

| ROEs | Low | Mean | High |
|---|------------|-------------|-------------|
| OECD growth | 7.96% | 8.05% | 8.14% |
| OECD growth with extrapolation beyond 2060 | 7.91% | 8.00% | 8.10% |

<https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=realyieldYear&year=2016>

<https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=yieldYear&year=2016>

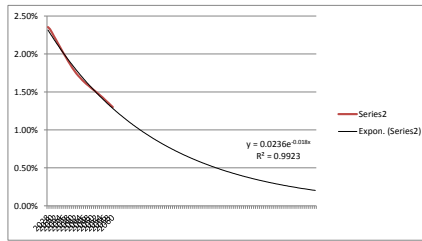
| | DATE | 5 YR | 7 YR | 10 YR | 20 YR | 30 YR |
|-----------|------------|-------|------|-------|-------|-------|
| | | 5 | 7 | 10 | 20 | 30 |
| | | 1.88 | 1.96 | 2.01 | 2.00 | 2.10 |
| Inflation | 12/16/2016 | 1.75 | 1.87 | 1.86 | 1.86 | 1.99 |
| Inflation | 12/19/2016 | 1.74 | 1.84 | 1.86 | 1.87 | 1.99 |
| Inflation | 12/20/2016 | 1.8 | 1.89 | 1.9 | 1.9 | 2.01 |
| Inflation | 12/21/2016 | 1.74 | 1.83 | 1.91 | 1.93 | 2.02 |
| Inflation | 12/22/2016 | 1.86 | 1.95 | 1.95 | 1.95 | 2.06 |
| Inflation | 12/23/2016 | 1.84 | 1.93 | 1.97 | 1.99 | 2.09 |
| Inflation | 12/27/2016 | 1.88 | 1.96 | 1.99 | 1.99 | 2.1 |
| Inflation | 12/28/2016 | 1.85 | 1.92 | 1.95 | 1.97 | 2.07 |
| Inflation | 12/29/2016 | 1.81 | 1.92 | 1.94 | 1.96 | 2.06 |
| Inflation | 12/30/2016 | 1.84 | 1.92 | 1.95 | 1.97 | 2.07 |
| Inflation | 1/3/2017 | 1.86 | 1.96 | 1.98 | 2 | 2.1 |
| Inflation | 1/4/2017 | 1.86 | 1.96 | 1.99 | 2 | 2.1 |
| Inflation | 1/5/2017 | 1.83 | 1.92 | 1.95 | 1.96 | 2.07 |
| Inflation | 1/6/2017 | 1.84 | 1.93 | 1.96 | 1.97 | 2.07 |
| Inflation | 1/9/2017 | 1.85 | 1.92 | 1.95 | 1.95 | 2.06 |
| Inflation | 1/10/2017 | 1.84 | 1.9 | 1.95 | 1.95 | 2.06 |
| Inflation | 1/11/2017 | 1.85 | 1.91 | 1.99 | 1.97 | 2.08 |
| Inflation | 1/12/2017 | 1.87 | 1.94 | 1.98 | 1.98 | 2.14 |
| Inflation | 1/13/2017 | 1.85 | 1.92 | 1.99 | 1.99 | 2.1 |
| Inflation | 1/17/2017 | 1.84 | 1.9 | 1.97 | 1.98 | 2.06 |
| Inflation | 1/18/2017 | 1.86 | 1.94 | 2 | 2 | 2.08 |
| Inflation | 1/19/2017 | 1.9 | 1.98 | 2.04 | 2.02 | 2.11 |
| Inflation | 1/20/2017 | 1.92 | 2 | 2.04 | 2.03 | 2.11 |
| Inflation | 1/23/2017 | 1.86 | 1.91 | 2.02 | 2.01 | 2.1 |
