Exh. DCP-4 Dockets UE-170485/UG-170486 Witness: David C. Parcell

## BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

AVISTA CORPORATION d/b/a AVISTA UTILITIES,

Respondent.

DOCKETS UE-170485 and UG-170486 (Consolidated)

EXHIBIT TO TESTIMONY OF

David C. Parcell

ON BEHALF OF STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Economic Indicators** 

October 27, 2017

## **ECONOMIC INDICATORS**

| Year         | Real<br>GDP*<br>Growth | Industrial<br>Production<br>Growth | Unemploy-<br>ment<br>Rate | Consumer<br>Price Index |
|--------------|------------------------|------------------------------------|---------------------------|-------------------------|
|              |                        | 1975 - 1982                        | Cycle                     |                         |
| 1975         | -0.2%                  | -8.9%                              | 8.5%                      | 7.0%                    |
| 1976         | 5.4%                   | 7.9%                               | 7.7%                      | 4.8%                    |
| 1977         | 4.6%                   | 7.6%                               | 7.1%                      | 6.8%                    |
| 1978         | 5.6%                   | 5.5%                               | 6.1%                      | 9.0%                    |
| 1979         | 3.2%                   | 3.0%                               | 5.8%                      | 13.3%                   |
| 1980         | -0.2%                  | -2.6%                              | 7.1%                      | 12.4%                   |
| 1981         | 2.6%                   | 1.3%                               | 7.6%                      | 8.9%                    |
| 1982         | -1.9%                  | -5.2%                              | 9.7%                      | 3.8%                    |
|              |                        | 1983 - 1991 (                      | Cycle                     |                         |
| 1983         | 4.6%                   | 2.7%                               | 9.6%                      | 3.8%                    |
| 1984         | 7.3%                   | 8.9%                               | 7.5%                      | 3.9%                    |
| 1985         | 4.2%                   | 1.2%                               | 7.2%                      | 3.8%                    |
| 1986         | 3.5%                   | 1.0%                               | 7.0%                      | 1.1%                    |
| 1987         | 3.5%                   | 5.2%                               | 6.2%                      | 4.4%                    |
| 1988         | 4.2%                   | 5.2%                               | 5.5%                      | 4.4%                    |
| 1989         | 3.7%                   | 0.9%                               | 5.3%                      | 4.6%                    |
| 1990         | 1.9%                   | 1.0%                               | 5.6%                      | 6.1%                    |
| 1991         | -0.1%                  | -1.5%                              | 6.8%                      | 3.1%                    |
|              |                        | 1992 - 2001                        | Cycle                     |                         |
| 1992         | 3.6%                   | 2.9%                               | 7.5%                      | 2.9%                    |
| 1993         | 2.7%                   | 3.3%                               | 6.9%                      | 2.7%                    |
| 1994         | 4.0%                   | 5.2%                               | 6.1%                      | 2.7%                    |
| 1995         | 2.7%                   | 4.7%                               | 5.6%                      | 2.5%                    |
| 1996         | 3.8%                   | 4.5%                               | 5.4%                      | 3.3%                    |
| 1997         | 4.5%                   | 7.2%                               | 4.9%                      | 1.7%                    |
| 1998         | 4.5%                   | 5.8%                               | 4.5%                      | 1.6%                    |
| 1999         | 4.7%                   | 4.4%                               | 4.2%                      | 2.7%                    |
| 2000         | 4.1%                   | 3.9%                               | 4.0%                      | 3.4%                    |
| 2001         | 1.0%                   | -3.1%                              | 4.7%                      | 1.6%                    |
|              |                        | 2002 - 2009                        | Cycle                     |                         |
| 2002         | 1.8%                   | 0.3%                               | 5.8%                      | 2.4%                    |
| 2003         | 2.8%                   | 1.2%                               | 6.0%                      | 1.9%                    |
| 2004         | 3.8%                   | 2.6%                               | 5.5%                      | 3.3%                    |
| 2005         | 3.3%                   | 3.3%                               | 5.1%                      | 3.4%                    |
| 2006         | 2.7%                   | 2.2%                               | 4.6%                      | 2.5%                    |
| 2007         | 1.8%                   | 2.5%                               | 4.6%                      | 4.1%                    |
| 2008         | -0.3%                  | -3.5%                              | 5.8%                      | 0.1%                    |
| 2009         | -2.8%                  | -11.5%                             | 9.3%                      | 2.7%                    |
|              |                        | Current Cy                         |                           |                         |
| 2010         | 2.5%                   | 5.5%                               | 9.6%                      | 1.5%                    |
| 2011         | 1.6%                   | 3.1%                               | 8.9%                      | 3.0%                    |
| 2012         | 2.2%                   | 2.9%                               | 8.1%                      | 1.7%                    |
| 2013         | 1.7%                   | 2.0%                               | 7.4%                      | 1.5%                    |
| 2014         | 2.6%                   | 3.1%                               | 6.2%                      | 0.8%                    |
| 2015         | 2.9%                   | -0.7%                              | 5.3%                      | 0.7%                    |
| 2016<br>2017 | 1.5%                   | -1.2%                              | 4.9%                      | 2.1%                    |
| Q1           | 1.2%                   | 0.6%                               | 4.7%                      | 1.6%                    |
| Q2           | 3.1%                   | 2.1%                               | 4.4%                      | 0.4%                    |
| Q3           |                        | * *                                | 4.3%                      |                         |

