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Taxpayer,

Per your request, attached is a table that shows the depreciation percent good factors (Expectancy Life Factors) that Pritchard & Abbott, Inc., will be using for tax year **2024**, for properties having various service lives. These Expectancy Life Factors address only the *physical deterioration* component of depreciation. Other components of depreciation (functional and/or economic obsolescence), to the extent they can be identified and quantified, are addressed through analysis of various property-specific characteristics. One such example would be Utilization or Inutility (throughput relative to capacity) that can act as a mass-appraisal proxy in place of more rigorous methods that look to rate of return or "income shortfall" metrics.

- The attached Expectancy Life table is generic regarding tax year and age. To use this table, look up the expectancy life factor (percent good) corresponding to the **age** of the equipment **in years** or via the specific installation year. The age is shown in ascending order in the 2nd column. Then find the column for the service life of the equipment and that will give the %good factor for this equipment. Longer assumed service lives result in higher percent good factors (i.e., less depreciation), age being equal. For any percent good factor in this table that falls below a floor you believe is appropriate, just use your preferred floor factor instead.
  - Example: Equipment that's 10 years old as of the appraisal date with an assumed service life of 20 years has a percent good factor of 0.6834 (68.34%), equal to 31.66% accumulated depreciation. If the same type of equipment is 19 years old, the percent good factor is 0.10 (10%), equal to the 10% floor. If you don't want to use anything less than a 12% floor (just as an example), then use 0.1200 factor instead of 0.10.
- These percent good factors are based on an assumed 8% rate of return in the expectancy life formula. This rate of return is one that's expected over the depreciable life of the property and doesn't represent any particular property's actual rate of return for any particular year.

Pritchard & Abbott, Inc., does not publish or otherwise provide a schedule of RCN values or service lives corresponding to specific categories or types of property. We generally develop our own RCN schedules and service life guides for use with the specialized industrial and/or oilfield personal property equipment and facilities that we appraise, which may or may not correspond with the schedules used by the appraisal district locally for general business personal property appraisal. We do trend past historical or original costs when appropriate to convert them to current vintage using index data from a variety of sources such as Marshall & Swift, Handy-Whitman, Chemical Engineering Magazine, Oil and Gas Journal, etc. We do not combine trend factors with depreciation factors to form "composite" factors of any kind. We may combine several depreciation factors (say, for all forms of obsolescence) to form a composite "service" factor on selected reports.

Regards,

*Karen Khan*

**Karen E. Khan, PE, RPA**  
*Director of Industrial and Utility Appraisals*

**PRITCHARD & ABBOTT, INC. VALUATION CONSULTANTS**

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**Expectancy Life (% Good) Factors**  
**Tax Year 2024**

