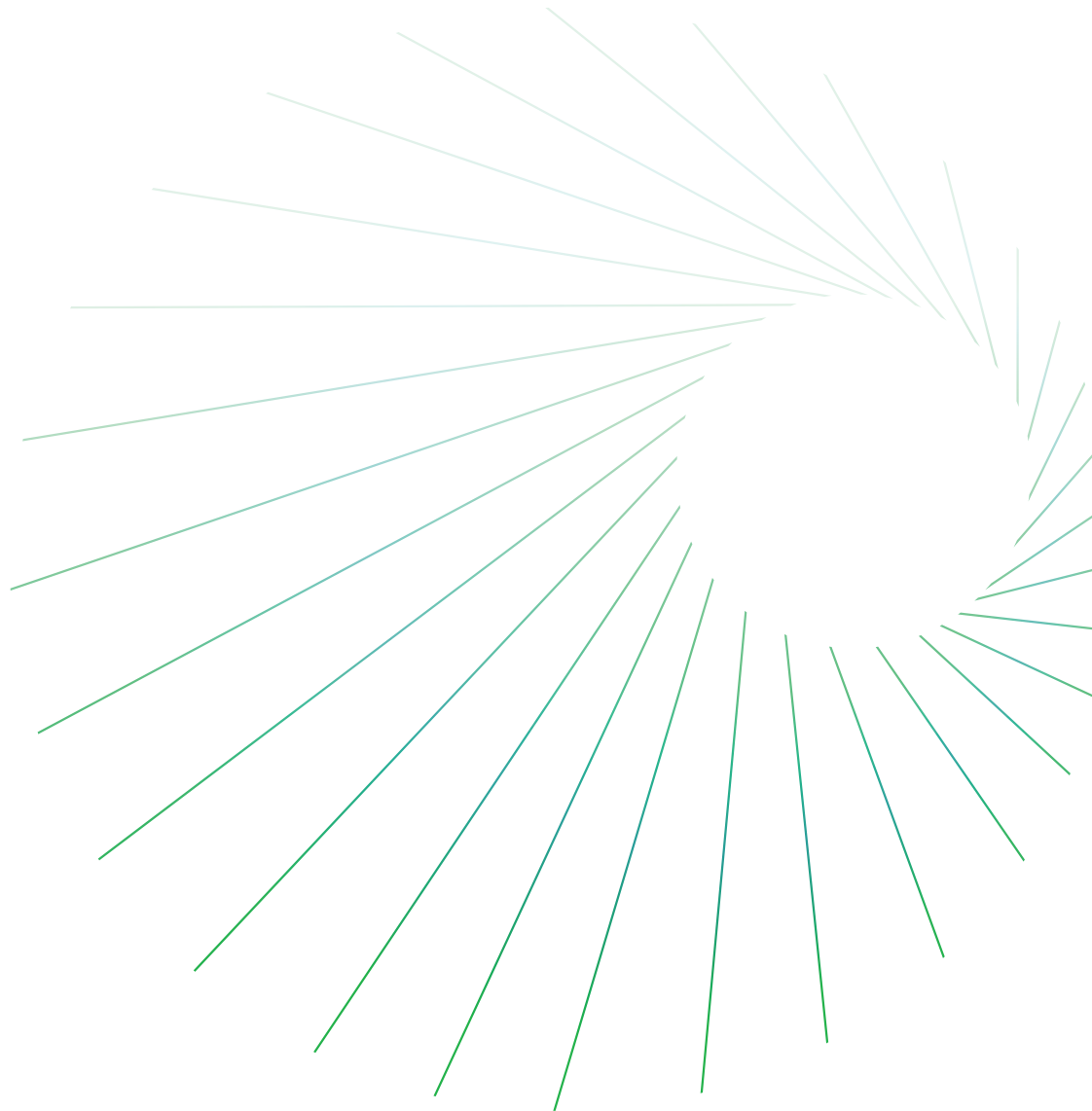


Power Planner

First-quarter 2022



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Introduction

The Power Planner Service first-quarter 2022 long-term trend forecasts cover the span from 2021 to 2032. The underlying US Economic Service (USES) macroeconomic, US Cost Information (USCIS), and Regional Cost Information Service (RIS) projections used in building both simulations were those current as of April 2022.

We no longer publish alternative projections. The alternative projections will still be available, but only upon request. Simply contact us at the address below. Our 25-year forecast will also only be available upon request.

The first-quarter 2022 review begins by summarizing the April 2022 macroeconomic forecast, including the assumptions made in both projections. Do note that the forecast contains actual Handy-Whitman data for the six months ending July 2021, as published in Handy-Whitman bulletin 194.