<sup>\*</sup>GDP=Gross Domestic Product

Note that certain series of data are periodically revised.

Source: Council of Economic Advisors, Economic Indicators, various issues, certain earlier year data retrieved from sources used by this publication.

## **INTEREST RATES**

| Year         | Prime<br>Rate | US Treasury<br>T Bills<br>3 Month | US Treasury<br>T Bonds<br>10 Year | Utility<br>Bonds<br>Aa | Utility<br>Bonds<br>A | Utilit<br>Bond<br>Baa |
|--------------|---------------|-----------------------------------|-----------------------------------|------------------------|-----------------------|-----------------------|
|              |               |                                   | 1975 - 1982 Cycle                 |                        |                       |                       |
| 1975         | 7.86%         | 5.84%                             | 7.99%                             | 9.44%                  | 10.09%                | 10.96                 |
| 1976         | 6.84%         | 4.99%                             | 7.61%                             | 8.92%                  | 9.29%                 | 9.829                 |
| 1977         | 6.83%         | 5.27%                             | 7.42%                             | 8.43%                  | 8.61%                 | 9.069                 |
| 1978         | 9.06%         | 7.22%                             | 8.41%                             | 9.10%                  | 9.29%                 | 9.629                 |
| 1979         | 12.67%        | 10.04%                            | 9.44%                             | 10.22%                 | 10.49%                | 10.96                 |
| 1980         | 15.27%        | 11.51%                            | 11.46%                            | 13.00%                 | 13.34%                | 13.95                 |
| 1981         | 18.89%        | 14.03%                            | 13.93%                            | 15.30%                 | 15.95%                | 16.60                 |
| 1982         | 14.86%        | 10.69%                            | 13.00%                            | 14.79%                 | 15.86%                | 16.45                 |
|              |               |                                   | 1983 - 1991 Cycle                 |                        |                       |                       |
| 1983         | 10.79%        | 8.63%                             | 11.10%                            | 12.83%                 | 13.66%                | 14.20                 |
| 1984         | 12.04%        | 9.58%                             | 12.44%                            | 13.66%                 | 14.03%                | 14.53                 |
| 1985         | 9.93%         | 7.48%                             | 10.62%                            | 12.06%                 | 12.47%                | 12.96                 |
| 1986         | 8.33%         | 5.98%                             | 7.68%                             | 9.30%                  | 9.58%                 | 10.00                 |
| 1987         | 8.21%         | 5.82%                             | 8.39%                             | 9.77%                  | 10.10%                | 10.53                 |
| 1988         | 9.32%         | 6.69%                             | 8.85%                             | 10.26%                 | 10.49%                | 11.00                 |
| 1989         | 10.87%        | 8.12%                             | 8.49%                             | 9.56%                  | 9.77%                 | 9.97                  |
| 1990         | 10.01%        | 7.51%                             | 8.55%                             | 9.65%                  | 9.86%                 | 10.06                 |
| 1991         | 8.46%         | 5.42%                             | 7.86%                             | 9.09%                  | 9.36%                 | 9.55                  |
|              |               |                                   | 1992 - 2001 Cycle                 |                        |                       |                       |
| 1992         | 6.25%         | 3.45%                             | 7.01%                             | 8.55%                  | 8.69%                 | 8.86                  |
| 1993         | 6.00%         | 3.02%                             | 5.87%                             | 7.44%                  | 7.59%                 | 7.91                  |
| 1994         | 7.15%         | 4.29%                             | 7.09%                             | 8.21%                  | 8.31%                 | 8.639                 |
| 1995         | 8.83%         | 5.51%                             | 6.57%                             | 7.77%                  | 7.89%                 | 8.29                  |
| 1996         | 8.27%         | 5.02%                             | 6.44%                             | 7.57%                  | 7.75%                 | 8.16                  |
| 1997         | 8.44%         | 5.07%                             | 6.35%                             | 7.54%                  | 7.60%                 | 7.95                  |
