total Transmission	P. 323; L. 201, C. (b)	10,923,547		10,923,547
13	(Less) Gas for Compressor Station Fuel	P. 323; L. 184, C. (b)	2,682,314		2,682,314
14	(Less) Other Fuel & Power for Compressor Stns. (if included in true-up or tracking mechanism)	P. 323; L. 185, C. (b)	-		-
15	Net Transmission Costs	L. 12 minus LL. 13-14	8,241,233		8,241,233
16	Administrative & General	P. 325; L. 270, C. (b)	1,556,560		1,556,560
17	Total Operating, Maintenance and Admin. & Gen.	Sum of LL. 4, 5, 10, 14, 15	$ 9,797,793		$ 9,797,793
18	**Depreciation, Depletion, and Amortization**	Form 2 - P. 337; L. 12, C. (h)	29,139,867		29,139,867
19	Amort. of Plant Acq. Adj.	Form 2A - P. 114; LL. 6-8, C. (c) If 'yes' to P. 2; L. 5 of Form 501-G then 0, else P. 114; L. 9, C. (c)	-		-
	Credits to Cost of Service				
20	Regulatory Debits (if incl. in a § 4 rate filing)	P. 114; L. 12, C. (c)	-		-
21	(Less) Regulatory Credits (if incl. in a § 4 rate filing)	P. 114; L. 13, C. (c)	-		-
22	**Other Taxes**	P. 114; L. 14, C. (c)	9,550,027		9,550,027
	Return				
23	Long Term Debt	P. 2; L. 27 of Form 501-G	13,639,768		16,521,735
24	Preferred Stock (or equivalent)	P. 2; L. 28 of Form 501-G	-		-
25	Common Equity	P. 2; L. 29 of Form 501-G	38,150,113		46,210,908
26	Total Return		51,789,881		62,732,643
	Allowance for Income Taxes				
27	Federal Income Tax Rate	P. 5; L. 3 of Form 501-G	26.67%		0.00%
28	Weighted Average State Income Tax Rate	P. 5; L. 4 of Form 501-G	3.23%		0.00%
29	Composite Income Tax Rate	P. 5; LL. 3-6 of Form 501-G	29.03%		0.00%
30	Income Tax Allowance on Equity Return	[(L. 24+L. 25)*(L. 29/(1-L. 29))]	15,607,804		-
31	(Less) Net Amort. of Excess(+) and/or Deficient(-) ADIT	(Year 1 amortization)	-	-	-
32	Total Income Tax Allowance	L. 30 minus L. 31	15,607,804		-
33	**Total Cost of Service - Non Fuel**	Sum of LL. 17-20, 22, 26, 32 less L. 21	**$ 115,885,372**		**$ 111,220,330**
34	**Indicated Cost of Service Reduction**	1 minus [L. 33, C. (E) divided by L. 33, C. (C)]			**4.0%**

FERC Form No. 501-G

One-time Report on Rate Effect of the Tax Cuts and Jobs Act

Rate Base

Fayetteville Express Pipeline LLC

Line No.	(A) Description	(B) Form 2 Reference	(C) Calendar Year 2017 Actuals	(D) Excess/ Deficient ADIT Adjustment	(E) With Adjusted Tax Allowance
	Rate Base				
1	Gas Plant in Service	P. 110; L. 2, C. (c)	$ 972,114,968		$ 972,114,968
2	Accumulated Depreciation	P. 110; L. 5, C. (c)	203,771,472		203,771,472
3	Acquisition Adjustment	P. 200; L. 12, C. (b)	-		-
4	(Less) Amort. of Plant Acquisition Adjustment	P. 200; L. 32, C. (b)	-		-
5	No — Has the pipeline received permission to include Acq. Adjustment(s) in Rate Base? If no, provide amounts as a reduction to Rate Base.				
6	FERC Order Cite				
7	Net Acquisition Adjustment	If L. 5 is yes, then zero; else L. 3 minus L. 4	-		-
8	Net Plant	L. 1 minus L. 2 minus L. 7	768,343,496		768,343,496
	Gas Stored Underground				
9	Base Gas - Account No. 117.1	P. 220; L. 5, C. (b)	-		-
10	System Balancing - Account No. 117.2	P. 220; L. 5, C. (c)	-		-
	Working Capital				
11	Prepayments	P. 111; L. 54, C. (c)	258,063		258,063
12	Materials and Supplies	P. 111; L. 45, C. (c)	-		-
	ADIT and Regulatory Assets and Liabilities				
13	Accumulated Deferred Income Taxes (IT)	P. 235; L. 3, C. (k)(see footnote)	-		-
14	(Less) Accum. Deferred IT - Other Property	P. 275; L. 3, C. (k)(see footnote)	79,142,593		-
15	(Less) Accum. Deferred IT - Other	P. 277; L. 3, C. (k)(see footnote)	-		-
16	Other Regulatory Assets	P. 232; L. 40, C. (g)	-	-	-
17	(Less) Other Regulatory Liabilities	P. 278; L. 45, C. (g)	55,051,161	54,902,385	148,776
18	**Rate Base**	Sum of LL. 8 - 13 minus LL. 14-15 plus L. 16 minus L. 17	**$ 634,407,805**		**$ 768,452,783**

The Commission will apply Opinion No. 414, et al. in reviewing data submitted on page 4. Opinion No. 414, et al. requires that the pipeline's, or the parent's debt if using the parent's capital, must be issued in its name, be publicly traded, and be rated by a rating agency. The pipeline or parent must have a proper capital structure, which for purposes of FERC Form No. 501-G must have a equity ratio less than 65%.
Opinion No. 414, 80 FERC ¶ 61,157 (1997); reh'g denied, Opinion No. 414-A, 84 FERC ¶ 61,084 (1998).

Employing the data provided on Page 4 for capital structure and the component costs of Long Term Debt and Preferred Stock, the Pipeline's cost of capital for purposes of FERC From No. 501-G will be based upon Case 4 - FERC Hypothetical Capital Structure and Cost of new Corporate Debt.

Line No.	**Summary of Page 4 Capital Structure and Capital Component Costs**	**Case 1** Balance Sheet & Income Statement	**Case 2** Page 218a	**Case 3** Parent's SEC Form 10K	**Case 4** Hypothetical
19	1) Is the debt issued in the entity's name and traded?	No	No	No	
20	2) Is the debt rated by a rating agency?	No	No	No	
21	3) Is the equity ratio less than 65%?	No	Yes	No	
22	Each of the three above questions must be answered yes as the basis for using the capital structure and individual capital component cost .	**Not using Case 1 per Opinion No. 414 et al**	**Not using Case 2 per Opinion No. 414 et al**	**Not using Case 3 per Opinion No. 414 et al**	**Using Case 4**

Line No.	**Return based upon FERC Hypothetical Capital Structure and new Corp. Debt.**		**Capitalization Ratio**	**Component Cost**	**Wtd. Cost of Capital**
23	Long Term Debt	P. 4 of Form 501-G	43.00%	5.00%	2.15%
24	Preferred Stock (or equivalent)	P. 4 of Form 501-G	0.00%	0.00%	0.00%
25	Common Equity	P. 4 of Form 501-G	57.00%	10.55%	6.01%
26	Total Return	Sum of LL. 23 - 25	100.00%		8.16%
27	Return - Long Term Debt	L. 18 times L. 23, C. (E)	$ 13,639,768		$ 16,521,735
28	Return - Preferred Stock (or equivalent)	L. 18 times L. 24, C. (E)	-		-
29	Return - Common Equity	L. 18 times L. 25, C. (E)	38,150,113		46,210,908
30	Total Return	Sum of LL. 27 - 29	$ 51,789,881		$ 62,732,643

FERC Form No. 501-G
One-time Report on Rate Effect of the Tax Cuts and Jobs Act
Return on Equity
Pre Tax Cut and Pro Forma Post Tax Cut
Fayetteville Express Pipeline LLC

Line No.	(A) Description	(B) Form 2 Reference	(C) Calendar Year 2017 Actuals	(D) With Adjusted Tax Allowance	(E) Rate Moratorium Option 12% ROE Test
	Operating Revenue				Indicated Cost of Service Reduction of 4.%
1	Total Operating Revenues	P. 301; L. 21, C. (h)	$ 167,544,456	$ 167,544,456	
2	(Less) Sales for Resale (Acct. Nos. 480-484)	P. 301; L. 4, C. (h)	-	-	
3	(Less) Commercial & Industrial Sales	P. 301; L. 2, C. (h)	-	-	
4	(Less) Gas Sales & Other Adj. from Acct. No. 495	P. 308; L. 10, C. (b)	-	-	
5	(Less) Fuel Related Revenues Incl. in Total Revenues	per Pipeline	-	-	
6	**Total Adjusted Revenue**	L. 1 minus sum of LL. 2-5	**$ 167,544,456**	**$ 167,544,456**	**$ 160,799,843**
7	**Yes** *Enter 'Yes' or 'No' - Does the Pipeline track or true-up fuel retention?*				
8	**Yes** *Enter 'Yes' or 'No' - Does the Pipeline have stated fuel rates?*				
	Calculation of Return On Equity - Pre Tax Cut and Pro Forma Post Tax Cut				
9	Total Operating, Maintenance and Admin. & Gen.	P. 1; L. 17 of 501-G	$ 9,797,793	$ 9,797,793	$ 9,797,793
10	Depreciation, Depletion, and Amortization	P. 1; L. 18 of 501-G	29,139,867	29,139,867	29,139,867
11	Amort. of Plant Acq. Adj.	P. 1; L. 19 of 501-G	-	-	-
12	Regulatory Debits (if incl. in a § 4 rate filing)	P. 1; L. 20 of 501-G	-	-	-
13	(Less) Regulatory Credits (if incl. in a § 4 rate filing)	P. 1; L. 21 of 501-G	-	-	-
14	Other Taxes	P. 1; L. 22 of 501-G	9,550,027	9,550,027	9,550,027
15	Non-Fuel Operating Cost Excl. Interest and Taxes	Sum of LL. 9-12 minus L. 13 plus L. 14	48,487,687	48,487,687	48,487,687
16	**Operating Income**	L. 6 minus L. 15	$ 119,056,769	$ 119,056,769	$ 112,312,156
17	Interest Expense	P. 1; L. 23, C. (C) of 501-G	13,639,768	16,521,735	16,521,735
18	Income Before Income Taxes	L. 16 minus L. 17	$ 105,417,001	$ 102,535,034	$ 95,790,421
	Allowance for Income Taxes				
19	Composite Income Tax Rate	P. 1; L. 29 of 501-G	29.03%	0.00%	0.00%
20	Income Taxes	L. 18 times L. 19	$ 30,606,243	$ -	$ -
21	(Less) Net Amort. of Excess(+) and/or Deficient(-) ADIT	P. 1; L. 31 of 501-G	-	-	-
22	Total Income Tax Allowance	L. 20 minus L. 21	30,606,243	-	-
23	**Net Income**	L. 18 minus L. 22	**$ 74,810,758**	**$ 102,535,034**	**$ 95,790,421**
24	(Less) Preferred Dividends	P. 1; L. 24, C. (C) of 501-G	-	-	-
25	**Rate Base**	P. 2; L. 18 of 501-G	**$ 634,407,805**	**$ 768,452,783**	**$ 768,452,783**
26	**Total Estimated ROE (excluding fuel)**	[L. 23 - L. 24] / [L. 25 * P. 2; L. 25 C. (C) of 501-G]	**20.7%**	**23.4%**	**21.9%**

FERC Form No. 501-G

One-time Report on Rate Effect of the Tax Cuts and Jobs Act

Capital Structure and Component Costs

Fayetteville Express Pipeline LLC

The Commission will use your responses on the following four cases to evaluate your capital structure and capital component costs for Form No. 501-G: Case 1, balance sheet and income statement; Case 2, Page 218a of Form No. 2; Case 3, the parent's financial statements as filed in its SEC Form 10-K; or Case 4, a hypothetical capital structure and capital component costs.

Line No.	(A) Description	(B) Form 2 Reference	(C) Capitalization	(D) Capitalization Ratio	(E) Capital Component Cost Rate	(F) Weighted Cost of Capital
	Case 1. Cost of Capital based upon amounts obtained from the Balance Sheet and Income Statement.					
1	**Cost of Debt and Preferred Stock**					
2	Interest	P. 116; LL. 62-68, C. (c)	$ 12,895,470	= 0		
3	Long-Term Debt	P. 112; L. 24, C. (c)	$ -			
4	Preferred Dividends	P. 120a; L. 68, C. (b)	$ -	= 0		
5	Preferred Stock (or equivalent)	P. 112; L. 3, C. (c)				
6	Common Equity	P. 112; L. 15, C. (c)	$ 402,546,922			
7	**Cost of Capital**					
8	Long-Term Debt	L. 3	$ -	0.00%	0.00%	0.00%
9	Preferred Stock (or equivalent)	L. 5	$ -	0.00%	0.00%	0.00%
10	Common Equity	L. 6 minus L. 5	$ 402,546,922	100.00%	10.55%	10.55%
11	Totals		$ 402,546,922	100.00%		10.55%
12	No	Enter 'Yes' or 'No' - Is all of the debt listed on L. 3 above issued in the pipeline's name and publicly traded?				
13	No	Enter 'Yes' or 'No' - Is all the debt listed on L. 3 above rated by a rating agency?				
	Case 2. Cost of Capital based upon amounts obtained from Page 218a of the FERC Form No. 2.					
14		P. 218a	Column (b)	Column (c)	Column (d)	
15	Long-Term Debt	L. 3	$ 600,000,000	87.18%	3.30%	2.88%
16	Preferred Stock (or equivalent)	L. 4	$ -	0.00%	0.00%	0.00%
17	Common Equity	L. 5	$ 88,264,048	12.82%	10.55%	1.35%
18	Totals		$ 688,264,048	100.00%		4.23%
19	Yes	Are the Values on P. 218a from the books and records of Fayetteville Express Pipeline LLC?				
20		If no, provide the name and stock symbol of the company for the source of the Page 218a amounts.				
21	Ticker		Company Name			
22	No	Enter 'Yes' or 'No' - Is all of the debt listed on L. 15 above issued in the pipeline's name, or, that of the entity on L. 21? and publicly traded?				
23	No	Enter 'Yes' or 'No' - Is all of the debt listed on L. 15 above rated by a rating agency?				
	Case 3. Cost of Capital based upon Parent's Capital Structure and costs for Long Term Debt and Preferred Stock.					
24	Long-Term Debt	SEC - 10K	$ -	0.00%	0.00%	0.00%
25	Preferred Stock (or equivalent)	SEC - 10K	-	0.00%	0.00%	0.00%
26	Common Equity	SEC - 10K	-	0.00%	10.55%	0.00%
27	Totals		$ -	0.00%		0.00%
28	Provide the stock symbol(s), the name of the parent company(s), a hyperlink to the parent's SEC Form 10-K, and the associated year:					
29	Ticker(s)		Company Name(s)			
30	Year		10K Hyperlink(s)			
31	No	Enter 'Yes' or 'No' - Is all of the debt listed on L. 24 above publicly traded?				
32	No	Enter 'Yes' or 'No' - Is all of the debt listed on L. 24 above rated by a rating agency?				
	Case 4. Cost of Capital based upon FERC Hypothetical Capital Structure and Cost of new Corporate Debt.					
33	Long-Term Debt			43.00%	5.00%	2.15%
34	Preferred Stock			0.00%	0.00%	0.00%
35	Common Equity			57.00%	10.55%	6.01%
36	Totals			100.00%		8.16%