The O&M forecast contains actual history through the fourth-quarter 2021 with actual monthly data through February imputed.

The Forecast Appendix displays tables for both projections in our regular format. Tables A1 to A20 contain the Handy-Whitman construction cost index forecasts; tables A21 to A29, the O&M forecasts. Table A30 contains forecasts of selected energy price indexes, along with a projection of other materials of interest to the utility industry.

Technical information about the forecast workspaces and databanks may be found in the Technical Appendix. The Appendix also contains a complete retrieval code index for both utility models.

Any questions regarding the projections in this Review or the IHS Markit Power Planner Service in general should be directed to John Mothersole or Maxwell Clarke in the Washington office. Client comments concerning the layout or content of our reviews are most welcome. Our address and telephone number in Washington are:

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North American economic outlook

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War-driven shocks to consumer prices and equity valuations boost inflation in 2022, trim real growth

While the situation is fluid, and estimates are sure to shift over time, the March forecast reflects the initial assessment of impacts on US inflation and real growth emanating from the Russian invasion of Ukraine. The primary channels through which these impacts arise are (1) higher prices of food and energy and (2) lower stock prices. These discourage personal consumption expenditure (PCE) by undermining real disposable income and household wealth.

Relative to the February forecast, the near-term path for the price of Brent crude has been revised up roughly \$30, reflecting the potential for a sharp decline in Russian exports of crude oil, but with the differential then narrowing gradually over time. In addition, the potential for disruption of agricultural exports out of Russia and Ukraine suggested higher lines for prices of US farm output and consumer foods. The core inflation forecast has been revised up to reflect January's strong inflation numbers and a reassessment of the upside risks to shelter costs. However, the upward revision to the forecast of headline inflation, which includes the prices of food and energy impacted by events in Ukraine, is much larger. Over the four quarters of 2022, the price index for PCE is now expected to rise 4.3%, up from 2.6% in February's forecast. Inflation should still decline sequentially from the immediate highs toward 2.0% by 2024 as supply shocks partially reverse.

The increasing uncertainty surrounding events in Ukraine, combined with the potential erosion of corporate earnings as global growth slows in response, led to an upward revision of near-term assumptions for the equity risk premium, which resulted in a downward revision in the near-term projections for stock prices. This forecast shows the S&P 500 share price index closing 2022 at 4,467, down 6.1% from last month and representing the destruction of \$3.7 trillion of equity wealth.

The effect of the shocks to inflation and stock prices is to reduce GDP growth over the four quarters of 2022 by 0.5 percentage point from 2.9% to 2.4%, with most of lost growth recouped in subsequent years as the world recovers from the aftermath of Russia's incursion into Ukraine.

Other changes have been made to the forecast that, in less-tumultuous times, would garner more attention. Housing starts have been revised up after 2022 by roughly 150,000 per year to reflect a higher depreciation rate on the housing stock. The personal saving rate has been revised up in the outer years of the forecast, reflecting a downward revision in the estimate of capital gains taxes. Growth of potential GDP over the second half of the coming decade has been revised down, reflecting downward revisions in growth of total factor productivity, capital services, and the labor force.

“COVID-19 spring” clouded by the fallout from the Russian invasion of Ukraine

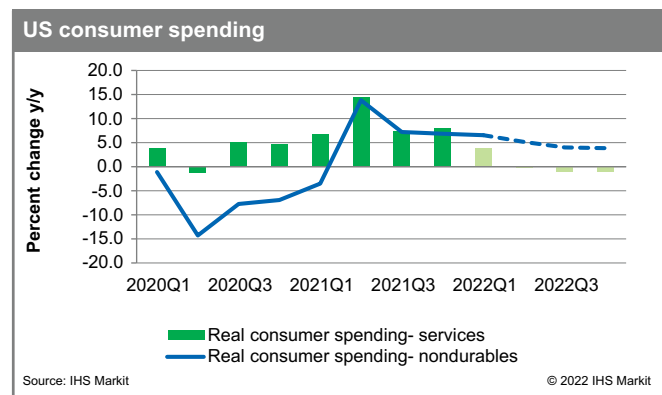
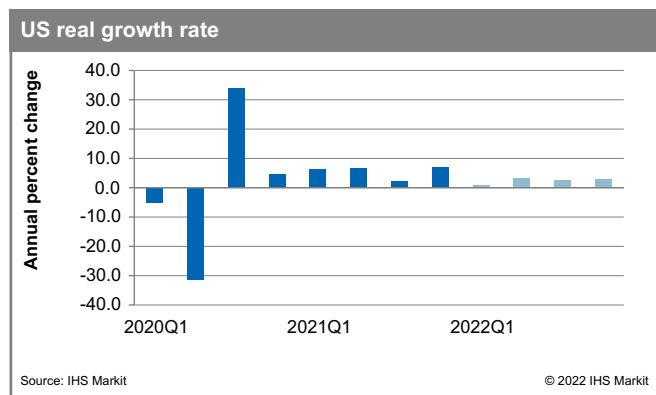
In this month's forecast, there are 1.0% GDP growth in the first quarter and 3.3% growth in the second quarter. Weighing on first-quarter growth is a sharp slowing in the pace of inventory building, a decline in net exports, and the Omicron wave, which appears to have slowed consumption of services through January. The step-up in GDP growth from the first to the second quarter is fully accounted for by the succession of drag from inventory investment and net exports; growth of final sales to domestic purchasers is steady over this period, as two countervailing forces act on consumption.