10.0% Floor Depreciation\*

**8.0% Rate of Return\***

| Year Installed | Age (yrs) | Service Life (yrs) |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|----------------|-----------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                |           | 2                  | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     | 12     | 13     | 14     | 15     | 16     | 17     | 18     | 19     | 20     | 21     | 22     |
| 2023           | 1         | 0.5192             | 0.6920 | 0.7781 | 0.8295 | 0.8637 | 0.8879 | 0.9060 | 0.9199 | 0.9310 | 0.9399 | 0.9473 | 0.9535 | 0.9587 | 0.9632 | 0.9670 | 0.9704 | 0.9733 | 0.9759 | 0.9781 | 0.9802 | 0.9820 |
| 2022           | 2         | 0.1000             | 0.3593 | 0.5384 | 0.6455 | 0.7165 | 0.7669 | 0.8044 | 0.8334 | 0.8564 | 0.8750 | 0.8904 | 0.9032 | 0.9141 | 0.9234 | 0.9314 | 0.9384 | 0.9445 | 0.9498 | 0.9545 | 0.9587 | 0.9625 |
| 2021           | 3         | 0.1000             | 0.1000 | 0.2796 | 0.4466 | 0.5575 | 0.6362 | 0.6948 | 0.7400 | 0.7759 | 0.8050 | 0.8289 | 0.8490 | 0.8659 | 0.8804 | 0.8929 | 0.9038 | 0.9133 | 0.9217 | 0.9291 | 0.9356 | 0.9415 |
| 2020           | 4         | 0.1000             | 0.1000 | 0.1000 | 0.2319 | 0.3857 | 0.4950 | 0.5764 | 0.6392 | 0.6889 | 0.7293 | 0.7626 | 0.7904 | 0.8139 | 0.8340 | 0.8514 | 0.8665 | 0.8797 | 0.8913 | 0.9015 | 0.9106 | 0.9187 |
| 2019           | 5         | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.2003 | 0.3425 | 0.4485 | 0.5302 | 0.5950 | 0.6476 | 0.6909 | 0.7271 | 0.7577 | 0.7839 | 0.8065 | 0.8262 | 0.8433 | 0.8585 | 0.8718 | 0.8837 | 0.8942 |
| 2018           | 6         | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1778 | 0.3103 | 0.4125 | 0.4936 | 0.5593 | 0.6134 | 0.6587 | 0.6970 | 0.7298 | 0.7581 | 0.7826 | 0.8041 | 0.8230 | 0.8397 | 0.8545 | 0.8677 |
| 2017           | 7         | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1611 | 0.2855 | 0.3841 | 0.4640 | 0.5298 | 0.5849 | 0.6315 | 0.6714 | 0.7058 | 0.7356 | 0.7617 | 0.7847 | 0.8050 | 0.8230 | 0.8391 |
| 2016           | 8         | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1482 | 0.2658 | 0.3610 | 0.4395 | 0.5052 | 0.5607 | 0.6083 | 0.6492 | 0.6848 | 0.7160 | 0.7434 | 0.7676 | 0.7891 | 0.8082 |
| 2015           | 9         | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1380 | 0.2498 | 0.3420 | 0.4191 | 0.4843 | 0.5401 | 0.5882 | 0.6300 | 0.6666 | 0.6987 | 0.7271 | 0.7523 | 0.7748 |        |
| 2014           | 10        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1297 | 0.2366 | 0.3261 | 0.4018 | 0.4665 | 0.5223 | 0.5708 | 0.6132 | 0.6505 | 0.6834 | 0.7127 | 0.7388 |        |
| 2013           | 11        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1229 | 0.2256 | 0.3126 | 0.3870 | 0.4511 | 0.5068 | 0.5555 | 0.5984 | 0.6363 | 0.6699 | 0.6998 |        |        |
| 2012           | 12        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1171 | 0.2163 | 0.3011 | 0.3742 | 0.4377 | 0.4933 | 0.5421 | 0.5853 | 0.6236 | 0.6578 |        |        |
| 2011           | 13        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1123 | 0.2083 | 0.2912 | 0.3631 | 0.4260 | 0.4814 | 0.5303 | 0.5737 | 0.6124 |        |        |
| 2010           | 14        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1082 | 0.2015 | 0.2825 | 0.3534 | 0.4158 | 0.4709 | 0.5198 | 0.5634 |        |        |
| 2009           | 15        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1046 | 0.1955 | 0.2750 | 0.3449 | 0.4067 | 0.4615 | 0.5104 |        |        |        |
| 2008           | 16        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1015 | 0.1903 | 0.2683 | 0.3373 | 0.3986 | 0.4532 |        |
| 2007           | 17        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1015 | 0.1857 | 0.2625 | 0.3307 | 0.3914 |        |
| 2006           | 18        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1816 | 0.2573 | 0.3247 |        |
| 2005           | 19        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1780 | 0.2526 |        |
| 2004           | 20        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1748 |        |        |
| 2003           | 21        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 2002           | 22        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 2001           | 23        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 2000           | 24        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1999           | 25        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1998           | 26        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1997           | 27        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1996           | 28        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1995           | 29        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1994           | 30        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1993           | 31        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1992           | 32        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1991           | 33        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1990           | 34        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1989           | 35        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1988           | 36        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1987           | 37        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1986           | 38        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1985           | 39        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |
| 1984           | 40        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |        |        |

$$\text{ % Good} = \frac{(1+R)^{\text{SL}} - (1+R)^{\text{Age}}}{(1+R)^{\text{SL}} - 1}, \text{ where } R = \text{Rate of Return (decimal)}$$

SL = Service Life (yrs)

Age = Age (yrs)

\*Different categories of property may have different assumed rates of return and/or floor depreciation rates.