FERC Form No. 501-G
One-time Report on Rate Effect of the Tax Cuts and Jobs Act

Current Composite Income Tax Rate
Fayetteville Express Pipeline LLC

Line No.	(A) Description	(B) Form 2 Reference	(C) Weighting	(D) Marginal Tax Rates	(E) Weighted Average Tax Rates
1	**Based on the response to Line 4 on Page 1 of Form No. 501-G, Fayetteville Express Pipeline LLC**				
2	**is a pass through entity for tax purposes. Please fill out lines 6, 10-15, 17-23.**				
3	Federal Income Tax Rate (FIT) - Calendar Year 2017:				**26.67%**
4	State Income Tax Rate (SIT) - Calendar Year 2017:				**3.23%**
5	Composite Tax Rate - Calendar Year 2017:				**29.03%**
6	**Provide the percentage of federal income tax deductible for state income taxes. = (p)**				0.00%
7	Composite Tax Rate equals				
8	[FIT Rate * (1 -SIT Rate) / (1 - SIT Rate * FIT Rate * p)] + [SIT Rate * (1 -FIT Rate * p) / (1 - SIT Rate * FIT Rate * p)]				
	Tax Rates for C Corps.				
9	Provide the sum of weighted state tax rate(s)	sum of all rows from P. 263b:, C. (q)			0.00%
	Tax Rates for Pass Through Entities */				
	Federal Income Tax Rates				
10	Subchapter C	per Pipeline's parents' owners	-21.5%	37.3%	-8.04%
11	Individuals	per Pipeline's parents' owners	105.3%	28.4%	29.94%
12	Mutual Funds	per Pipeline's parents' owners	0.0%	0.0%	0.00%
13	Pensions, IRAs, Keogh Plans	per Pipeline's parents' owners	12.6%	28.0%	3.53%
14	UBTI Entities	per Pipeline's parents' owners	3.7%	34.0%	1.24%
15	Non-Taxpaying Entities	per Pipeline's parents' owners	0.0%	0.0%	0.00%
16	Weighted Average Rate		100.00%		26.67%
	State and Local Income Tax Rates				
17	Subchapter C	per Pipeline's parents' owners	-21.5%	2.6%	-0.56%
18	Individuals	per Pipeline's parents' owners	105.3%	3.3%	3.48%
19	Mutual Funds	per Pipeline's parents' owners	0.0%	0.0%	0.00%
20	Pensions, IRAs, Keogh Plans	per Pipeline's parents' owners	12.6%	1.8%	0.22%
21	UBTI Entities	per Pipeline's parents' owners	3.7%	2.6%	0.10%
22	Non-Taxpaying Entities	per Pipeline's parents' owners	0.0%	0.0%	0.00%
23	Weighted Average Rate		100.00%		3.23%
24	Provide the date when the marginal tax rates were determined.			**December 31, 2017**	

*/ Income tax rates and weighting must be consistent with the Commission's *Policy Statement on Income Tax Allowances,* 111 FERC ¶ 61,139 (2005), and the Commission's *Order on Initial Decision and on Certain Remanded Cost Issues,* 113 FERC ¶ 61,277 (2005).

Fayetteville Express Pipeline LLC

Form No. 501-G

Addendum

Fayetteville Express Pipeline, LLC (FEP) submits this Addendum to its Form No. 501-G, to reflect certain adjustments FEP believes are necessary to reflect its situation.

1.) FEP is owned 50% by ETC Fayetteville Express Pipeline, LLC, an indirect wholly-owned subsidiary of Energy Transfer Partners, L.P. (“ETP”), and 50% by Kinder Morgan Operating Limited Partnership “A”, a subsidiary of Kinder Morgan Energy Partners, L.P. (“KM”). In October 2018, Energy Transfer Equity, L.P. (“ETE”) and ETP completed a previously announced merger of ETP with a wholly-owned subsidiary of ETE in a unit-for-unit exchange. ETP changed its name to Energy Transfer Operating, L.P. To appropriately account for the joint venture ownership of FEP, this Addendum addresses the income tax allowance for the 50% part owned by KM, which is structured as a corporation, and the 50% part owned by ETP which is a MLP.

2.) FEP was placed in service on December 1, 2010, and has the capacity to transport up to 2.0 billion cubic feet (Bcf) of natural gas per day, which continues to be supported by its foundational anchor shippers through long-term negotiated rate agreements originally ranging from 10 to 12 years. FEP’s negotiated rate agreements made up 100 percent of FEP’s 2017 total revenues.

3.) The amount shown in the Addendum for the annual Net Amortization of Excess Deferred Income Taxes has been calculated utilizing the Reverse South Georgia Method, which is a method that has been approved by the Commission in prior NGA section 4 rate case settlements. However, the amounts shown have not been audited, and may be revised in future filings to utilize the Average Rate Assumption Method, which is preferred by the IRS. As such, such amounts are subject to change. See Exhibit A.

4.) FEP does not believe the Commission’s 10.55 percent return on equity is appropriate given the industry and economic changes that have occurred since it was established. Based on the attached Cost of Equity Report prepared for FEP by Concentric Energy Advisors utilizing current market conditions as of August 31, 2018, the range of equity returns established using the DCF Model is between 11.36 percent and 19.03 percent. FEP believes a median return on equity of 13.75 percent is conservative and balances the interests of shareholders and shippers. See Exhibit B.

Associated Changes From Page 1 of Form No. 501-G For Fayetteville Express Pipeline LLC

Line # On 501-G	Description	Column E With Adjusted Tax Allowance	Adjustments	As Adjusted	Explanation
	O&M and A&G				
12	Total Transmission	$10,923,547	$0	$10,923,547	
13	(Less) Gas for Compressor Station Fuel	$2,682,314	$0	$2,682,314	
14	(Less) Other Fuel & Power	$0	$0	$0	
15	Net Transmission Costs	$8,241,233	$0	$8,241,233	
16	Administrative & General	$1,556,560	$0	$1,556,560	
17	Total Operating, Maintenance and Admin. & Gen.	$9,797,793	$0	$9,797,793	
18	**Depreciation, Depletion, and Amortization**	$29,139,867	$0	$29,139,867	
22	**Other Taxes**	$9,550,027	$0	$9,550,027	
	Return				
23	Long Term Debt	$16,521,735	($1,440,984)	$15,080,751	
25	Common Equity	$46,210,908	($4,054,947)	$42,155,961	
26	Total Return	$62,732,643	($5,495,931)	$57,236,712	
	Allowance For Income Taxes				
27	Federal Income Tax Rate	0.00%	10.50%	10.50%	Includes 1/2 of 21% rate since FEP is 50% indirectly owned by a Corp
28	Weighted Average State Income Tax Rate	0.00%	3.14%	3.14%	includes 1/2 of 6.27% rate since FEP is 50% indirectly owned by a Corp
29	Composite Income Tax Rate	0.00%	13.31%	13.31%	
30	Income Tax Allowance on Equity Return	$0	6,472,608	$6,472,608	
31	Less Amort. Of Excess ADIT	$0	$1,055,815	$1,055,815	Includes 1/2 of amortization since FEP is 50% indirectly owned by a Corp (1)
32	Total Income Tax Allowance	$0	$5,416,793	$5,416,793	
33	**Total Cost of Service - Non-Fuel**	$111,220,330		$111,141,192	

Note (1) Reference Ln 31. Reflects the amortization of the excess accumulated deferred income taxes (ADIT) associated with FEP's regulatory liability Account No. 254 to reflect the 21% reduced federal income tax rate. Consistent with Commission and IRS normalization requirements and the Form No. 501-G, FEP intends to employ the Reverse South Georgia Method to amortize its excess ADIT balance over the estimated average remaining life of its assets as of December 31, 2017.

Line # On 501-G	Description	Column E With Adjusted Tax Allowance	Adjustments	As Adjusted	Explanation
	Rate Base				
1	Gas Plant in Service	$972,114,968	$0	$972,114,968	
2	Accumulated Depreciation	$203,771,472	$0	$203,771,472	
8	Net Plant	$768,343,496	$0	$768,343,496	
	Working Capital				
11	Prepayments	$258,063	$0	$258,063	
12	Materials and Supplies	$0	$0	$0	
	ADIT and Regulatory Assets and Liabilities				
13	Accumulated Deferred Income Taxes (IT)	$0	$0	$0	Includes 1/2 of balance since FEP is 50% indirectly owned by a Corp
14	(Less) Accum Deferred IT-Other Property	$0	$39,571,297	$39,571,297	Includes 1/2 of balance since FEP is 50% indirectly owned by a Corp
15	(Less) Accum Deferred IT-Other	$0	$0	$0	
16	Other Regulatory Assets	$0	$0	$0	
17	(Less)Other Regulatory Liabilities	$148,776	$27,451,193	$27,599,969	Includes 1/2 of balance of Excess ADIT since FEP is 50% indirectly owned by a Corp
18	**Rate Base**	$768,452,783	($67,022,489)	$701,430,294	

	Return based on Hypothetical Capital Structure.	Capitalization Ratio	Cost	Wtd. Cost of Capital	
23	Long Term Debt	43.00%	5.00%	2.15%	(no adjustments)
24	Preferred Stock	0.00%	0.00%	0.00%	(no adjustments)
25	Common Equity	57.00%	10.55%	6.01%	(no adjustments)

Line # On 501-G	Description	Column D With Adjusted Tax Allowance	Adjustments	As Adjusted	Explanation
1	Total Operating Revenues	$167,544,456	$0	$167,544,456	
6	**Total Adjusted Revenue**	$167,544,456	$0	$167,544,456	
9	Total Operating, Maintenance and Admin. &Gen.	$9,797,793	$0	$9,797,793	
10	Depreciation, Depletion, and Amortization	$29,139,867	$0	$29,139,867	
14	Other Taxes	$9,550,027	$0	$9,550,027	
15	Non-Fuel Operating Cost Excl. Interest and Taxes	$48,487,687	$0	$48,487,687	
16	**Operating Income**	$119,056,769	$0	$119,056,769	
17	Interest Expense	$16,521,735	($1,440,984)	$15,080,751	Reflects adjusted lower rate base
18	Income Before Income Taxes	$102,535,034	$1,440,984	$103,976,018	
	Allowance for Income Taxes				
19	Composite Income Tax Rate	0.00%	13.31%	13.31%	See page 1 of Addendum, line 29
20	Income Taxes	$0	$13,839,520	$13,839,520	Line 18 x line 19 of this page 3
21	Less Amort. Of Excess ADIT	$0	$1,055,815	$1,055,815	Includes 1/2 of full amortization since FEP is 50% indirectly owned by a Corp
22	Total Income Tax Allowance	$0	$12,783,705	$12,783,705	
23	**Net Income**	$102,535,034	($11,342,721)	$91,192,313	
25	**Rate Base**	$768,452,783	($67,022,489)	$701,430,294	
26	**Total Estimated ROE (excluding fuel)**	23.4%	-0.6%	22.8%	

FAYETTEVILLE EXPRESS PIPELINE LLC

Exhibit A

Computation of Reverse S. Georgia Excess Deferred Tax Amortization
For the Twelve Months Ended December 31, 2017

Line No.	Description	Reference		Amount (a)
1	Gas Plant in Service (101 and 106)	FERC Form 2, Page 110, Line 2, Column c	$	972,114,968
	Less:			
2	Non-Depreciable Land	FERC Form 2, Page 209, Line 83, Column g		435,349
3	Net Gas Plant in Service before Accumulated DD&A			971,679,619
4	Accumulated DD&A	FERC Form 2, Page 110, Line 5, Column c		203,771,472
5	Net Gas Plant (Line 3 - Line 4)		$	767,908,147
6	Annual Depreciation Expense	FERC Form 2, Page 337, Line 12, Column h	$	29,139,867
7	Average Overall Remaining Life in Years, Rounded (Line 5 / Line 6)			26
8	Excess Deferred Tax Liability	FERC Form 2, Page 278, Line 2, Column g	$	(54,902,385)
9	Annual Amortization (Line 8 / Line 7)		$	(2,111,630)
10	50 Percent Annual Amortization (See Note 1)		$	(1,055,815)

Notes 1 Reflects the amortization of the excess accumulated deferred income taxes (ADIT) associated with FEP's regulatory liability Account No. 254 to reflect the 21% reduced federal income tax rate. Consistent with the Commission and IRS normalization requirements and the Form No. 501-G, FEP intends to employ the Reverse South Georgia Method to amortize its excess ADIT balance over the estimated average remaining life of its assets as of December 31, 2017.

I. COST OF EQUITY ESTIMATION

The overall rate of return for a regulated pipeline is based on its weighted average cost of capital, in which the cost rates of the individual sources of capital are weighted by their respective book values. While the costs of debt and preferred stock can be directly observed, the cost of equity is market-based and, therefore, must be estimated based on observable market data. Because the individual pipeline operating companies that are regulated by the Commission are not publicly traded entities, it is not possible to obtain market data on the cost of equity for these companies. Therefore, it is necessary to estimate the cost of equity using available market data. The estimate of the cost of equity is traditionally based on a proxy group of companies that are comparable to the subject company.

II. PROXY GROUP SELECTION

The Cost of Equity for the pipeline operating companies of Energy Transfer Partners, L.P. ("ETP") was estimated using a proxy group of companies that is both publicly traded and comparable to ETP's pipeline operating companies in certain fundamental business and financial respects to serve as its "proxy" for purposes of the ROE estimation process.