On the one hand, the rapid retreat of Omicron has led to a firming in spending on certain socially dense consumer services, including dining out, air travel, and hotel stays. The high-frequency data used to track these activities jumped in late February and into early March, suggesting that consumers are reengaging in areas of the economy they avoided when COVID-19 was spreading rapidly. This “COVID-19 spring” is a boost to consumer spending in the near term.

On the other hand, the fallout from Russia’s invasion of Ukraine is leading to surging commodities prices and tightening financial conditions. Over the last couple of weeks, gasoline prices have surged and equity values have stumbled. The hit to real income and household balance sheets will weigh on consumer spending in the near term. A material hit to confidence, were it to occur, would be a further impediment to spending. On net, growth of real personal consumption expenditures will be little changed from the first quarter (2.7%) to the second quarter (2.6%). The latter is down a full percentage point from February’s forecast.

Elsewhere in the near-term forecast, single-family housing permits were robust in January, setting up the next few months for a solid pace of single-family housing starts. While real orders for core capital goods have been drifting lower in recent months, unfilled orders for core capital goods are elevated, and shipments of core capital goods are expected to firm over the first half as manufacturers work off unfilled orders. Real private nonresidential construction spending continues to trend lower in the forecast, while investment in petroleum mining structures (shafts and wells) continues to trend higher, propelled by elevated petroleum prices. The net effect is essentially no growth of business fixed investment in structures during the first half.

Private nonfarm payrolls rose sharply in February (678,000) and the labor-force participation rate rose. As the spread of COVID-19 continues to slow, labor-force participation should continue to recover, expanding the supply side of the economy as demand rises.



A quick look at the numbers (annual rates)

	21Q3	21Q4	22Q1	22Q2	2020	2021	2022	2023
Real GDP (percent change)	2.30	6.99	0.96	3.31	-3.40	5.68	3.34	2.76
Federal funds rate (percent)	0.09	0.08	0.12	0.53	0.38	0.08	0.66	1.62
Ten-year treasury yield (percent)	1.32	1.54	1.82	1.85	0.89	1.44	1.97	2.54
Brent crude price (dollars/barrel)	73.49	79.67	99.44	112.33	41.77	70.70	104.19	94.33
CPI (percent change, year/year)	5.29	6.72	7.73	6.88	1.25	4.69	6.18	2.60
Housing starts (millions)	1.56	1.65	1.67	1.65	1.40	1.60	1.61	1.50
Light vehicles sales (millions)	13.35	12.87	14.26	15.30	14.47	14.97	15.56	16.96
Unemployment rate (percent)	5.09	4.22	3.83	3.56	8.10	5.35	3.56	3.53

A quick look at the numbers (annual rates) (continued)

	21Q3	21Q4	22Q1	22Q2	2020	2021	2022	2023
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Note: March 2022