| Inflation | 1/24/2017 | 1.93 | 2.01 | 2.06 | 2.03 | 2.12 |
| Inflation | 1/25/2017 | 1.96 | 2.04 | 2.08 | 2.06 | 2.14 |
| Inflation | 1/26/2017 | 1.94 | 2.03 | 2.08 | 2.06 | 2.14 |
| Inflation | 1/27/2017 | 1.96 | 2.03 | 2.08 | 2.06 | 2.15 |
| Inflation | 1/30/2017 | 1.95 | 2.02 | 2.07 | 2.06 | 2.14 |
| Inflation | 1/31/2017 | 1.94 | 2 | 2.05 | 2.04 | 2.12 |
| Real | DATE | 5 YR | 7 YR | 10 YR | 20 YR | 30 YR |
| Real | 12/16/2016 | 0.32 | 0.54 | 0.74 | 1.05 | 1.2 |
| Real | 12/19/2016 | 0.29 | 0.51 | 0.68 | 0.98 | 1.13 |
| Real | 12/20/2016 | 0.26 | 0.49 | 0.67 | 0.98 | 1.14 |
| Real | 12/21/2016 | 0.3 | 0.52 | 0.64 | 0.93 | 1.1 |
| Real | 12/22/2016 | 0.18 | 0.41 | 0.6 | 0.91 | 1.06 |
| Real | 12/23/2016 | 0.2 | 0.42 | 0.58 | 0.87 | 1.03 |
| Real | 12/27/2016 | 0.19 | 0.41 | 0.58 | 0.89 | 1.04 |
| Real | 12/28/2016 | 0.17 | 0.4 | 0.56 | 0.86 | 1.02 |
| Real | 12/29/2016 | 0.15 | 0.38 | 0.55 | 0.86 | 1.02 |
| Real | 12/30/2016 | 0.09 | 0.33 | 0.5 | 0.82 | 0.99 |
| Real | 1/3/2017 | 0.08 | 0.3 | 0.47 | 0.78 | 0.94 |
| Real | 1/4/2017 | 0.08 | 0.3 | 0.47 | 0.78 | 0.95 |
| Real | 1/5/2017 | 0.03 | 0.26 | 0.42 | 0.73 | 0.89 |
| Real | 1/6/2017 | 0.08 | 0.3 | 0.46 | 0.76 | 0.93 |
| Real | 1/9/2017 | 0.04 | 0.26 | 0.43 | 0.74 | 0.91 |
| Real | 1/10/2017 | 0.05 | 0.28 | 0.43 | 0.74 | 0.91 |
| Real | 1/11/2017 | 0.04 | 0.27 | 0.39 | 0.71 | 0.88 |
| Real | 1/12/2017 | 0 | 0.23 | 0.38 | 0.7 | 0.87 |
| Real | 1/13/2017 | 0.05 | 0.28 | 0.41 | 0.72 | 0.89 |
| Real | 1/17/2017 | 0 | 0.24 | 0.36 | 0.68 | 0.87 |
| Real | 1/18/2017 | 0.07 | 0.3 | 0.42 | 0.74 | 0.92 |
| Real | 1/19/2017 | 0.07 | 0.3 | 0.43 | 0.75 | 0.93 |
| Real | 1/20/2017 | 0.03 | 0.28 | 0.44 | 0.76 | 0.94 |
| Real | 1/23/2017 | 0.02 | 0.28 | 0.39 | 0.71 | 0.89 |
| Real | 1/24/2017 | 0.01 | 0.26 | 0.41 | 0.75 | 0.93 |
| Real | 1/25/2017 | 0.03 | 0.29 | 0.45 | 0.78 | 0.96 |
| Real | 1/26/2017 | 0.01 | 0.27 | 0.43 | 0.76 | 0.94 |
| Real | 1/27/2017 | -0.02 | 0.25 | 0.41 | 0.74 | 0.91 |

