

COS / Rate Design Task Force Meeting

Docket No. 20-057-11

August 12, 2020

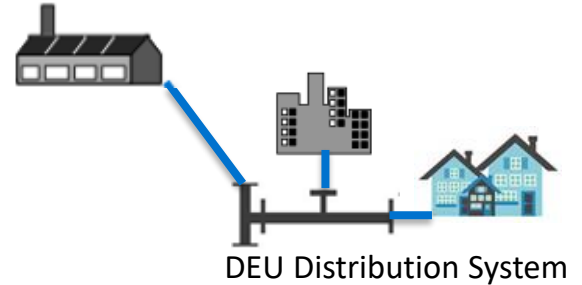
Transportation Bypass Firm (TBF) Service Tariff Section 5.02

Purpose of the TBF class



New customers could feasibly opt to connect directly to an interstate pipeline if they are a:

- Large volume user
- Close proximity to an interstate pipeline



DEU designed the TBF class to provide an incentive for those bypass risk customers to remain on the distribution system



Importance of the TBF Class to Customer/Company

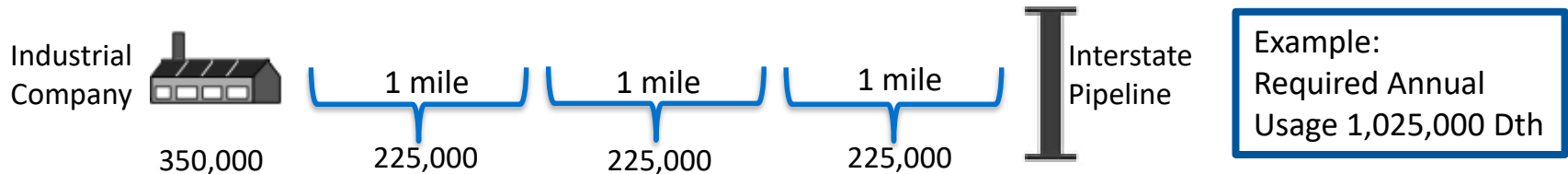
- High usage industrial customer provides steady load throughout year
- Benefits all customers
- Help pay for fixed costs of distribution system

TBF History

- 1999 – 2013 FT-1 Rate
 - Annual usage at least 100,000 dth and
 - Located within 5 miles of interstate pipeline
 - Or annual usage over 4,000,000 dth
- 2013 General Rate Case
 - Criteria adjusted using break-even analysis
 - Combination of distance and usage
 - Customer count reduced from 9 to 3
- 2018 Docket No. 18-057-T04
 - Rate renamed to Transportation Bypass Firm

TBF Classification Provisions

- 1 year minimum agreement for industrial service
- Customer acquires own gas supply
- All gas service received from the Company
- Permitted to purchase interruptible transportation in excess of firm demand
- At least 50% load factor
- Annual usage must be 350,000 Dth, plus an additional 225,000 Dth for every mile away from nearest pipeline



TBF Classification Provisions Continued

- Service is subject to:
 - Minimum Yearly Charge...\$149,700
 - Administration Yearly Charge...\$3,000
 - Basic Service Fee
 - Energy Assistance...maximum \$50/month
 - Fuel Reimbursement...1.5% on all volumes transported
 - Local Charges
 - State Sales Tax

TBF Breakeven Analysis

Purpose of the TBF Breakeven Analysis

- Determine the breakeven of a high usage customer

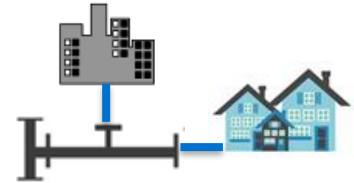


Cost to connect to
an interstate pipeline
(Kern, DEQP)



vs.