Source: IHS Markit

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Note: March 2022

Source: IHS Markit

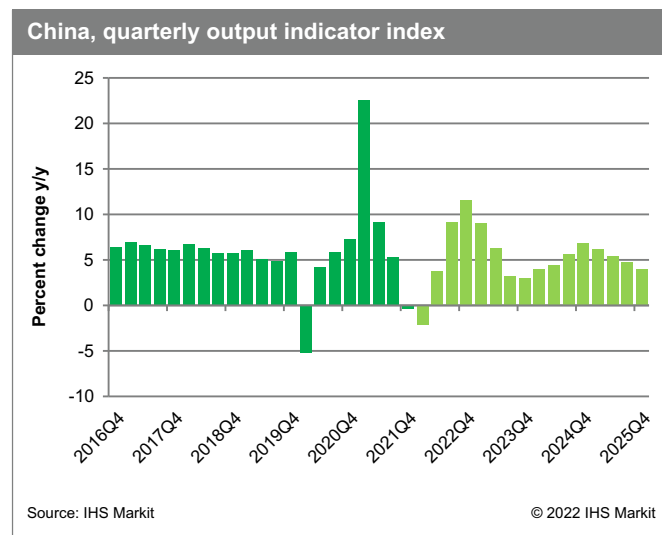
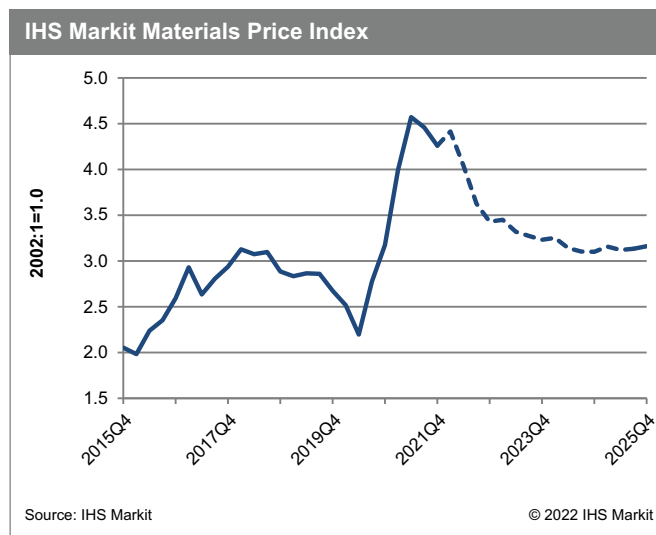
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Purchasing environment

John Mothersole, Research director

Forecast highlights

- After declining from May to November of 2021, commodity prices have risen in specular fashion since the end of December with many markets recording all-time highs in the first quarter. The shock to markets is of a scale even greater than OPEC I, the first oil price spike of the early 1970s, and means both lower growth and higher inflation over the near term than was foreseen even a month ago.
- IHS Markit analysts do see a modest correction in commodity prices beginning in the second half of 2022. A combination of demand destruction and some supply-side adjustment points prices lower. The caveat to this view is that, collectively, prices at the end of 2023 will still be well above their late 2019 level.
- Risks abound and lean to the upside. Low inventory and disruptions to supply chains, either from the loss of Russian supply or COVID-19-related lockdowns in mainland China, signal tight markets with the potential for price spikes into 2023. The real danger is that this latest shock will lift inflation expectations, making the job of lowering inflation much more difficult.



Another supply shock

Global supply chains have been buffeted by overlapping shocks over the past two years: the pandemic with its series of variants; a set of energy crises, first in mainland China last summer, then in Europe over the winter; and now the Russia–Ukraine war. This last event may prove to be the most profound and long lasting.

Although the Russian and Ukrainian economies combined are relatively small in a global context, they are important exporters of raw materials across a broad range of markets. To name a few: oil, natural gas, fertilizer, aluminum, nickel, and palladium for Russia; neon for Ukraine; and wheat, oil seeds, and titanium for both.

The rapid isolation of the Russian economy through sanctions or boycotts therefore represents a severe supply-shock that has triggered what can be described as an “everything rally” in prices. The IHS Markit

Materials Price Index (MPI), a collection of globally traded commodity prices, had declined 20% between May and early November of last year as markets began moving to better balances between supply and demand. Since mid-November, however, commodity prices have been rising, jumping 29% from the end of January to early March to establish a new record high. In addition to the rapid rise in prices, expect to see deteriorating conditions in measures of supply chain performance in the months ahead as the disruptions from Russia's invasion of Ukraine ripple through markets. Vendor delivery times, industry backlogs, and reports of supply shortages all look to increase once again after showing signs of improving since late 2021.

The closest comparison to this Russia shock in terms of its impact is OPEC I back in the early 1970s. Growth will now be weaker with inflation stronger over the near term, an unwelcomed combination. Moreover, financial markets are tightening, with a lift-off in US policy interest rates looming. Questions about how long sanctions may last or how high interest will go only add to the uncertainty in the near-term outlook—a recipe for price volatility. Indeed, open interest in a range of exchange-traded commodities has plummeted as traders, bankers, and even the physical users have retreated to the sidelines, a reduction in liquidity that will tend to accentuate sharp price swings.

