

**EXH. RAM-12T
DOCKETS UE-190529/UG-190530
UE-190274/UG-190275
2019 PSE GENERAL RATE CASE
WITNESS: DR. ROGER A. MORIN**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

**Docket UE-190529
Docket 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 IT/Technology Investment**

**Docket UE-190274
Docket UG-190275 (*Consolidated*)**

PREFILED REBUTTAL TESTIMONY (NONCONFIDENTIAL) OF

ROGER A. MORIN

ON BEHALF OF PUGET SOUND ENERGY

JANUARY 15, 2019

1 **Figure 3: Change in Market Conditions Since PSE’s Last Rate Proceeding⁶**

<u>Docket</u>	<u>Date</u>	<u>Federal Funds Rate</u>	<u>30-Day Avg of 30-Year Treasury Bond Yield</u>	<u>Core Inflation Rate</u>
<u>UE-220066 / UG-220067</u>				
Company Rebuttal	7/28/2022	2.33%	3.16%	5.90%
<u>UE-240004 / UG-240005</u>				
Company Direct	11/30/2023	5.33%	4.76%	4.02%
Company Rebuttal	7/31/2024	5.33%	4.45%	3.21%
	<i>Change from Jul-22 to Jul-24:</i>	<i>3.00%</i>	<i>1.29%</i>	<i>-2.69%</i>

2
 3 **Q. Do Parcell, Dr. Woolridge, or Dr. Kaufman adequately consider the**
 4 **implications of current and prospective capital market conditions on the cost**
 5 **of equity?**

6 A. No. While these witnesses reference market conditions, none of them adequately
 7 consider the changes in recent market conditions on the cost of equity. As shown
 8 in Figure 3, long-term interest rates have increased by approximately 130 basis
 9 points since the filing of the Company’s rebuttal testimony in its 2022 rate
 10 proceeding. However, despite this increase in the cost of equity, Parcell’s
 11 recommendation is just 25 basis points higher than his recommendation in the last
 12 proceeding, while Dr. Woolridge and Dr. Kaufman recommend an ROE that is
 13 *lower than* the ROE authorized for the Company in the last proceeding. None of

⁶ St. Louis Federal Reserve Bank; Bureau of Labor Statistics; Bloomberg Professional.

Economic Indicators

MARCH 2019

(Includes data available as of April 17, 2019)

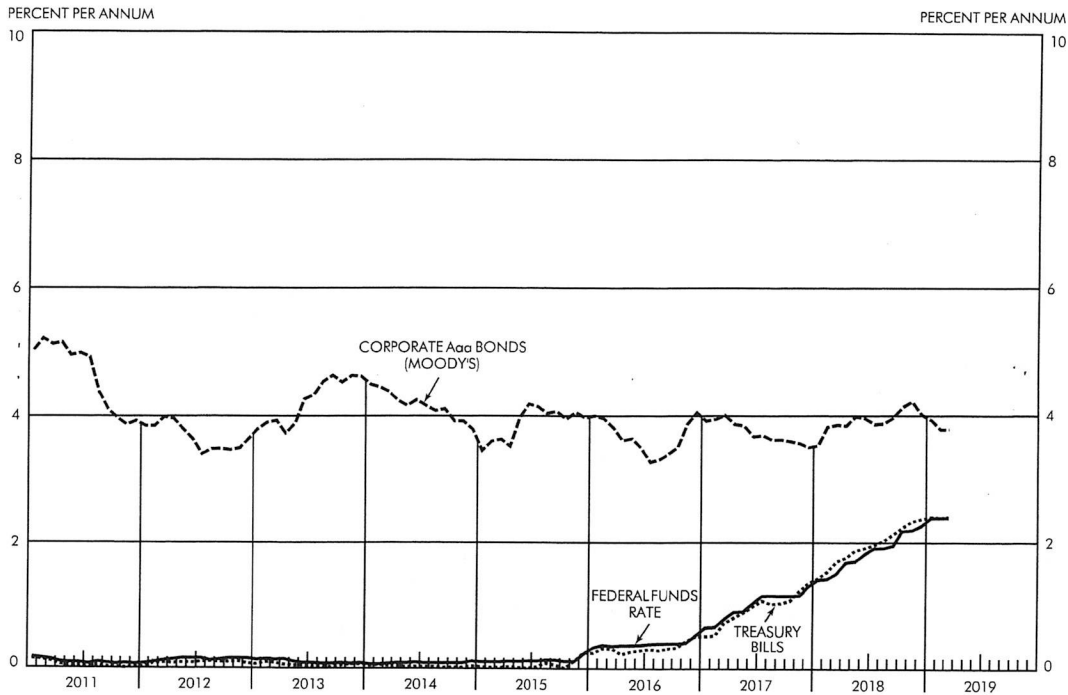
*Prepared for the Joint Economic Committee by the
Council of Economic Advisers*

UNITED STATES
GOVERNMENT PUBLISHING OFFICE
WASHINGTON : 2019

Interest Rates and Bond Yields

Exh. AEB- X
 UE-240004/UG-240005
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Interest rates were mixed in March.



SOURCE: SEE TABLE BELOW

COUNCIL OF ECONOMIC ADVISERS

[Percent per annum]

Period	U.S. Treasury security yields				High-grade municipal bonds (Standard & Poor's) ³	Corporate Aaa bonds (Moody's)	Discount window primary credit (N.Y. F.R. Bank) ⁴	Prime rate charged by banks ⁴	Federal funds rate ⁵	New-home mortgage yields (FHFA) ⁶
	3-month bills (at auction) ¹	Constant maturities ²								
		3-year	10-year	30-year						
2009	0.16	1.43	3.26	4.08	4.64	5.31	0.50	3.25	0.16	5.14
2010	.14	1.11	3.22	4.25	4.16	4.94	.72	3.25	.18	4.80
2011	.06	.75	2.78	3.91	4.29	4.64	.75	3.25	.10	4.56
2012	.09	.38	1.80	2.92	3.14	3.67	.75	3.25	.14	3.69
2013	.06	.54	2.35	3.45	3.96	4.24	.75	3.25	.11	4.00
2014	.03	.90	2.54	3.34	3.78	4.16	.75	3.25	.09	4.22
2015	.06	1.02	2.14	2.84	3.48	3.89	.76	3.26	.13	4.01
2016	.33	1.00	1.84	2.59	3.07	3.67	1.01	3.51	.39	3.76
2017	.94	1.58	2.33	2.89	3.36	3.74	1.60	4.10	1.00	3.97
2018	1.94	2.63	2.91	3.11	3.53	3.93	2.41	4.91	1.83	4.53
2018: Mar	1.70	2.42	2.84	3.09	3.58	3.87	2.25	4.75	1.51	4.33
Apr	1.76	2.52	2.87	3.07	3.55	3.85	2.25	4.75	1.69	4.52
May	1.87	2.66	2.98	3.13	3.38	4.00	2.25	4.75	1.70	4.55
June	1.91	2.65	2.91	3.05	3.15	3.96	2.50	5.00	1.82	4.58
July	1.96	2.70	2.89	3.01	3.45	3.87	2.50	5.00	1.91	4.62
Aug	2.03	2.71	2.89	3.04	3.58	3.88	2.50	5.00	1.91	4.57
Sept	2.13	2.84	3.00	3.15	3.63	3.98	2.75	5.25	1.95	4.64
Oct	2.24	2.94	3.15	3.34	3.88	4.14	2.75	5.25	2.19	4.67
Nov	2.34	2.91	3.12	3.36	3.64	4.22	2.75	5.25	2.20	4.77
Dec	2.38	2.67	2.83	3.10	3.69	4.02	3.00	5.50	2.27	4.84
2019: Jan	2.41	2.52	2.71	3.04	3.61	3.93	3.00	5.50	2.40	4.76
Feb	2.40	2.48	2.68	3.02	3.57	3.79	3.00	5.50	2.40	4.60
Mar ^r	2.41	2.37	2.57	2.98	3.43	3.77	3.00	5.50	2.41	.....
Week ended:										
2019: Mar 16	2.41	2.42	2.62	3.02	3.47	3.82	3.00	5.50	2.40	.....
23	2.41	2.35	2.55	2.97	3.42	3.77	3.00	5.50	2.40	.....
30	2.41	2.18	2.41	2.84	3.29	3.63	3.00	5.50	2.41	.....
Apr 6	2.38	2.29	2.50	2.91	3.29	3.68	3.00	5.50	2.42	.....
13	2.38	2.31	2.52	2.93	3.28	3.68	3.00	5.50	2.41	.....