| 1998         | 8.35%         | 4.81%                             | 5.26%                             | 6.91%                  | 7.04%                 | 7.26                  |
| 1999         | 8.00%         | 4.66%                             | 5.65%                             | 7.51%                  | 7.62%                 | 7.88                  |
| 2000         | 9.23%         | 5.85%                             | 6.03%                             | 8.06%                  | 8.24%                 | 8.36                  |
| 2001         | 6.91%         | 3.44%                             | 5.02%                             | 7.59%                  | 7.78%                 | 8.029                 |
|              |               |                                   | 2002 - 2009 Cycle                 |                        |                       |                       |
| 2002         | 4.67%         | 1.62%                             | 4.61%                             | 7.19%                  | 7.37%                 | 8.029                 |
| 2003         | 4.12%         | 1.01%                             | 4.01%                             | 6.40%                  | 6.58%                 | 6.84                  |
| 2004         | 4.34%         | 1.38%                             | 4.27%                             | 6.04%                  | 6.16%                 | 6.40                  |
| 2005         | 6.19%         | 3.16%                             | 4.29%                             | 5.44%                  | 5.65%                 | 5.93                  |
| 2006         | 7.96%         | 4.73%                             | 4.80%                             | 5.84%                  | 6.07%                 | 6.32                  |
| 2007         | 8.05%         | 4.41%                             | 4.63%                             | 5.94%                  | 6.07%                 | 6.33                  |
| 2008         | 5.09%         | 1.48%                             | 3.66%                             | 6.18%                  | 6.53%                 | 7.25                  |
| 2009         | 3.25%         | 0.16%                             | 3.26%                             | 5.75%                  | 6.04%                 | 7.06                  |
|              |               |                                   | <b>Current Cycle</b>              |                        |                       |                       |
| 2010         | 3.25%         | 0.14%                             | 3.22%                             | 5.24%                  | 5.46%                 | 5.96                  |
| 2011         | 3.25%         | 0.06%                             | 2.78%                             | 4.78%                  | 5.04%                 | 5.57                  |
| 2012         | 3.25%         | 0.09%                             | 1.80%                             | 3.83%                  | 4.13%                 | 4.86                  |
| 2013         | 3.25%         | 0.06%                             | 2.35%                             | 4.24%                  | 4.47%                 | 4.98                  |
| 2014         | 3.25%         | 0.03%                             | 2.54%                             | 4.19%                  | 4.28%                 | 4.80                  |
| 2015         | 3.26%         | 0.06%                             | 2.14%                             | 4.00%                  | 4.12%                 | 5.03                  |
| 2016<br>2017 | 3.51%         | 0.33%                             | 1.84%                             | 3.73%                  | 3.93%                 | 4.69                  |
| Jan          | 3.75%         | 0.52%                             | 2.43%                             | 3.96%                  | 4.14%                 | 4.62                  |
| Feb          | 3.75%         | 0.53%                             | 2.42%                             | 3.99%                  | 4.18%                 | 4.58                  |
| Mar          | 4.00%         | 0.72%                             | 2.48%                             | 4.04%                  | 4.23%                 | 4.62                  |
| Apr          | 4.00%         | 0.81%                             | 2.30%                             | 3.93%                  | 4.12%                 | 4.51                  |
| May          | 4.00%         | 0.89%                             | 2.30%                             | 3.94%                  | 4.12%                 | 4.50                  |
| June         | 4.25%         | 0.99%                             | 2.19%                             | 3.77%                  | 3.94%                 | 4.32                  |
| July         | 4.25%         | 1.08%                             | 2.32%                             | 3.82%                  | 3.99%                 | 4.36                  |
| Aug          | 4.25%         | 1.03%                             | 2.21%                             | 3.67%                  | 3.86%                 | 4.23                  |
|              |               |                                   |                                   | /0                     |                       | 0                     |