Cost to pay TS rates on
DEU distribution system



TBF Breakeven Assumptions

Construction Assumptions:

- Pipe Size: 6 inch
- Cost per Foot: \$212
- Cost per Mile: \$1,118,582
- Tap Fee Cost: \$1,500,000

Assumptions updated in a General Rate Case

Breakeven Analysis

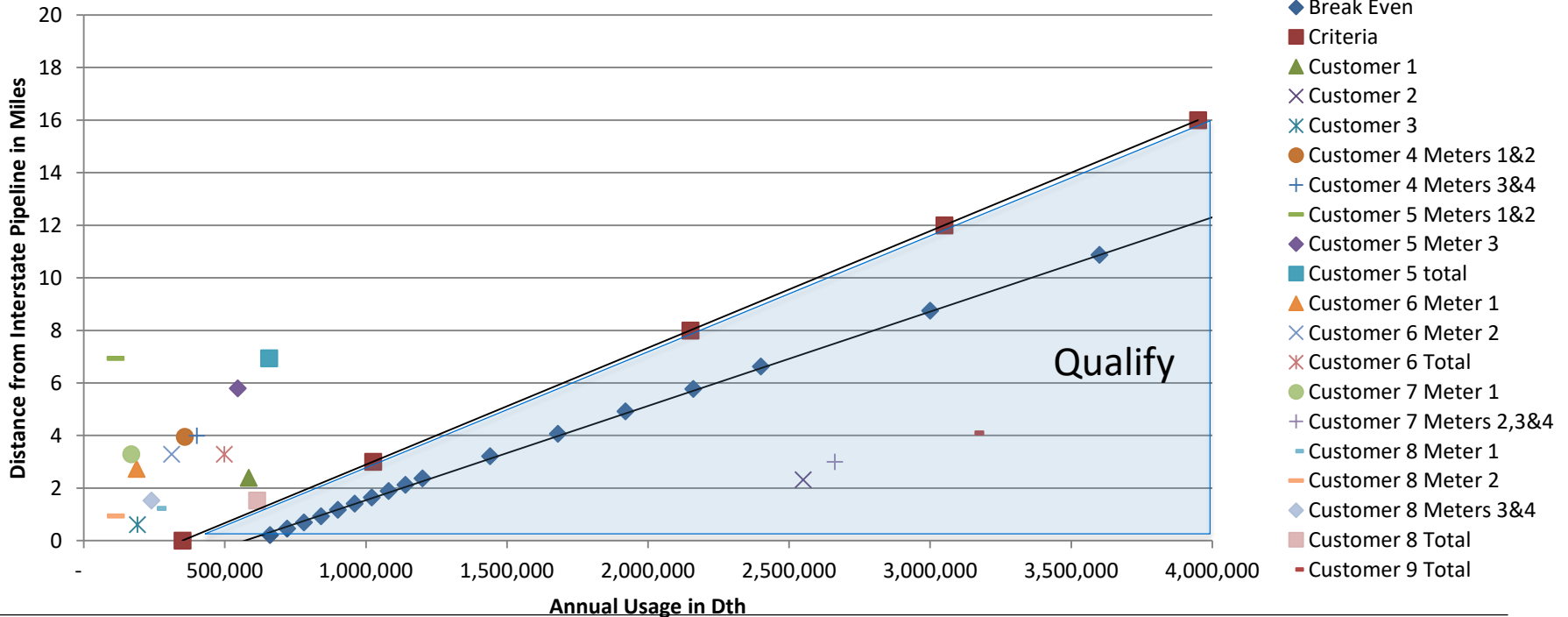
		Annual Usage								
		350,000	360,000	420,000	480,000	540,000	600,000	660,000	720,000	780,000
Distance (miles)	1.8345	-	(53,173)	(106,346)	(159,520)	(212,693)	(265,866)	(319,039)	(372,213)	(425,386)
	2.3099	53,173	-	(53,173)	(106,346)	(159,520)	(212,693)	(265,866)	(319,039)	(372,213)
	2.7852	106,346	53,173	-	(53,173)	(106,346)	(159,520)	(212,693)	(265,866)	(319,039)
	3.2606	159,520	106,346	53,173	-	(53,173)	(106,346)	(159,520)	(212,693)	(265,866)
	3.7359	212,693	159,520	106,346	53,173	-	(53,173)	(106,346)	(159,520)	(212,693)
	4.2113	265,866	212,693	159,520	106,346	53,173	-	(53,173)	(106,346)	(159,520)
	4.6867	319,039	265,866	212,693	159,520	106,346	53,173	-	(53,173)	(106,346)
	5.1620	372,213	319,039	265,866	212,693	159,520	106,346	53,173	-	(53,173)
	5.6374	425,386	372,213	319,039	265,866	212,693	159,520	106,346	53,173	-

