

**Exh. JL-19**  
**Dockets UE-190529/UG-190530 and**  
**UE-190274/UG-190275 (*consolidated*)**  
**Witness: Jing Liu**

**BEFORE THE WASHINGTON  
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**PUGET SOUND ENERGY,**

**Respondent.**

**DOCKETS UE-190529  
and UG-190530 (*consolidated*)**

**In the Matter of the Petition of**

**PUGET SOUND ENERGY**

**For an Order Authorizing Deferral  
Accounting and Ratemaking Treatment  
for Short-life UT/Technology Investment**

**DOCKETS UE-190274 and  
UG-190275 (*consolidated*)**

**EXHIBIT TO TESTIMONY OF**

**Jing Liu**

**STAFF OF  
WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION**

*Staff's Attrition Analysis*

**November 22, 2019**

ELECTRIC ATTRITION

12 ME Dec 2018

12 ME April 2021

| LINE NO. | Line Description                     | Attrition Base Year (SEF-9 page 1) |                 |                 |                 |                   | Escalation Factor | Trended Costs     | Rate Year Revenue & Costs |                |                   |   |
|----------|--------------------------------------|------------------------------------|-----------------|-----------------|-----------------|-------------------|-------------------|-------------------|---------------------------|----------------|-------------------|---|
|          |                                      | Colstrip                           | AMI             | GTZ             | Escalation Base | AMI               |                   |                   | GTZ                       | Costs          |                   |   |
|          |                                      | a                                  | b               | c               | d               | e = Σ a thru d    |                   |                   | f                         | g              | h                 | i |
| 1        | <u>Operating Revenues:</u>           |                                    |                 |                 |                 |                   |                   |                   |                           |                |                   |   |
| 2        | Sales to Customers                   | \$ 1,285,740,122                   |                 |                 |                 | \$ 1,285,740,122  |                   | \$ 1,330,085,064  |                           |                | \$ 1,330,085,064  |   |
| 3        | Sales from Resale-Firm               | 328,327                            |                 |                 |                 | 328,327           | 1.18%             | 337,407           |                           |                | 337,407           |   |
| 4        | Sales to Other Utilities             | -                                  |                 |                 |                 | -                 |                   | -                 |                           |                | -                 |   |
| 5        | Other Operating Revenues             | 52,105,314                         |                 |                 |                 | 52,105,314        | 1.18%             | 53,546,277        |                           |                | 53,546,277        |   |
| 6        | Total Operating Revenues             | 1,338,173,763                      | -               | -               | -               | 1,338,173,763     | 1.45%             | 1,383,968,747     | -                         | -              | 1,383,968,747     |   |
| 7        | <u>Operating Revenue Deductions:</u> |                                    |                 |                 |                 |                   |                   |                   |                           |                |                   |   |
| 8        | <u>Power Costs:</u>                  |                                    |                 |                 |                 |                   |                   |                   |                           |                |                   |   |
| 9        | Fuel                                 | -                                  |                 |                 |                 | -                 |                   | -                 |                           |                | -                 |   |
| 10       | Purchased and Interchanged           | -                                  |                 |                 |                 | -                 |                   | -                 |                           |                | -                 |   |
| 11       | Wheeling                             | -                                  |                 |                 |                 | -                 |                   | -                 |                           |                | -                 |   |
| 12       | Residential Exchange                 | -                                  |                 |                 |                 | -                 |                   | -                 |                           |                | -                 |   |
| 13       | Total Production Expenses            | -                                  |                 |                 |                 | -                 |                   | -                 |                           |                | -                 |   |
| 14       | Other Power Supply Expenses          | \$ 127,132,038                     | \$ (18,854,857) |                 |                 | \$ 108,277,181    | 2.21%             | \$ 113,932,289    |                           |                | \$ 113,932,289    |   |
| 15       | Transmission Expense                 | 24,319,869                         |                 |                 |                 | 24,319,869        | 2.82%             | 25,950,653        |                           |                | 25,950,653        |   |
| 16       | Distribution Expense                 | 83,321,444                         |                 |                 |                 | 83,321,444        | 1.81%             | 86,884,045        |                           |                | 86,884,045        |   |
| 17       | Customer Account Expenses            | 46,157,950                         |                 |                 |                 | 46,157,950        | 2.40%             | 48,788,520        |                           |                | 48,788,520        |   |
| 18       | Customer Service Expenses            | 4,015,681                          |                 |                 |                 | 4,015,681         | 6.56%             | 4,657,269         |                           |                | 4,657,269         |   |
| 19       | Conservation Amortization            | -                                  |                 |                 |                 | -                 |                   | -                 |                           |                | -                 |   |