The guidance that was relied on in the development of the proxy group is provided in *Petal Gas Storage, LLC v. FERC,*[1] the United States Court of Appeals for the District of Columbia ("D.C. Circuit") established that the proxy group should be comprised of entities with risks and operations that are most comparable to the subject company. In Opinion No. 528, the Commission summarized those guidelines as follows:

> The purpose of the proxy group is to: provide market-determined stock and dividend figures from public companies comparable to a target company for which these figures are unavailable. Market-determined stock figures reflect a company's risk level and, when combined with dividend values, permit calculation of the 'risk-adjusted expected rate of return sufficient to attract investors'.[2]

The Commission was clear to point out that it was making no generic findings as to the specific entities that may be included in proxy groups; rather, it left that determination to individual rate

1 *Petal Gas Storage L.L.C. v. FERC*, 496 F.3d 695, 699 (D.C. Cir. 2007) ("*Petal Gas Storage" or "Petal")*.
2 *El Paso Natural Gas Co.*, 145 FERC ¶ 61,040, at P 591 (one set of quotation marks omitted).

proceedings. In addition, in Opinion No. 528, the Commission summarized its response over time to changing market conditions as it relates to the appropriate proxy group for natural gas pipelines. In Opinion No. 528, the Commission states the following policy regarding the proxy group:

> [O]ver time, mergers and acquisitions reduced the number of companies satisfying these criteria for selection. In response, the Commission sometimes modified the criteria to ensure that there were a sufficient number of companies in the proxy group. Addressing this problem further, the Commission issued a Policy Statement endorsing the use of master limited partnerships (MLPs), along with corporations, in proxy groups.[3]

In accordance with the Commission's requirement to show the comparability of proxy companies with the applicant, ETP relied on specific screening criteria to narrow the list of potential proxy companies. As noted by the Commission in *Kern River*, and given that ETP's pipeline companies are 100 percent natural gas transmission serving an increasingly competitive market, it is difficult to develop a proxy group in which the members will have the exact same risk.[4] Therefore, after identifying a short list of potential companies, the potential proxy companies' business segments were reviewed, including pipeline assets and other business units, to identify a group of companies that are most comparable to the ETP pipeline companies. using the following screening criteria:

1. All of the companies have publicly-traded common stock or partnership units;
2. All of the companies are currently paying cash dividends or distributions;
3. All companies must have a positive long-term growth rate forecast by Thomson First Call;[5]
4. All of the companies have assets or operating income derived from natural gas transportation operations, including ownership in FERC-regulated pipelines;
5. None of the companies is engaged in significant transactions involving mergers, acquisitions or divestitures during the analysis period;

3 Opinion No. 528, *El Paso Natural Gas Co.*, 145 FERC ¶ 61,040, at P 595 (footnote omitted).
4 Opinion No. 486-B, *Kern River Gas Transmission Co.*, 126 FERC ¶ 61,034 (2009) (Kern River).
5 Thompson reports IBES earnings growth estimates. These estimates are reported publicly through Yahoo!Finance.

6. None of the proxy companies has a DCF equity rate of return estimate that fails to reasonably exceed the yield on corporate debt.

Figure 1 summarizes the companies and MLPs that met the screening criteria:

Figure 1: Proxy Group

Company	Ticker
Dominion Energy Midstream Partners	DM
Enable Midstream Partners LP	ENBL
EQT Midstream Partners, LP	EQM
Kinder Morgan, Inc.	KMI
TC PipeLines, LP	TCP
Tallgrass Energy LP	TGE
TransCanada Corporation	TRP
Williams Companies, Inc.	WMB

The proxy group is comprised of a group of natural gas transportation companies and MLPs that most closely approximate the risk profile of ETP. The following summarizes the business operations of the proxy companies.

A. Comparable Companies

1. Dominion Energy Midstream Partners

Dominion Energy Midstream Partners is a natural gas transportation and storage Delaware limited partnership, formed on March 11, 2014. As shown in Exhibit 2, all of its business consists of pipeline and storage operations. Therefore, Dominion Energy Midstream has one operating segment, Gas Infrastructure, which consists of transportation, LNG terminaling services, and storage. Dominion's pipeline system facilities consist of approximately 4,252 miles of pipeline and underground storage fields with aggregate working gas capacity of approximately 55.8 Bcf.[6] Dominion's natural gas transportation and storage operations are both regulated by the Commission. Dominion conducts its transportation and storage business through its operating subsidiaries, Dominion Energy Carolina Gas ("DECG") and Dominion Energy Questar Pipeline ("Questar"). In addition, Dominion Energy Midstream owns the preferred equity interests and the

6 Dominion Energy Midstream Partners. *Form 10-K 2017*, at 9-11. Note: working gas capacity does not include Cove Point's storage capacity.

general partner interest in Cove Point and a 25.93 percent noncontrolling partnership interest in Iroquois.[7] DECG interconnects with the systems of Southern Natural Gas Company, Southern LNG, Elba Express, and Transco and supplies gas to Georgia and South Carolina. Questar accesses the Greater Green River, Uinta, and Piceance basins and serves the Utah, Wyoming, and Colorado markets.

The operations of Dominion are subject to a variety of risks, many of which are common to all companies in this industry: potential occurrences of catastrophes, terrorist attacks, or accidents. Swings in the price of natural gas, if significant enough, could impact all pipelines negatively. High prices could reduce demand and lower throughput volume and lower prices could impact the basis differentials and reduce transportation revenues. Dominion, like all pipelines, is also subject to the credit risk of its customers.

Dominion must also contend with risks specific to its circumstances. These risks include the Company's relative lack of asset diversification, its dependency on Dominion Energy for borrowings necessary to meet working capital or other financial needs, and re-contracting risk. Should the Company not have access to Dominion Energy's funding resources, its growth and profitability could be adversely impacted. Should one or more of the Company's customers elect not to re-contract, the Company could see a decline in revenues. In addition, Dominion Energy Midstream is exposed to risks related to its investment in Cove Point. Cove Point's revenues are generated by a limited number of contracts and therefore the ability of Cove Point to make payments on the Preferred Equity Interest is dependent upon the performance of those customers (this includes Cove Point's Import Shippers).[8]

Given that Dominion's businesses primarily consist of FERC-regulated natural gas and transmission operations, and considering the operating and financial risks described above, it is appropriate to include Dominion Energy Midstream Partners in the ETP Proxy Group.

2. Enable Midstream Partners, LP

Enable Midstream Partners LP is a Master Limited Partnership with operations in natural gas transportation and storage as well as gathering and processing. As shown in Exhibit 2, Enable's transportation and storage segment accounts for 38 percent of its operating income while its

7 *Id.*, at 11.
8 *Id.*, at 18.

gathering and processing segment accounts for 62 percent of its operating income. Therefore, all of its operations are related to natural gas transmission, gathering and processing, thereby making Enable Midstream Partners a good proxy for ETP. Enable Midstream Partners' transportation system includes two FERC-regulated interstate pipelines and a 50 percent ownership of a third interstate pipeline, making for a total of approximately 7,800 miles of interstate pipeline with 9.3 Bcf/d of transport capacity.[9] These systems serve primarily large natural gas and electric utilities, as well as natural gas producers, industrial end users, and natural gas marketers in Texas, Illinois, Missouri, Kansas, Mississippi, Alabama, Arkansas, Oklahoma, and Louisiana. They access gas primarily in the Anadarko, Arkoma, and Ark-la-Tex basins. In 2017, Enable Midstream Partners' interstate system also provided 62 Bcf in storage capacity.[10]

Enable Midstream Partners' operations face a variety of risks, including those common to all interstate pipelines, as described above. While the Company has access to a variety of natural gas sources, both EGT and MRT face competition from other interstate natural gas pipelines serving the same markets in Missouri, Oklahoma, Arkansas, Louisiana and Texas. In addition, Enable Midstream Partners relies on a small pool of customers and thus is exposed to substantial contract renewal risk. For example, Spire, Inc. filed an application in January 2017 to construct the Spire STL pipeline in the St. Louis market which if constructed would reduce Spire's need for firm transportation and storage capacity on MRT.[11] The Company also has exposure related to its operations that are conducted through joint ventures. Specifically, Enable Midstream Partners faces the risk that third parties will not be able to meet their obligations under the joint venture. In addition, Enable Midstream Partners' general partner and its affiliates – primarily CenterPoint Energy and OGE Energy – have conflicts of interest with the MLP and could make decisions in favor of their own interests and to the detriment of Enable Midstream Partners.

For the reasons discussed above, Enable Midstream Partners is comparable to ETP and should be included in the proxy group.

3. EQT Midstream Partners, LP

EQT Midstream Partners, LP is a natural gas transmission, storage, and gathering MLP. As shown

9 Enable Midstream Partners LP. *Form 10-K 2017*, at 11.
10 *Id.*, at 11.
11 *Id.*, at 15.

in Exhibit 2, approximately 50 percent of EQT Midstream Partners' assets are derived from its transmission and storage segment. The company conducts its transmission and storage operations primarily through its wholly owned subsidiary, Equitrans, LP. The Equitrans system consists of an approximately 950-mile FERC-regulated interstate pipeline that connects to seven interstate pipelines and to LDCs and has a total throughput capacity of 4.4 Bcf per day.[12] The Equitrans pipeline runs between West Virginia and Pennsylvania and accesses gas from the Marcellus Shale basin. In addition to the Equitrans System, EQT Midstream Partners is engaged in a joint venture project to develop the Mountain Valley Pipeline. The Mountain Valley Pipeline is projected to span from 300 miles from West Virginia into Virginia. EQT Midstream Partners is the operator of Mountain Valley Pipeline and, as of December 31, 2017, owned a 45.5 percent interest.[13]

EQT Midstream Partners, like other midstream natural gas companies, is exposed to risks related to re-contracting, environmental catastrophe, adverse turns in the price of natural gas and regulatory risk. EQT Corporation indirectly holds a significant interest in EQT Midstream Partners and is also its largest customer. As a result, EQT Midstream Partners faces the risk of potential conflict with EQT, which is not restricted from competing directly with EQT Midstream Partners nor under any obligation to maintain its production dedicated to the MLP. Furthermore, EQT Midstream Partners' assets are not geographically diverse, with its assets spanning only two states. Despite the high levels of productivity in the Marcellus Shale basin, EQT Midstream Partners could face adverse consequences as a result of lower productivity, customers relocating production to areas outside of its territory, and increased competition from other interstate and intrastate pipelines.

Because EQT Midstream Partners' operations are reasonably comparable to ETP, it is appropriate to include in the proxy group.

4. Kinder Morgan, Inc.

Kinder Morgan, Inc. is a major energy infrastructure company which owns or operates approximately 72,000 miles natural gas pipelines.[14] As shown in Exhibit 2, Kinder Morgan's pipeline segment accounts for 65 percent of its total assets and approximately 50 percent of its

12 EQT Midstream Partners LP. *Form 10-K 2017*, at 7-8.
13 *Id.*, at 8.
14 Kinder Morgan, Inc. *Form 10-K 2017,* at 9-11.

Earnings Before Depreciation and Amortization ("EBDA"). As shown in Figure 2, Kinder Morgan's transportation and storage system is extensive and geographically diverse, serving major markets in the western U.S., Louisiana, Texas, the Midwest, Northeast, Rocky Mountain, Midwest and Southeastern regions.

Figure 2: Kinder Morgan, Inc. - Natural Gas Pipelines[15]

Parent/Pipeline	Basin(s)/Hub(s) to Which Pipeline is Tied	Major Downstream Markets Served
El Paso Natural Gas Pipeline Company/Mojave Pipeline (5.65 Bcf/day)	San Juan, Permian and Anadarko basins	California, New Mexico, Northern Mexico, Oklahoma, Texas
Kinder Morgan Louisiana Pipeline (2.20 Bcf/day)	Cheniere Sabine Pass LNG Terminal	Interconnects with Columbia Gulf, ANR, & other pipelines in Louisiana
Tennessee Gas Pipeline Company (9.74 Bcf/day)	Haynesville, Marcellus, Utica, Eagle Ford Formations	US Northeast & Southeast
TransColorado Gas Transmission Company (0.98 Bcf/day)	San Juan, Paradox and Piceance Basins	New Mexico, Colorado
Fayetteville Express Pipeline (2.0 Bcf/day) (50% interest)	Conway County, Arkansas	Connects to NGPL, Trunkline, TGT & ANR, Arkansas, Mississippi
Midcontinent Express Pipeline (1.80 Bcf/day) (50% interest)	Oklahoma and North Texas Supply Basins	Interconnects to Transco, Columbia Gulf and other pipelines
Natural Gas Pipeline Company of America (6.20 Bcf/day) (50% interest)	Central US Supply Basins	Chicago/Midwest, LNG transported to export facilities in Texas/Gulf Coast
Southern Natural Gas (3.90 Bcf/day)	Texas, Louisiana, Mississippi, Alabama, Gulf of Mexico	Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, Tennessee
Florida Gas Transmission (3.60 Bcf/day) (50% interest)	Louisiana, Texas, Gulf of Mexico, Mobile Bay	Florida
Colorado Interstate Gas (5.15 Bcf/day)	Rocky Mountains and Anadarko Basin	Colorado, Wyoming
Wyoming Interstate Company (3.88 Bcf/day)	Overthrust, Piceance, Uinta, Powder River, and Green River Basins	Western Colorado, Northeast, Wyoming, Eastern Utah
Cheyenne Plains Gas Pipeline (1.20 Bcf/day)	Central Rocky Mountain Basins	Colorado, Kansas
Ruby Pipeline (1.53 Bcf/day) (50% interest)	Rocky Mountain Basins	Colorado, Nevada, and Pacific Northwest
WYCO Development (1.20 Bcf/day) (50% interest)	Northeast Colorado	Connects to CIG, WIC, Rockies Express, Young Gas Storage and PSCo's pipeline system
Elba Express (0.95 Bcf/day)	Georgia	Connects to SNG, Transco, SLNG & CGT, Georgia, South Carolina
Sierrita Gas Pipeline (0.20 Bcf/day) (35% interest)	Arizona	Arizona, Mexico
Young Gas Storage (6 Bcf capacity) (48% interest)	Morgan County, Colorado	CIG and Colorado Springs
Keystone Gas Storage (6 Bcf capacity)	Permian Basin	West Texas
Gulf LNG (6.6 Bcf capacity) (50% interest)	Pascagoula, Mississippi	Transcontinental Pipeline, Florida Gas, Destin Pipeline, Gulfstream natural gas system

15 *Ibid.*

Parent/Pipeline	Basin(s)/Hub(s) to Which Pipeline is Tied	Major Downstream Markets Served
Southern LNG (11.5 Bcf capacity)	Savannah, Georgia	Connects to Elba Express, SNG and Dominion Energy Carolina Gas Transmission

Kinder Morgan, Inc.'s operations are subject to a variety of risks, including those common to ETP and other natural gas pipeline companies. However, Kinder Morgan's geographic diversification is more extensive than that of ETP thus giving it access to a greater number of supply sources and downstream markets. Kinder Morgan's customer base is also sufficiently wide enough to ensure that a loss of revenues from any single customer would not have an adverse material impact on their business or financial position. The remaining weighted average contract life of Kinder Morgan's gas transportation contracts (including intrastate) was approximately six years as of December 31, 2017.[16]

Because a significant portion of Kinder Morgan's assets and operations are devoted to regulated natural gas transmission and storage services, and given its risk profile, it is appropriate to include Kinder Morgan, Inc. in the proxy group for ETP.