Beneficial for customer to remain on DEU distribution system

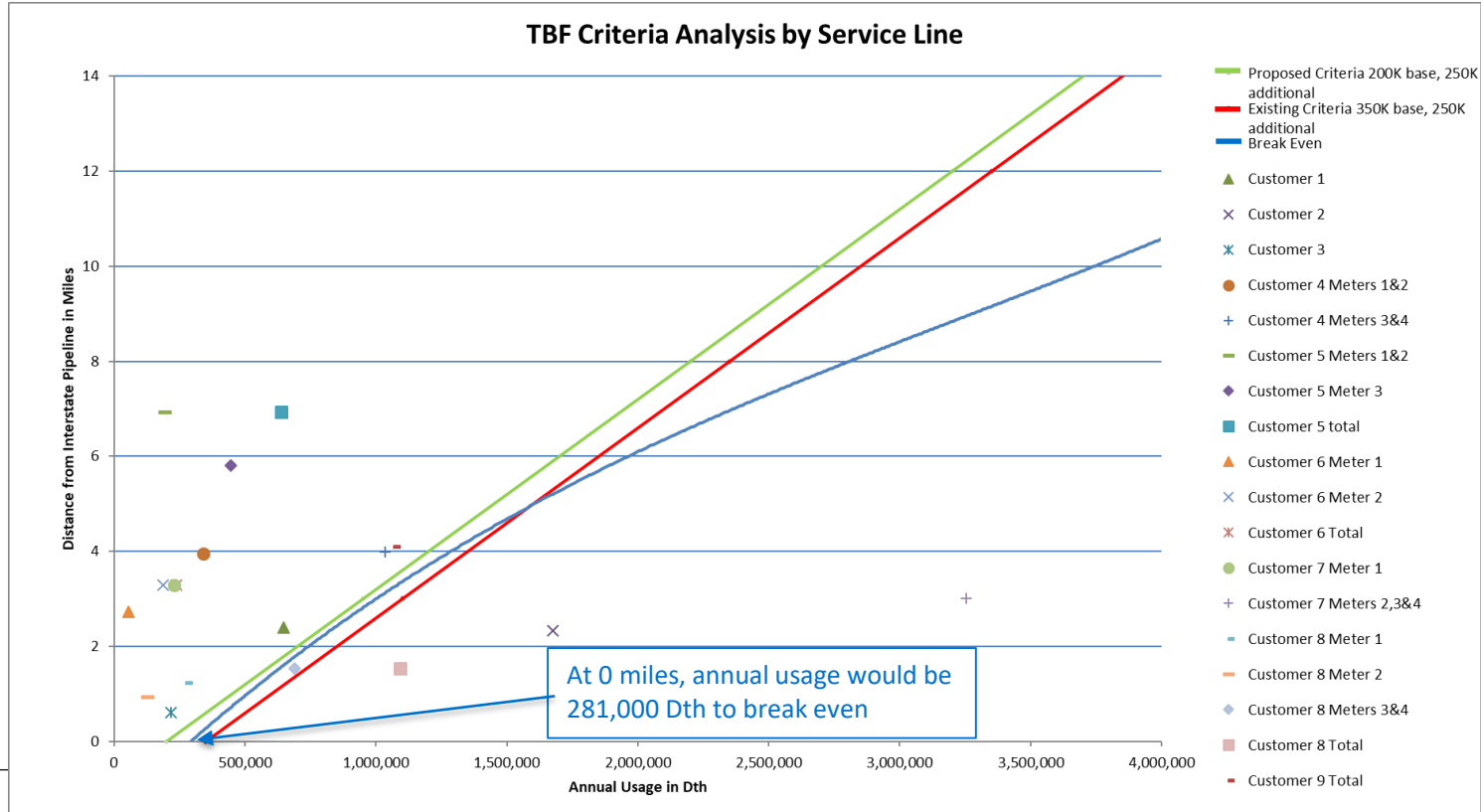
Beneficial for customer to connect to an interstate pipeline