¹ High bill rate at auction, issue date within period, bank-discount basis. Data are stop yields from uniform-price auctions.

² Yields on actively traded issues adjusted to constant maturities.

³ Weekly data are Wednesday figures.

⁴ Average effective rate for year, rate in effect at end of month or week.

⁵ Beginning March 1, 2016, the daily effective federal funds rate is a volume-weighted median of transaction-level data collected from depository institutions in the Report of Selected Money Market Rates (FR 2420). Prior to that date, the daily effective rate was a volume-weighted mean of rates on brokered trades.

⁶ Effective rate (in the primary market) on conventional mortgages, reflecting fees and charges as well as contract rate and assumed, on the average, repayment at end of 10 years.

Sources: Department of the Treasury, Board of Governors of the Federal Reserve System, Federal Housing Finance Agency, Moody's Investors Service, Bloomberg, and Standard & Poor's.

Economic Indicators

SEPTEMBER 2024

(Includes data available as of October 8, 2024)

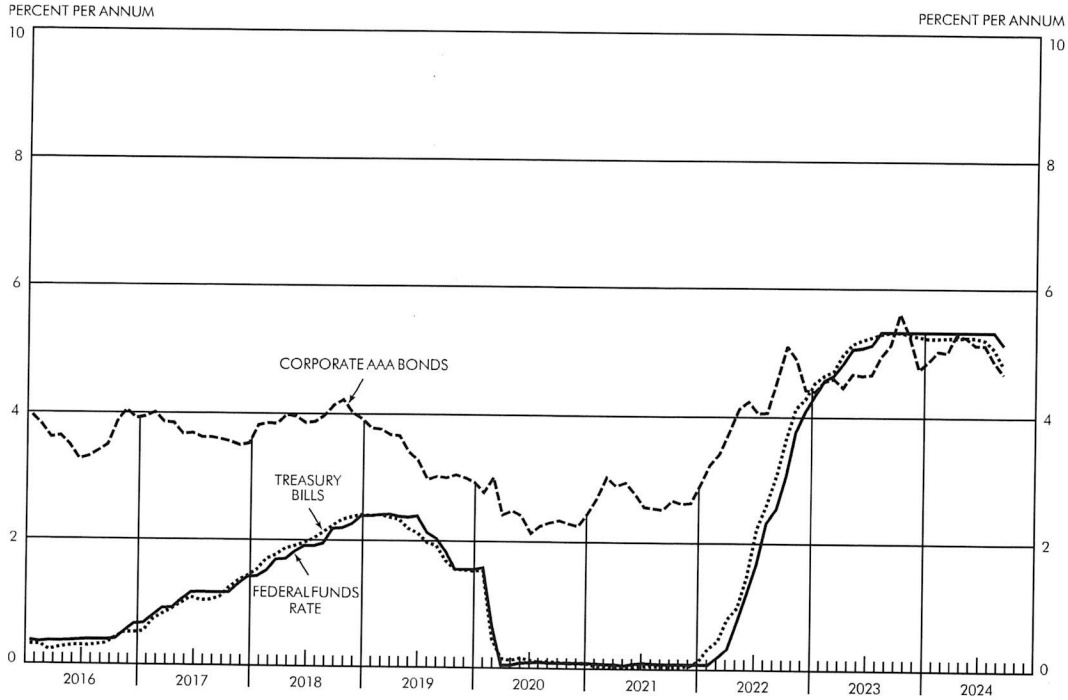
*Prepared for the Joint Economic Committee by the
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Interest Rates and Bond Yields

Exh. AEB- X
 UE-240004/UG-240005
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Interest rates fell in September.



SOURCE: SEE TABLE BELOW

COUNCIL OF ECONOMIC ADVISERS

[Percent per annum]

Period	U.S. Treasury security yields				High-grade municipal bonds (Standard & Poor's) ³	Corporate Aaa bonds (Moody's)	Discount window primary credit (N.Y. F.R. Bank) ⁴	Prime rate charged by banks ⁴	Federal funds rate ⁵	New-home mortgage yields (FHFA) ⁶
	3-month bills (at auction) ¹	Constant maturities ²								
		3-year	10-year	30-year						
2014	0.03	0.90	2.54	3.34	3.78	4.16	0.75	3.25	0.09	4.22
2015 .....	.06	1.02	2.14	2.84	3.48	3.89	.76	3.26	.13	4.01
2016 .....	.33	1.00	1.84	2.59	3.07	3.67	1.01	3.51	.39	3.76
2017 .....	.94	1.58	2.33	2.89	3.36	3.74	1.60	4.10	1.00	3.97
2018	1.94	2.63	2.91	3.11	3.53	3.93	2.41	4.91	1.83	4.53
2019	2.08	1.94	2.14	2.58	3.38	3.39	2.78	5.28	2.16	.....
2020 .....	.38	.42	0.89	1.56	2.41	2.47	.64	3.54	.37	.....
2021 .....	.04	.46	1.45	2.06	2.00	2.70	.25	3.25	.08	.....
2022	2.04	3.05	2.95	3.11	3.85	4.07	1.86	4.86	1.69	.....
2023	5.08	4.30	3.96	4.09	4.31	4.81	5.20	8.20	5.03	.....
2023: Sept	5.32	4.74	4.38	4.47	4.58	5.13	5.50	8.50	5.33	.....
Oct	5.33	4.89	4.80	4.95	4.99	5.61	5.50	8.50	5.33	.....
Nov	5.29	4.64	4.50	4.66	4.62	5.28	5.50	8.50	5.33	.....
Dec	5.26	4.19	4.02	4.14	4.09	4.74	5.50	8.50	5.33	.....
2024: Jan	5.23	4.11	4.06	4.26	4.24	4.87	5.50	8.50	5.33	.....
Feb	5.23	4.33	4.21	4.38	4.16	5.03	5.50	8.50	5.33	.....
Mar	5.24	4.38	4.21	4.36	4.17	5.01	5.50	8.50	5.33	.....
Apr	5.24	4.71	4.54	4.66	4.36	5.28	5.50	8.50	5.33	.....
May	5.25	4.66	4.48	4.62	4.28	5.25	5.50	8.50	5.33	.....
June	5.25	4.50	4.31	4.44	4.21	5.13	5.50	8.50	5.33	.....
July	5.21	4.29	4.25	4.46	4.21	5.12	5.50	8.50	5.33	.....
Aug	5.07	3.79	3.87	4.15	4.16	4.87	5.50	8.50	5.33	.....
Sept	4.79	3.51	3.72	4.04	4.09	4.68	5.00	8.00	5.13	.....
Week ended:										
2024: Sept 7	4.97	3.63	3.77	4.06	4.15	4.75	5.50	8.50	5.33	.....
14	4.90	3.46	3.67	3.98	4.07	4.67	5.50	8.50	5.33	.....
21	4.75	3.46	3.69	4.01	4.07	4.63	5.00	8.00	5.33	.....
28	4.54	3.49	3.76	4.11	4.08	4.69	5.00	8.00	4.83	.....
Oct 5	4.50	3.62	3.83	4.16	4.05	4.74	5.00	8.00	4.83	.....

¹ High bill rate at auction, issue date within period, bank-discount basis. Data are stop yields from uniform-price auctions.

² Yields on actively traded issues adjusted to constant maturities.

³ Weekly data are Wednesday figures.

⁴ Average effective rate for year; rate in effect at end of month or week.

⁵ Beginning March 1, 2016, the daily effective federal funds rate is a volume-weighted median of transaction-level data collected from depository institutions in the Report of Selected Money Market Rates (FR 2420). Prior to that date, the daily effective rate was a volume-weighted mean of rates on brokered trades.