| 20       | Admin & General Expense              | 124,099,544                        |                 |                 |                 | 124,099,544       | 3.02%             | 133,013,079       |                           |                | 133,013,079       |   |
| 21       | Depreciation                         | 340,799,040                        | (42,298,713)    | (5,438,518)     | -               | 293,061,809       |                   | 393,137,598       | in column g               |                | 393,137,598       |   |
| 22       | Amortization                         | 69,623,675                         |                 |                 | (6,449,029)     | 63,174,646        |                   | 77,370,792        |                           | in column g    | 77,370,792        |   |
| 23       | Amortiz Of Property Gain/Loss        | 43,150,399                         |                 |                 |                 | 43,150,399        |                   | 43,150,399        |                           |                | 43,150,399        |   |
| 24       | Other Operating Expenses             | 9,465,484                          |                 |                 |                 | 9,465,484         | 0.00%             | 9,465,484         |                           |                | 9,465,484         |   |
| 25       | Asc 815                              | -                                  |                 |                 |                 | -                 |                   | -                 |                           |                | -                 |   |
| 26       | Taxes Other Than F.I.T.              | 57,998,985                         |                 |                 |                 | 57,998,985        | 0.87%             | 59,181,844        |                           |                | 59,181,844        |   |
| 27       | Federal Income Taxes                 | 86,144,382                         |                 |                 |                 | 86,144,382        |                   | 79,315,879        |                           |                | 79,315,879        |   |
| 28       | Deferred Income Taxes                | (51,808,801)                       |                 |                 |                 | (51,808,801)      |                   | (57,565,021)      |                           |                | (57,565,021)      |   |
| 29       | Total Operating Rev. Deduct.         | \$ 964,419,689                     | \$ (61,153,570) | \$ (5,438,518)  | \$ (6,449,029)  | \$ 891,378,572    |                   | \$ 1,017,282,830  | \$ -                      | \$ -           | \$ 1,017,282,830  |   |
|          |                                      |                                    |                 |                 | O&M             | \$ 390,191,669    |                   | \$ 413,225,855    |                           |                |                   |   |
| 30       | Net Operating Income                 | \$ 373,754,074                     |                 |                 |                 | \$ 446,795,191    |                   | \$ 366,685,917    |                           |                | \$ 366,685,917    |   |
|          |                                      | \$ -                               |                 |                 |                 |                   |                   |                   |                           |                |                   |   |
| 31       | Rate Base                            | \$ 5,188,731,886                   |                 |                 |                 | \$ 5,123,367,983  |                   | \$ 5,035,524,272  |                           |                | \$ 5,294,502,637  |   |
| 32       | Rate of Return                       | 7.20%                              |                 |                 |                 | 8.72%             |                   | 7.28%             |                           |                | 6.93%             |   |
| 33       | Rate Base:                           |                                    |                 |                 |                 |                   |                   |                   |                           |                |                   |   |
| 34       | Gross Utility Plant in Service       | \$ 10,542,577,207                  | \$ -            | \$ (43,086,547) | \$ (32,493,591) | \$ 10,466,997,068 |                   | \$ 11,184,419,483 | \$ 170,075,026            | \$ 162,226,501 | \$ 11,516,721,011 |   |
| 35       | Accumulated Depreciation             | (4,229,541,142)                    | -               | 2,800,433       | 2,801,053       | (4,223,939,657)   |                   | (5,149,216,314)   | (26,949,740)              | (36,667,722)   | (5,212,833,776)   |   |
| 35       | Non-plant DFIT                       | -                                  | -               | -               | -               | (22,089,626)      |                   | (22,089,626)      | -                         | -              | (22,089,626)      |   |
| 36       | Deferred Debits                      | 273,426,197                        | -               | -               | -               | 273,426,197       |                   | 273,426,197       | -                         | -              | 273,426,197       |   |
| 37       | Deferred Taxes                       | (1,414,720,691)                    | -               | 2,798,356       | 1,816,393       | (1,410,105,942)   |                   | (1,290,095,410)   | (11,301,663)              | 1,595,962      | (1,299,801,111)   |   |
| 38       | Allowance for Working Capital        | 145,303,205                        | -               | -               | -               | 145,303,205       |                   | 145,303,205       | -                         | -              | 145,303,205       |   |
| 39       | Other                                | (106,223,264)                      | -               | -               | -               | (106,223,264)     |                   | (106,223,264)     | -                         | -              | (106,223,264)     |   |
| 40       | Total Rate Base                      | \$ 5,188,731,886                   | \$ -            | \$ (37,487,758) | \$ (27,876,145) | \$ 5,123,367,983  |                   | \$ 5,035,524,272  | \$ 131,823,623            | \$ 127,154,741 | \$ 5,294,502,637  |   |
| 41       | <u>Gross Plant</u>                   |                                    |                 |                 |                 |                   |                   |                   |                           |                |                   |   |
| 42       | Total Production                     | \$ 4,219,025,238                   |                 |                 |                 | \$ 4,219,025,238  | 0.14%             | \$ 4,266,361,389  |                           |                | \$ 4,266,361,389  |   |