On a quarterly basis, prices are projected to peak in the second quarter for the simple reason they are unsustainable at current levels. They have spiked because of the sudden withdrawal of Russian supply and will now start to adjust in the only manner available in a short time frame—reduced demand. Unfortunately, prices are not likely to retreat to the levels projected in the most recent IHS Markit forecasts even by the end of 2023 because of the East-West friction being introduced into supply chains. The low-cost efficiency of a truly global market may be a lasting casualty of the Russia-Ukraine war.

Inflation expectations

2022Q2	In one year (2023Q1)	Sector industry
↑	↓	Petroleum products: Low spare global production capacity and Russia's invasion of Ukraine have significantly raised near-term oil prices due to a tighter supply outlook. Dated Brent will spend much of the time between March and May above \$100/barrel and decline thereafter as production increases begin to balance the market.
↓	↓	Natural gas: Henry Hub gas prices fell to an average of \$4.27 in the first quarter of 2022 after approaching \$5 in late 2021. Prices will continue falling throughout 2022 due to improved US production with prices settling around \$3 over the final three quarters of 2022.
↑	↑	Wage growth: US wages were revised higher and are expected to grow 4.6% in 2022. Wage risk is strongly to the upside as tight labor markets combined with accelerating inflation will give workers more bargaining power. Labor market pressures will begin to slow over the second half of the year as slowing demand and recovering labor force participation help move conditions closer to balance.
↑	↑	Benefits: Benefits costs will grow 3.6% in 2022. Employers are increasing paid time off and bonuses to help attract and retain employees. Employer costs for group health insurance grew only 0.8% in 2021, but will rise 1.5% in 2022, and 3.6% in 2023, keeping upward pressure on benefits costs.
↑	↓	Steel: Products that fell in late 2021/early 2022 are moving back up and may regain their peaks. Prices that had not fallen much but were expected to drop are now expected to move sideways or even increase. Prices in 2022 will challenge the peak prices of 2021.
↑	↓	Nonferrous metals: All base metals forecasts have been lifted over the near term in recognition of the disruptive effects of the Russia-Ukraine war on metals trading.
↑	↓	Chemicals: Significant risk has been added to the pricing forecast post invasion of Ukraine and resultant spike in base energy costs. Europe is at most risk, but global chemical and resin prices will feel the impact. Upside pricing risk is concentrated over the next three months.
↑	↑	Building materials: Softwood lumber prices are on the rise again due supply disruptions in North America. Energy prices are putting pressure on pricing for cement, concrete among others. In Europe, the Russia-Ukraine conflict puts a significant upside risk to prices as higher energy costs not only affect transportation but also the production costs of many building materials.
↑	↔	Electronic components: The demand environment has decelerated, but supply remains tenuous as logistic bottlenecks remain and manufacturing disruptions continue. Leadtimes have not yet begun to pull back while price escalation continues. Component inventories have improved some, but unevenly. Inflation will slow over the next six months, but price levels will not retreat in the near-term.
↑	↑	Electrical machinery and equipment: Supplies of electrical equipment remain tight. Input costs are pushing prices higher due to the surge in metals prices and difficulty in procuring materials such as grade grain oriented electrical steel. Resulting backlogs are expected to remain in place through the end of the year, if not longer.
↑	↑	Nonelectrical machinery and equipment: We expect prices to increase over the first half of 2022 as supply constraints and high input costs filter through to downstream products. Year-over-year price growth in the first quarter of 2022 will exceed 10% in some categories. Price increases will begin to slow in the second half of the year, though we expect the Russia- Ukraine crisis will maintain upward cost pressures.
↑	↑	Transportation equipment: Aircraft prices are set to rise throughout 2022, though weak demand will limit the opportunity to pass on costs fully. For light vehicles, supply chain constraints will make producers struggle to meet demand, magnified by the ongoing semiconductor shortage and material shortages impacted by the Russian invasion of Ukraine.
↑	↓	Transportation and logistics: Transportation prices continue to face upward pressure in 2022 due to global, ongoing supply chain disruptions, high demand, and rising energy costs. The overall outlook has been upward revised, with prices now expected to begin showing relief in 2023.
↑	↓	Paper and packaging: Paper and packaging faced additional price increases in the first quarter of 2022 as pulp prices reversed and are rising once again. Paper and packaging prices will remain elevated throughout much of 2022 before retreating in the fourth quarter. While consumption patterns and demand levels are normalizing, tight logistics markets and Russia's invasion of Ukraine will further disrupt supply chains and present additional upside risks to prices.