⁶ Effective rate (in the primary market) on conventional mortgages, reflecting fees and charges as well as contract rate and assumed, on the average, repayment at end of 10 years.

Sources: Department of the Treasury, Board of Governors of the Federal Reserve System, Federal Housing Finance Agency, Moody's Investors Service, Bloomberg, and Standard & Poor's.



Categories > Money, Banking, & Finance > Interest Rates > FRB Rates - discount, fed funds, primary credit

★ Federal Funds Effective Rate (FEDFUNDS)

DOWNLOAD

Observation:

Jan 2019: **2.40** Updated:
Sep 3, 2024 3:17 PM CDT

1Y | 5Y | 10Y | Max

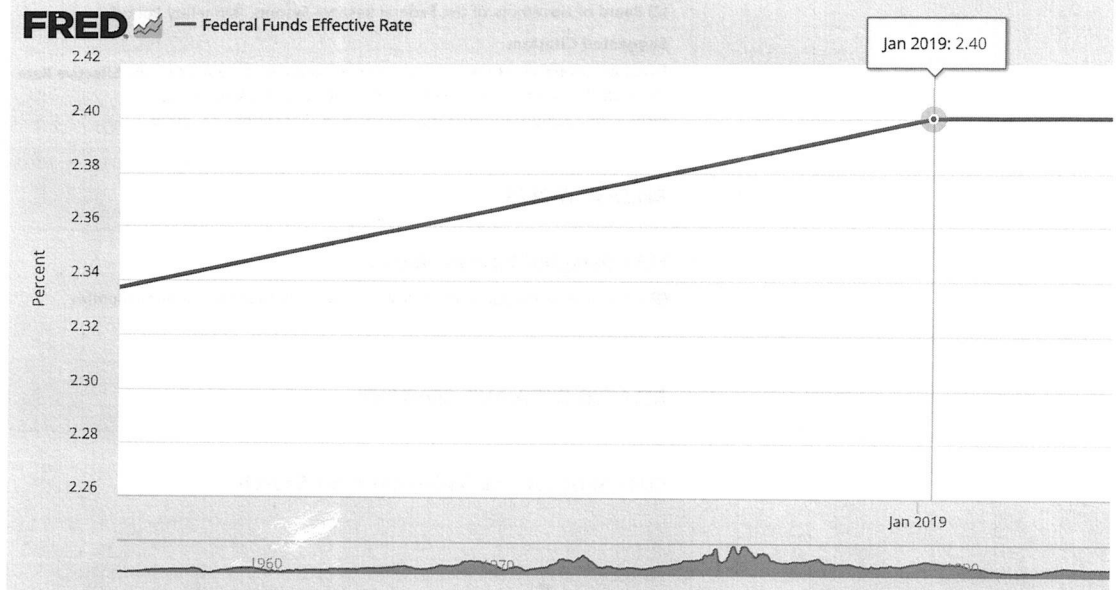
Units:

Percent,
Not Seasonally Adjusted

EDIT GRAPH

Frequency:

Monthly



Source: Board of Governors of the Federal Reserve System

Share Links Account Tools



NOTES

Source: Board of Governors of the Federal Reserve System (US)

Release: H.15 Selected Interest Rates

Units: Percent, Not Seasonally Adjusted

Frequency: Monthly

Averages of daily figures.

For additional historical federal funds rate data, please see Daily Federal Funds Rate from 1928-1954.

The federal funds rate is the interest rate at which depository institutions trade federal funds (balances held at Federal Reserve Banks) with each other overnight. When a depository institution has surplus balances in its reserve account, it lends to other banks in need of larger balances. In simpler terms, a bank with excess cash, which is often referred to as liquidity, will lend to another bank that needs to quickly raise liquidity. (1) The rate that the borrowing institution pays to the lending institution is determined between the two banks; the weighted average rate for all of these types of negotiations is called the effective federal funds rate. (2) The effective federal funds rate is essentially determined by the market but is influenced by the Federal Reserve through open market operations to reach the federal funds rate target. (2)

The Federal Open Market Committee (FOMC) meets eight times a year to determine the federal funds target rate. As previously stated, this rate influences the effective



Categories > Money, Banking, & Finance > Interest Rates > FRB Rates - discount, fed funds, primary credit

☆ Effective Federal Funds Rate (EFFR)

DOWNLOAD

Observation:

2024-10-02: **4.83** Updated:

Oct 3, 2024 8:01 AM CDT

1Y | 5Y | 10Y | Max

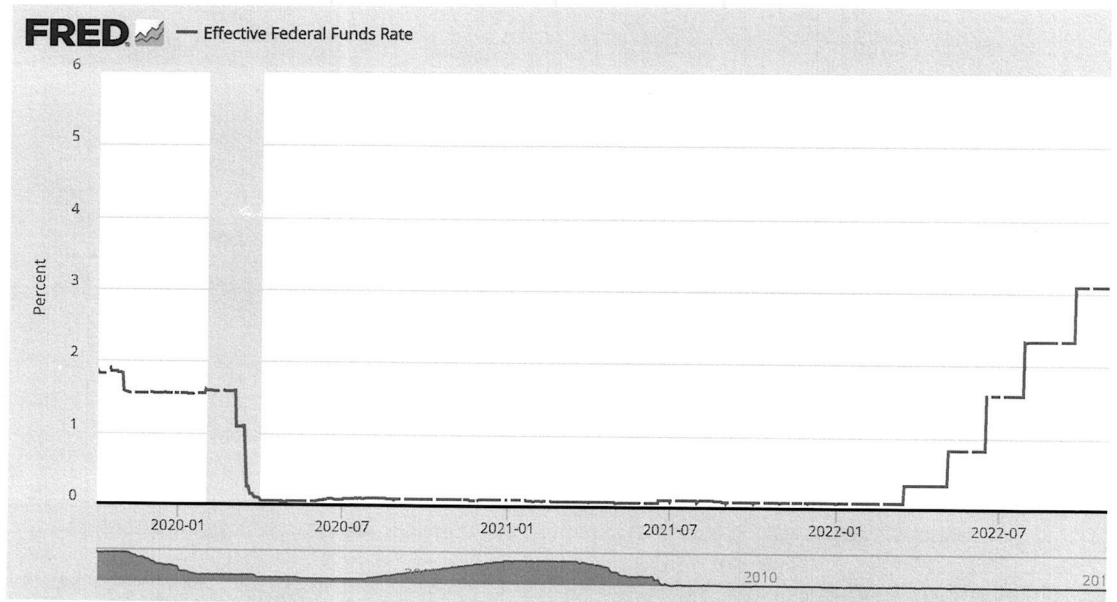
Units:

Percent,
Not Seasonally Adjusted

EDIT GRAPH

Frequency:

Daily



Shaded areas indicate U.S. recessions.

Source: Federal Reserve Bank of New York

Share Links

Account Tools



NOTES

Source: Federal Reserve Bank of New York

Release: Federal Funds Data

Units: Percent, Not Seasonally Adjusted

Frequency: Daily

For additional historical federal funds rate data, please see Daily Federal Funds Rate from 1928-1954.

The federal funds market consists of domestic unsecured borrowings in U.S. dollars by depository institutions from other depository institutions and certain other entities, primarily government-sponsored enterprises.

The effective federal funds rate (EFFR) is calculated as a volume-weighted median of overnight federal funds transactions reported in the FR 2420 Report of Selected Money Market Rates.

For more information, visit the Federal Reserve Bank of New York.

Suggested Citation:

Federal Reserve Bank of New York, Effective Federal Funds Rate [EFFR], retrieved from FRED, Federal Reserve Bank of St. Louis;

<https://fred.stlouisfed.org/series/EFFR>, October 3, 2024.