| ELECTRIC ATTRITION |  | 12 ME Dec 2018                     |      |                 |                 |                    |                   | 12 ME April 2021          |                 |                 |                           |  |
|--------------------|--|------------------------------------|------|-----------------|-----------------|--------------------|-------------------|---------------------------|-----------------|-----------------|---------------------------|--|
| LINE NO.           | Line Description                                 | Attrition Base Year (SEF-9 page 1) |      |                 |                 | Escalation Base    | Escalation Factor | Rate Year Revenue & Costs |                 |                 |                           |  |
|                    |  | a                                  | b    | AMI c           | GTZ d           |                    |                   | Trended Costs g           | AMI h           | GTZ i           | Costs j = $\sum g$ thru i |  |
| 43                 | Transmission                                     | 1,537,389,479                      |      |                 |                 | 1,537,389,479      | 4.60%             | 1,699,727,076             |                 |                 | 1,699,727,076             |  |
| 44                 | Distribution                                     | 3,905,799,409                      |      | (43,086,547)    |                 | 3,862,712,861      | 2.95%             | 4,203,164,130             | 170,075,026     |                 | 4,373,239,156             |  |
| 45                 | Intangible Plant                                 | 364,692,121                        |      |                 | (32,493,591)    | 332,198,531        | 5.84%             | 374,962,391               |                 | 162,226,501     | 537,188,893               |  |
| 46                 | General Plant                                    | 515,670,959                        |      |                 |                 | 515,670,959        | 4.43%             | 640,204,497               |                 |                 | 640,204,497               |  |
| 47                 | Total  | \$ 10,542,577,207                  | \$ - | \$ (43,086,547) | \$ (32,493,591) | \$ 10,466,997,068  |                   | \$ 11,184,419,483         | \$ 170,075,026  | \$ 162,226,501  | \$ 11,516,721,011         |  |
| 48                 | <u>Accumulated Depreciation</u>                  |                                    |      |                 |                 |                    |                   |                           |                 |                 |                           |  |
| 49                 | Total Production                                 | \$ (1,966,448,759)                 |      |                 |                 | \$ (1,966,448,759) |                   | \$ (2,300,521,624)        |                 |                 | \$ (2,300,521,624)        |  |
| 50                 | Transmission                                     | (503,717,591)                      |      |                 |                 | (503,717,591)      |                   | (585,449,120)             |                 |                 | (585,449,120)             |  |
| 51                 | Distribution                                     | (1,461,014,489)                    |      | 2,800,433       |                 | (1,458,214,056)    |                   | (1,765,291,475)           | (26,949,740)    |                 | (1,792,241,215)           |  |
| 52                 | Intangible Plant                                 | (115,975,412)                      |      |                 | 2,801,053       | (113,174,360)      |                   | (241,338,128)             |                 | (36,667,722)    | (278,005,850)             |  |
| 53                 | General Plant                                    | (182,384,891)                      |      |                 |                 | (182,384,891)      |                   | (256,615,968)             |                 |                 | (256,615,968)             |  |
| 54                 | Total  | \$ (4,229,541,142)                 | \$ - | \$ 2,800,433    | \$ 2,801,053    | \$ (4,223,939,657) |                   | \$ (5,149,216,314)        | \$ (26,949,740) | \$ (36,667,722) | \$ (5,212,833,776)        |  |
| 55                 | <u>Deferred Federal Income Taxes (w/o Bonus)</u> |                                    |      |                 |                 |                    |                   |                           |                 |                 |                           |  |
| 56                 | Total Production                                 | \$ (270,203,768)                   |      |                 |                 | \$ (270,203,768)   |                   |                           |                 | \$ -            | -                         |  |
| 57                 | Transmission                                     | (77,896,905)                       |      |                 |                 | (77,896,905)       |                   |                           |                 |                 | -                         |  |
| 58                 | Distribution                                     | (361,910,120)                      |      | 2,798,356       |                 | (359,111,764)      |                   |                           |                 |                 | -                         |  |
| 59                 | Intangible Plant                                 | (3,945,447)                        |      |                 | 1,816,393       | (2,129,054)        |                   |                           |                 |                 | -                         |  |
| 60                 | General Plant                                    | (5,327,313)                        |      |                 |                 | (5,327,313)        |                   |                           |                 |                 | -                         |  |
| 61                 | Total  | \$ (719,283,554)                   | \$ - | \$ 2,798,356    | \$ 1,816,393    | \$ (714,668,804)   |                   | \$ -                      | \$ -            | \$ -            | \$ -                      |  |
| 62                 | <u>Bonus DFIT</u>                                |                                    |      |                 |                 |                    |                   |                           |                 |                 |                           |  |
| 63                 | Total Production                                 | \$ (261,314,323)                   |      |                 |                 | \$ (261,314,323)   |                   |                           |                 | \$ -            | -                         |  |
| 64                 | Transmission                                     | (75,475,354)                       |      |                 |                 | (75,475,354)       |                   |                           |                 |                 | -                         |  |
| 65                 | Distribution                                     | (350,659,562)                      |      |                 |                 | (350,659,562)      |                   |                           |                 |                 | -                         |  |
| 66                 | Intangible Plant                                 | (2,826,192)                        |      |                 |                 | (2,826,192)        |                   |                           |                 |                 | -                         |  |