2013 Rate Case Criteria

TBF Criteria Analysis by Service Line



Full Rates with Possible Criteria Changes



TBF Cost of Service Adjustment

- 50% subsidy for TBF class to prevent bypass of the distribution system

Description	GS	FS	IS	TS	TBF	NGV	Total
Cost of Service	353,724,317	2,739,920	189,265	29,059,024	1,607,831	2,649,805	389,970,161
Deficiency	(10,209,533)	54,438	(37,563)	10,678,651	3,153,771	102,921	3,742,686
COS Adjustment	1,808,214	32,721	762	536,844	(2,380,801)	2,260	0
Total Cost of Service incl./Deficiency	345,322,998	2,827,079	152,464	40,274,520	2,380,801	2,754,986	393,712,848

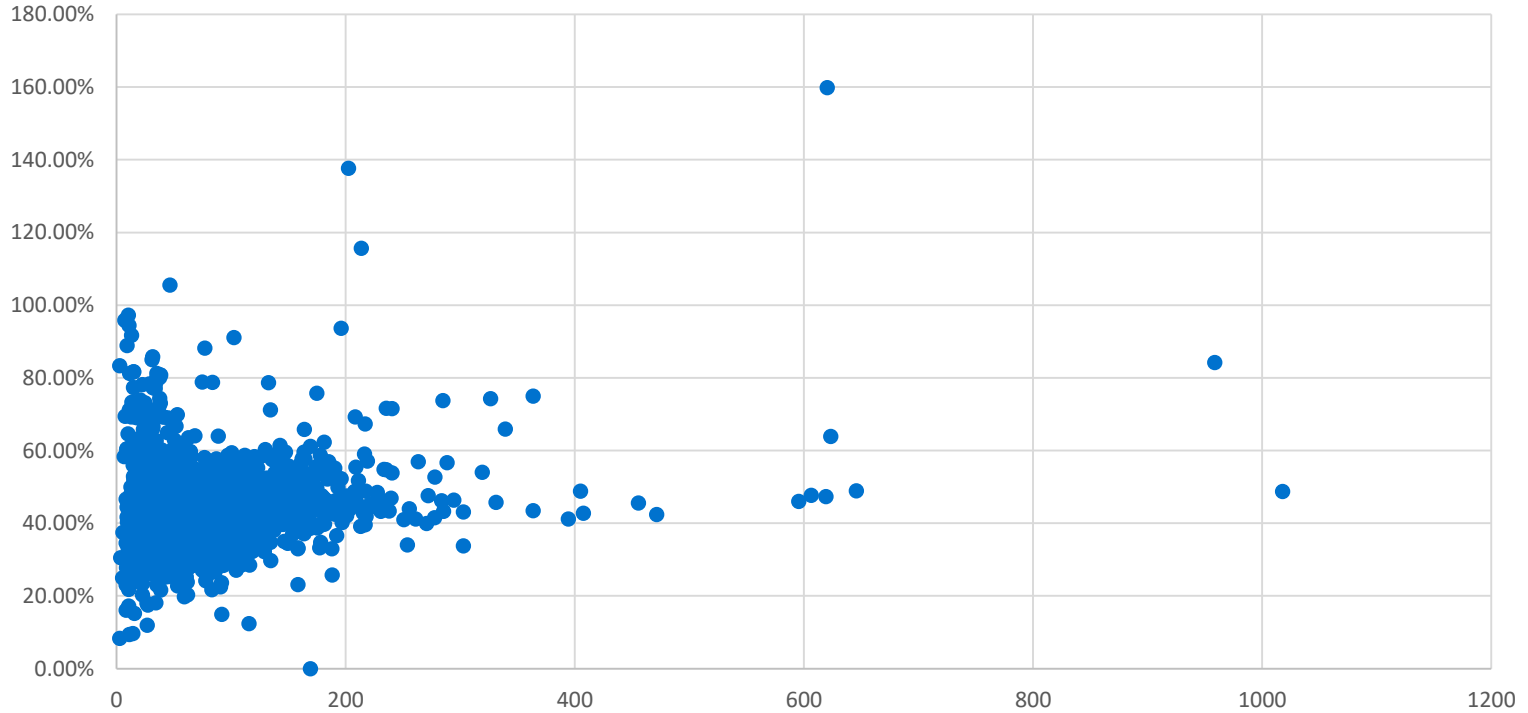
- 50% subsidy paid by other rate classes
 - Allocated by 60% Design Day / 40% Throughput