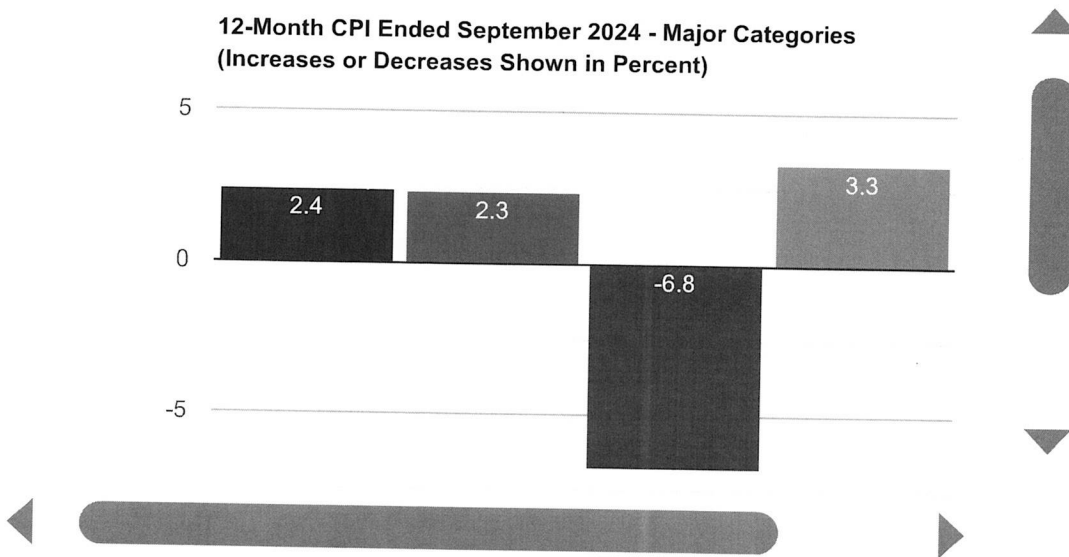
Home > Inflation and Prices > United States Core Inflation Rates (1957-2024)

United States Core Inflation Rates (1957-2024)

The annual core inflation rate for the 12 months ending in September was 3.3%, up from 3.2% previously, according to a report released by the U.S. Labor Department's Bureau of Labor Statistics (BLS) on October 10, 2024.

Core inflation is an important economic indicator that measures the long-term trend in inflation, by excluding volatile items such as food and energy, which can experience price fluctuations due to temporary or seasonal factors. (Read more about core inflation.) By removing these volatile items, core inflation provides a clearer picture of underlying inflationary pressures in an economy.

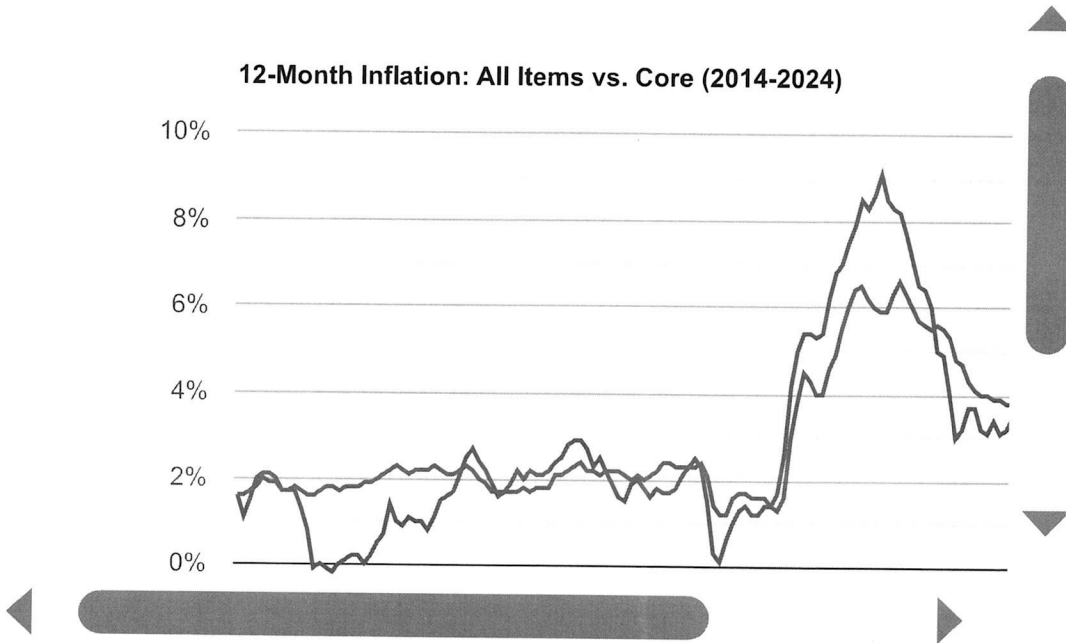
Core inflation is monitored alongside headline inflation, which measures changes in the prices of all goods and services in an economy. The headline inflation rate is typically more volatile than core inflation due to the impact of food and energy prices, which can fluctuate greatly in response to changes in supply and demand.



While headline inflation provides important information about short-term fluctuations in the economy, core inflation is generally more reliable indicator of the long-term trend in inflation.

As a point of reference, inflation data is included in the monthly consumer price reports

as all items less food and energy. This chart shows the rates for both, 12-month based, since 2014:

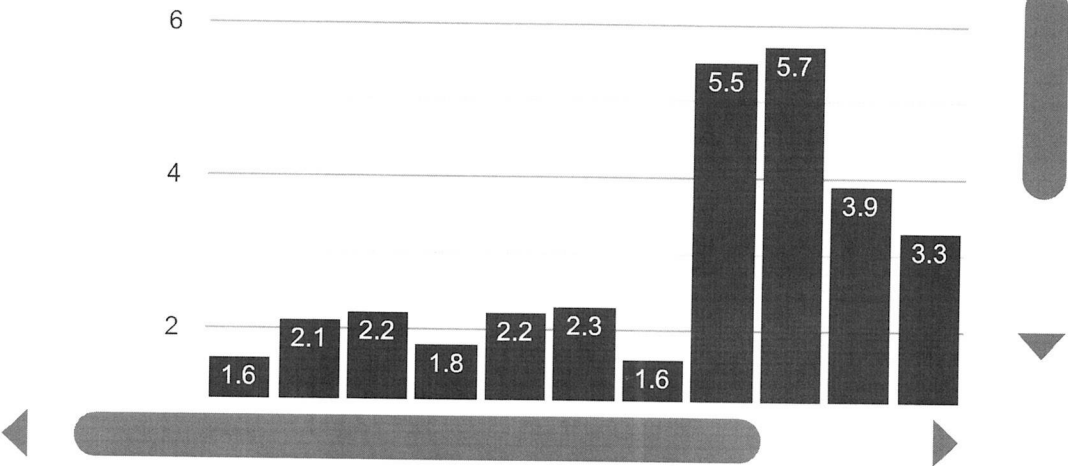


Overall, monitoring both core inflation and headline inflation is crucial for understanding the overall health of an economy and making informed policy decisions to maintain price stability and promote economic growth.

This next chart displays year-over-year pricing changes for several major categories that are tracked in core inflation.



United States Core Inflation Rates (2014 to 2024)



*The final column in the chart always displays the latest inflation data based on a 12-month period.

Table: Core Inflation Rates by Month and Year

Below is a table displaying core rates of inflation since 1958. Since the figures represent 12-month periods, core inflation rates by calendar year can be found in the December column.