| 67                 | General Plant                                    | (5,161,706)                        |      |                 |                 | (5,161,706)        |                   |                           |                 |                 | -                         |  |
| 68                 | Total  | \$ (695,437,138)                   | \$ - | \$ -            | \$ -            | \$ (695,437,138)   |                   | \$ -                      | \$ -            | \$ -            | \$ -                      |  |
| 69                 | <u>Total DFIT</u>                                |                                    |      |                 |                 |                    |                   |                           |                 |                 |                           |  |
| 70                 | Total Production                                 | \$ (531,518,092)                   | \$ - | \$ -            | \$ -            | \$ (531,518,092)   |                   | \$ (429,553,956)          |                 | \$ -            | \$ (429,553,956)          |  |
| 71                 | Transmission                                     | (153,372,259)                      |      |                 |                 | (153,372,259)      |                   | (154,854,978)             |                 |                 | (154,854,978)             |  |
| 72                 | Distribution                                     | (712,569,682)                      |      | 2,798,356       |                 | (709,771,326)      |                   | (625,916,307)             | (11,301,663)    |                 | (637,217,970)             |  |
| 73                 | Intangible Plant                                 | (6,771,639)                        |      |                 | 1,816,393       | (4,955,246)        |                   | (10,130,523)              |                 | 1,595,962       | (8,534,561)               |  |
| 74                 | General Plant                                    | (10,489,019)                       |      |                 |                 | (10,489,019)       |                   | (69,639,646)              |                 |                 | (69,639,646)              |  |
| 75                 | Total  | \$ (1,414,720,691)                 | \$ - | \$ 2,798,356    | \$ 1,816,393    | \$ (1,410,105,942) |                   | \$ (1,290,095,410)        | \$ (11,301,663) | \$ 1,595,962    | \$ (1,299,801,111)        |  |
| 76                 | <u>Net Plant after Deferred Income Taxes</u>     |                                    |      |                 |                 |                    |                   |                           |                 |                 |                           |  |
| 77                 | Total Production                                 | \$ 1,721,058,388                   | \$ - | \$ -            | \$ -            | \$ 1,721,058,388   |                   | \$ 1,536,285,810          | \$ -            | \$ -            | \$ 1,536,285,810          |  |
| 78                 | Transmission                                     | 880,299,629                        |      |                 |                 | 880,299,629        |                   | 959,422,978               |                 |                 | 959,422,978               |  |
| 79                 | Distribution                                     | 1,732,215,238                      |      | (37,487,758)    |                 | 1,694,727,480      |                   | 1,811,956,348             | 131,823,623     |                 | 1,943,779,971             |  |
| 80                 | Intangible Plant                                 | 241,945,070                        |      |                 | (27,876,145)    | 214,068,925        |                   | 123,493,741               |                 | 127,154,741     | 250,648,482               |  |
| 81                 | General Plant                                    | 322,797,049                        |      |                 |                 | 322,797,049        |                   | 313,948,883               |                 |                 | 313,948,883               |  |
| 82                 | Total  | \$ 4,898,315,373                   | \$ - | \$ (37,487,758) | \$ (27,876,145) | \$ 4,832,951,470   |                   | \$ 4,745,107,759          | \$ 131,823,623  | \$ 127,154,741  | \$ 5,004,086,124          |  |
| 83                 | Non-plant DFIT                                   | \$ (22,089,626)                    |      |                 |                 | \$ (22,089,626)    |                   | \$ (22,089,626)           |                 | \$ -            | \$ (22,089,626)           |  |
| 84                 | Deferred Debits                                  | 273,426,197                        |      |                 |                 | 273,426,197        |                   | 273,426,197               |                 |                 | 273,426,197               |  |
| 84                 | Allowance for Working Capital                    | 145,303,205                        |      |                 |                 | 145,303,205        |                   | 145,303,205               |                 |                 | 145,303,205               |  |
| 85                 | Other  | (106,223,264)                      |      |                 |                 | (106,223,264)      |                   | (106,223,264)             |                 |                 | (106,223,264)             |  |
| 86                 | Total Rate Base                                  | \$ 5,188,731,886                   | \$ - | \$ (37,487,758) | \$ (27,876,145) | \$ 5,123,367,983   |                   | \$ 5,035,524,272          | \$ 131,823,623  | \$ 127,154,741  | \$ 5,294,502,637          |  |
| 87                 | Proposed Rate of Return                          |                                    |      |                 |                 |                    |                   |                           |                 |                 | 7.33%                     |  |
| 88                 | Return on Plant in Service at Proposed Rate      |                                    |      |                 |                 |                    |                   |                           |                 | \$              | 388,087,043               |  |
| 89                 | Operating Income Deficiency                      |                                    |      |                 |                 |                    |                   |                           |                 | \$              | 21,401,126                |  |
| 90                 | Revenue Conversion Factor                        |                                    |      |                 |                 |                    |                   |                           |                 |                 | 0.751381                  |  |
| 91                 | Revenue Requirement                              |                                    |      |                 |                 |                    |                   |                           |                 | \$              | 28,482,389                |  |
| 92                 | Revenue Growth Factor                            |                                    |      |                 |                 |                    |                   |                           |                 |                 | 1.0145                    |  |
| 93                 | Attrition Adjusted Revenue Requirement           |                                    |      |                 |                 |                    |                   |                           |                 | \$              | 28,074,587                |  |