|                |           | Service Life (yrs) |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |  |
|----------------|-----------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| Year Installed | Age (yrs) | 23                 | 24     | 25     | 26     | 27     | 28     | 29     | 30     | 31     | 32     | 33     | 34     | 35     | 36     | 37     | 38     | 39     | 40     |  |
| 2023           | 1         | 0.9836             | 0.9850 | 0.9863 | 0.9875 | 0.9886 | 0.9895 | 0.9904 | 0.9912 | 0.9919 | 0.9925 | 0.9931 | 0.9937 | 0.9942 | 0.9947 | 0.9951 | 0.9955 | 0.9958 | 0.9961 |  |
| 2022           | 2         | 0.9658             | 0.9688 | 0.9715 | 0.9740 | 0.9762 | 0.9782 | 0.9800 | 0.9816 | 0.9831 | 0.9845 | 0.9857 | 0.9869 | 0.9879 | 0.9889 | 0.9898 | 0.9906 | 0.9913 | 0.9920 |  |
| 2021           | 3         | 0.9467             | 0.9514 | 0.9556 | 0.9594 | 0.9628 | 0.9659 | 0.9688 | 0.9713 | 0.9737 | 0.9758 | 0.9778 | 0.9795 | 0.9812 | 0.9826 | 0.9840 | 0.9853 | 0.9864 | 0.9875 |  |
| 2020           | 4         | 0.9260             | 0.9325 | 0.9384 | 0.9436 | 0.9484 | 0.9527 | 0.9567 | 0.9602 | 0.9635 | 0.9664 | 0.9691 | 0.9716 | 0.9738 | 0.9759 | 0.9778 | 0.9795 | 0.9811 | 0.9826 |  |
| 2019           | 5         | 0.9037             | 0.9121 | 0.9198 | 0.9266 | 0.9328 | 0.9385 | 0.9436 | 0.9482 | 0.9524 | 0.9563 | 0.9598 | 0.9630 | 0.9660 | 0.9686 | 0.9711 | 0.9734 | 0.9754 | 0.9774 |  |
| 2018           | 6         | 0.8795             | 0.8901 | 0.8997 | 0.9082 | 0.9160 | 0.9231 | 0.9294 | 0.9352 | 0.9405 | 0.9453 | 0.9497 | 0.9538 | 0.9574 | 0.9608 | 0.9639 | 0.9667 | 0.9693 | 0.9717 |  |
| 2017           | 7         | 0.8535             | 0.8664 | 0.8779 | 0.8884 | 0.8979 | 0.9064 | 0.9142 | 0.9212 | 0.9277 | 0.9335 | 0.9389 | 0.9437 | 0.9482 | 0.9523 | 0.9561 | 0.9595 | 0.9627 | 0.9656 |  |
| 2016           | 8         | 0.8253             | 0.8407 | 0.8545 | 0.8670 | 0.8782 | 0.8884 | 0.8977 | 0.9061 | 0.9138 | 0.9207 | 0.9271 | 0.9329 | 0.9383 | 0.9432 | 0.9476 | 0.9517 | 0.9555 | 0.9589 |  |
| 2015           | 9         | 0.7949             | 0.8130 | 0.8292 | 0.8438 | 0.8570 | 0.8690 | 0.8799 | 0.8898 | 0.8988 | 0.9070 | 0.9144 | 0.9213 | 0.9275 | 0.9333 | 0.9385 | 0.9433 | 0.9477 | 0.9518 |  |
| 2014           | 10        | 0.7621             | 0.7830 | 0.8018 | 0.8188 | 0.8342 | 0.8481 | 0.8607 | 0.8721 | 0.8826 | 0.8921 | 0.9007 | 0.9087 | 0.9159 | 0.9226 | 0.9287 | 0.9342 | 0.9394 | 0.9441 |  |
| 2013           | 11        | 0.7266             | 0.7507 | 0.7723 | 0.7918 | 0.8094 | 0.8254 | 0.8399 | 0.8531 | 0.8651 | 0.8760 | 0.8860 | 0.8951 | 0.9034 | 0.9110 | 0.9180 | 0.9244 | 0.9303 | 0.9357 |  |
| 2012           | 12        | 0.6884             | 0.7158 | 0.7404 | 0.7627 | 0.7827 | 0.8010 | 0.8175 | 0.8325 | 0.8461 | 0.8586 | 0.8700 | 0.8804 | 0.8899 | 0.8986 | 0.9065 | 0.9139 | 0.9206 | 0.9267 |  |
| 2011           | 13        | 0.6470             | 0.6780 | 0.7060 | 0.7312 | 0.7539 | 0.7745 | 0.7932 | 0.8103 | 0.8257 | 0.8398 | 0.8527 | 0.8645 | 0.8753 | 0.8851 | 0.8941 | 0.9024 | 0.9100 | 0.9170 |  |
| 2010           | 14        | 0.6023             | 0.6373 | 0.6688 | 0.6971 | 0.7228 | 0.7460 | 0.7671 | 0.7862 | 0.8037 | 0.8196 | 0.8341 | 0.8473 | 0.8595 | 0.8706 | 0.8808 | 0.8901 | 0.8987 | 0.9065 |  |
| 2009           | 15        | 0.5541             | 0.5933 | 0.6286 | 0.6604 | 0.6892 | 0.7152 | 0.7388 | 0.7603 | 0.7799 | 0.7977 | 0.8140 | 0.8288 | 0.8424 | 0.8549 | 0.8663 | 0.8768 | 0.8864 | 0.8952 |  |
| 2008           | 16        | 0.5020             | 0.5458 | 0.5852 | 0.6207 | 0.6528 | 0.6819 | 0.7083 | 0.7323 | 0.7542 | 0.7741 | 0.7922 | 0.8088 | 0.8240 | 0.8379 | 0.8507 | 0.8624 | 0.8731 | 0.8829 |  |
| 2007           | 17        | 0.4457             | 0.4945 | 0.5383 | 0.5779 | 0.6136 | 0.6460 | 0.6754 | 0.7021 | 0.7264 | 0.7485 | 0.7688 | 0.7872 | 0.8041 | 0.8196 | 0.8338 | 0.8468 | 0.8588 | 0.8697 |  |