For instance, the core inflation rate for 2023 was 3.9%. Meanwhile, the "Ave" column shows the average core rate for each year, which was 4.8% in 2023.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	A
1958	3.2	3.2	2.8	2.4	2.4	2.1	2.4	2.1	1.7	1.7	1.7	1.7	2.2
1959	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.4	2.7	2.0	2.0	2.2
1960	2.0	2.3	2.0	2.0	1.7	1.7	1.3	1.3	1.0	1.0	1.0	1.0	1.7
1961	1.0	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3	1.2
1962	1.3	1.3	1.6	1.3	1.6	1.6	1.3	1.3	1.3	1.3	1.3	1.3	1.4
1963	1.0	1.0	1.0	1.3	1.0	1.3	1.3	1.6	1.3	1.3	1.6	1.6	1.4
1964	1.9	1.9	1.9	1.6	1.6	1.6	1.6	0.9	1.3	1.3	1.2	1.2	1.5
1965	1.6	1.6	1.2	1.6	1.6	1.2	1.2	1.6	1.5	1.5	1.2	1.5	1.5
1966	0.9	1.2	1.5	1.8	2.1	2.4	2.8	3.1	3.0	3.3	3.6	3.3	2.2
1967	3.6	3.6	3.6	3.3	3.3	3.3	3.3	3.3	3.6	3.5	3.5	3.8	3.4
1968	4.1	4.1	4.4	4.4	4.3	4.6	4.9	4.9	4.9	4.8	5.1	5.1	4.4
1969	5.1	5.3	5.6	6.1	6.1	5.8	5.8	5.8	6.0	6.0	5.9	6.2	5.5
1970	6.2	6.1	6.1	5.8	6.0	6.5	6.2	6.2	6.2	6.4	6.6	6.6	6.0
1971	6.3	5.8	5.2	5.0	5.2	4.9	4.9	4.6	4.4	3.8	3.3	3.1	4.4
1972	3.1	3.3	3.3	3.3	3.1	2.8	2.8	3.3	2.8	3.0	3.0	3.0	3.1
1973	2.8	2.8	3.0	3.2	3.2	3.2	3.2	3.2	3.8	4.3	4.5	4.7	3.4
1974	4.9	5.4	5.8	6.2	6.8	7.9	8.8	9.6	10.2	10.6	11.2	11.1	8.1
1975	11.5	11.7	11.4	11.3	10.5	9.6	9.1	8.2	7.7	7.0	6.8	6.7	9.1
1976	6.7	6.5	6.6	6.4	6.5	6.5	6.7	6.8	6.8	6.7	6.5	6.1	6.4
1977	6.3	6.3	6.2	6.3	6.3	6.6	6.3	6.2	6.2	6.0	5.9	6.5	6.1
1978	6.4	6.2	6.3	6.5	6.8	7.0	7.4	7.5	7.9	8.4	8.7	8.5	7.1
1979	8.6	9.2	9.3	9.3	9.4	9.3	9.6	10.0	9.9	10.1	10.6	11.3	9.4
1980	12.0	12.0	12.5	13.0	13.3	13.6	12.4	11.8	12.0	12.3	12.1	12.2	11.8
1981	11.4	10.9	10.0	9.5	9.5	9.4	11.1	11.6	11.8	10.9	10.2	9.5	10.1
1982	9.3	9.1	8.8	8.9	8.7	8.6	7.6	7.1	5.9	5.9	5.3	4.5	7.1
1983	4.7	4.7	4.7	4.3	3.6	2.9	3.0	3.0	3.5	3.7	4.3	4.8	3.8
1984	4.8	4.8	5.0	5.0	5.2	5.1	5.0	5.1	5.1	4.9	4.6	4.7	4.8
1985	4.5	4.7	4.8	4.5	4.5	4.4	4.2	4.1	4.0	4.1	4.4	4.3	4.4
1986	4.4	4.2	4.1	4.2	4.0	4.0	4.1	4.0	4.1	4.0	3.8	3.8	4.1
1987	3.8	3.8	4.0	4.2	4.2	4.1	4.0	4.2	4.3	4.3	4.4	4.2	4.1
1988	4.3	4.3	4.4	4.3	4.3	4.5	4.5	4.4	4.4	4.5	4.4	4.7	4.4
1989	4.6	4.8	4.7	4.6	4.6	4.5	4.6	4.4	4.3	4.3	4.4	4.4	4.4
1990	4.4	4.6	4.9	4.8	4.8	4.9	5.0	5.5	5.5	5.3	5.3	5.2	4.9

1993	3.5	3.6	3.4	3.5	3.4	3.3	3.2	3.3	3.2	3.0	3.1	3.2	3.0
1994	2.9	2.8	2.9	2.8	2.8	2.9	2.9	2.9	3.0	2.9	2.8	2.6	2.6
1995	2.9	3.0	3.0	3.1	3.1	3.0	3.0	2.9	2.9	3.0	3.0	3.0	3.0
1996	3.0	2.9	2.8	2.7	2.7	2.7	2.7	2.6	2.7	2.6	2.6	2.6	2.6
1997	2.5	2.5	2.5	2.7	2.5	2.4	2.4	2.3	2.2	2.3	2.2	2.2	2.2
1998	2.2	2.3	2.1	2.1	2.2	2.2	2.2	2.5	2.5	2.3	2.3	2.4	2.4
1999	2.4	2.1	2.1	2.2	2.0	2.1	2.1	1.9	2.0	2.1	2.1	1.9	1.9
2000	2.0	2.2	2.4	2.3	2.4	2.5	2.5	2.6	2.6	2.5	2.6	2.6	2.6
2001	2.6	2.7	2.7	2.6	2.5	2.7	2.7	2.7	2.6	2.6	2.8	2.7	2.7
2002	2.6	2.6	2.4	2.5	2.5	2.3	2.2	2.4	2.2	2.2	2.0	1.9	1.9
2003	1.9	1.7	1.7	1.5	1.6	1.5	1.5	1.3	1.2	1.3	1.1	1.1	1.1
2004	1.1	1.2	1.6	1.8	1.7	1.9	1.8	1.7	2.0	2.0	2.2	2.2	2.2
2005	2.3	2.4	2.3	2.2	2.2	2.0	2.1	2.1	2.0	2.1	2.1	2.2	2.2
2006	2.1	2.1	2.1	2.3	2.4	2.6	2.7	2.8	2.9	2.7	2.6	2.6	2.6
2007	2.7	2.7	2.5	2.3	2.2	2.2	2.2	2.1	2.1	2.2	2.3	2.4	2.4
2008	2.5	2.3	2.4	2.3	2.3	2.4	2.5	2.5	2.5	2.2	2.0	1.8	1.8
2009	1.7	1.8	1.8	1.9	1.8	1.7	1.5	1.4	1.5	1.7	1.7	1.8	1.8
2010	1.6	1.3	1.1	0.9	0.9	0.9	0.9	0.9	0.8	0.6	0.8	0.8	0.8
2011	1.0	1.1	1.2	1.3	1.5	1.6	1.8	2.0	2.0	2.1	2.2	2.2	2.2
2012	2.3	2.2	2.3	2.3	2.3	2.2	2.1	1.9	2.0	2.0	1.9	1.9	1.9
2013	1.9	2.0	1.9	1.7	1.7	1.6	1.7	1.8	1.7	1.7	1.7	1.7	1.7
2014	1.6	1.6	1.7	1.8	2.0	1.9	1.9	1.7	1.7	1.8	1.7	1.6	1.6
2015	1.6	1.7	1.8	1.8	1.7	1.8	1.8	1.8	1.9	1.9	2.0	2.1	2.1
2016	2.2	2.3	2.2	2.1	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.2	2.2
2017	2.3	2.2	2.0	1.9	1.7	1.7	1.7	1.7	1.7	1.8	1.7	1.8	1.8
2018	1.8	1.8	2.1	2.1	2.2	2.3	2.4	2.2	2.2	2.1	2.2	2.2	2.2
2019	2.2	2.1	2.0	2.1	2.0	2.1	2.2	2.4	2.4	2.3	2.3	2.3	2.3
2020	2.3	2.4	2.1	1.4	1.2	1.2	1.6	1.7	1.7	1.6	1.6	1.6	1.6
2021	1.4	1.3	1.6	3.0	3.8	4.5	4.3	4.0	4.0	4.6	4.9	5.5	5.5
2022	6.0	6.4	6.5	6.2	6.0	5.9	5.9	6.3	6.6	6.3	6.0	5.7	5.7
2023	5.6	5.5	5.6	5.5	5.3	4.8	4.7	4.3	4.1	4.0	4.0	3.9	3.9
2024	3.9	3.8	3.8	3.6	3.4	3.3	3.2	3.2	3.3	Avail. Nov.			