| GAS ATTRITION<br>LINE<br>NO. | 12 ME Dec 2018                        |                 |                 |                 |                     | Escalation<br>Factor | 12 ME Apr 2021   |                |               |               |                              |
|------------------------------|---------------------------------------|-----------------|-----------------|-----------------|---------------------|----------------------|------------------|----------------|---------------|---------------|------------------------------|
|                              | Attrition Base Year<br>(SEF-9 page 2) | CRM             | AMI             | GTZ             | Escalation Base     |                      | Trended Costs    | CRM            | AMI           | GTZ           | Rate Year Revenue &<br>Costs |
|                              | a                                     | b               | c               | d               | e = $\sum$ a thru d |                      | f                | g              | h             | i             | j                            |
| 1                            | <u>Operating Revenues:</u>            |                 |                 |                 |                     |                      |                  |                |               |               |                              |
| 2                            | \$ 434,025,683                        |                 |                 |                 | \$ 434,025,683      |                      | \$ 448,235,286   |                |               |               | \$ 448,235,286               |
| 3                            | -                                     |                 |                 |                 | -                   |                      | -                |                |               |               | -                            |
| 4                            | 14,089,923                            |                 |                 |                 | 14,089,923          | 2.60%                | 14,959,559       |                |               |               | 14,959,559                   |
| 5                            | \$ 448,115,606                        | \$ -            | \$ -            | \$ -            | \$ 448,115,606      | 1.43%                | \$ 463,194,845   | \$ -           | \$ -          | \$ -          | \$ 463,194,845               |
| 6                            | Operating Revenue Deductions:         |                 |                 |                 |                     |                      |                  |                |               |               |                              |
| 7                            | Gas Costs:                            |                 |                 |                 |                     |                      |                  |                |               |               |                              |
| 8                            | \$ -                                  |                 |                 |                 | \$ -                |                      | \$ -             |                |               |               | \$ -                         |
| 9                            | \$ -                                  | \$ -            | \$ -            | \$ -            | \$ -                |                      | \$ -             | \$ -           | \$ -          | \$ -          | \$ -                         |
| 10                           | \$ 6,059,691                          |                 |                 |                 | \$ 6,059,691        | 5.59%                | \$ 6,880,021     |                |               |               | \$ 6,880,021                 |
| 11                           | 2,111                                 |                 |                 |                 | 2,111               |                      | 2,111            |                |               |               | 2,111                        |
| 12                           | 60,697,625                            |                 |                 |                 | 60,697,625          | 0.93%                | 62,023,320       |                |               |               | 62,023,320                   |
| 13                           | 28,150,071                            |                 |                 |                 | 28,150,071          | 0.78%                | 28,667,336       |                |               |               | 28,667,336                   |
| 14                           | 1,763,236                             |                 |                 |                 | 1,763,236           | 2.32%                | 1,859,968        |                |               |               | 1,859,968                    |
| 15                           | -                                     |                 |                 |                 | -                   |                      | -                |                |               |               | -                            |
| 16                           | 59,028,745                            |                 |                 |                 | 59,028,745          | 2.02%                | 61,842,688       |                |               |               | 61,842,688                   |
| 17                           | 116,245,308                           | (2,616,180)     | (2,455,596)     | (3,294,178)     | 107,879,353         |                      | 130,500,613      |                | in column g   |               | 130,500,613                  |
| 18                           | 26,117,570                            |                 |                 |                 | 26,117,570          |                      | 34,854,134       |                |               | in column g   | 34,854,134                   |
| 19                           | -                                     |                 |                 |                 | -                   |                      | -                |                |               |               | -                            |
| 20                           | 13,480,873                            |                 |                 |                 | 13,480,873          | 0.00%                | 13,480,873       |                |               |               | 13,480,873                   |
| 21                           | 24,101,717                            |                 |                 |                 | 24,101,717          | 3.15%                | 25,908,984       |                |               |               | 25,908,984                   |
| 22                           | 4,873,210                             |                 |                 |                 | 4,873,210           |                      | 4,873,210        |                |               |               | 4,873,210                    |