5. TC PipeLines, LP

TC PipeLines LP is a natural gas transmission MLP with interests in approximately 6,300 miles of FERC-regulated pipelines and a total deliverable capacity of 9.4 Bcf per day.[17] As shown in Exhibit 2, Natural gas pipelines make up 100 percent of TC PipeLines' operating income and assets. The company conducts its transmission operations through four fully-owned and four partially owned pipeline assets. Gas Transmission Northwest LLC ("GTN") spans 1,377 miles from an interconnection in British Columbia, Canada, to the border of California and Oregon.[18] GTN's revenues are primarily derived from long-term contracts scheduled through the end of 2023 that primarily serve LDCs. Bison Pipeline LLC ("Bison") extends 303 miles from Wyoming to Northern Border's pipeline system in North Dakota, transporting gas from Powder River Basin to midwestern markets.[19] North Baja Pipeline spans 86 miles between Arizona and the Mexican

16 *Id.*, at 39.
17 TC PipeLines company website. (2018). http://www.tcpipelineslp.com/assets.html
18 TC PipeLines, LP. *Form 10-K 2017*, at 14.
19 *Ibid.*

border by way of California.[20] Tuscarora Gas Transmission Company's pipeline system spans 305 miles from Oregon to its terminus near Reno, Nevada.[21] North Baja and Tuscarora revenues are supported primarily by long-term contracts extending through 2020 and beyond.[22] TC PipeLines' other systems access Canadian natural gas and deliver to midwestern and northeastern U.S. markets.

TC PipeLines has financial and operational risks that are common to all pipelines, including ETP. These risks include but are not limited to environmental risk, price risk, re-contracting risk, and the risk of changes in the availability of and demand for natural gas in the company's areas of operation. TC PipeLines is exposed to re-contracting risk particularly with its Bison system where gas is currently not flowing due to changes in demand resulting from the relative cost advantages of other production areas.[23] In general, because a significant portion of TC Pipelines' revenue comes from long-term contracts, it is insulated from competition throughout the duration of those contracts. TC PipeLines' systems are relatively geographically diverse in terms of their access to natural gas supply basins and markets; however, their system is not as large as ETP's system.

TC PipeLines' is similar to ETP on a financial and operational basis and therefore it is appropriate to include the MLP in ETP's proxy group.

6. Tallgrass Energy LP

Tallgrass Energy LP is a midstream energy company with operations in natural gas and crude oil transportation, storage, terminalling, gathering and processing. As shown in Exhibit 2, approximately 68 percent of Tallgrass Energy's adjusted EBITDA[24] and 42 percent of its assets are attributable to its natural gas transportation segment. Tallgrass Energy's natural gas operations consist of three pipeline systems: Rockies Express Pipeline (49.99% interest as of December 31, 2017), Tallgrass Interstate Gas Transmission System ("TGIT"), and Trailblazer Pipeline.

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20 *Ibid.*
21 *Ibid.*
22 *Id.*, at 17.
23 Id., at 29.
24 Adjusted EBITDA defined in Tallgrass Energy LP's June 2018 10-Q on page 30 as "net income excluding the impact of interest, income taxes, depreciation and amortization, non-cash income/loss related to derivative instruments, non-cash long-term compensation expense, impairment losses, gains or losses on asset or business disposals or acquisitions, gains or losses on the repurchase, redemption or early retirement of debt, and earnings from unconsolidated investments, but including the impact of distributions from unconsolidated investments and deficiency payments received or utilized by our customers."

Together, these systems account for a total of approximately 6,818 miles of pipeline and delivered on average approximately 5.5 Bcf per day in 2017.[25]

The Rockies Express Pipeline system has three zones which together extend from the Meeker Hub in Colorado to the Clarington Hub in Ohio. The majority of Rockies Express' revenues in 2017 were generated from firm fee contracts. TGIT serves customers in Colorado, Kansas, Nebraska, Wyoming, and Missouri, primarily through LDCs. TGIT also owns a natural gas storage facility with 15 Bcf of working gas capacity.[26] The Trailblazer pipeline begins along the border of Colorado and Wyoming and stretches all the way to Nebraska. In Nebraska, the pipeline interconnects with large interstate natural gas pipelines that provide gas to major markets in the Midwest and Northeast. Trailblazer also directly serves a mix of distribution, commercial, and industrial customers.

Tallgrass' operations are subject to a variety of risks that have been discussed previously in this report and are common to most pipelines, including ETP. Tallgrass' transmission and storage systems are located primarily in the Rocky Mountain, Midwest, and Appalachian Mountain regions and are therefore less geographically diverse than ETP. The weighted average remaining life of Tallgrass' long-term natural gas transportation and storage contracts at TIGT and Trailblazer was approximately four years as of December 31, 2017.[27] A majority of the contracts at Rockies Express' west-east pipeline are set to expire in 2019, posing potentially significant re-contracting risk. Furthermore, Tallgrass Energy's customer base is not particularly diverse. For example, the three largest shippers utilizing the Rockies Express system accounted for 45 percent of the system's total revenues as of December 31, 2017.[28]

Because a significant portion of its operations is attributable to FERC-regulated natural gas and storage services, and its risk profile is similar to that of ETP, Tallgrass Energy LP is an appropriate company to include in the proxy group for ETP.

7. TransCanada Corporation

TransCanada Corporation is a major energy company headquartered in Canada. As shown in Exhibit 2, approximately 68 percent of both TransCanada's assets and EBITDA are attributable to

25 Tallgrass Energy LP. *Form 10-K 2017,* at 4-5.
26 Tallgrass Energy LP company website. (2018). http://www.tallgrassenergylp.com/Operations_TIGT.aspx
27 Tallgrass Energy LP. *Form 10-K 2017,* at 21.
28 *Id.,* at 22.

its natural gas pipeline segment. Therefore, the majority of TransCanada's business is derived from its natural gas transportation and storage operations. TransCanada's portfolio consists of 57,100 miles of natural gas pipelines spanning throughout the U.S., Mexico and Canada.[29] TransCanada's US system is comprised of 30,748 miles of FERC-regulated natural gas pipelines and significant storage operations.[30] Approximately 6,300 miles of those pipelines are indirectly owned through TC PipeLines LP. Its other U.S. natural gas transmission systems include the ANR Pipeline (serving Wisconsin, Michigan, Illinois, and Ohio), Columbia Gas Transmission (serving customers from New York State to the Gulf of Mexico), Columbia Gulf Transmission (serving the Gulf Coast region), Crossroads Pipeline (serving Indiana and Ohio), and Millennium Pipeline (serving the state of New York).

TransCanada's pipeline system is exposed to many of the same risks described earlier which are inherent to all pipeline systems, including ETP. However, because TransCanada is so large and geographically diverse, it has the ability to mitigate the effect of many of the financial and operating risks that affect smaller companies.

Since a large proportion of TransCanada's assets are FERC-regulated natural gas pipelines located in the U.S. and TransCanada is exposed to many of the same risks as ETP, it is appropriate to include TransCanada in the proxy group for ETP.

8. Williams Companies, Inc.

Williams Companies, Inc. is an energy infrastructure company which owns natural gas transmission, storage, and gathering and processing assets. As of December 31, 2017, Williams' reportable business segments included Williams Partners LP (WPZ), which operates gas pipeline and midstream businesses, and "other," which is comprised of non-operating business activities and corporate operations. On May 17, 2018, Williams Companies announced an agreement to purchase all the public equity of Williams Partners LP, acquiring Williams Partners' assets and operations. Therefore, Williams Companies and not Williams Partners is included in the proxy group for ETP. As shown in Exhibit 2, Williams Companies' assets and EBITDA are almost entirely attributable to Williams Partners which is mainly engaged in providing natural gas

29 "TransCanada Natural Gas Pipelines." https://www.transcanada.com/globalassets/pdfs/media/maps/transcanada-natural-gas-assets-map.pdf

30 *Ibid.*

transmission, storage and gathering and processing services. Therefore, Williams Companies is a good proxy for ETP.

Williams Companies conducts its natural gas pipeline operations through Transco and Northwest Pipeline – both interstate transmission companies – and the Gulfstream pipeline system. In addition, Williams also owns and operates two offshore transmission pipelines that are FERC-regulated: Black Marlin Pipeline Company and Discovery. Transco's system spans 9,700 miles from Texas to New York and had a delivery capacity of 15.0 MMdth per day as of December 31, 2017.[31] Transco's major customers include public utilities and municipalities. The majority of its firm transportation agreements are long-term with varying expiration dates. Transco also has 200 Bcf of usable gas storage capacity.[32]

Northwest Pipeline Company's system is composed of approximately 3,900 miles of natural gas pipelines spanning from the San Juan basin in New Mexico and Colorado, through Utah, Wyoming, Idaho, Oregon, and Washington, to a point on the Canadian border near Sumas, Washington.[33] Northwest's customers are diverse and include LDCs, municipal utilities, industrial end users, power generators, marketers and producers.

The Gulfstream system runs 745 miles between Alabama and Florida. Gulfstream has a transport capacity of 1.3 Bcf per day.[34]

The risks that Williams Companies is exposed to are common to all pipelines. Notably, Williams Companies faces increasing competition in its service areas where pipeline capacity is growing constrained and connecting to major demand centers is becoming more difficult. Many of Williams' contracts are under long-term and fixed price arrangements, which mitigates some of the adverse effects of competition in the near term but places the business at risk of realizing costs that exceed revenues. Though Williams' businesses are geographically spread out, some of them may be dependent on a limited number of suppliers for delivery. This supplier concentration risk, if realized, could in turn lead to decreased revenues and increased expenses.[35]

Because Williams Companies' operations and risks are comparable those of ETP, Williams

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31 Williams Companies, Inc. *Form 10-K 2017,* at 5.
32 *Id.,* at 5.
33 *Id.*, at 6.
34 *Ibid.*
35 *Id.*, at 27.

Companies has been included in the proxy group for ETP.

III. CALCULATION OF THE DCF METHODOLOGY

Historically, the Commission has utilized the following general form of the DCF model as one methodology for setting the return on equity for natural gas pipeline companies.

$$K = \frac{D\,(1 + .5g)}{P} + g \qquad [1]$$

where: K = the cost of capital, or total return that investors expect to receive;

P = the current market price of the stock;

D = the current annual dividend/distribution rate; and

g = the expected growth rate which the FERC calculates as a weighted average of the short-term analyst growth rates and a projection of long-term GDP growth.[36]

The DCF method reflects the assumption that the market price of a share of stock represents the discounted present value of the stream of all future dividend/distributions that investors expect the firm to pay. The DCF method suggests that investors in common stocks expect to realize returns from two sources: a current dividend/distribution yield, plus expected growth – *i.e.*, appreciation – in the value of their shares as a result of future dividend/distribution increases. Estimating the cost of capital with the DCF method therefore is a matter of calculating the current dividend/distribution yield and estimating the future growth rate in dividend/distributions that investors reasonably expect from a company.

The dividend/distribution yield portion of the DCF method for a company generally consists of the dividend/distribution per share of that company divided by the price per share and utilizes current and readily available information regarding stock prices and dividend/distributions. The market price of a firm's stock reflects investors' assessments of risks and potential earnings as well as their assessments of alternative opportunities in the competitive financial markets. By using

[36] The FERC growth rate applies a two-thirds weight to analysts' growth expectations and one third weight to GDP growth estimates.

the market price to calculate the dividend/distribution yield, the DCF method implicitly recognizes investors' market assessments and alternatives.

The other component of the DCF formula, investors' expectations regarding the future long-run growth rate of dividend/distributions, is not apparent from stock market data and must be estimated using informed judgment. While the form of the model shown in equation 1 above is a Constant Growth DCF model, the Commission has consistently relied on a Two-Stage DCF model.[37] The Two-Stage DCF model recognizes that short-term growth projections may not be achievable in perpetuity. Therefore, the Two-Stage DCF model relies on a weighted average of short-term market growth prospects for each company or MLP and an estimate of long-term GDP growth. Each of the assumptions discussed below was developed consistent with the methodology that has been relied on by the Commission. The Commission's Two-Stage DCF model requires the following inputs:

1. The average of the high and low stock prices for each month during a six-month period;[38]
2. The annualized dividend/distribution per share at the end of the selected six months;
3. Consensus earnings growth estimates for the first stage growth rate in the Two-Stage DCF model; and
4. An estimate of GDP growth to be used in the second-stage of the model as the long-term growth rate.

A. <u>Calculation of the Dividend Yield</u>

The dividend yields used in the DCF model were developed consistent with the approach that was relied upon by the Commission in both Opinion No. 510 and *Kern River*.[39] As shown in Exhibit 3, the dividend/distribution yields were calculated for each proxy company or MLP by dividing the annualized dividend/distribution by the average of the stock prices for each company. The price used in this calculation is based on the high and low price for each month during the six-

37 The Two-Stage DCF methodology has been outlined in Opinion No. 528, 145 FERC ¶ 61,040 (2013) at PP 637-698. See also Composition of Proxy Groups For Determining Gas and Oil Pipeline Return on Equity, 123 FERC ¶ 61,048 (2008) at para 6

38 The analysis relies on the six-month period ending August 31, 2018.

39 Trial Staff Initial Brief, Exhibit S-3, June 17, 2008, p. 212. Opinion No. 510, Portland Natural Gas Transmission System, 134 FERC ¶ 61,129 (February 17, 2011) at 89. Opinion No. 486-B, Kern River Gas Transmission Company, 126 FERC ¶ 61,034 (January 15, 2009) at 111.

month period from March 2018 through August 2018. The dividend/distribution yield was calculated for each month using the dividend/distribution yield that had been announced by the company at that time. The six dividend/distribution yields over this time-period were averaged to derive the dividend/distribution yield that was used in the DCF analysis. The dividend/distribution yields are multiplied by the quarterly dividend/distribution adjustment factor (1 + .5g) to arrive at the dividend/distribution yield component of the DCF model.

B. Calculation of the DCF results

The cost of equity was estimated for the proxy group using the Two-Stage DCF methodology outlined by the Commission in Opinion Nos. 528, 510, 524, and *Kern River*. As discussed in those decisions, the DCF model requires as inputs, a first- and second-stage growth rate in addition to the dividend yield discussed previously. The first-stage growth rates for the proxy group companies were based on the analyst growth rates compiled by Thomson Reuters First Call and published by Yahoo!Finance.

The second-stage growth rate is intended to reflect the long-term growth of the proxy companies. The second-stage growth rate was established based on three sources of nominal GDP growth projections. The Commission has consistently relied on the average of 1) Global Insights, 2) U.S. Energy Information Administration ("EIA") and 3) the Social Security Administration ("SSA") forecasts of nominal GDP growth in the development of the second-stage growth rate. The Global Insights projection of nominal GDP growth is not a public data source. Therefore, the projections of Blue Chip Economic Indicators was substituted for the Global Insights market projections. Blue Chip Economic Indicators publishes a consensus estimate of real GDP growth. As shown in Exhibit 3, the Blue Chip Economic Indicators projection of real GDP growth was converted to nominal GDP growth using the real GDP rate from 2020 through 2029 of 2.05 percent and a projected inflation rate from Blue Chip Economic Indicators over the same time period of 2.10 percent. As shown in Exhibit 3, the nominal GDP growth rate that was relied on in the DCF model for pipeline companies was the average of the projections from the Blue Chip Economic Indicators, EIA and the SSA. For pipeline corporations, the second-stage growth rate was 100 percent of the nominal GDP growth rate.