| 2006           | 18        | 0.3850             | 0.4391 | 0.4877 | 0.5316 | 0.5713 | 0.6072 | 0.6398 | 0.6694 | 0.6964 | 0.7210 | 0.7434 | 0.7639 | 0.7827 | 0.7998 | 0.8156 | 0.8300 | 0.8433 | 0.8554 |  |
| 2005           | 19        | 0.3194             | 0.3792 | 0.4331 | 0.4816 | 0.5255 | 0.5653 | 0.6013 | 0.6341 | 0.6640 | 0.6912 | 0.7160 | 0.7387 | 0.7595 | 0.7785 | 0.7959 | 0.8119 | 0.8265 | 0.8400 |  |
| 2004           | 20        | 0.2485             | 0.3146 | 0.3740 | 0.4276 | 0.4761 | 0.5200 | 0.5598 | 0.5960 | 0.6290 | 0.6590 | 0.6865 | 0.7115 | 0.7344 | 0.7554 | 0.7746 | 0.7923 | 0.8085 | 0.8234 |  |
| 2003           | 21        | 0.1719             | 0.2448 | 0.3103 | 0.3694 | 0.4228 | 0.4711 | 0.5150 | 0.5549 | 0.5912 | 0.6243 | 0.6545 | 0.6821 | 0.7074 | 0.7305 | 0.7517 | 0.7711 | 0.7890 | 0.8054 |  |
| 2002           | 22        | 0.1000             | 0.1694 | 0.2414 | 0.3064 | 0.3651 | 0.4183 | 0.4666 | 0.5105 | 0.5504 | 0.5868 | 0.6200 | 0.6504 | 0.6782 | 0.7036 | 0.7269 | 0.7483 | 0.7679 | 0.7859 |  |
| 2001           | 23        | 0.1000             | 0.1000 | 0.1671 | 0.2384 | 0.3029 | 0.3613 | 0.4143 | 0.4625 | 0.5063 | 0.5463 | 0.5828 | 0.6161 | 0.6466 | 0.6745 | 0.7001 | 0.7236 | 0.7452 | 0.7649 |  |
| 2000           | 24        | 0.1000             | 0.1000 | 0.1000 | 0.1650 | 0.2357 | 0.2997 | 0.3578 | 0.4106 | 0.4587 | 0.5025 | 0.5426 | 0.5791 | 0.6125 | 0.6432 | 0.6712 | 0.6970 | 0.7206 | 0.7423 |  |
| 1999           | 25        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1631 | 0.2332 | 0.2968 | 0.3547 | 0.4073 | 0.4553 | 0.4991 | 0.5391 | 0.5757 | 0.6093 | 0.6400 | 0.6682 | 0.6940 | 0.7178 |  |
| 1998           | 26        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1614 | 0.2310 | 0.2942 | 0.3518 | 0.4043 | 0.4522 | 0.4960 | 0.5360 | 0.5727 | 0.6063 | 0.6371 | 0.6654 | 0.6914 |        |  |
| 1997           | 27        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1598 | 0.2289 | 0.2918 | 0.3492 | 0.4015 | 0.4493 | 0.4931 | 0.5331 | 0.5698 | 0.6035 | 0.6344 | 0.6628 |  |
| 1996           | 28        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1584 | 0.2271 | 0.2896 | 0.3468 | 0.3990 | 0.4467 | 0.4904 | 0.5305 | 0.5673 | 0.6010 | 0.6320 |  |
| 1995           | 29        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1571 | 0.2254 | 0.2877 | 0.3446 | 0.3967 | 0.4443 | 0.4880 | 0.5281 | 0.5649 | 0.5987 |        |  |
| 1994           | 30        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1559 | 0.2238 | 0.2859 | 0.3426 | 0.3945 | 0.4421 | 0.4858 | 0.5259 | 0.5627 |        |  |
| 1993           | 31        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1549 | 0.2224 | 0.2842 | 0.3408 | 0.3926 | 0.4401 | 0.4838 | 0.5239 |        |        |  |
| 1992           | 32        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1539 | 0.2211 | 0.2827 | 0.3391 | 0.3908 | 0.4383 | 0.4819 |  |
| 1991           | 33        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1530 | 0.2199 | 0.2813 | 0.3375 | 0.3892 | 0.4366 |        |  |
| 1990           | 34        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1522 | 0.2189 | 0.2800 | 0.3361 | 0.3877 |        |  |
| 1989           | 35        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1514 | 0.2179 | 0.2788 | 0.3348 |        |        |  |
| 1988           | 36        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1508 | 0.2170 | 0.2778 |  |
| 1987           | 37        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1501 | 0.2161 |  |
| 1986           | 38        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1495 |  |
| 1985           | 39        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |  |
| 1984           | 40        | 0.1000             | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.1000 |  |