Service Date: July 8, 2020

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

<p>WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PUGET SOUND ENERGY, Respondent.</p>	<p>DOCKETS UE-190529 and UG-190530 (<i>consolidated</i>) FINAL ORDER 08</p>
<p>In the Matter of the Petition of PUGET SOUND ENERGY For an Order Authorizing Deferral Accounting and Ratemaking Treatment for Short-life IT/Technology Investment</p>	<p>DOCKETS UE-190274 and UG-190275 (<i>consolidated</i>) FINAL ORDER 05</p>
<p>In the Matter of the Petition of PUGET SOUND ENERGY For an Order Authorizing Deferred Accounting associated with Federal Tax Act on Puget Sound Energy's Cost of Service</p>	<p>DOCKETS UE-171225 and UG-171226 (<i>consolidated</i>) FINAL ORDER 03</p>
<p>In the Matter of the Petition of PUGET SOUND ENERGY For an Order Authorizing the Accounting treatment of Costs of Liquidated Damages</p>	<p>DOCKETS UE-190991 and UG-190992 (<i>consolidated</i>) FINAL ORDER 03 REJECTING TARIFF SHEETS; AUTHORIZING AND REQUIRING COMPLIANCE FILING</p>

**DOCKETS UE-190529, UG-190530, UE-190274, UG-190275,
 UE-171225, UG-171226, UE-190991 & UG-190992 (Consolidated)
 FINAL ORDER 08/05/03**

conclusion of this case.³⁹ Rates set in this proceeding thus will likely be effective for a relatively brief period of time, which also weighs against the need for an attrition adjustment. Accordingly, given the totality of these circumstances and options, we determine that an attrition adjustment is unnecessary.⁴⁰

2. COST OF CAPITAL

81 No Parties contest PSE’s proposed capital structure, which includes 48.5 percent equity and 51.5 percent debt. The only contested issue related to cost of capital is the appropriate level for PSE’s return on equity (ROE). Table 1, below, illustrates the positions of parties that have performed cost of capital analyses.

Table 1 - Cost of Capital Positions

Component	PSE	Staff	Public Counsel and Nucor Steel
Short-Term Debt	2.47%	2.47%	2.38%
Long-Term Debt	5.51%	5.57%	5.51%
ROE	9.50%	9.20%	8.75%
ROR	7.44%	7.29%	7.07%

82 In the Company’s initial filing, PSE witness Morin argues the Commission should increase PSE’s ROE from 9.50 to 9.80 percent, and that adopting a lower ROE would increase costs for ratepayers because it would lead to an over-reliance on debt, thereby increasing the utility’s debt-to-equity ratio, which in turn drives up the cost of equity and the cost of debt.⁴¹

83 On rebuttal, Morin updates the six models presented in his direct testimony with more recent stock prices and interest rates, showing that the simple average of each model

³⁹ Piliaris, TR 246:5-8

⁴⁰ Disallowing the attrition adjustment renders moot multiple adjustments contested by Public Counsel.

⁴¹ Morin, Exh. RAM-1T at 5:13-7:6.

DOCKETS UE-190529, UG-190530, UE-190274, UG-190275,
UE-171225, UG-171226, UE-190991 & UG-190992 (*Consolidated*)
FINAL ORDER 08/05/03

determine that Staff most appropriately identifies a reasonable range between 8.9 and 9.5 percent.

- 103 With respect to the parties' specific ROE recommendations, we share Staff's concern that PSE excludes Morin's DCF Analyst Growth Methodology result, 8.2 percent, as an "outlying result" with no further explanation.⁷⁵ Presumably, Morin considers this number an outlier because it is the lowest of the six ROE results used in his calculation. Notably, Morin did not afford similar treatment to the highest of the six ROE results. Such inconsistency is not reasonable.
- 104 The average of all six of Morin's ROE results produces an ROE of 9.25 percent (which Morin rounds up to 9.3 percent) when Morin's DCF Analyst Growth Methodology results are properly included. When both the highest (10.2 percent) and lowest (8.2 percent) results are excluded, the average of the remaining four ROE results produces an ROE of 9.28 percent. Although PSE recommends we authorize its current ROE of 9.5 percent, PSE offers no analysis to support that result. Absent PSE's unsupported 9.5 percent ROE, the record supports a range of reasonableness set by parties' recommendations between 8.75 percent and 9.28 percent.
- 105 We rely on both the range of reasonableness and the parties' recommendations to inform our decision. We are also cognizant that the midpoint of the range of reasonableness – 9.2 percent – is 30 basis points below PSE's currently authorized ROE. A reduction of that magnitude, under current conditions, would run afoul of the principle of gradualism. As we noted in Avista's 2017 GRC:

When considering changes to a regulated utility's authorized ROE, we endeavor to avoid material adjustments, upward or downward, in authorized levels to provide stability and assurance to investors and others regarding the regulatory environment supporting the financial integrity of the utility. Based on the evidence produced by the various expert witnesses, we generally determine whether modest increases or decreases, if any, to

⁷⁵ Morin, Exh. RAM-12T at 92:2.

currently authorized levels are appropriate given the evidence produced in the immediate proceeding.⁷⁶

- 106 Here, the detailed analyses presented in the record suggest that a more modest decrease is appropriate. Giving weight to all of the expert's recommendations but appropriately incorporating the principle of gradualism, we determine that an ROE of 9.4 percent is reasonable and fully supported by record evidence.
- 107 In addition, the Commission recently approved an ROE of 9.4 percent for three other Washington utilities, which we have found strikes an appropriate balance between the lower risk of utility investment and regulated companies' ability to attract investors in an economic environment where interest rates are low.⁷⁷
- 108 The Commission, therefore, approves an ROE of 9.4 percent. Based on that ROE, the uncontested hypothetical capital structure, and the uncontested cost of debt, we approve and adopt an overall ROR of 7.39 percent for purposes of establishing electric and natural gas revenue requirements and rates in this proceeding.

3. REVENUE REQUIREMENT – CONTESTED ADJUSTMENTS

i. Pro Forma Capital Additions

- 109 In its initial filing, PSE proposes numerous pro forma adjustments, including five major projects: Get to Zero Program (GTZ), Advanced Metering Infrastructure (AMI), Data Center and Disaster Recovery Program (DCDR), Tacoma LNG Distribution Upgrade, and SmartBurn. PSE proposes a pro forma capital additions cutoff date of June 30, 2019, and a materiality threshold that includes any adjustment that “impacts the rate of return

⁷⁶ See *Wash. Utils. and Transp. Comm'n v. Avista Corp., d/b/a Avista Utils.*, Dockets UE-170485 and UG-170486 (*Consolidated*), Final Order 07 ¶ 68 (Apr. 26, 2018).

⁷⁷ See *Wash. Utils. and Transp. Comm'n v. Avista Corp., d/b/a Avista Utils.*, Dockets UE-190334, UG-190335, and UE-190222 (*Consolidated*), Final Order 09 (Mar. 25, 2020), approving settlement that set Avista's ROE at 9.4 percent; *Wash. Utils. and Transp. Comm'n v. Cascade Natural Gas Corp.*, Docket UG-190210, Final Order 05 (Feb. 3, 2020), approving settlement that set Cascade's ROE at 9.4 percent; and *Wash. Utils. and Transp. Comm'n v. Northwest Natural Gas, d/b/a NW Natural*, Docket UG-181053, Final Order 06 (Oct. 21, 2019), approving settlement that set NW Natural's ROE at 9.4 percent.