Note: 2022Q1 forecast

Source: IHS Markit

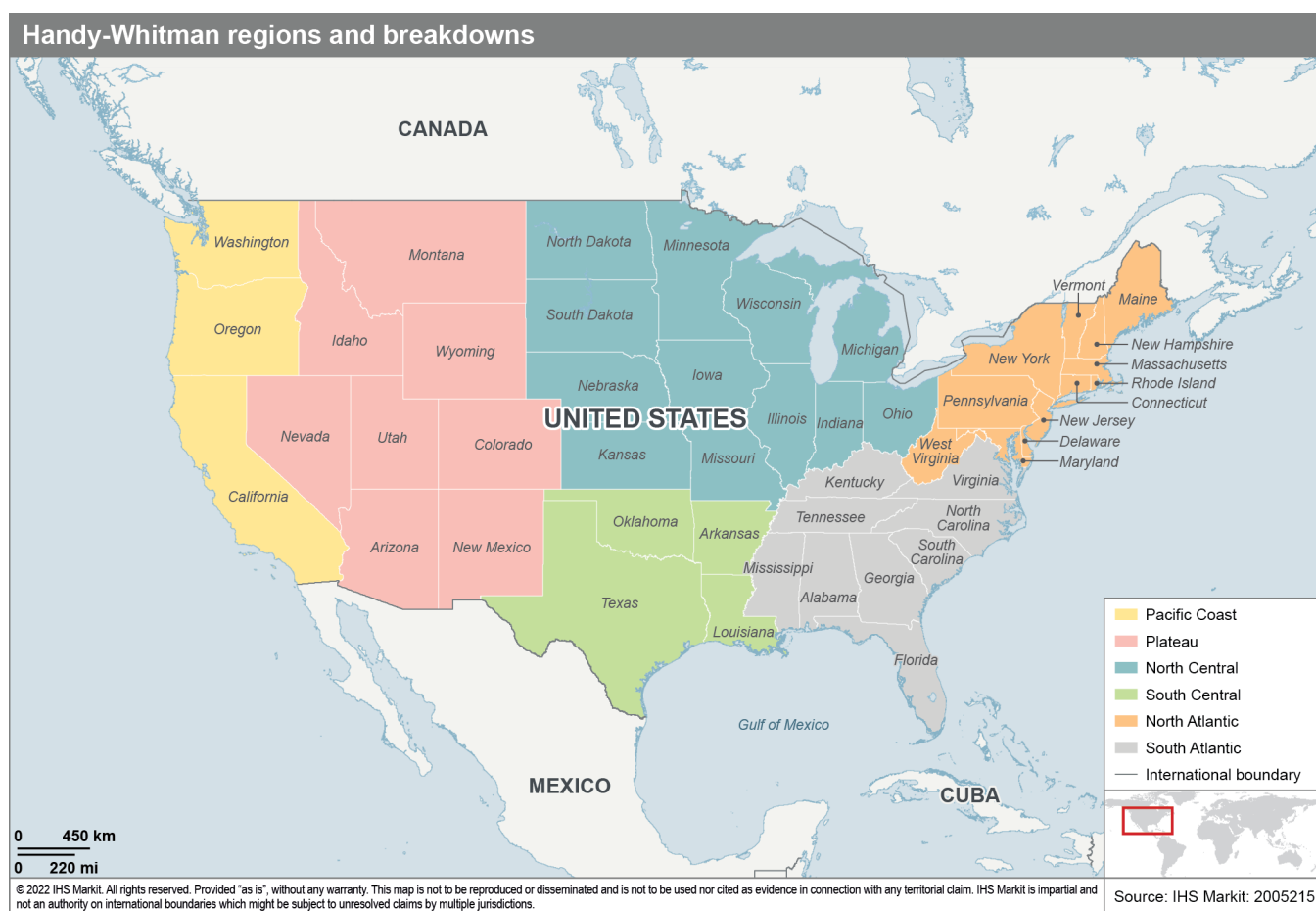
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Forecast appendix

The Handy Whitman Indices

The construction cost model is based on the Handy-Whitman indexes of public utility construction costs as compiled and published by Whitman-Requardt and Associates (WR&A) of Baltimore, Maryland. The Handy-Whitman indexes are updated semiannually with the actual index levels developed from wage rates and prices prevailing on January 1 and July 1 of each year. Published continuously since 1924, the indexes are currently based on 1973 = 100.