| 23                           | 523,320                               |                 |                 |                 | 523,320             |                      | (18,603,530)     |                |               |               | (18,603,530)                 |
| 24                           | \$ 341,043,478                        | \$ (2,616,180)  | \$ (2,455,596)  | \$ (3,294,178)  | \$ 332,677,524      |                      | \$ 367,284,269   | \$ -           | \$ -          | \$ -          | \$ 367,284,269               |
|                              |                                       |                 |                 | O&M             | \$ 155,701,480      |                      | \$ 161,275,444   |                |               |               |                              |
| 25                           | \$ 107,072,128                        | \$ 2,616,180    | \$ 2,455,596    | \$ 3,294,178    | \$ 115,438,082      |                      | \$ 95,910,575    |                |               |               | \$ 95,910,575                |
| 26                           | \$ 112,468,658                        |                 |                 |                 |                     |                      |                  |                |               |               | \$ 97,174,797                |
| 27                           | \$ 1,931,978,462                      | \$ (73,516,466) | \$ (13,642,851) | \$ (14,239,197) | \$ 1,830,579,947    |                      | \$ 1,939,650,485 |                |               |               | \$ 2,144,494,388             |
| 28                           | Rate of Return                        | 6.52%           |                 |                 | 6.52%               |                      | 6.52%            |                |               |               | 6.52%                        |
| 29                           | Rate Base:                            |                 |                 |                 |                     |                      |                  |                |               |               |                              |
| 30                           | \$ 4,068,253,157                      | \$ (84,751,774) | \$ (16,228,881) | \$ (16,597,799) | \$ 3,950,674,702    |                      | \$ 4,384,832,458 | \$ 105,802,468 | \$ 66,784,661 | \$ 82,865,660 | \$ 4,640,285,248             |
| 31                           | (1,568,683,551)                       | 3,209,723       | 1,296,178       | 1,430,784       | (1,562,746,865)     |                      | (1,876,852,767)  | (10,067,231)   | (10,582,561)  | (18,729,954)  | (1,916,232,513)              |
| 32                           | (600,960,584)                         | 8,025,585       | 1,289,852       | 927,818         | (590,717,330)       |                      | (601,698,646)    | (8,937,256)    | (3,098,028)   | 806,144       | (612,927,787)                |
| 33                           | (21,062,360)                          | -               | -               | -               | (21,062,360)        |                      | (21,062,360)     | -              | -             | -             | (21,062,360)                 |
| 34                           | \$ 1,877,546,662                      | \$ (73,516,466) | \$ (13,642,851) | \$ (14,239,197) | \$ 1,776,148,147    |                      | \$ 1,885,218,685 | \$ 86,797,981  | \$ 53,104,072 | \$ 64,941,850 | \$ 2,090,062,588             |
| 35                           | 54,431,800                            | -               | -               | -               | 54,431,800          |                      | 54,431,800       | -              | -             | -             | 54,431,800                   |
| 36                           | \$ 1,931,978,462                      | \$ (73,516,466) | \$ (13,642,851) | \$ (14,239,197) | \$ 1,830,579,947    |                      | \$ 1,939,650,485 | \$ 86,797,981  | \$ 53,104,072 | \$ 64,941,850 | \$ 2,144,494,388             |
|                              | 0                                     |                 |                 |                 |                     |                      |                  |                |               |               |                              |
| 37                           | Gross Plant                           |                 |                 |                 |                     |                      |                  |                |               |               |                              |
| 38                           | \$ 76,474,409                         |                 |                 |                 | \$ 76,474,409       | 1.45%                | \$ 70,919,861    |                |               |               | \$ 70,919,861                |
| 39                           | -                                     |                 |                 |                 | -                   |                      | -                |                |               |               | -                            |
| 40                           | 3,678,759,561                         | (84,751,774)    | (16,228,881)    |                 | 3,577,778,905       | 3.46%                | 3,958,257,471    | 105,802,468    | 66,784,661    |               | 4,130,844,601                |
| 41                           | 139,418,656                           |                 |                 | (16,597,799)    | 122,820,858         | 7.16%                | 133,616,620      |                |               | 82,865,660    | 216,482,280                  |
| 42                           | 173,600,530                           |                 |                 |                 | 173,600,530         | 2.14%                | 222,038,506      |                |               |               | 222,038,506                  |
| 43                           | \$ 4,068,253,157                      | \$ (84,751,774) | \$ (16,228,881) | \$ (16,597,799) | \$ 3,950,674,702    |                      | \$ 4,384,832,458 | \$ 105,802,468 | \$ 66,784,661 | \$ 82,865,660 | \$ 4,640,285,248             |
| 44                           | Accumulated Depreciation              |                 |                 |                 |                     |                      |                  |                |               |               |                              |
| 45                           | \$ (33,125,038)                       |                 |                 |                 | \$ (33,125,038)     |                      | \$ (36,719,337)  |                |               |               | \$ (36,719,337)              |
| 46                           | -                                     |                 |                 |                 | -                   |                      | -                |                |               |               | -                            |