**SERVICE FACTORS USING THROUGHPUT AS PROXY FOR ECONOMIC OBSOLESCENCE**  
**PRITCHARD & ABBOTT, INC.**

| Throughput | Formula 4* | Formula 5** |
|------------|------------|-------------|
| 100%       | 100.0%     | 100.0%      |
| 99%        | 99.7%      | 99.5%       |
| 98%        | 99.4%      | 98.9%       |
| 97%        | 99.1%      | 98.4%       |
| 96%        | 98.8%      | 97.8%       |
| 95%        | 98.5%      | 97.3%       |
| 94%        | 98.2%      | 96.7%       |
| 93%        | 97.9%      | 96.2%       |
| 92%        | 97.6%      | 95.6%       |
| 91%        | 97.2%      | 95.0%       |
| 90%        | 96.9%      | 94.5%       |
| 89%        | 96.6%      | 93.9%       |
| 88%        | 96.3%      | 93.4%       |
| 87%        | 96.0%      | 92.8%       |
| 86%        | 95.7%      | 92.2%       |
| 85%        | 95.4%      | 91.6%       |
| 84%        | 95.0%      | 91.1%       |
| 83%        | 94.7%      | 90.5%       |
| 82%        | 94.4%      | 89.9%       |
| 81%        | 94.1%      | 89.3%       |
| 80%        | 93.7%      | 88.7%       |
| 79%        | 93.4%      | 88.1%       |
| 78%        | 93.1%      | 87.5%       |
| 77%        | 92.7%      | 86.9%       |
| 76%        | 92.4%      | 86.3%       |
| 75%        | 92.1%      | 85.7%       |
| 74%        | 91.7%      | 85.1%       |
| 73%        | 91.4%      | 84.5%       |
| 72%        | 91.1%      | 83.9%       |
| 71%        | 90.7%      | 83.3%       |
| 70%        | 90.4%      | 82.7%       |
| 69%        | 90.0%      | 82.0%       |
| 68%        | 89.7%      | 81.4%       |
| 67%        | 89.3%      | 80.8%       |
| 66%        | 89.0%      | 80.1%       |
| 65%        | 88.6%      | 79.5%       |
| 64%        | 88.3%      | 78.9%       |
| 63%        | 87.9%      | 78.2%       |
| 62%        | 87.5%      | 77.6%       |
| 61%        | 87.2%      | 76.9%       |
| 60%        | 86.8%      | 76.2%       |
| 59%        | 86.4%      | 75.6%       |
| 58%        | 86.1%      | 74.9%       |
| 57%        | 85.7%      | 74.2%       |
| 56%        | 85.3%      | 73.6%       |
| 55%        | 84.9%      | 72.9%       |
| 54%        | 84.5%      | 72.2%       |
| 53%        | 84.2%      | 71.5%       |
| 52%        | 83.8%      | 70.8%       |
| 51%        | 83.4%      | 70.1%       |
| 50%        | 83.0%      | 69.4%       |