In the Policy Statement on MLP's and in *Kern River,* the Commission determined that based on the structure and payout ratios of the MLPs, the second-stage growth rate should be lower than the estimate used for corporations. In those decisions, the Commission determined that it was appropriate to rely on one-half of the second-stage growth rate when calculating the return on equity for MLPs using the DCF model.[40] The analysis, presented in Exhibit 3 and summarized in Figure 3 below, relies on a second-stage growth rate that is consistent with the Commission's established decision to apply one-half of the second-stage growth rate to the ROE calculation for MLPs.

Figure 3 summarizes the return on equity results using the Commission's Two-Stage DCF methodology and market data through August 2018. As shown in Figure 3, the median cost of common equity capital for the natural gas pipeline proxy companies is 13.75 percent, with a range between 11.36 percent and 19.03 percent.

Figure 3: Summary of DCF results

	Ticker	Dividend Yield	Expected Dividend Yield Times (1 + 0.50g)	Analysts Projected EPS Growth Rate (g)	GDP Growth Rate	Weighted Average Growth Rate	Investor Required Return
Dominion Energy Midstream Partners	DM	8.55%	8.98%	14.00%	2.15%	10.05%	19.03%
Enable Midstream Partners LP	ENBL	8.13%	8.33%	6.50%	2.15%	5.05%	13.38%
EQT Midstream Partners, LP	EQM	7.58%	7.82%	8.50%	2.15%	6.38%	14.21%
Kinder Morgan, Inc.	KMI	4.46%	4.67%	12.00%	4.31%	9.44%	14.11%
TC PipeLines, LP	TCP	9.55%	9.76%	5.70%	2.15%	4.52%	14.28%
Tallgrass Energy LP	TGE	8.73%	8.84%	2.70%	2.15%	2.52%	11.36%
TransCanada Corporation	TRP	6.44%	6.61%	5.81%	4.31%	5.31%	11.92%
Williams Companies, Inc.	WMB	4.98%	5.18%	10.00%	4.31%	8.10%	13.28%
Median							**13.75%**

IV. CAPITAL MARKET CONDITIONS

The DCF model relies on market data that is specific to the proxy group; therefore, the results produced by the DCF model can be affected by prevailing market conditions at the time the analysis is performed. While the ROE that is established in a rate proceeding is intended to be forward-looking, the analyst uses current and projected market data, specifically stock prices, dividends, and growth rates in the DCF model to estimate the required return for the subject company. Additionally, analysts and regulatory commissions including the Commission have concluded that current market conditions are anomalous and that these conditions have affected

40 See Opinion No. 486-B, Kern River Gas Transmission Company, 126 FERC ¶ 61,034, at P 127-128.

the results of the DCF model.[41] As a result, it is important to consider the effect of these conditions on the DCF model when determining the appropriate range and recommended ROE for a future period. If investors do not expect current market conditions to be sustained in the future, it is possible that the DCF model will not provide an accurate estimate of investors' required return during that rate period.

The cost of equity for regulated natural gas pipeline companies is being affected by two important factors in the current and prospective capital markets, including: (1) the current and expected interest rate environment; and (2) recent Federal tax reform. Each of these factors is discussed with particular attention to how it affects the assumptions in the DCF model which is the primary model used to estimate the cost of equity for regulated natural gas pipeline companies.

A. The Current and Expected Interest Rate Environment

Extraordinary and persistent federal intervention in capital markets artificially lowered government bond yields after the Great Recession of 2008-2009, as the Federal Open Market Committee ("FOMC") used monetary policy (both reductions in short-term interest rates and purchases of Treasury bonds and mortgage-backed securities) to stimulate the U.S. economy.

However, based on stronger macroeconomic conditions, the Federal Reserve raised the short-term borrowing rate by 25 basis points at the March, June, and September 2018 meetings. Since December 2015, the Federal Reserve has increased interest rates eight times, bringing the federal funds rate to the range of 2.00 percent to 2.25 percent. As the economy continues to expand, the Federal Reserve is expected to continue increasing short-term interest rates to sustain the desired balance between unemployment and consumer price inflation.[42] The Federal Reserve has indicated that it intends to raise short-term rates once more in 2018.[43]

41 FERC Docket No. EL11-66-001, Opinion No. 531, footnote 286. While Opinion No. 531 was recently remanded to the FERC by the D.C. Circuit Court on other grounds, that decision did not question the finding by the FERC that capital market conditions were anomalous. Additionally, the methodologies that were relied on by FERC to establish the range have not be challenged.

42 FOMC, Federal Reserve press release, September 26, 2018.

43 Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents under their individual assessments of projected appropriate monetary policy, September 2018.

Furthermore, in October 2017, the Federal Open Market Committee ("FOMC") started reducing the size of the Fed's $4.5 trillion bond portfolio by no longer reinvesting the proceeds of the bonds it holds. In response to the Great Recession, the Fed pursued a policy known as "Quantitative Easing," in which it systematically purchased mortgage-backed securities and long-term Treasury bonds to provide liquidity in financial markets and drive down yields on long-term government bonds. Although the Federal Reserve discontinued the Quantitative Easing program in October 2014, it continued to reinvest the proceeds from the bonds it holds. Under the new policy, the FOMC intends to gradually reduce the Federal Reserve's securities holdings by $10 billion per month initially, ramping up to $50 billion per month by the end of the first twelve months.[44] The Federal Reserve's announced unwinding plan provides additional support for investors' view that long-term interest rates will increase, as the Federal Reserve gradually reverses the Quantitative Easing program that reduced those long-term rates.

Increases in long-term government bond yields are expected to result in sector rotation, as investors who used the dividend yields of utilities as an alternative to yields on long-term government bonds will no longer see the attractiveness of utility stocks and begin to rotate back to long-term government bonds. This will have the effect of reducing the price of utility stocks, thus increasing the dividend yield and the cost of equity.

Additionally, increases in the federal funds rate coupled with the unwinding of the Federal Reserve's balance sheet, the implementation of the Tax Cuts and Jobs Act ("TCJA") and the prospect of trade disputes with various countries has created uncertainty in the market. Investors are unsure of the ultimate impact that these policies will have on the economy. As shown in Figure 4, this has resulted in increased volatility in the market in 2018. For example, the S&P 500 Index increased following the passage of the Tax Cuts and Jobs Act ("TCJA") by the House of Representatives on November 16, 2017; however, shortly after the start of 2018, the S&P 500 Index decreased as investors reacted to increasing bond yields, the possibility of higher inflation and the fact that the Federal Reserve might increase interest rates at a faster pace than expected.[45]

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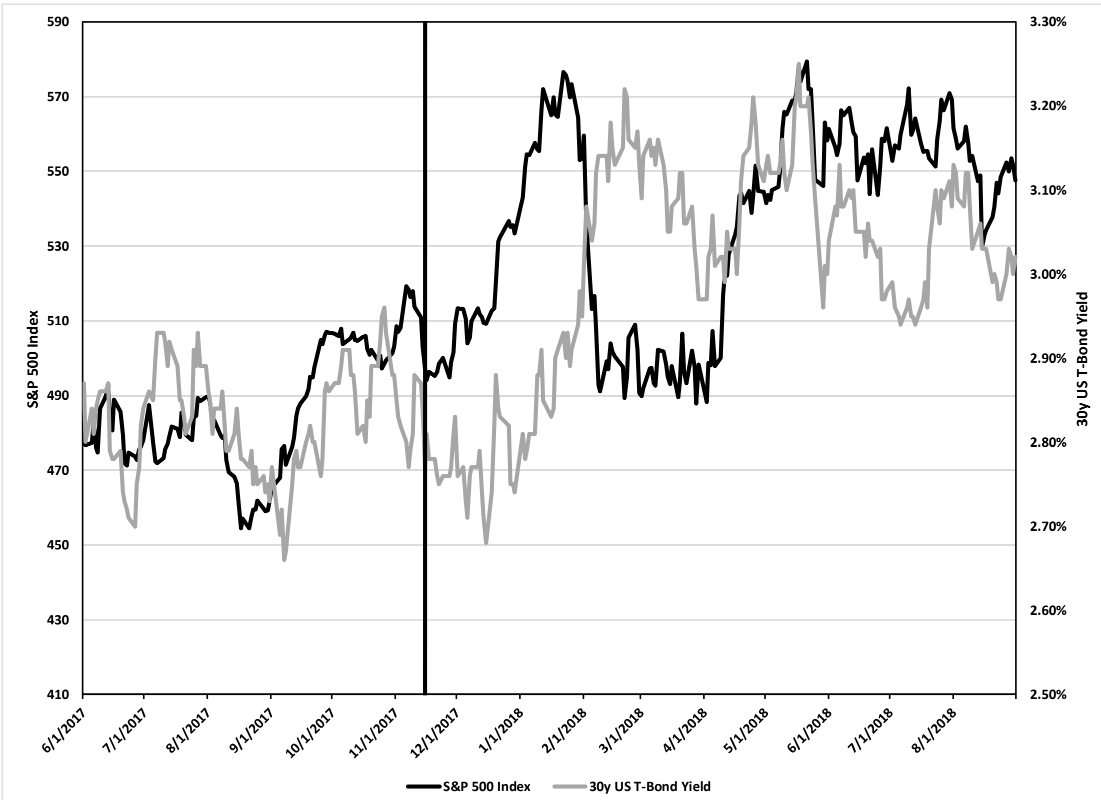
44 Federal Reserve press release, Addendum to the Policy Normalization Principles and Plans, June 14, 2017, implemented at FOMC meeting September 20, 2017.

45 Krauskopf, Lewis. "Wall Street Plunges, S&P 500 Erases 2018's Gains." Reuters, Thomson Reuters, 5 Feb. 2018, www.reuters.com/article/us-usa-stocks/wall-street-plunges-sp-500-erases-2018s-gains-idUSKBN1FP1OR.

As shown in Figure 4, investors reactions were supported by the 30-year Treasury Bond yield which did increase steadily throughout the first quarter of 2018.

Figure 4: S&P 500 Index and U.S. Treasury Bond Yields (June 2017 – August 2018)[46]



There is further evidence that investors' risk sentiment has increased. As shown in Figure 5, credit spreads between Treasury bonds and utility bonds have increased since February 2018 which was the lowest level credit spreads have been since prior to the Great Recession of 2008-2009. In fact, since credit spreads reached a low point on February 6, 2018, the spread between Baa-rated utility debt and Treasury bonds has increased 37 basis points, while the spread between A-rated utility debt and Treasury bonds has increased 30 basis points. Increased credit spreads indicate that investors are requiring a higher risk premium to compensate them for the additional credit risk associated with lower-rated utility debt. The higher required risk premium is the result of increased uncertainty in the market which has reduced investor confidence. As Bloomberg notes:

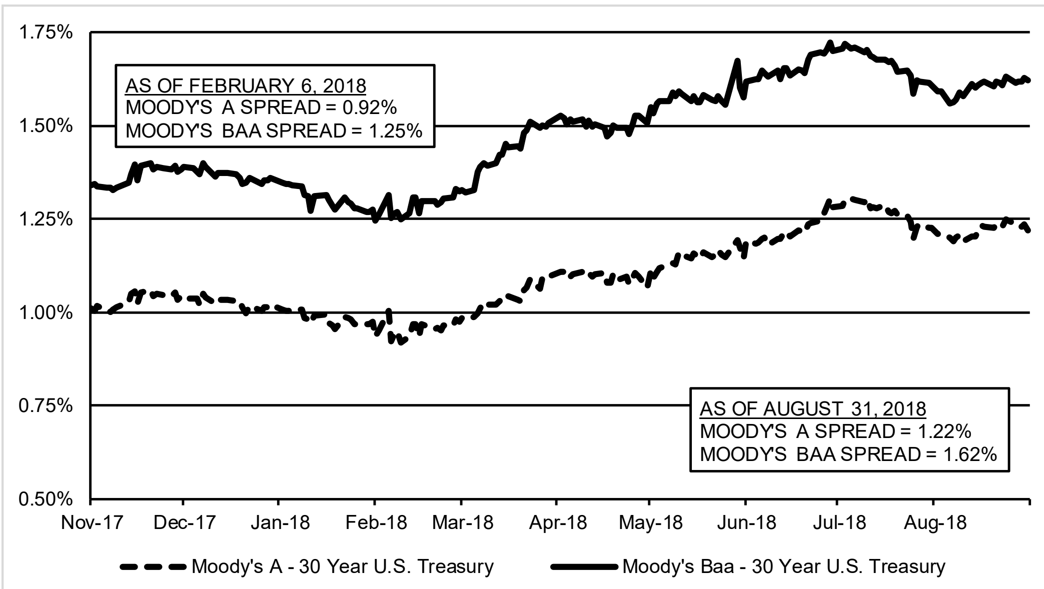
> Corporate bond spreads have been widening since February, when they reached the tightest since before the financial crisis. Fewer foreign buyers, rate volatility and trade

46 Source: SNL Financial

tensions are chipping away at investor confidence in the U.S. market, according to Thomas Murphy, a portfolio manager at Columbia Threadneedle Investments in Minneapolis.

"A lot of people pushed into our market because of QE overseas. They can now go back to their home markets. Hedging costs have gone up dramatically," said Murphy, whose firm has about $172 billion of fixed-income assets under management. There are also "concerns about rate volatility and concerns on the curve shape changing," he added.[47]

Figure 5: Credit Spreads – November 2017 – August 2018[48]

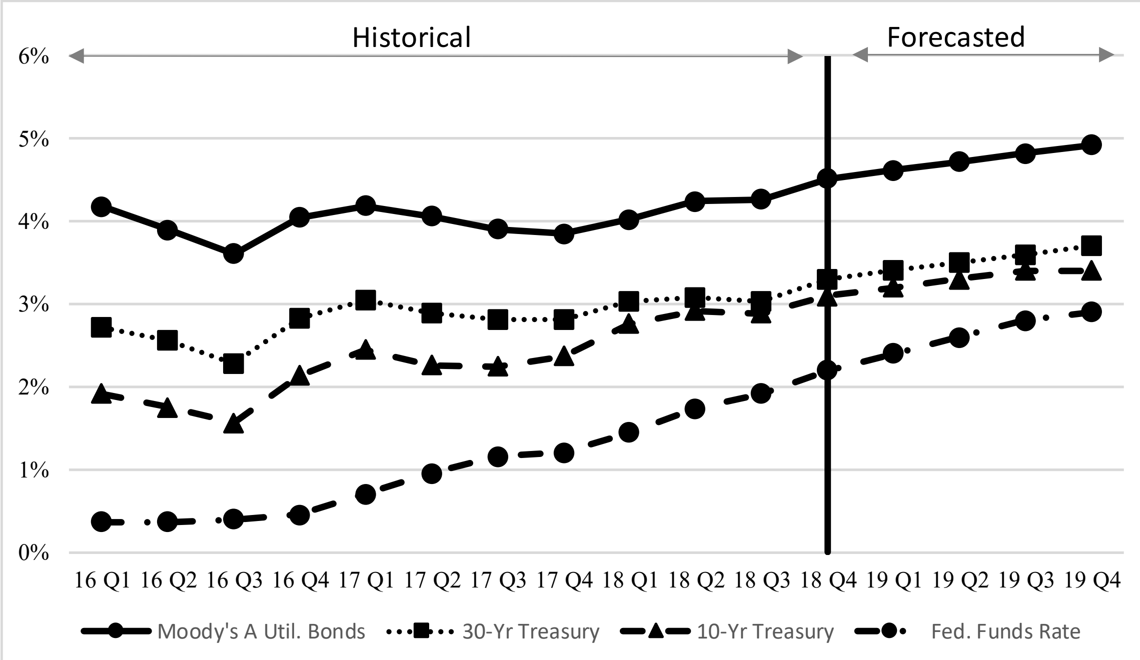


Furthermore, investors are expecting continued increases in interest rates on both government and corporate/utility bonds over the next few years, as shown in Figure 6.