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

DOCKETS UE-220066 and UG-220067
(consolidated)

FINAL ORDER 24

In the Matter of the Petition of

PUGET SOUND ENERGY

For an Order Authorizing Deferred
Accounting Treatment for Puget Sound
Energy's Share of Costs Associated with
the Tacoma LNG Facility

DOCKET UG-210918

FINAL ORDER 10

REJECTING TARIFF SHEETS;
APPROVING SETTLEMENTS, WITH
CONDITIONS; AUTHORIZING AND
REQUIRING COMPLIANCE FILING

Synopsis: *The Commission approves and adopts three partial multiparty settlements, subject to limited conditions, that, considered together, resolve all the issues in this consolidated proceeding for Puget Sound Energy (PSE).*

The Revenue Requirement Settlement provides for a two-year rate plan starting on January 1, 2023, approves a capital structure of 49 percent equity and 51 percent debt, sets cost of debt at 5.0 percent for the duration of the rate plan, maintains PSE's return on equity at 9.40 percent, provides for more timely recovery of power costs, provides for a pilot of time-varying rates (TVR), allows for provisional recovery of certain investments including Energize Eastside, creates a Demand Response (DR) Performance Incentive Mechanism (PIM), requires reporting on a number of metrics, and addresses a number of issues that are no longer disputed by the parties. The Settling Parties agree to, and the Commission approves with conditions in this Order, an increase to electric rates of \$223 million in rate year one and \$38 million in rate year two; and an increase to natural gas rates of \$70.6 million in rate year one and \$18.8 million in rate year two, for a total of \$350.4 million, companywide, for both years combined.

As a result of the Revenue Requirement Settlement, a typical residential electric customer using 800 kWhs per month will pay \$7.75 more per month in rate year one, for an average monthly bill of \$96.65, and will pay \$1.67 more per month in rate year two, for an average monthly bill of \$98.32. A typical residential natural gas customer using 64 therms per month

median-high results of her Discounted Cash Flow (DCF) model, forward-looking Capital Asset Pricing Model (CAPM) and Empirical CAPM (ECAPM) analyses, a Bond Yield plus Risk Premium analysis, and an Expected Earnings analysis.¹⁸⁵ Bulkley also argues that recent inflationary pressures are another key component that will increase the long-term interest rates.¹⁸⁶ PSE requested an ROE of 9.90 percent for each of the three years of the proposed MYRP, and Bulkley supported this as a reasonable request.¹⁸⁷

131 In response testimony, Staff, AWEC, Walmart, and Public Counsel witnesses argued in favor of a lower ROE for the Company.¹⁸⁸ Because Staff, AWEC, and Walmart later joined the Revenue Requirement Settlement and came to support its proposed ROE of 9.40 percent,¹⁸⁹ we focus only on Public Counsel's response testimony.

132 Specifically, Public Counsel witness Woolridge testifies in favor of an ROE of 8.80 percent.¹⁹⁰ Woolridge bases this recommendation primarily on the results of his DCF and CAPM analyses, which indicated a common equity cost range of 7.40 to 8.90 percent.¹⁹¹ Woolridge also argues that interest rates and capital costs have remained at historically low levels,¹⁹² and that PSE's risk profile is similar to other electric utility companies.¹⁹³

the proxy group, and current capital market conditions were considered to arrive at that conclusion. By the time testimony was written, economic projections indicated a strong economic recovery in 2022. See Bulkley, Exh. AEB-1T at 15:9-17:2. However, accommodative monetary policies to counter the effects of the COVID-19 pandemic in 2020 were gradually dialed down in 2021. See Joint Testimony, Exh. CGP-AEB-TAS-1JT at 13:14-18. A number of analysts expect utilities to underperform in the broader market as interest rates increase. *Id.* at 18:3-4.

See also Peterman, Exh. CGP-1CT at 40:15-21. Peterman argues that PSE's ROE should be increased to 9.90 percent: (1) to allow PSE to earn a fair and competitive rate of return in line with its peers; (2) to adequately compensate PSE for risks it is currently facing to fund critical operational programs for the benefit of customers, including investments to enable PSE to provide safe and reliable service to its customers and make CETA-required investments; (3) to begin to replace losses of cash flow due to legislative changes (such as the TCJA); and (4) to help improve and stabilize PSE's credit profile.

¹⁸⁵ Bulkley, Exh. AEB-1T at 7:10-14.

¹⁸⁶ The Company's inability to reflect increasing costs between rate cases will affect credit metrics.

¹⁸⁷ Bulkley, Exh. AEB-1T at 4:4-5.

¹⁸⁸ See generally Parcel, Exh. DCP-1T. See also Mullins, Exh. BGM-1T at 10:17-12:13. Kronauer, Exh. AJK-1T at 8:1-8, 16:15-22.

¹⁸⁹ E.g., Erdahl, Exh. BAE-1T at 5:14-22 (supporting the Settlement's ROE of 9.40 as reasonable, consistent with the public interest, and consistent with Parcell's earlier response testimony).

¹⁹⁰ Woolridge, Exh. JRW-1T at 92:4-6.

¹⁹¹ E.g., *id.* at 91:20-92:4.

¹⁹² *Id.* at 6:15-18.

¹⁹³ *Id.* at 7:8-11.

2021, and contends that inflationary pressures and interest rate increases have only worsened since that time.²²⁵

144 PSE argues that Public Counsel is the only party to oppose the Settlement’s proposed ROE and that Public Counsel’s recommendation for a mere 8.8 percent is contrary to the principle of gradualism.²²⁶

145 Staff argues that the Revenue Requirement Settlement leaves the Company’s authorized ROE in place.²²⁷ Staff submits that this is a reasonable compromise considering the “risk-lowering” effects of the MYRP and the “risk-raising” effects of inflation and tightening monetary policy.²²⁸ By comparison, Staff characterizes Public Counsel’s lower recommendation as “facially unreasonable” and tantamount to “shock therapy.”²²⁹

146 In its brief, Public Counsel argues that while authorized ROEs for utilities have declined since 2007, utility ROEs continue to be higher than the market-based cost of capital, and utility ROEs have not declined to the same extent as U.S. Treasury yields.²³⁰ Public Counsel notes Woolridge’s earlier objections to Parcell’s DCF and CAPM models, and it argues that Parcell’s ROE recommendation is only supported by his unorthodox and subjective Risk Premium and Comparable Earnings models.²³¹ Public Counsel maintains that Parcell’s DCF and CAPM models support a lower ROE of 8.5 percent, well below the amount proposed in the Settlement.²³²

147 *Commission Determination.* After considering all of the testimony and evidence concerning PSE’s cost of capital, we accept the Revenue Requirement Settlement’s proposed ROE of 9.40 percent. We find that the Settling Parties’ agreement on PSE’s ROE is lawful, supported by an appropriate record, and consistent with the public interest.²³³ We agree, in effect, with

²²⁵ *Id.* ¶ 45 (citing *WUTC v. Avista Corporation d/b/a Avista Utilities*, Dockets UE-200900, et al., Final Order 08/05 ¶ 73 (September 27, 2021)).

²²⁶ *Id.* ¶ 42.

²²⁷ Staff Brief ¶ 40.

²²⁸ *Id.*

²²⁹ *Id.* ¶ 41.

²³⁰ Public Counsel Brief ¶¶ 61-63.

²³¹ *Id.* ¶¶ 67-68.

²³² *Id.* ¶ 68.

²³³ See WAC 480-07-750(2) (providing the Commission’s standard for evaluating settlements).

testimony to a mean of 11.43 percent and a median of 11.55 percent.²⁵⁷ Applying his own Comparable Earnings model, Parcell concludes that that an appropriate ROE for proxy utilities is between 9.0 percent and 10.0 percent, with a midpoint of 9.50 percent.²⁵⁸ The Comparable Earnings method results therefore vary by 255 basis points.²⁵⁹ We generally do not place material weight on the Comparable Earnings method, which is considered unreliable in other jurisdictions.²⁶⁰ However, we have considered the results of the Comparable Earnings method when other cost of equity methods produce widely varying results.²⁶¹

158 Based on our review of these four specific methods, we are presented with a range of returns between 7.0 percent and 12.03 percent. The record indicates significant disagreement among the expert witnesses as they attempt to account for investors' expectations during this period of changing market conditions.

159 We agree, however, with Parcell's opinion that the "range of reasonableness" falls between 9.0 percent and 9.5 percent.²⁶² This range of reasonableness is consistent with the most persuasive evidence in this case, which includes Parcell's DCF and CE model results.²⁶³ We are persuaded by Parcell's decision to rely on the highest DCF results under the circumstances.²⁶⁴ Parcell has explained that his DCF results are lower than historic results and that his recommendation based on this model should be considered "conservative."²⁶⁵ The relatively lower DCF results are counterbalanced by Parcell's Risk Premium results, which support an ROE between 9.45 to 9.95 percent,²⁶⁶ and by his Comparable Earnings results,

²⁵⁷ Joint Testimony, Exh. CGP-AEB-TAS-1JT at 21:1 (Figure 6).