Forecasts are prepared for virtually every published Handy-Whitman index and displayed in the appendix tables in the same format found in the bulletins issued by WR&A. Tables 1 and 2 contain history and projections for the material and equipment cost indexes, tables 3 through 8 history and projections of the regional building material and labor cost indexes, and tables 9 through 20 the electric and gas utility construction cost indexes. The proportions of basic materials, labor, and equipment used in the Handy-Whitman indexes are based on WR&A analyses developed during valuation and design assignments, and on data furnished by utilities and industrial sources. To reflect differing cost trends throughout the forty-eight contiguous states, the indexes have been divided into six geographical regions of generally similar characteristics.



The Operation and Maintenance Cost Indexes

The gas and electric O&M model has been structured into two interrelated portions—essentially parallel versions of the same model. The first focuses solely on materials and services expenses (MS) with the second adding to this by including labor expenses (LMS). The forecasts found in Forecast Appendix Tables A21 to A29 (TREND) are structured according to the Uniform System of Accounts defined by the Federal Energy Regulatory Commission (FERC) for Major (formerly Class A and B) Electric Utilities and Major (also formerly Class A and B) Natural Gas Pipeline Companies. Forecasts at the lowest level—the functional subcategory (FERC) level—have been tagged with their corresponding “account” number for easy reference. The FERC level indexes are based to 2012=1.000, reflecting the year for which the latest Form data is available. For most major expense categories (e.g., steam plant, nuclear plant) the individual FERC-level forecasts have been combined into broader indexes representing operation, maintenance, or total operation and maintenance expenses. Data used for weighting the FERC-level indexes in aggregation to the higher level major expense category indexes is taken from two Department of Energy (DOE) publications. For the electric model, data comes from FERC Form No. 1: Annual Report of Major Electric Utilities, Annual 2012. For the gas model, data are found in FERC Form No.2: Annual Report of Major Natural Gas Companies, Annual 2012.

The O&M indexes presented in the Forecast Appendix tables model only material and service (MS) expenses. The labor, material, and service (LMS) indexes corresponding by table entry are available in both the O&M workspaces and forecast banks. The MS and LMS may be differentiated by consulting the O&M retrieval code index in the Technical Appendix.

Forecast tables

Table A1

Utility Plant Materials: All Regions

(TREND 221)