47 Hagan, Shelly. "Corporate Bond Spreads Jump to 16-Month High." Bloomberg.com, Bloomberg, 22 June 2018, www.bloomberg.com/news/articles/2018-06-22/corporate-bond-spreads-jump-to-16-month-high-amid-growing-supply.

48 Source: Bloomberg Professional

Figure 6: Interest Rate Conditions[49]



Therefore, the context for setting the authorized ROE for ETP should not be the low interest rate environment of the last few years. Rather, the Commission should consider recent evidence that interest rates have been increasing, and that capital costs over the period that rates will be in effect are expected to continue to increase as the Federal Reserve normalizes monetary policy and as the effects of the TCJA, which is discussed below, flow through the economy.

B. Effect of Tax Reform on the Return on Equity

The effect of the recently passed TCJA should also be considered in the determination of the cost of equity. The major credit rating agencies (i.e., Moody's, S&P and Fitch) all have indicated that tax reform is credit negative for the utility industry because it reduces the cash flows of utilities. In summary, the TCJA is expected to reduce utility revenues due to the lower federal income taxes and the requirement to return excess accumulated deferred income taxes. This change in revenue is expected to reduce funds from operations ("FFO") metrics across the sector, and absent

49 Source: Historical data from Bloomberg Professional. Forecast data from Blue Chip Financial Forecasts, Volume. 37, No. 9, September 1, 2018 at 2.

regulatory mitigation strategies, is expected to lead to weaker credit metrics and negative ratings actions for some utilities.[50]

In January 2018, Moody's issued a report changing the rating outlook for several regulated utilities from Stable to Negative.[51] At that time, Moody's noted that the outlook downgrade affected companies with limited cushion in their ratings for deterioration in financial performance. In June 2018, Moody's issued a report in which the rating agency downgraded the outlook for the entire regulated utility industry from stable to negative for the first time ever. Moody's cites ongoing concerns about the negative effect of the TCJA on cash flows of regulated utilities. While noting that "[r]egulatory commissions and utility management teams are taking important first steps"[52] and that "we have seen some credit positive developments in some states in response to tax reform,"[53] Moody's concludes that "we believe that it will take longer than 12-18 months for the majority of the sector to show any material financial improvement from such efforts."[54]

A Moody's rating outlook is an opinion regarding the likely rating direction over what it refers to as "the medium term." A Stable outlook indicates a low likelihood of a rating change in the medium term. A Negative outlook indicates a higher likelihood of a rating change over the medium term. While Moody's indicates that the time-period for changing a rating subsequent to a change in the outlook from Stable will vary, on average Moody's indicates that a rating change will follow within a year of a change in outlook.[55]

The effect of the TCJA on natural gas pipelines is not yet determined and will be resolved based on the Commission's determination in the Notice of Inquiry ("NOI") on the effects and application of the TCJA that was initiated in March of 2018. While the NOI is expected to address the timeline for refunding excess ADIT to customers, it is reasonable to expect that the reduction in income taxes will reduce cash flow for pipelines immediately and the refunds of excess ADIT will further

50 FitchRatings, Special Report, What Investors Want to Know, "Tax Reform Impact on the U.S. Utilities, Power & Gas Sector", January 24, 2018.

51 Moody's Investor Service, Global Credit Research, Rating Action: Moody's changes outlooks on 25 US regulated utilities primarily impacted by tax reform, January 19, 2018.

52 Moody's Investors Service, "Regulated utilities – US: 2019 outlook shifts to negative due to weaker cash flows, continued high leverage", June 18, 2018, at 3.

53 *Ibid.*

54 *Ibid.*

55 Moody's Investors Service, Rating Symbols and Definitions, July 2017, at 27.

depress cash flow metrics. This factor should also be considered in determining the appropriate ROE and equity ratio for a natural gas pipeline company.

As a result, it is important to recognize that current market conditions (i.e., the low interest rate environment) have affected the assumptions used in the DCF Model. Although, recent market conditions are not expected to persist as the Federal Reserve continues to normalize monetary policy. Therefore, the recent historical market conditions are not reflective of the market conditions that will be present when the rates for ETP will be in effect. The DCF model is underestimating the forward-looking cost of capital and therefore, it is reasonable to authorize a ROE that is towards the higher-end of the ROE estimates produced by the DCF model. Furthermore, without adequate regulatory support, the TCJA will have a negative effect on utility cash flows, which increases investor risk expectations for utilities.

V. CONCLUSIONS

The range of equity returns established using the DCF Model is between 11.36 percent and 19.03 percent. The Company is requesting the median return of 13.75 percent, which is conservative based on current and expected capital market conditions. The requested return balances the interests of shareholders and shippers.

Energy Transfer Partners

Interstate Pipeline and Storage Companies Owned by U.S. Proxy Group

Parent/Pipeline	Basin(s)/Hub(s) to Which Pipeline is Tied	Major Downstream Markets Served
Dominion Energy Midstream Partners		
Cove Point Pipeline	Connects Cove Point LNG Facility to pipelines owned by Transco in Fairfax County, Virginia, and with Columbia Gas Transmission LLC and DETI, both in Loudoun County, Virginia.	Export markets, Chesapeake Bay & Virginia (for storage)
Dominion Energy Carolina Gas	Connects to Southern Natural Gas Company at Port Wentworth, Georgia and Aiken County South Carolina; Southern LNG, Elba Express Company at Port Wentworth, Georgia; and Transco in South Carolina.	Georgia, South Carolina
Dominion Energy Questar Pipeline	Greater Green River, Uinta and Piceance basins	Utah, Wyoming, Colorado
Iroquois (25.9%)	Interconnects with TransCanada pipelines at Waddington, NY	Northeast US
Enable Midstream Partners		
EGT (6.5 bcf/d)	Anadarko, Arkoma, Ark-La-Tex Basins, (Perryville Hub)	Oklahoma, Texas, Louisiana, Missouri, Kansas, plus other markets through interconnections
MRT (1.7 bcf/d)	Anadarko, Arkoma, Ark-La-Tex basins, Fayetteville Shale (through interconnections with EGT, Texas Gas, and Ozark Gas Trans) and Marcellus Shale (through interconnections with NGPL and Trunkline)	Texas, Arkansas, Louisiana, Missouri, Illinois
SESH (1.09 bcf/d) (50% interest)	Perryville, LA	Louisiana, Mississippi, Alabama
EQT Midstream Partners LP		
Equitrans LP	Marcellus Shale Basin, PA	Pennsylvania, West Virginia

Energy Transfer Partners
Interstate Pipeline and Storage Companies Owned by U.S. Proxy Group

Parent/Pipeline	Basin(s)/Hub(s) to Which Pipeline is Tied	Major Downstream Markets Served
Kinder Morgan Inc.		
El Paso Natural Gas Pipeline Company/Mojave Pipeline (5.65 Bcf/day)	San Juan, Permian and Anadarko basins	California, New Mexico, northern Mexico, Oklahoma, Texas
Kinder Morgan Louisiana Pipeline (2.20 Bcf/day)	Cheniere Sabine Pass LNG Terminal	Interconnects with Columbia Gulf & Other pipelines in Louisiana
Tennessee Gas Pipeline Company (9.74 Bcf/day)	Haynesville, Marcellus, Utica, Eagle Ford Formations	US Northeast & Southeast
TransColorado Gas Transmission Company (0.98 Bcf/day)	San Juan, Paradox and Piceance Basins	New Mexico and Colorado
Fayetteville Express Pipeline (2.0 Bcf/day) (50% interest)	Conway County, Arkansas	Arkansas, Mississippi / Connects to NGPL, Trunkline, TGT & ANR
Midcontinent Express Pipeline (1.80 Bcf/day) (50% interest)	Oklahoma and North Texas Supply Basins	Interconnects to Transco, Columbia Gulf and Other Pipelines
Natural Gas Pipeline Company of America (6.20 Bcf/day) (50% Interest)	Central US Supply Basins	Chicago/Midwest / LNG transported to export facilities in Texas/Gulf Coast
Southern Natural Gas (3.90 Bcf/day)	Texas, Louisiana, Mississippi, Alabama, Gulf of Mexico	Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, Tennessee
Florida Gas Transmission (3.60 Bcf/day) (50% Interest)	Louisiana, Texas, Gulf of Mexico, and Mobile Bay	Florida
Colorado Interstate Gas (5.15 Bcf/day)	Rocky Mountains and Anadarko Basin	Colorado, Wyoming
Wyoming Interstate Company (3.88 Bcf/day)	Overthrust, Piceance, Uinta, Powder River, and Green River Basins	Western Colorado, Northeast, Wyoming, Eastern Utah
Cheyenne Plains Gas Pipeline (1.20 Bcf/day)	Central Rocky Mountain Basins	Colorado, Kansas
Ruby Pipeline (1.53 Bcf/day) (50% interest)	Rocky Mountain Basins	Colorado, Nevada, and Pacific Northwest
WYCO Development (1.20 Bcf/day) (50% Interest)	Northeast Colorado	Connects to CIG, WIC, Rockies Express, Young Gas Storage and PSCo's pipeline system
Bear Creek Storage Company (59 Bcf capacity)	Bienville Parish, Louisiana	Provides storage for SNG & TGP
Elba Express (0.95 Bcf/day)	Georgia	Georgia, South Carolina / Connects to Southern Natural Gas (SNG), Transco, SLNG & CGT
Sierrita Gas Pipeline (0.20 Bcf/day) (35% Interest)	Arizona	Arizona, Mexico
Young Gas Storage (6 Bcf capacity) (48% Interest)	Morgan County, Colorado	CIG and Colorado Springs
Keystone Gas Storage (6 Bcf capacity)	Permian Basin	West Texas
Gulf LNG (6.6 Bcf capacity) (50% interest)	Pascagoula, Mississippi	Transcontinental Pipeline, Florida Gas Transmission, Destin Pipeline, Gulfstream Natural Gas System
Southern LNG (11.5 Bcf capacity)	Savannah, Georgia	Connects to Elba Express, SNG and Dominion Energy Carolina Gas Transmission

Energy Transfer Partners
Interstate Pipeline and Storage Companies Owned by U.S. Proxy Group

Parent/Pipeline	Basin(s)/Hub(s) to Which Pipeline is Tied	Major Downstream Markets Served
TC Pipelines LP		
North Baja (86 mile bi-directional pipeline)	AZ, CA, Mexican Border, Costa Azul LNG Terminal	Palo Verde Elec. Gen./EPNG, CA, AZ markets
Tuscarora Gas Transmission Company (305 miles)	WCSB (via GTNW)	Northeastern CA, Western NV
Bison (303 miles)	Powder River Basin WY	Northern Border pipeline to Midwest markets
Great Lakes Gas Transmission L.P. (2,115 miles) (46.45% interest)	WCSB (via TCPL)	Dawn (MI/Canada Border), Central Michigan, Northeastern MN
GTN System (1,377 miles)	Interconnection WCSB Kingsgate, BC	Pacific Northwest and California
Northern Border Pipeline Company (1,412 miles) (50% interest)	Canadian Border at Port Morgan, Montana, Williston Basin, Rocky Mountain, MT/ND	North Hayden, IN and Mid-West
PNGTS (295 miles) (49.9% interest)	Connects with TransQuebec and Maritimes (TQM) at the Canadian border	Northeast U.S.
Iroquois Gas Transmission System (416 miles) (49.34% interest)	Connects with TransCanada Mainline system, near Waddington, NY	Northeast U.S.
Tallgrass Energy LP		
Rockies Express Pipeline (1.8 bcf/d) (75% interest)	Rocky mountain and Appalachian production (Cheyenne Hub)	Wyoming, Colorado, Midwest US
Tallgrass Interstate Gas Transmission (4,641 miles)	Wyoming, Nebraska supply basins	Wyoming, Colorado, Kansas, Missouri, Nebraska
Trailblazer Pipeline (436 miles)	Colorado supply basins	Nebraska
TransCanada Corporation		
ANR (9,388 miles)	Transports natural gas from various supply basins to markets throughout the Midwest and Gulf Coast	Midwest and Gulf Coast
Columbia Gas (11,255 miles)	Appalachian Basin	Northeast U.S.
Columbia Gulf (3,341 miles)	Transports natural gas to various markets and pipeline interconnects in the southern U.S. and Gulf Coast.	Southern U.S. and Gulf Coast
Crossroads (202 miles)	Interstate natural gas pipeline operating in Indiana and Ohio with multiple interconnects to other pipelines.	Indiana and Ohio
Millennium (253 miles)	Natural gas pipeline supplied by local production (such as Marcellus Shale supply), storage fields and interconnecting upstream pipelines to serve markets along its route and to the U.S. Northeast	Northeast U.S.
Williams Companies		
Transco (15 million dth/day)	Gulf Coast, Mid-Continent, Appalachia	Southeast U.S., Mid-Atlantic and Northeast U.S.
Gulfstream (1.8 bcf/d)	Gulf of Mexico	Florida
Northwest (3.8 million dth/day)	Rocky Mountains Canada and San Juan	Western U.S.
Black Marlin Pipeline Company (100% interest)	Gulf of Mexico (offshore)	Texas

Source: SNL, Company websites, 10-Ks

Proxy Group Companies
2017 Business Segment Data

Dominion Energy Midstream Partners, LP
Dominion Energy Midstream Partners 2017 10-K, p. 81

		Total	Gas Infrastructure	Corporate and Other
Operating Revenue		$480.2	$480.2	
	Percent of Total	100%	100%	0%
Segment Assets		$7,980.3	$7,980	
	Percent of Total	100%	100%	0%