| GAS ATTRITION<br>LINE NO. |   | 12 ME Dec 2018                        |                 |                 |                 |                                   | Escalation Factor | 12 ME Apr 2021     |                 |                 |                 | Rate Year Revenue & Costs |
|---------------------------|---|---------------------------------------|-----------------|-----------------|-----------------|-----------------------------------|-------------------|--------------------|-----------------|-----------------|-----------------|---------------------------|
|                           |   | Attrition Base Year<br>(SEF-9 page 2) | CRM             | AMI             | GTZ             | Escalation Base<br>e = ∑ a thru d |                   | Trended Costs      | CRM             | AMI             | GTZ             |                           |
|                           |   | a                                     | b               | c               | d               | e = ∑ a thru d                    | f                 | g                  | h               | i               | j               | k = ∑ g thru j            |
| 47                        | Distribution                                | (1,432,026,203)                       | 3,209,723       | 1,296,178       |                 | (1,427,520,301)                   |                   | (1,660,527,497)    | (10,067,231)    | (10,582,561)    |                 | (1,681,177,288)           |
| 48                        | Intangible Plant                            | (47,274,088)                          |                 |                 | 1,430,784       | (45,843,304)                      |                   | (94,276,462)       |                 |                 | (18,729,954)    | (113,006,416)             |
| 49                        | General Plant                               | (56,258,222)                          |                 |                 |                 | (56,258,222)                      |                   | (85,329,472)       |                 |                 |                 | (85,329,472)              |
| 50                        | Total                                       | \$ (1,568,683,551)                    | \$ 3,209,723    | \$ 1,296,178    | \$ 1,430,784    | \$ (1,562,746,865)                |                   | \$ (1,876,852,767) | \$ (10,067,231) | \$ (10,582,561) | \$ (18,729,954) | \$ (1,916,232,513)        |
| 51                        | ADIT (w/o Bonus)                            |                                       |                 |                 |                 |                                   |                   |                    |                 |                 |                 |                           |
| 52                        | Production                                  | \$ -                                  |                 |                 |                 | \$ -                              |                   |                    |                 |                 |                 | \$ -                      |
| 53                        | Transmission                                | -                                     |                 |                 |                 | -                                 |                   |                    |                 |                 |                 | -                         |
| 54                        | Distribution                                | (271,846,933)                         | 8,025,585       | 1,289,852       |                 | (262,531,496)                     |                   |                    |                 |                 |                 | -                         |
| 55                        | Intangible Plant                            | (16,932,626)                          |                 |                 | 927,818         | (16,004,808)                      |                   |                    |                 |                 |                 | -                         |
| 56                        | General Plant                               | (21,066,947)                          |                 |                 |                 | (21,066,947)                      |                   |                    |                 |                 |                 | -                         |
| 57                        | Total                                       | \$ (309,846,506)                      | \$ 8,025,585    | \$ 1,289,852    | \$ 927,818      | \$ (299,603,251)                  |                   | \$ -               | \$ -            | \$ -            | \$ -            | \$ -                      |
| 58                        | Bonus ADIT                                  |                                       |                 |                 |                 |                                   |                   |                    |                 |                 |                 |                           |
| 59                        | Production                                  | \$ -                                  |                 |                 |                 | \$ -                              |                   |                    |                 |                 |                 | \$ -                      |
| 60                        | Transmission                                | -                                     |                 |                 |                 | -                                 |                   |                    |                 |                 |                 | -                         |
| 61                        | Distribution                                | (249,929,943)                         |                 |                 |                 | (249,929,943)                     |                   |                    |                 |                 |                 | -                         |
| 62                        | Intangible Plant                            | (15,866,664)                          |                 |                 |                 | (15,866,664)                      |                   |                    |                 |                 |                 | -                         |
| 63                        | General Plant                               | (19,750,584)                          |                 |                 |                 | (19,750,584)                      |                   |                    |                 |                 |                 | -                         |
| 64                        | Total                                       | \$ (285,547,191)                      | \$ -            | \$ -            | \$ -            | \$ (285,547,191)                  |                   | \$ -               | \$ -            | \$ -            | \$ -            | \$ -                      |
| 65                        | Total ADIT                                  |                                       |                 |                 |                 |                                   |                   |                    |                 |                 |                 |                           |
| 66                        | Production                                  | \$ -                                  | \$ -            | \$ -            | \$ -            | \$ -                              |                   | \$ (25,135)        |                 |                 |                 | \$ (25,135)               |