19-057-02 Settlement Model
Sheet: COS Sum

GS & TS Class Split Analysis

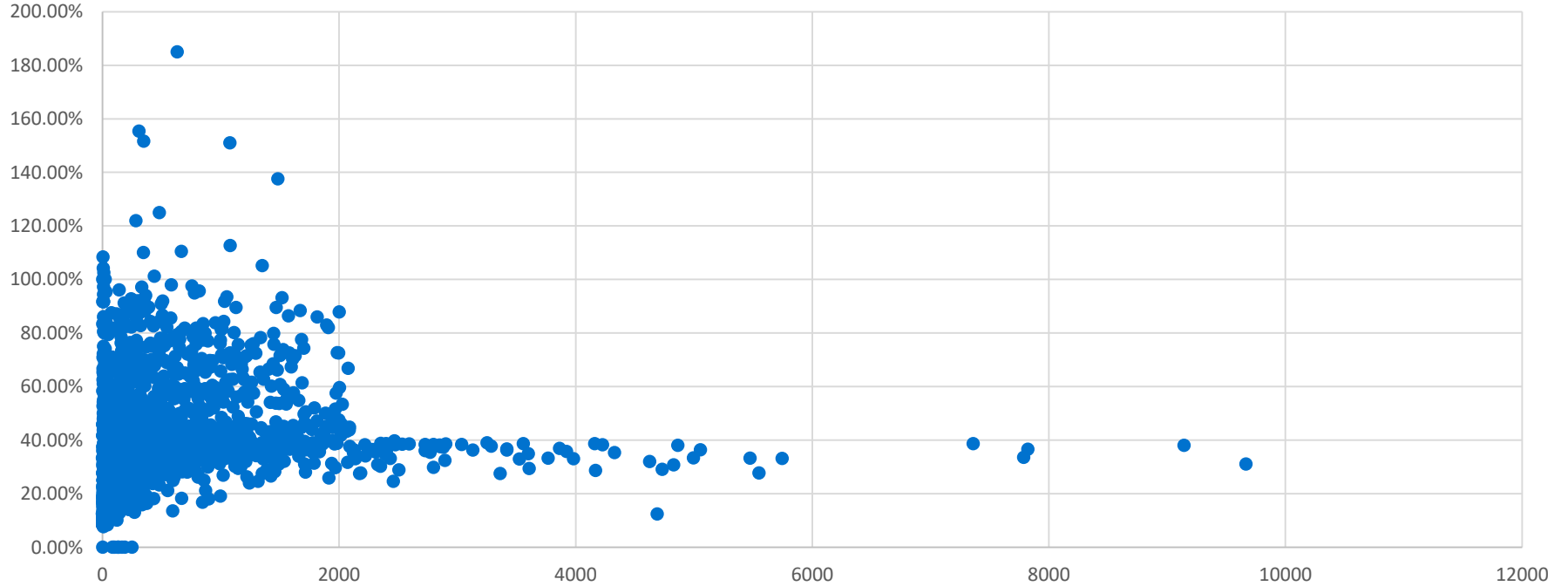
GS Residential

Residential Annual Usage vs. Load Factor



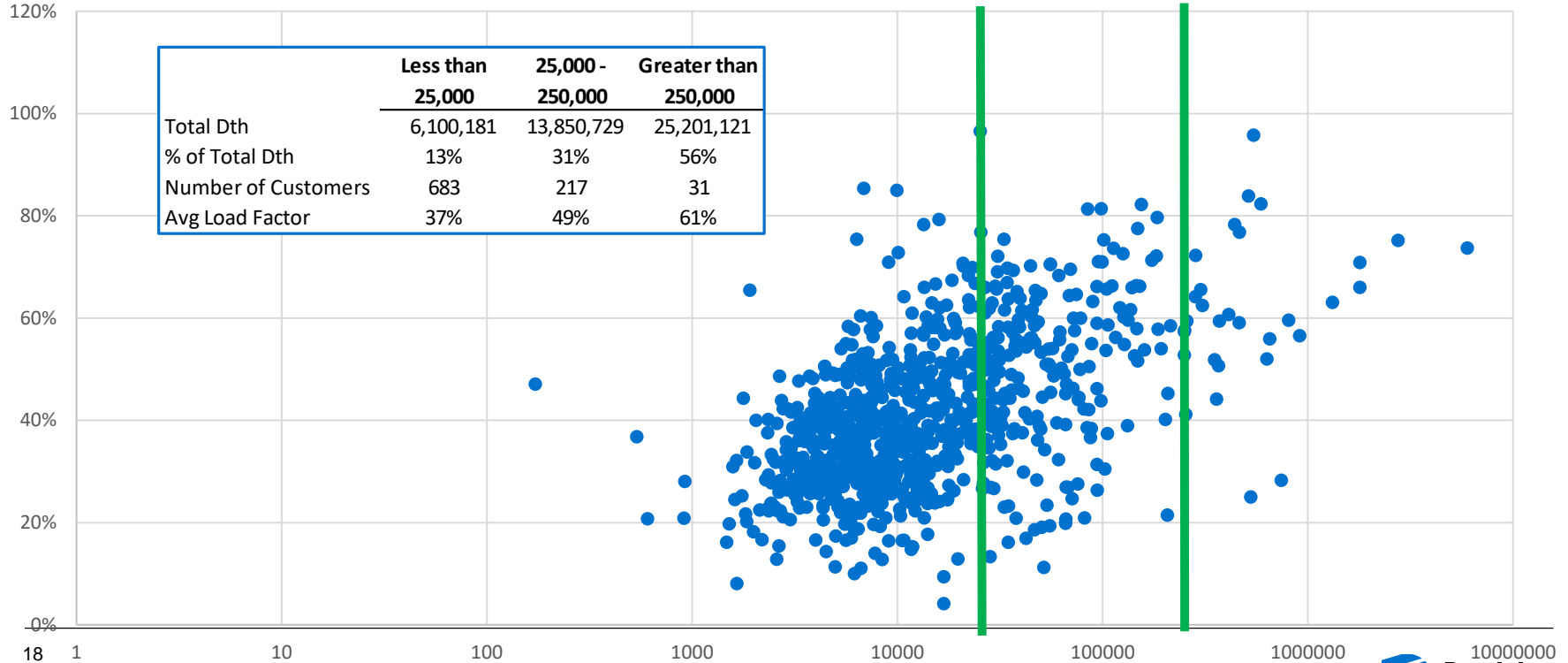
GS Commercial

Commercial Annual Usage vs. Load Factor



TS with DPU Proposed Splits

Load Factor vs. Annual Usage



Insights on Load Factor

- Load Factor measures a customer's consistency of gas use through the year
 - Low load factor indicates customer consumes majority of gas in winter
 - High load factor indicates more summer usage relative to winter
- System is designed to meet design-day demand. Objective is to charge more to those using system during cold weather (cost causation)