Enable Midstream Partners, LP
Enable Midstream Partners LP 2017 10-K, pp. 59; 66

		Total	Gathering and Processing	Transportation and Storage	Eliminations
Operating Income		$529	$327	$202	($1)
	Percent of Total	100%	62%	38%	0%
Segment Assets		$11,593			
	Percent of Total	100%			

EQT Midstream Partners LP
EQT Midstream Partners LP 2017 10-K, PDF pp. 75-76

		Total	Transmission and storage	Gathering
Operating Income		$580,708.0	$247,145	$333,563
	Percent of Total	100%	43%	57%
Segment Assets		$2,950,748.0	$1,487,501	$1,463,247
	Percent of Total	100%	50%	50%

Kinder Morgan Inc.
Kinder Morgan 2017 10-K, pp. 132-133

		Total	Natural Gas Pipelines	CO2	Terminals	Products Pipelines	Kinder Morgan Canada	Corporate Assets
EBDA		$6,975.0	$3,487	$847	$1,224	$1,231	$186	$0
	Percent of Total	100%	50%	12%	18%	18%	3%	0%
Segment Assets		$79,055.0	$51,173	$3,946	$9,935	$8,539	$2,080	$3,382
	Percent of Total	100%	65%	5%	13%	11%	3%	4%

TC PipeLines LP
TC Pipelines 10K, pp. 46-48

		Total	Gas Pipelines
Operating Income		$236	$236
	Percent of Total	100%	100%
Segment Assets		$3,559	$3,559
	Percent of Total	100%	100%

Proxy Group Companies
2017 Business Segment Data

Tallgrass Energy LP (Formerly Tallgrass Energy Partners and Tallgrass Energy GP)
Tallgrass Energy LP, June 2018 10-Q, p. 32

	Total	Natural Gas Transportation	Crude Oil Transportation	Gathering, Processing & Terminalling	Corporate and Other
Adjusted EBITDA (Six Months Ended June 30, 2018)	$192,933	$131,736	$63,376	$16,323	($18,502)
Percent of Total	100%	68%	33%	8%	-10%
Segment Assets	$5,178,196	$2,187,783	$1,419,144	$1,239,021	$332,248
Percent of Total	100%	42%	27%	24%	6%

TransCanada Corporation
TransCanada Corp 2017 Annual Report, p. 11

	Total	Natural Gas Pipelines	Liquid Pipelines	Energy	Corporate
Comparable EBITDA	$7,377	$5,020	$1,348	$1,030	($21)
Percent of Total	100%	68%	18%	14%	0%
Segment Assets	$86,101	$58,518	$15,438	$8,503	$3,642
Percent of Total	100%	68%	18%	10%	4%

The Williams Companies
The Williams Companies 2017 10-K, p. 146

	Total	Williams Partners	Other	Eliminations
Modified EBITDA	$ 3,466	$ 3,616	$ (150.00)	$ -
Percent of Total		104%	-4%	0%
Segment Assets	$ 46,352	$ 45,903	$ 589	$ (140)
Percent of Total		99%	1%	-24%

Williams Partners, LP
Williams Partners 10-K PDF p. 164

	Total	Northeast G&P	Atlantic-Gulf	West	NGL & Petchem Services	Other	Eliminations
Modified EBITDA	$3,616	$819	$1,238	$412	$1,161	($14)	
Percent of Total	100%	23%	34%	11%	32%	0%	0%
Segment Assets	$45,903	$14,397	$15,230	$16,144	$3	$936	($807)
Percent of Total	100%	31%	33%	35%	0%	2%	-2%

ETP Pipeline Proxy Group

U.S. Natural Gas Pipeline & Storage Proxy Companies
FERC DCF Policy Statement Approach Results

			[A]	[B]	[C]	[D]	[E]	[F]
Line No.		**Ticker**	**Dividend Yield**	**Expected Dividend Yield Times (1 + 0.50g)**	**Analysts Projected EPS Growth Rate (g)**	**GDP Growth Rate**	**Weighted Average Growth Rate**	**Investor Required Return**
1	Dominion Energy Midstream Partners	DM	8.55%	8.98%	14.00%	2.15%	10.05%	19.03%
2	Enable Midstream Partners LP	ENBL	8.13%	8.33%	6.50%	2.15%	5.05%	13.38%
3	EQT Midstream Partners, LP	EQM	7.58%	7.82%	8.50%	2.15%	6.38%	14.21%
4	Kinder Morgan, Inc.	KMI	4.46%	4.67%	12.00%	4.31%	9.44%	14.11%
5	TC Pipelines, LP	TCP	9.55%	9.76%	5.70%	2.15%	4.52%	14.28%
6	Tallgrass Energy LP	TGE	8.73%	8.84%	2.70%	2.15%	2.52%	11.36%
7	TransCanada Corporation	TRP	6.44%	6.61%	5.81%	4.31%	5.31%	11.92%
8	Williams Companies, Inc.	WMB	4.98%	5.18%	10.00%	4.31%	8.10%	13.28%
9	**Mean**							**13.95%**
10	**Median**							**13.75%**

Notes:
[A] See Exhibit 3 pg. 2
[B] Equals [A]*(1+[E]*0.5)
[C] See Exhibit 3 pg. 4
[D] See Exhibit 3 pg. 5
[E] Equals [C]*2/3 + [D]*1/3
[F] Equals [B] + [E]

ETP Pipeline Proxy Group

U.S. Natural Gas Pipeline & Storage Proxy Companies
Dividend Yields
March 2018 - August 2018

Line No.		Ticker	Yield
1	Dominion Energy Midstream Partners	DM	8.55%
2	Enable Midstream Partners LP	ENBL	8.13%
3	EQT Midstream Partners, LP	EQM	7.58%
4	Kinder Morgan, Inc.	KMI	4.46%
5	TC PipeLines, LP	TCP	9.55%
6	Tallgrass Energy LP	TGE	8.73%
7	TransCanada Corporation	TRP	6.44%
8	Williams Companies, Inc.	WMB	4.98%
	Average		**7.30%**
	Median		**7.85%**
	Max		**9.55%**
	Min		**4.46%**

Source: Bloomberg, as of August 31, 2018

ETP Pipeline Proxy Group

Line No.	Dominion Energy Midstream Partners	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
1	Aug-18	17.05	14.25	15.65	1.40	8.97%
2	Jul-18	18.50	13.30	15.90	1.34	8.40%
3	Jun-18	14.45	12.60	13.53	1.34	9.88%
4	May-18	15.95	12.55	14.25	1.34	9.38%
5	Apr-18	16.05	13.90	14.98	1.27	8.49%
6	Mar-18	26.40	14.85	20.63	1.27	6.17%
7	Average					**8.55%**

	Enable Midstream Partners LP	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
8	Aug-18	19.27	15.27	17.27	1.27	7.37%
9	Jul-18	19.24	16.70	17.97	1.27	7.08%
10	Jun-18	18.13	15.79	16.96	1.27	7.50%
11	May-18	16.66	13.90	15.28	1.27	8.32%
12	Apr-18	14.39	13.31	13.85	1.27	9.18%
13	Mar-18	14.45	12.89	13.67	1.27	9.31%
14	Average					**8.13%**

	EQT Midstream Partners, LP	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
15	Aug-18	57.73	48.91	53.32	4.36	8.18%
16	Jul-18	57.47	50.40	53.93	4.26	7.90%
17	Jun-18	59.62	49.95	54.79	4.26	7.78%
18	May-18	57.47	50.89	54.18	4.26	7.86%
19	Apr-18	63.73	55.40	59.57	4.10	6.88%
20	Mar-18	63.71	55.40	59.56	4.10	6.88%
21	Average					**7.58%**

	Kinder Morgan, Inc.	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
15	Aug-18	18.33	17.35	17.84	0.80	4.48%
16	Jul-18	18.45	17.32	17.88	0.80	4.47%
17	Jun-18	17.86	16.66	17.26	0.80	4.64%
18	May-18	16.74	15.58	16.16	0.80	4.95%
19	Apr-18	16.98	14.69	15.84	0.80	5.05%
20	Mar-18	16.61	14.76	15.69	0.50	3.19%
21	Average					**4.46%**

	TC PipeLines, LP	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
22	Aug-18	34.54	29.41	31.98	2.60	8.13%
23	Jul-18	37.00	25.19	31.09	2.60	8.36%
24	Jun-18	26.80	24.13	25.47	2.60	10.21%
25	May-18	36.24	22.64	29.44	2.60	8.83%
26	Apr-18	35.22	30.34	32.78	4.00	12.20%
27	Mar-18	50.50	33.38	41.94	4.00	9.54%
28	Average					**9.55%**

	Tallgrass Energy LP	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
29	Aug-18	26.35	23.05	24.70	1.99	8.06%
30	Jul-18	23.62	20.94	22.28	1.99	8.93%
31	Jun-18	23.89	21.44	22.67	1.95	8.60%
32	May-18	21.78	19.59	20.69	1.95	9.43%
33	Apr-18	22.24	18.08	20.16	1.95	9.67%
34	Mar-18	21.00	17.14	19.07	1.47	7.71%
35	Average					**8.73%**

	TransCanada Corporation	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
36	Aug-18	45.63	42.48	44.06	2.76	6.26%
37	Jul-18	45.09	42.25	43.67	2.76	6.32%
38	Jun-18	43.80	41.14	42.47	2.76	6.50%
39	May-18	44.05	41.18	42.62	2.76	6.48%
40	Apr-18	44.73	39.16	41.95	2.76	6.58%
41	Mar-18	44.65	40.02	42.34	2.76	6.52%
42	Average					**6.44%**

	Williams Companies, Inc.	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
43	Aug-18	32.22	29.34	30.78	1.36	4.42%
44	Jul-18	29.91	26.51	28.21	1.36	4.82%
45	Jun-18	28.21	25.93	27.07	1.36	5.02%
46	May-18	28.23	25.55	26.89	1.36	5.06%
47	Apr-18	26.17	24.00	25.08	1.36	5.42%
48	Mar-18	28.38	24.59	26.49	1.36	5.13%
49	Average					**4.98%**

Source: Bloomberg, as of August 31, 2018

ETP Pipeline Proxy Group

U.S. Natural Gas Pipeline & Storage Proxy Companies
Growth Rate Forecasts

Line No.	MLPs	Ticker	Thomson EPS Growth Estimates
1	Dominion Energy Midstream Partners	DM	14.00%
2	Enable Midstream Partners LP	ENBL	6.50%
3	EQT Midstream Partners, LP	EQM	8.50%
4	Kinder Morgan, Inc.	KMI	12.00%
5	TC PipeLines, LP	TCP	5.70%
6	Tallgrass Energy LP	TGE	2.70%
7	TransCanada Corporation	TRP	5.81%
8	Williams Companies, Inc.	WMB	10.00%

Source: Thomson Reuters' First Call, provided by Yahoo! Finance as of August 30, 2018.

ETP Pipeline Proxy Group

Long-Term
U.S. Gross Domestic Product (GDP)
Growth Forecasts

		[A]	[B]	[C]
Line No.	**Source**	**Beginning Year**	**Ending Year**	**Annual GDP Growth**
1	BCFF [1]	2020	2029	4.19%
2	EIA [2]	2023	2050	4.37%
3	SSA [3]	2023	2075	4.36%
4	**Average**			**4.31%**

Notes:
[1]Blue Chip Economic Indicators Vol. 37, No. 6, June 1, 2018, p. 14.)
Nominal GDP=(Real GDP)*(GDP Chained Price Index)

[2] Energy Information Administration Annual Energy Outlook 2018 with projections to 2050 February 2018), Table A20. Macroeconomic Indicators. Nominal GDP=(Real GDP)*(GDP Chain Type Price Index). http://www.eia.gov/forecasts/aeo/tables_ref.cfm.

[3] Social Security Administration: The 2018 OASDI Trustees Report, Table VI.G4.—OASDI and HI Annual and Summarized Income, Cost, and Balance as a Percentage of GDP, Calendar Years 2018-95 https://www.ssa.gov/oact/tr/2018/VI_G2_OASDHI_GDP.html

Energy Transfer Partners

Interstate Pipeline and Storage Companies Owned by U.S. Proxy Group

Parent/Pipeline	Basin(s)/Hub(s) to Which Pipeline is Tied	Major Downstream Markets Served
Dominion Energy Midstream Partners		
Cove Point Pipeline	Connects Cove Point LNG Facility to pipelines owned by Transco in Fairfax County, Virginia, and with Columbia Gas Transmission LLC and DETI, both in Loudoun County, Virginia.	Export markets, Chesapeake Bay & Virginia (for storage)
Dominion Energy Carolina Gas	Connects to Southern Natural Gas Company at Port Wentworth, Georgia and Aiken County South Carolina; Southern LNG, Elba Express Company at Port Wentworth, Georgia; and Transco in South Carolina.	Georgia, South Carolina
Dominion Energy Questar Pipeline	Greater Green River, Uinta and Piceance basins	Utah, Wyoming, Colorado
Iroquois (25.9%)	Interconnects with TransCanada pipelines at Waddington, NY	Northeast US
Enable Midstream Partners		
EGT (6.5 bcf/d)	Anadarko, Arkoma, Ark-La-Tex Basins, (Perryville Hub)	Oklahoma, Texas, Louisiana, Missouri, Kansas, plus other markets through interconnections
MRT (1.7 bcf/d)	Anadarko, Arkoma, Ark-La-Tex basins, Fayetteville Shale (through interconnections with EGT, Texas Gas, and Ozark Gas Trans) and Marcellus Shale (through interconnections with NGPL and Trunkline)	Texas, Arkansas, Louisiana, Missouri, Illinois
SESH (1.09 bcf/d) (50% interest)	Perryville, LA	Louisiana, Mississippi, Alabama
EQT Midstream Partners LP		
Equitrans LP	Marcellus Shale Basin, PA	Pennsylvania, West Virginia