| | | | | | | |
|---------|-------------|-------------|-------------|--------------|--------------|--------------|
| Real | 1/30/2017 | -0.01 | 0.26 | 0.42 | 0.76 | 0.94 |
| Real | 1/31/2017 | -0.04 | 0.24 | 0.4 | 0.74 | 0.93 |
| | Date | 5 Yr | 7 Yr | 10 Yr | 20 Yr | 30 Yr |
| Nominal | 12/16/2016 | 2.07 | 2.41 | 2.6 | 2.91 | 3.19 |
| Nominal | 12/19/2016 | 2.03 | 2.35 | 2.54 | 2.85 | 3.12 |
| Nominal | 12/20/2016 | 2.06 | 2.38 | 2.57 | 2.88 | 3.15 |
| Nominal | 12/21/2016 | 2.04 | 2.35 | 2.55 | 2.86 | 3.12 |
| Nominal | 12/22/2016 | 2.04 | 2.36 | 2.55 | 2.86 | 3.12 |
| Nominal | 12/23/2016 | 2.04 | 2.35 | 2.55 | 2.86 | 3.12 |
| Nominal | 12/27/2016 | 2.07 | 2.37 | 2.57 | 2.88 | 3.14 |
| Nominal | 12/28/2016 | 2.02 | 2.32 | 2.51 | 2.83 | 3.09 |
| Nominal | 12/29/2016 | 1.96 | 2.3 | 2.49 | 2.82 | 3.08 |
| Nominal | 12/30/2016 | 1.93 | 2.25 | 2.45 | 2.79 | 3.06 |
| Nominal | 1/3/2017 | 1.94 | 2.26 | 2.45 | 2.78 | 3.04 |
| Nominal | 1/4/2017 | 1.94 | 2.26 | 2.46 | 2.78 | 3.05 |
| Nominal | 1/5/2017 | 1.86 | 2.18 | 2.37 | 2.69 | 2.96 |
| Nominal | 1/6/2017 | 1.92 | 2.23 | 2.42 | 2.73 | 3 |
| Nominal | 1/9/2017 | 1.89 | 2.18 | 2.38 | 2.69 | 2.97 |
| Nominal | 1/10/2017 | 1.89 | 2.18 | 2.38 | 2.69 | 2.97 |
| Nominal | 1/11/2017 | 1.89 | 2.18 | 2.38 | 2.68 | 2.96 |
| Nominal | 1/12/2017 | 1.87 | 2.17 | 2.36 | 2.68 | 3.01 |
| Nominal | 1/13/2017 | 1.9 | 2.2 | 2.4 | 2.71 | 2.99 |
| Nominal | 1/17/2017 | 1.84 | 2.14 | 2.33 | 2.66 | 2.93 |
| Nominal | 1/18/2017 | 1.93 | 2.24 | 2.42 | 2.74 | 3 |
| Nominal | 1/19/2017 | 1.97 | 2.28 | 2.47 | 2.77 | 3.04 |
| Nominal | 1/20/2017 | 1.95 | 2.28 | 2.48 | 2.79 | 3.05 |
| Nominal | 1/23/2017 | 1.88 | 2.19 | 2.41 | 2.72 | 2.99 |
| Nominal | 1/24/2017 | 1.94 | 2.27 | 2.47 | 2.78 | 3.05 |
| Nominal | 1/25/2017 | 1.99 | 2.33 | 2.53 | 2.84 | 3.1 |
| Nominal | 1/26/2017 | 1.95 | 2.3 | 2.51 | 2.82 | 3.08 |
| Nominal | 1/27/2017 | 1.94 | 2.28 | 2.49 | 2.8 | 3.06 |
| Nominal | 1/30/2017 | 1.94 | 2.28 | 2.49 | 2.82 | 3.08 |
| Nominal | 1/31/2017 | 1.9 | 2.24 | 2.45 | 2.78 | 3.05 |