²⁵⁸ Parcell, Exh. DCP-1T at 47:15-16.

²⁵⁹ Two hundred and fifty-five basis points describes the difference between Bulkley's highest CE result (11.55) and Parcell's lowest result (9.0).

²⁶⁰ See *Assoc. of Businesses Advocating Tariff Equity v. Midcontinent Independent System Operator*, 169 F.E.R.C. ¶ 61,129, Opinion No. 569, ¶ 204 (2019) (finding that the CE method is "unable to effectively estimate the rate of return that investors require to invest in the market-priced common equity capital of a utility").

²⁶¹ See *WUTC v. Avista Corporation d/b/a Avista Utilities*, Dockets UE-170485 and UG-170486 (consolidated) Order 07 ¶ 65 (April 26, 2018) ("Although we generally do not apply material weight to the CE method, having stronger reliance on the DCF, CAPM and RP methods, we are inclined to include the CE method here given the anomalous CAPM results described previously.").

²⁶² See Parcell, Exh. DCP-1T at 54:9-11.

²⁶³ See *id.* at 5:2-5 ("I further conclude that a reasonable range of ROE for PSE is 9.0 percent to 9.5 percent, which is more directly supported by the respective range of the results for the DCF model and CE method.").

²⁶⁴ See *id.* at 34:12-14.

²⁶⁵ *Id.* at 34:12-15.

²⁶⁶ Parcell, Exh. DCP-1T at 4:4-5.

which support an ROE between 9.0 percent and 10.0 percent, with a midpoint of 9.50 percent.²⁶⁷ Parcell places relatively greater reliance on the Comparable Earnings results compared to the Risk Premium results.²⁶⁸ Given the widely-varying results from the witnesses' CAPM models, we agree that it is appropriate to consider and give weight to the results of both the Risk Premium and Comparable Earnings models in this case.

160 Although Bulkley's updated analysis suggests a higher cost of capital than Bulkley's direct testimony,²⁶⁹ PSE has agreed to support the Revenue Requirement Settlement and no longer advocates for the higher ROE presented in its initial filing. The Settling Parties have reasonably arrived at an ROE of 9.40 percent, reflecting the give and take of negotiations.

161 After considering all of the testimony in the record, including the results of the DCF, RP, and CE models, we conclude that PSE's ROE should be maintained at 9.4 percent. An ROE of 9.4 percent is consistent with the results of Parcell's DCF model. It is below the range supported by Parcell's Risk Premium model and the mid-point of Parcell's CE analysis. The Settling Parties' agreement on this issue is lawful, supported by an appropriate record, and consistent with the public interest.

162 We also consider the broader context of our decision. As the U.S. Supreme Court held in *Bluefield*, a utility is generally entitled to a rate of return "equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties . . ."²⁷⁰ Our decision is consistent with the ROE currently authorized for other investor-owned utilities in the United States. An ROE of 9.40 percent is consistent with the 2021 average and median authorized ROEs for electric utilities and actually falls below the 2021 average and median authorized ROEs for natural gas utilities.²⁷¹

163 Our decision is also consistent with currently authorized ROEs for investor-owned utilities in Washington. In 2020, the Commission authorized an ROE of 9.4 percent for Puget Sound

²⁶⁷ Parcell, Exh. DCP-1T at 47:15-16.

²⁶⁸ *See id.* at 5:2-5.

²⁶⁹ Joint Testimony, Exh. CGP-AEB-TAS-1JT at 20:2-4.

²⁷⁰ *Bluefield*, 262 U.S. at 692.

²⁷¹ *See* Parcell, Exh. DCP-1T at 11:14-12:4 (providing an average of 9.39 percent and a median of 9.39 percent for electric utility ROEs in 2021 and an average of 9.56 and a median of 9.60 for natural gas utilities in the same year). *See also* Erdahl, Exh. BAE-1T at 5:16-18 (observing that the Settling Parties proposed ROE is consistent with the median authorized ROE for other utilities).

1 PSE proposes that the Commission approve the following authorized costs of
2 long-term debt for the multiyear rate plan period:

- 3 (i) an authorized cost of long-term debt of 5.27 percent for the
4 first year of the proposed multiyear rate plan period (an
5 increase of 0.27 percentage points from the authorized cost
6 of debt of 5.00 percent currently used in rates), and
- 7 (ii) an authorized cost of long-term debt of 5.36 percent for the
8 second year of the proposed multiyear rate plan period (an
9 increase of 0.09 percentage points from the authorized cost
10 of short-term debt of 5.27 percent proposed for the first
11 year of the proposed multiyear rate plan period).

12 **Q. Please present PSE's proposed capital structure and cost of capital for the**
13 **first year of the multiyear rate plan period.**

14 A. Table 3 below presents PSE's proposed capital structure and cost of capital for the
15 first year of the multiyear rate plan period.

**Table 3. PSE's Proposed Capital Structure and Cost of Capital
for the First Year of the Multiyear Rate Plan Period**

Capital Source	Capitalization Ratios	Cost Rate	Weighted Cost Rate*
Short-Term Debt	1.81%	5.07%	0.11%
Long-Term Debt	48.19%	5.27%	2.56%
Common Equity	50.00%	9.95%	4.98%
Total Capital	100.00%		7.65%

16 * Weighted short-term debt rate includes 0.02% of commitment and amortization
17 fees. Weighted long-term debt rate includes 0.02% of amortization of reacquired
18 debt.

MERGENT BOND RECORD

		UE-240004/UG-240005																				
2024	May	5.64	5.25	5.45	5.62	5.95	5.78	5.49	----	May	----	5.62	5.74	5.97	May	5.25	5.28	5.50	5.92	May	Page 25 of 25	----
2024	June	5.51	5.13	5.35	5.50	5.82	5.65	5.37	----	June	----	5.50	5.61	5.84	June	5.13	5.18	5.38	5.80	June	----	----
2024	July	5.53	5.12	5.38	5.52	5.84	5.68	5.39	----	July	----	5.54	5.64	5.85	July	5.12	5.21	5.40	5.82	July	----	----
2024	Aug.	5.29	4.87	5.12	5.28	5.60	5.42	5.15	----	Aug.	----	5.27	5.38	5.61	Aug.	4.87	4.97	5.18	5.59	Aug.	----	----
2024	Sept.	5.10	4.68	4.94	5.10	5.42	5.23	4.97	----	Sept.	----	5.09	5.20	5.41	Aug.	4.68	4.79	5.00	5.42	Sept.	----	----

Notes: Moody's® Long-Term Corporate Bond Yield Averages have been published daily since 1929. They are derived from pricing data on a regularly-replenished population of over 100 seasoned corporate bonds in the US market, each with current outstandings over \$100 million. The bonds have maturities as close as possible to 30 years, with an average maturity of 28 years. They are dropped from the list if their remaining life falls below 20 years or if their ratings change. Bonds with deep discounts or steep premiums to par are generally excluded. All yields are yield-to-maturity calculated on a semi-annual compounding basis. Each observation is an unweighted average, with Average Corporate Yields representing the unweighted average of the corresponding Average Industrial and Average Public Utility observations. Because of the dearth of **Aaa**-rated railroad term bond issues, Moody's® **Aaa** railroad bond yield average was discontinued as of December 18, 1967. Moody's® **Aaa** public utility average was suspended from Jan. 1984 thru Sept. 1984. Oct. 1984 figure for last 14 business days only. The Railroad Bond Averages were discontinued as of July 17, 1989 because of insufficient frequently tradable bonds. The July figures were based on 8 business days. Because of the dearth of **Aaa** rated public utility bond issues, Moody's® **Aaa** public utility bond yield average was discontinued as of December 10, 2001.