$$\frac{\text{Annual Usage}}{365} = \text{Average Daily Usage}$$

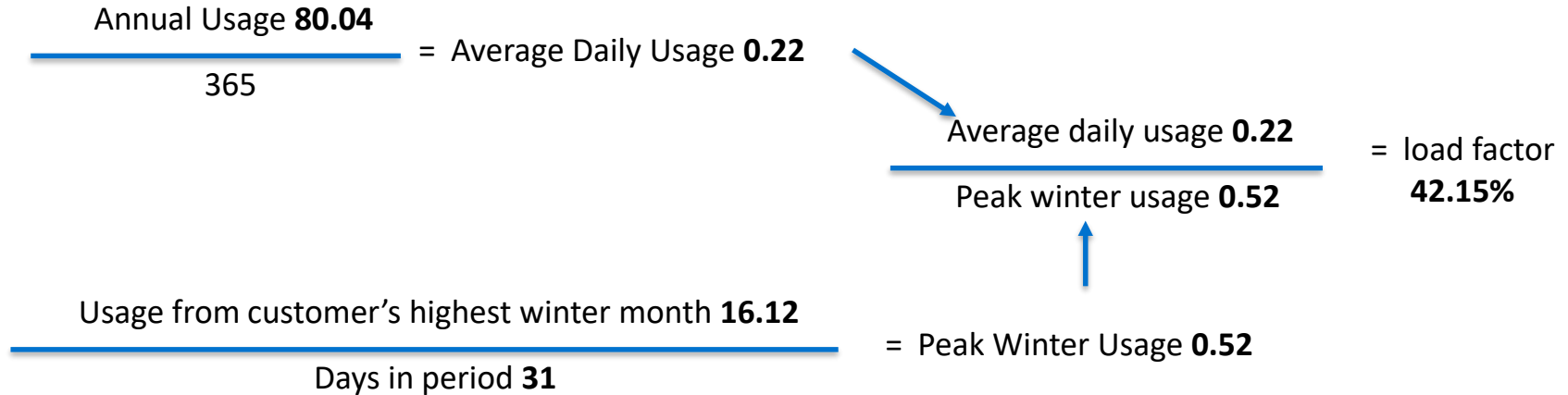
$\frac{\text{Average daily usage}}{\text{Peak winter usage}} = \text{load factor}$

↑

$$\frac{\text{Usage from customer's highest winter month}}{\text{Days in billing period}} = \text{Peak Winter Usage}$$

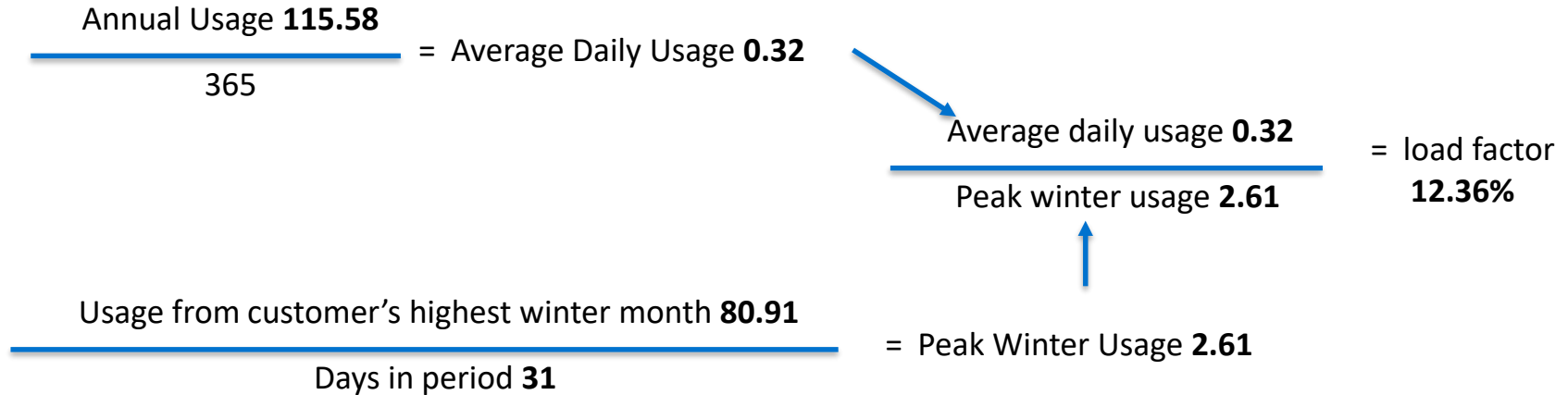
Load Factor Example - Residential

- 80.04 Annual Dth
- 16.12 Dth in January (this specific customer's highest month)