Sources: Council of Economic Advisors, Economic Indicators; Mergent Bond Record.

## STOCK PRICE INDICATORS

|                   | S&P N<br>Composite [1] Con | IASDAQ<br>nposite [1] | DJIA      | S&P<br>D/P | S&P<br>E/P |  |  |  |  |
|-------------------|----------------------------|-----------------------|-----------|------------|------------|--|--|--|--|
| 1975 - 1982 Cycle |                            |                       |           |            |            |  |  |  |  |
| 1975              |                            |                       | 802.49    | 4.31%      | 9.15%      |  |  |  |  |
| 1976              |                            |                       | 974.92    | 3.77%      | 8.90%      |  |  |  |  |
| 1977              |                            |                       | 894.63    | 4.62%      | 10.79%     |  |  |  |  |
| 1978              |                            |                       | 820.23    | 5.28%      | 12.03%     |  |  |  |  |
| 1979              |                            |                       | 844.40    | 5.47%      | 13.46%     |  |  |  |  |
| 1980              |                            |                       | 891.41    | 5.26%      | 12.66%     |  |  |  |  |
| 1981              |                            |                       | 932.92    | 5.20%      | 11.96%     |  |  |  |  |
| 1982              |                            |                       | 884.36    | 5.81%      | 11.60%     |  |  |  |  |
|                   |                            | 1983 - 1991           | Cycle     |            |            |  |  |  |  |
| 1983              |                            |                       | 1,190.34  | 4.40%      | 8.03%      |  |  |  |  |
| 1984              |                            |                       | 1,178.48  | 4.64%      | 10.02%     |  |  |  |  |
| 1985              |                            |                       | 1,328.23  | 4.25%      | 8.12%      |  |  |  |  |
| 1986              |                            |                       | 1,792.76  | 3.49%      | 6.09%      |  |  |  |  |
| 1987              |                            |                       | 2,275.99  | 3.08%      | 5.48%      |  |  |  |  |
| 1988              |                            |                       | 2,060.82  | 3.64%      | 8.01%      |  |  |  |  |
| 1989              | 322.84                     |                       | 2,508.91  | 3.45%      | 7.42%      |  |  |  |  |
| 1990              | 334.59                     |                       | 2,678.94  | 3.61%      | 6.47%      |  |  |  |  |
| 1991              | 376.18                     | 491.69                | 2,929.33  | 3.24%      | 4.79%      |  |  |  |  |
|                   |                            | 1992 - 2001           | Cycle     |            |            |  |  |  |  |
| 1992              | 415.74                     | \$599.26              | 3,284.29  | 2.99%      | 4.22%      |  |  |  |  |
| 1993              | 451.41                     | 715.16                | 3,522.06  | 2.78%      | 4.46%      |  |  |  |  |
| 1994              | 460.33                     | 751.65                | 3,793.77  | 2.82%      | 5.83%      |  |  |  |  |
| 1995              | 541.64                     | 925.19                | 4,493.76  | 2.56%      | 6.09%      |  |  |  |  |
| 1996              | 670.83 1                   | ,164.96               | 5,742.89  | 2.19%      | 5.24%      |  |  |  |  |