Energy Transfer Partners

Interstate Pipeline and Storage Companies Owned by U.S. Proxy Group

Parent/Pipeline	Basin(s)/Hub(s) to Which Pipeline is Tied	Major Downstream Markets Served
Kinder Morgan Inc.		
El Paso Natural Gas Pipeline Company/Mojave Pipeline (5.65 Bcf/day)	San Juan, Permian and Anadarko basins	California, New Mexico, northern Mexico, Oklahoma, Texas
Kinder Morgan Louisiana Pipeline (2.20 Bcf/day)	Cheniere Sabine Pass LNG Terminal	Interconnects with Columbia Gulf & Other pipelines in Louisiana
Tennessee Gas Pipeline Company (9.74 Bcf/day)	Haynesville, Marcellus, Utica, Eagle Ford Formations	US Northeast & Southeast
TransColorado Gas Transmission Company (0.98 Bcf/day)	San Juan, Paradox and Piceance Basins	New Mexico and Colorado
Fayetteville Express Pipeline (2.0 Bcf/day) (50% interest)	Conway County, Arkansas	Arkansas, Mississippi / Connects to NGPL, Trunkline, TGT & ANR
Midcontinent Express Pipeline (1.80 Bcf/day) (50% interest)	Oklahoma and North Texas Supply Basins	Interconnects to Transco, Columbia Gulf and Other Pipelines
Natural Gas Pipeline Company of America (6.20 Bcf/day) (50% Interest)	Central US Supply Basins	Chicago/Midwest / LNG transported to export facilities in Texas/Gulf Coast
Southern Natural Gas (3.90 Bcf/day)	Texas, Louisiana, Mississippi, Alabama, Gulf of Mexico	Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, Tennessee
Florida Gas Transmission (3.60 Bcf/day) (50% Interest)	Louisiana, Texas, Gulf of Mexico, and Mobile Bay	Florida
Colorado Interstate Gas (5.15 Bcf/day)	Rocky Mountains and Anadarko Basin	Colorado, Wyoming
Wyoming Interstate Company (3.88 Bcf/day)	Overthrust, Piceance, Uinta, Powder River, and Green River Basins	Western Colorado, Northeast, Wyoming, Eastern Utah
Cheyenne Plains Gas Pipeline (1.20 Bcf/day)	Central Rocky Mountain Basins	Colorado, Kansas
Ruby Pipeline (1.53 Bcf/day) (50% interest)	Rocky Mountain Basins	Colorado, Nevada, and Pacific Northwest
WYCO Development (1.20 Bcf/day) (50% Interest)	Northeast Colorado	Connects to CIG, WIC, Rockies Express, Young Gas Storage and PSCo's pipeline system
Bear Creek Storage Company (59 Bcf capacity)	Bienville Parish, Louisiana	Provides storage for SNG & TGP
Elba Express (0.95 Bcf/day)	Georgia	Georgia, South Carolina / Connects to Southern Natural Gas (SNG), Transco, SLNG & CGT
Sierrita Gas Pipeline (0.20 Bcf/day) (35% Interest)	Arizona	Arizona, Mexico
Young Gas Storage (6 Bcf capacity) (48% Interest)	Morgan County, Colorado	CIG and Colorado Springs
Keystone Gas Storage (6 Bcf capacity)	Permian Basin	West Texas
Gulf LNG (6.6 Bcf capacity) (50% interest)	Pascagoula, Mississippi	Transcontinental Pipeline, Florida Gas Transmission, Destin Pipeline, Gulfstream Natural Gas System
Southern LNG (11.5 Bcf capacity)	Savannah, Georgia	Connects to Elba Express, SNG and Dominion Energy Carolina Gas Transmission

Energy Transfer Partners

Interstate Pipeline and Storage Companies Owned by U.S. Proxy Group

Parent/Pipeline	Basin(s)/Hub(s) to Which Pipeline is Tied	Major Downstream Markets Served
TC Pipelines LP		
North Baja (86 mile bi-directional pipeline)	AZ, CA, Mexican Border, Costa Azul LNG Terminal	Palo Verde Elec. Gen./EPNG, CA, AZ markets
Tuscarora Gas Transmission Company (305 miles)	WCSB (via GTNW)	Northeastern CA, Western NV
Bison (303 miles)	Powder River Basin WY	Northern Border pipeline to Midwest markets
Great Lakes Gas Transmission L.P. (2,115 miles) (46.45% interest)	WCSB (via TCPL)	Dawn (MI/Canada Border), Central Michigan, Northeastern MN
GTN System (1,377 miles)	Interconnection WCSB Kingsgate, BC	Pacific Northwest and California
Northern Border Pipeline Company (1,412 miles) (50% interest)	Canadian Border at Port Morgan, Montana, Williston Basin, Rocky Mountain, MT/ND	North Hayden, IN and Mid-West
PNGTS (295 miles) (49.9% interest)	Connects with TransQuebec and Maritimes (TQM) at the Canadian border	Northeast U.S.
Iroquois Gas Transmission System (416 miles) (49.34% interest)	Connects with TransCanada Mainline system, near Waddington, NY	Northeast U.S.
Tallgrass Energy LP		
Rockies Express Pipeline (1.8 bcf/d) (75% interest)	Rocky mountain and Appalachian production (Cheyenne Hub)	Wyoming, Colorado, Midwest US
Tallgrass Interstate Gas Transmission (4,641 miles)	Wyoming, Nebraska supply basins	Wyoming, Colorado, Kansas, Missouri, Nebraska
Trailblazer Pipeline (436 miles)	Colorado supply basins	Nebraska
TransCanada Corporation		
ANR (9,388 miles)	Transports natural gas from various supply basins to markets throughout the Midwest and Gulf Coast	Midwest and Gulf Coast
Columbia Gas (11,255 miles)	Appalachian Basin	Northeast U.S.
Columbia Gulf (3,341 miles)	Transports natural gas to various markets and pipeline interconnects in the southern U.S. and Gulf Coast.	Southern U.S. and Gulf Coast
Crossroads (202 miles)	Interstate natural gas pipeline operating in Indiana and Ohio with multiple interconnects to other pipelines.	Indiana and Ohio
Millennium (253 miles)	Natural gas pipeline supplied by local production (such as Marcellus Shale supply), storage fields and interconnecting upstream pipelines to serve markets along its route and to the U.S. Northeast	Northeast U.S.
Williams Companies		
Transco (15 million dth/day)	Gulf Coast, Mid-Continent, Appalachia	Southeast U.S., Mid-Atlantic and Northeast U.S.
Gulfstream (1.8 bcf/d)	Gulf of Mexico	Florida
Northwest (3.8 million dth/day)	Rocky Mountains Canada and San Juan	Western U.S.
Black Marlin Pipeline Company (100% interest)	Gulf of Mexico (offshore)	Texas

Source: SNL, Company websites, 10-Ks

Proxy Group Companies
2017 Business Segment Data

Dominion Energy Midstream Partners, LP
Dominion Energy Midstream Partners 2017 10-K, p. 81

		Total	Gas Infrastructure	Corporate and Other
Operating Revenue		$480.2	$480.2	
	Percent of Total	100%	100%	0%
Segment Assets		$7,980.3	$7,980	
	Percent of Total	100%	100%	0%

Enable Midstream Partners, LP
Enable Midstream Partners LP 2017 10-K, pp. 59; 66

		Total	Gathering and Processing	Transportation and Storage	Eliminations
Operating Income		$529	$327	$202	($1)
	Percent of Total	100%	62%	38%	0%
Segment Assets		$11,593			
	Percent of Total	100%			

EQT Midstream Partners LP
EQT Midstream Partners LP 2017 10-K, PDF pp. 75-76

		Total	Transmission and storage	Gathering
Operating Income		$580,708.0	$247,145	$333,563
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Kinder Morgan 2017 10-K, pp. 132-133

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TC PipeLines LP
TC Pipelines 10K, pp. 46-48

		Total	Gas Pipelines
Operating Income		$236	$236
	Percent of Total	100%	100%
Segment Assets		$3,559	$3,559
	Percent of Total	100%	100%

Proxy Group Companies
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Segment Assets	$ 46,352	$ 45,903	$ 589	$ (140)
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Williams Partners, LP
Williams Partners 10-K PDF p. 164

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ETP Pipeline Proxy Group

U.S. Natural Gas Pipeline & Storage Proxy Companies
FERC DCF Policy Statement Approach Results

			[A]	[B]	[C]	[D]	[E]	[F]
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3	EQT Midstream Partners, LP	EQM	7.58%	7.82%	8.50%	2.15%	6.38%	14.21%
4	Kinder Morgan, Inc.	KMI	4.46%	4.67%	12.00%	4.31%	9.44%	14.11%
5	TC Pipelines, LP	TCP	9.55%	9.76%	5.70%	2.15%	4.52%	14.28%
6	Tallgrass Energy LP	TGE	8.73%	8.84%	2.70%	2.15%	2.52%	11.36%
7	TransCanada Corporation	TRP	6.44%	6.61%	5.81%	4.31%	5.31%	11.92%
8	Williams Companies, Inc.	WMB	4.98%	5.18%	10.00%	4.31%	8.10%	13.28%
9	**Mean**							**13.95%**
10	**Median**							**13.75%**

Notes:
[A] See Exhibit 3 pg. 2
[B] Equals [A]*(1+[E]*0.5)
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ETP Pipeline Proxy Group

U.S. Natural Gas Pipeline & Storage Proxy Companies
Dividend Yields
March 2018 - August 2018

Line No.		Ticker	Yield
1	Dominion Energy Midstream Partners	DM	8.55%
2	Enable Midstream Partners LP	ENBL	8.13%
3	EQT Midstream Partners, LP	EQM	7.58%
4	Kinder Morgan, Inc.	KMI	4.46%
5	TC PipeLines, LP	TCP	9.55%
6	Tallgrass Energy LP	TGE	8.73%
7	TransCanada Corporation	TRP	6.44%
8	Williams Companies, Inc.	WMB	4.98%
	Average		**7.30%**
	Median		**7.85%**
	Max		**9.55%**
	Min		**4.46%**

Source: Bloomberg, as of August 31, 2018

ETP Pipeline Proxy Group

Line No.	Dominion Energy Midstream Partners	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
1	Aug-18	17.05	14.25	15.65	1.40	8.97%
2	Jul-18	18.50	13.30	15.90	1.34	8.40%
3	Jun-18	14.45	12.60	13.53	1.34	9.88%
4	May-18	15.95	12.55	14.25	1.34	9.38%
5	Apr-18	16.05	13.90	14.98	1.27	8.49%
6	Mar-18	26.40	14.85	20.63	1.27	6.17%
7	Average					**8.55%**

	Enable Midstream Partners LP	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
8	Aug-18	19.27	15.27	17.27	1.27	7.37%
9	Jul-18	19.24	16.70	17.97	1.27	7.08%
10	Jun-18	18.13	15.79	16.96	1.27	7.50%
11	May-18	16.66	13.90	15.28	1.27	8.32%
12	Apr-18	14.39	13.31	13.85	1.27	9.18%
13	Mar-18	14.45	12.89	13.67	1.27	9.31%
14	Average					**8.13%**

	EQT Midstream Partners, LP	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
15	Aug-18	57.73	48.91	53.32	4.36	8.18%
16	Jul-18	57.47	50.40	53.93	4.26	7.90%
17	Jun-18	59.62	49.95	54.79	4.26	7.78%
18	May-18	57.47	50.89	54.18	4.26	7.86%
19	Apr-18	63.73	55.40	59.57	4.10	6.88%
20	Mar-18	63.71	55.40	59.56	4.10	6.88%
21	Average					**7.58%**

	Kinder Morgan, Inc.	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
15	Aug-18	18.33	17.35	17.84	0.80	4.48%
16	Jul-18	18.45	17.32	17.88	0.80	4.47%
17	Jun-18	17.86	16.66	17.26	0.80	4.64%
18	May-18	16.74	15.58	16.16	0.80	4.95%
19	Apr-18	16.98	14.69	15.84	0.80	5.05%
20	Mar-18	16.61	14.76	15.69	0.50	3.19%
21	Average					**4.46%**

	TC PipeLines, LP	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
22	Aug-18	34.54	29.41	31.98	2.60	8.13%
23	Jul-18	37.00	25.19	31.09	2.60	8.36%
24	Jun-18	26.80	24.13	25.47	2.60	10.21%
25	May-18	36.24	22.64	29.44	2.60	8.83%
26	Apr-18	35.22	30.34	32.78	4.00	12.20%
27	Mar-18	50.50	33.38	41.94	4.00	9.54%
28	Average					**9.55%**

	Tallgrass Energy LP	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
29	Aug-18	26.35	23.05	24.70	1.99	8.06%
30	Jul-18	23.62	20.94	22.28	1.99	8.93%
31	Jun-18	23.89	21.44	22.67	1.95	8.60%
32	May-18	21.78	19.59	20.69	1.95	9.43%
33	Apr-18	22.24	18.08	20.16	1.95	9.67%
34	Mar-18	21.00	17.14	19.07	1.47	7.71%
35	Average					**8.73%**

	TransCanada Corporation	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
36	Aug-18	45.63	42.48	44.06	2.76	6.26%
37	Jul-18	45.09	42.25	43.67	2.76	6.32%
38	Jun-18	43.80	41.14	42.47	2.76	6.50%
39	May-18	44.05	41.18	42.62	2.76	6.48%
40	Apr-18	44.73	39.16	41.95	2.76	6.58%
41	Mar-18	44.65	40.02	42.34	2.76	6.52%
42	Average					**6.44%**

	Williams Companies, Inc.	High Price	Low Price	Average Price	Indicated Annualized Dividend	Dividend Yield
43	Aug-18	32.22	29.34	30.78	1.36	4.42%
44	Jul-18	29.91	26.51	28.21	1.36	4.82%
45	Jun-18	28.21	25.93	27.07	1.36	5.02%
46	May-18	28.23	25.55	26.89	1.36	5.06%
47	Apr-18	26.17	24.00	25.08	1.36	5.42%
48	Mar-18	28.38	24.59	26.49	1.36	5.13%
49	Average					**4.98%**

Source: Bloomberg, as of August 31, 2018

ETP Pipeline Proxy Group

U.S. Natural Gas Pipeline & Storage Proxy Companies
Growth Rate Forecasts

Line No.	MLPs	Ticker	Thomson EPS Growth Estimates
1	Dominion Energy Midstream Partners	DM	14.00%
2	Enable Midstream Partners LP	ENBL	6.50%
3	EQT Midstream Partners, LP	EQM	8.50%
4	Kinder Morgan, Inc.	KMI	12.00%
5	TC PipeLines, LP	TCP	5.70%
6	Tallgrass Energy LP	TGE	2.70%
7	TransCanada Corporation	TRP	5.81%
8	Williams Companies, Inc.	WMB	10.00%

Source: Thomson Reuters' First Call, provided by Yahoo! Finance as of August 30, 2018.

ETP Pipeline Proxy Group

Long-Term
U.S. Gross Domestic Product (GDP)
Growth Forecasts

		[A]	[B]	[C]
Line No.	**Source**	**Beginning Year**	**Ending Year**	**Annual GDP Growth**
1	BCFF [1]	2020	2029	4.19%
2	EIA [2]	2023	2050	4.37%
3	SSA [3]	2023	2075	4.36%
4	**Average**			**4.31%**

Notes:
[1]Blue Chip Economic Indicators Vol. 37, No. 6, June 1, 2018, p. 14.)
Nominal GDP=(Real GDP)*(GDP Chained Price Index)

[2] Energy Information Administration Annual Energy Outlook 2018 with projections to 2050 February 2018), Table A20. Macroeconomic Indicators. Nominal GDP=(Real GDP)*(GDP Chain Type Price Index). http://www.eia.gov/forecasts/aeo/tables_ref.cfm.

[3] Social Security Administration: The 2018 OASDI Trustees Report, Table VI.G4.—OASDI and HI Annual and Summarized Income, Cost, and Balance as a Percentage of GDP, Calendar Years 2018-95
https://www.ssa.gov/oact/tr/2018/VI_G2_OASDHI_GDP.html