\*Default formula for all properties.

\*\*Modification for non-unit appraised pipelines.

**SERVICE FACTORS USING THROUGHPUT AS PROXY FOR ECONOMIC OBSOLESCENCE**  
**PRITCHARD & ABBOTT, INC.**

| Throughput | Formula 4* | Formula 5** |
|------------|------------|-------------|
| 49%        | 82.6%      | 68.7%       |
| 48%        | 82.2%      | 67.9%       |
| 47%        | 81.8%      | 67.2%       |
| 46%        | 81.4%      | 66.5%       |
| 45%        | 81.0%      | 65.7%       |
| 44%        | 80.6%      | 65.0%       |
| 43%        | 80.1%      | 64.2%       |
| 42%        | 79.7%      | 63.5%       |
| 41%        | 79.3%      | 62.7%       |
| 40%        | 78.9%      | 61.9%       |
| 39%        | 78.4%      | 61.2%       |
| 38%        | 78.0%      | 60.4%       |
| 37%        | 77.5%      | 59.6%       |
| 36%        | 77.1%      | 58.8%       |
| 35%        | 76.6%      | 57.9%       |
| 34%        | 76.2%      | 57.1%       |
| 33%        | 75.7%      | 56.3%       |
| 32%        | 75.2%      | 55.4%       |
| 31%        | 74.8%      | 54.6%       |
| 30%        | 74.3%      | 53.7%       |
| 29%        | 73.8%      | 52.8%       |
| 28%        | 73.3%      | 51.9%       |
| 27%        | 72.8%      | 51.0%       |
| 26%        | 72.3%      | 50.1%       |
| 25%        | 71.8%      | 49.2%       |
| 24%        | 71.2%      | 48.2%       |
| 23%        | 70.7%      | 47.3%       |
| 22%        | 70.2%      | 46.3%       |
| 21%        | 69.6%      | 45.3%       |
| 20%        | 69.0%      | 44.3%       |
| 19%        | 68.5%      | 43.2%       |
| 18%        | 67.9%      | 42.2%       |
| 17%        | 67.3%      | 41.1%       |
| 16%        | 66.7%      | 40.0%       |
| 15%        | 66.0%      | 38.8%       |
| 14%        | 65.4%      | 37.7%       |
| 13%        | 64.7%      | 36.5%       |
| 12%        | 64.0%      | 35.2%       |
| 11%        | 63.3%      | 33.9%       |
| 10%        | 62.6%      | 32.6%       |
| 9%         | 61.8%      | 31.2%       |
| 8%         | 61.0%      | 29.8%       |
| 7%         | 60.1%      | 28.3%       |
| 6%         | 59.2%      | 26.6%       |
| 5%         | 58.3%      | 24.9%       |
| 4%         | 57.2%      | 23.0%       |
| 3%         | 56.1%      | 21.0%       |
| 2%         | 54.8%      | 18.6%       |
| 1%         | 53.2%      | 15.7%       |
| 0%         | 50.0%      | 10.0%       |

\*Default formula for all properties.

\*\*Modification for non-unit appraised pipelines.