| 67                        | Transmission                                | -                                     | -               | -               | -               | -                                 |                   | \$ -               |                 |                 |                 | \$ -                      |
| 68                        | Distribution                                | (521,776,876)                         | 8,025,585       | 1,289,852       |                 | (512,461,439)                     |                   | \$ (519,928,798)   | (8,937,256)     | (3,098,028)     |                 | (531,964,083)             |
| 69                        | Intangible Plant                            | (32,799,289)                          |                 |                 | 927,818         | (31,871,472)                      |                   | \$ (1,749,451)     |                 |                 | 806,144         | (943,307)                 |
| 70                        | General Plant                               | (40,817,531)                          |                 |                 |                 | (40,817,531)                      |                   | \$ (74,428,375)    |                 |                 |                 | (74,428,375)              |
| 71                        | Total                                       | \$ (595,393,697)                      | \$ 8,025,585    | \$ 1,289,852    | \$ 927,818      | \$ (585,150,443)                  |                   | \$ (596,131,759)   | \$ (8,937,256)  | \$ (3,098,028)  | \$ 806,144      | \$ (607,360,900)          |
| 72                        | Net Plant After ADIT                        |                                       |                 |                 |                 |                                   |                   |                    |                 |                 |                 |                           |
| 73                        | Production                                  | \$ 43,349,372                         | \$ -            | \$ -            | \$ -            | \$ 43,349,372                     |                   | \$ 34,175,389      | \$ -            | \$ -            | \$ -            | \$ 34,175,389             |
| 74                        | Transmission                                | -                                     | -               | -               | -               | -                                 |                   | -                  | -               | -               | -               | -                         |
| 75                        | Distribution                                | 1,724,956,482                         | (73,516,466)    | (13,642,851)    |                 | 1,637,797,165                     |                   | 1,777,801,177      | 86,797,981      | 53,104,072      |                 | 1,917,703,230             |
| 76                        | Intangible Plant                            | 59,345,279                            |                 |                 | (14,239,197)    | 45,106,082                        |                   | 37,590,707         |                 |                 | 64,941,850      | 102,532,556               |
| 77                        | General Plant                               | 76,524,776                            |                 |                 |                 | 76,524,776                        |                   | 62,280,660         |                 |                 |                 | 62,280,660                |
| 78                        | Total                                       | \$ 1,904,175,909                      | \$ (73,516,466) | \$ (13,642,851) | \$ (14,239,197) | \$ 1,802,777,394                  |                   | \$ 1,911,847,932   | \$ 86,797,981   | \$ 53,104,072   | \$ 64,941,850   | \$ 2,116,691,835          |
| 79                        | Non Plant ADIT                              | \$ (5,566,887)                        |                 |                 |                 | \$ (5,566,887)                    |                   | \$ (5,566,887)     |                 |                 |                 | \$ (5,566,887)            |
| 80                        | Depreciation and Other Liabilities          | (21,062,360)                          |                 |                 |                 | (21,062,360)                      |                   | (21,062,360)       |                 |                 |                 | (21,062,360)              |
| 81                        | Allowance for Working Capital               | 54,431,800                            |                 |                 |                 | 54,431,800                        |                   | 54,431,800         |                 |                 |                 | 54,431,800                |
| 82                        | Total Ratebase                              | \$ 1,931,978,462                      | \$ (73,516,466) | \$ (13,642,851) | \$ (14,239,197) | \$ 1,830,579,947                  |                   | \$ 1,939,650,485   | \$ 86,797,981   | \$ 53,104,072   | \$ 64,941,850   | \$ 2,144,494,388          |
| 83                        | Proposed Rate of Return                     |                                       |                 |                 |                 |                                   |                   |                    |                 |                 |                 | 7.33%                     |
| 84                        | Return on Plant in Service at Proposed Rate |                                       |                 |                 |                 |                                   |                   |                    |                 |                 | \$              | 157,191,439               |
| 85                        | Operating Income Deficiency                 |                                       |                 |                 |                 |                                   |                   |                    |                 |                 | \$              | 61,280,863                |
| 86                        | Revenue Conversion Factor                   |                                       |                 |                 |                 |                                   |                   |                    |                 |                 |                 | 0.754097                  |
| 87                        | Revenue Requirement                         |                                       |                 |                 |                 |                                   |                   |                    |                 |                 | \$              | 81,263,900                |
| 88                        | Revenue Growth Factor                       |                                       |                 |                 |                 |                                   |                   |                    |                 |                 |                 | 1.014285                  |
| 89                        | Attrition Adjusted Revenue Requirement      |                                       |                 |                 |                 |                                   |                   |                    |                 |                 | \$              | 80,119,370                |