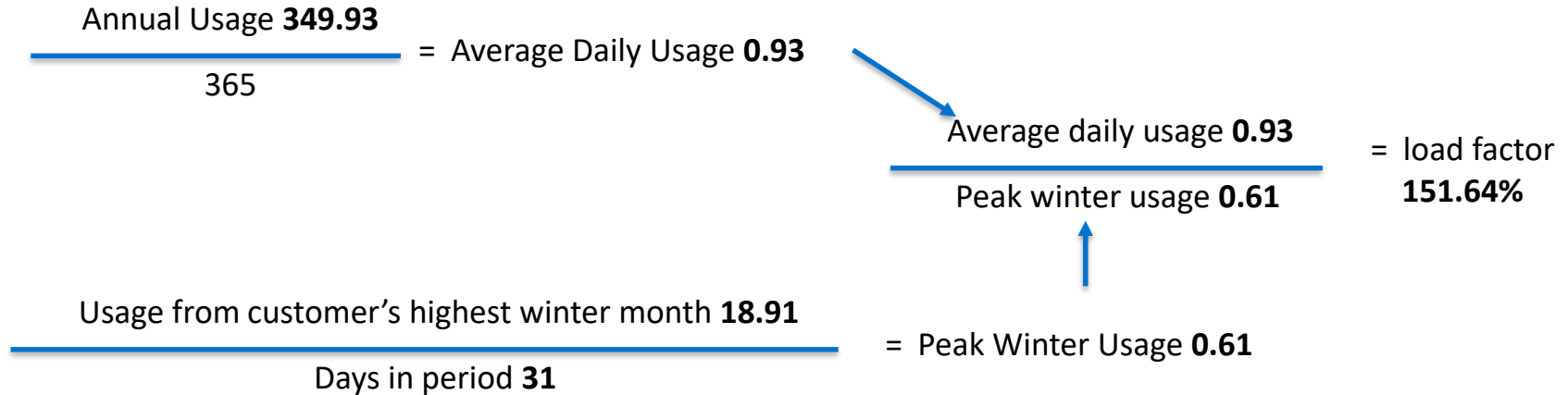
Load Factor Example – Low Load Factor

- 115.58 Annual Dth
- 80.91 Dth in December (this specific customer’s highest month)
- Customer is a high-winter user
 - Vacation home, greenhouse, heated driveway



Load Factor Examples – Load factor over 100%

- 349.93 Annual Dth
- 18.91 Dth in January (this specific customer’s highest month)
- Customer could be a swimming pool or other high-summer user
 - Uses some gas in winter but not much relative to summer load



Other Questions

- What is involved in a COS study? What are the steps? What information is required?
 - 29 allocation factors in 2019 general rate case
 - Some allocation factors are calculated in the model from revenue, throughput, customer, and plant forecasts
 - Some are standalone studies
 - Distribution Plant, Design Day, Distribution Throughput, Customer Assistance Expense, NGV plant, etc.
 - For this work group, much of the data is already collected, but will need to be modified

Other Questions (continued)

- Can COS studies be done on per customer or just by class?
 - We have never done COS by customer
 - Rates are designed by class, so we have always done COS by class
- What does the Company use to classify residential vs nonresidential?
 - Tax Code

Next Steps

- Determine COS study scenarios
 - TS Class
 - Split into small, medium, and large classes based on annual volume
 - Less than 25,000; 25,000 – 250,000; greater than 25,000
 - Discuss any other scenarios
 - GS Class - discuss scenarios
 - Residential/Commercial
 - Large/Small
- Future meetings and topics