| 1997              | 872.72 1                   | ,469.49               | 7,441.15  | 1.77%      | 4.57%      |  |  |  |  |
| 1998              | 1,085.50 1                 | ,794.91               | 8,625.52  | 1.49%      | 3.46%      |  |  |  |  |
| 1999              | 1,327.33 2                 | 2,728.15              | 10,464.88 | 1.25%      | 3.17%      |  |  |  |  |
| 2000              | 1,427.22 2                 | 2,783.67              | 10,734.90 | 1.15%      | 3.63%      |  |  |  |  |
| 2001              | 1,194.18 2                 | 2,035.00              | 10,189.13 | 1.32%      | 2.95%      |  |  |  |  |
|                   |                            | 2002 - 2009           | ) Cycle   |            |            |  |  |  |  |
| 2002              | 993.94 1                   | ,539.73               | 9,226.43  | 1.61%      | 2.92%      |  |  |  |  |
| 2003              | 965.23 1                   | ,647.17               | 8,993.59  | 1.77%      | 3.84%      |  |  |  |  |
| 2004              | 1,130.65 1                 | ,986.53               | 10,317.39 | 1.72%      | 4.89%      |  |  |  |  |
| 2005              | 1,207.23 2                 | 2,099.32              | 10,547.67 | 1.83%      | 5.36%      |  |  |  |  |
| 2006              | 1,310.46 2                 | 2,263.41              | 11,408.67 | 1.87%      | 5.78%      |  |  |  |  |
| 2007              | 1,476.66 2                 | 2,577.12              | 13,169.98 | 1.86%      | 5.29%      |  |  |  |  |
| 2008              | 1,220.89 2                 | 2,162.46              | 11,252.61 | 2.37%      | 3.54%      |  |  |  |  |
| 2009              | 948.73 1                   | ,841.03               | 8,876.15  | 2.40%      | 1.86%      |  |  |  |  |
|                   |                            | Current C             | Cycle     |            |            |  |  |  |  |
| 2010              | 1,139.31 2                 | 2,347.70              | 10,662.80 | 1.98%      | 6.04%      |  |  |  |  |
| 2011              | 1,268.89 2                 | 2,680.42              | 11,966.36 | 2.05%      | 6.77%      |  |  |  |  |
| 2012              |                            | 2,965.77              | 12,967.08 | 2.24%      | 6.20%      |  |  |  |  |
| 2013              | 1,462.51 3                 | 3,537.69              | 14,999.67 | 2.14%      | 5.57%      |  |  |  |  |
| 2014              | 1,930.67 4                 | ,374.31               | 16,773.99 | 2.04%      | 5.25%      |  |  |  |  |
| 2015              |                            | ,943.49               | 17,590.61 | 2.10%      | 4.59%      |  |  |  |  |
| 2016              | 2,092.39 4                 | ,982.49               | 17,908.08 | 2.19%      | 4.17%      |  |  |  |  |
| 2017              |                            |                       |           |            |            |  |  |  |  |
| Q1                | 2,389.68 6                 | 6,099.65              | 20,904.22 | 2.05%      | 4.24%      |  |  |  |  |
| Q2                |                            | 5,087.11              | 20,979.77 | 2.02%      | 4.29%      |  |  |  |  |
| Q3                | 2,467.72 6                 | 3,344.72              | 21,889.58 |            |            |  |  |  |  |
|                   |                            |                       |           |            |            |  |  |  |  |

<sup>[1]</sup> Note: this source did not publish the S&P Composite prior to 1988 and the NASDAQ Composite prior to 1991.

Source: Council of Economic Advisors, Economic Indicators, various issues.