| | 10-Yr | 20-Yr | 30-Yr |
|----------------|--------------|--------------|--------------|
| Treasury Yield | 2.47% | 2.78% | 3.05% |

| LOCATION | INDICATOR | SUBJECT | MEASURE | FREQUENCY | TIME | Value | Growth |
|----------|---------------|---------|---------|-----------|------|------------|--------|
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2009 | 13,263,170 | |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2010 | 13,595,648 | 2.51% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2011 | 13,846,806 | 1.85% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2012 | 14,231,650 | 2.78% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2013 | 14,498,952 | 1.88% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2014 | 14,898,390 | 2.75% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2015 | 15,423,341 | 3.52% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2016 | 15,928,727 | 3.28% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2017 | 16,401,209 | 2.97% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2018 | 16,854,354 | 2.76% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2019 | 17,299,339 | 2.64% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2020 | 17,743,025 | 2.56% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2021 | 18,189,112 | 2.51% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2022 | 18,639,481 | 2.48% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2023 | 19,095,177 | 2.44% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2024 | 19,556,981 | 2.42% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2025 | 20,025,623 | 2.40% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2026 | 20,502,008 | 2.38% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2027 | 20,987,134 | 2.37% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2028 | 21,481,323 | 2.35% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2029 | 21,981,214 | 2.33% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2030 | 22,482,236 | 2.28% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2031 | 22,983,846 | 2.23% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2032 | 23,485,734 | 2.18% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2033 | 23,987,555 | 2.14% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2034 | 24,488,756 | 2.09% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2035 | 24,988,766 | 2.04% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2036 | 25,487,157 | 1.99% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2037 | 25,983,743 | 1.95% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2038 | 26,478,465 | 1.90% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2039 | 26,971,187 | 1.86% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2040 | 27,461,839 | 1.82% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2041 | 27,950,685 | 1.78% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2042 | 28,438,332 | 1.74% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2043 | 28,925,353 | 1.71% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2044 | 29,412,141 | 1.68% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2045 | 29,898,935 | 1.66% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2046 | 30,386,016 | 1.63% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2047 | 30,873,747 | 1.61% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2048 | 31,362,302 | 1.58% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2049 | 31,851,655 | 1.56% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2050 | 32,341,599 | 1.54% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2051 | 32,831,958 | 1.52% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2052 | 33,322,633 | 1.49% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2053 | 33,813,350 | 1.47% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2054 | 34,303,649 | 1.45% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2055 | 34,792,848 | 1.43% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2056 | 35,280,357 | 1.40% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2057 | 35,765,758 | 1.38% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2058 | 36,248,677 | 1.35% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2059 | 36,728,931 | 1.32% |
| USA | GDPLTFORECAST | TOT | MLN_USD | A | 2060 | 37,206,576 | 1.30% |

<https://data.oecd.org/gdp/gdp-long-term-forecast.htm#indicator-chart>



Electric & Gas Proxy Group - Zacks
Growth

30 Calander Days

| Company | Ticker | Min Price | Average Price | Max Price | Dividend | Dividend Forecast | Zacks Growth | Min Yield | Mean Yield | Max Yield | Mean Constant Growth DCF |
|------------------------------|--------|-----------|---------------|-----------|----------|-------------------|--------------|-----------|------------|-----------|--------------------------|
| Ameren Corporation | AEE | \$ 51.69 | \$ 52.18 | \$ 53.10 | \$ 1.76 | \$ 1.82 | 6.50% | 3.42% | 3.48% | 3.52% | 9.98% |
| Avista Corporation | AVA | \$ 38.11 | \$ 39.18 | \$ 39.87 | \$ 1.37 | NA | NA | NA | NA | NA | NA |
| CenterPoint Energy, Inc. | CNP | \$ 24.59 | \$ 25.44 | \$ 26.21 | \$ 1.07 | \$ 1.10 | 5.00% | 4.18% | 4.31% | 4.46% | 9.31% |
| CMS Energy Corporation | CMS | \$ 41.51 | \$ 41.98 | \$ 42.60 | \$ 1.33 | \$ 1.37 | 6.00% | 3.22% | 3.26% | 3.30% | 9.26% |
| NiSource Inc. | NI | \$ 21.84 | \$ 22.23 | \$ 22.68 | \$ 0.70 | \$ 0.73 | 7.22% | 3.20% | 3.26% | 3.32% | 10.48% |
| NorthWestern Corporation | NWE | \$ 56.41 | \$ 57.08 | \$ 57.51 | \$ 2.00 | \$ 2.05 | 5.00% | 3.56% | 3.59% | 3.63% | 8.59% |
| SCANA Corporation | SCG | \$ 68.13 | \$ 70.93 | \$ 73.28 | \$ 2.30 | \$ 2.37 | 5.67% | 3.23% | 3.33% | 3.47% | 9.00% |
| Vectren Corporation | VVC | \$ 51.72 | \$ 53.78 | \$ 55.03 | \$ 1.68 | \$ 1.72 | 5.33% | 3.13% | 3.21% | 3.33% | 8.54% |
| Wisconsin Energy Corporation | WEC | \$ 57.98 | \$ 58.60 | \$ 59.38 | \$ 2.08 | \$ 2.14 | 6.00% | 3.61% | 3.66% | 3.70% | 9.66% |
| | | | | | | | | | | | |
| Mean | | | | | | | 5.84% | 3.44% | 3.51% | 3.59% | 9.35% |
| σ | | | | | | | 0.72% | | | | |
| -1 σ | | | | | | | 5.12% | | | | |
| +1 σ | | | | | | | 6.56% | | | | |