(1973=100)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Boilers: JBUBL	767.0	794.2	790.8	795.4	802.0	814.5	829.3	844.0	857.6	871.2	885.7	901.5
Percent Change	3.3	3.6	-0.4	0.6	0.8	1.6	1.8	1.8	1.6	1.6	1.7	1.8
Coal & Ash Handling Equip: JBUC&A	693.9	779.9	737.0	731.7	731.2	730.6	732.4	735.4	743.5	752.9	764.0	775.6
Percent Change	6.5	12.4	-5.5	-0.7	-0.1	-0.1	0.2	0.4	1.1	1.3	1.5	1.5
Pumps: JBUPM	1689.3	1749.5	1750.8	1752.3	1762.7	1783.6	1810.7	1852.6	1900.4	1949.9	1998.9	2049.8
Percent Change	4.9	3.6	0.1	0.1	0.6	1.2	1.5	2.3	2.6	2.6	2.5	2.5
Steam Pipe: JBUPS	546.8	651.4	574.7	502.3	482.5	477.5	476.6	485.0	497.3	507.8	518.4	529.7
Percent Change	14.4	19.1	-11.8	-12.6	-3.9	-1.0	-0.2	1.8	2.5	2.1	2.1	2.2
Cranes: JBUCR	1357.0	1554.7	1535.2	1486.9	1444.7	1418.4	1380.4	1346.3	1344.8	1360.5	1371.5	1379.4
Percent Change	15.2	14.6	-1.3	-3.1	-2.8	-1.8	-2.7	-2.5	-0.1	1.2	0.8	0.6
Regulators: JBUR	492.1	542.7	537.3	521.5	505.6	504.6	509.0	512.9	517.9	523.9	529.8	535.4
Percent Change	11.9	10.3	-1.0	-2.9	-3.0	-0.2	0.9	0.8	1.0	1.2	1.1	1.1
Switchboards: JBUSB	5847.7	6214.2	6772.2	7200.9	7379.6	7286.6	7151.5	7098.1	7115.8	7174.3	7255.4	7349.6
Percent Change	9.1	6.3	9.0	6.3	2.5	-1.3	-1.9	-0.7	0.2	0.8	1.1	1.3
Power Transformers: JBUTRP	962.8	1109.8	1154.0	1111.8	1056.8	1036.4	1037.2	1043.5	1053.9	1066.8	1080.0	1093.5
Percent Change	6.9	15.3	4.0	-3.7	-4.9	-1.9	0.1	0.6	1.0	1.2	1.2	1.2
Oil Switches: JBUSO	552.8	572.9	565.1	550.7	545.2	551.1	559.5	567.1	573.6	578.9	583.0	586.9
Percent Change	3.6	3.6	-1.4	-2.5	-1.0	1.1	1.5	1.4	1.2	0.9	0.7	0.7
Motors: JBUMO	978.2	1241.7	1365.6	1323.4	1278.4	1259.5	1247.6	1234.1	1234.5	1237.0	1238.5	1239.7
Percent Change	-3.1	26.9	10.0	-3.1	-3.4	-1.5	-0.9	-1.1	0.0	0.2	0.1	0.1
Line Transformers: JBUTRL	1248.6	1503.6	1498.5	1438.1	1372.3	1329.3	1316.1	1305.3	1310.4	1319.3	1325.2	1337.7
Percent Change	10.6	20.4	-0.3	-4.0	-4.6	-3.1	-1.0	-0.8	0.4	0.7	0.4	0.9
Electric Meters: JBUMTE	331.4	325.1	324.1	328.6	331.4	332.1	331.3	331.4	331.5	331.4	331.4	331.0
Percent Change	1.9	-1.9	-0.3	1.4	0.8	0.2	-0.2	0.0	0.0	0.0	0.0	-0.1
Treated Pine Poles: JBUPLT	713.2	748.9	759.2	777.0	791.7	809.9	832.4	855.4	878.0	899.9	922.4	951.9
Percent Change	-8.0	5.0	1.4	2.3	1.9	2.3	2.8	2.8	2.6	2.5	2.5	3.2
Standard Cross Arms: JBUASC	532.8	521.4	507.8	514.2	515.1	510.8	507.3	507.1	509.7	510.8	511.8	512.3
Percent Change	3.1	-2.1	-2.6	1.3	0.2	-0.8	-0.7	0.0	0.5	0.2	0.2	0.1
Stand. Galv. Steel Guy Wire: JBUWSG	666.5	667.6	639.7	632.6	650.3	667.9	682.4	692.1	696.3	701.3	707.8	715.0
Percent Change	5.0	0.2	-4.2	-1.1	2.8	2.7	2.2	1.4	0.6	0.7	0.9	1.0
Fibre Conduit: JBUCNF	408.4	460.2	527.5	561.8	572.5	571.9	584.6	598.9	609.7	620.1	631.8	641.8
Percent Change	-17.6	12.7	14.6	6.5	1.9	-0.1	2.2	2.5	1.8	1.7	1.9	1.6
Plastic Conduit: JBUCNP	604.7	593.1	615.8	626.0	619.8	612.2	619.3	627.4	634.9	642.8	651.8	660.7
Percent Change	7.1	-1.9	3.8	1.7	-1.0	-1.2	1.2	1.3	1.2	1.2	1.4	1.4
Mercury Luminaries w/ Stand: JBULIMS	1068.1	1197.4	1394.0	1490.4	1435.8	1371.4	1320.4	1312.6	1320.8	1331.5	1345.1	1358.6
Percent Change	-8.0	12.1	16.4	6.9	-3.7	-4.5	-3.7	-0.6	0.6	0.8	1.0	1.0
Power Wire & Control Cable: JBUWP&CBLC	318.0	344.4	363.6	346.5	325.3	308.2	298.5	299.6	305.9	313.1	319.6	326.0
Percent Change	17.5	8.3	5.6	-4.7	-6.1	-5.3	-3.2	0.4	2.1	2.4	2.0	2.0
Overhead Conductor-Trans: JBUCNTO	498.4	606.3	702.1	735.5	753.1	772.2	805.6	840.4	885.3	928.1	965.2	1003.7
Percent Change	-38.5	21.6	15.8	4.8	2.4	2.5	4.3	4.3	5.3	4.8	4.0	4.0
Underground Conductor-Trans: JBUCNTU	1555.9	1611.4	1728.8	1727.1	1620.8	1520.8	1441.4	1402.5	1380.5	1382.1	1375.5	1355.9
Percent Change	12.3	3.6	7.3	-0.1	-6.2	-6.2	-5.2	-2.7	-1.6	0.1	-0.5	-1.4
Overhead Conductor-Distr: JBUCNDO	552.1	644.6	737.4	768.0	782.5	801.2	835.7	874.9	918.5	959.2	995.3	1032.1
Percent Change	-29.7	16.8	14.4	4.1	1.9	2.4	4.3	4.7	5.0	4.4	3.8	3.7
Underground Conductor-Distr: JBUCNDU	738.1	781.4	850.8	853.7	828.7	800.2	778.1	784.5	799.6	818.8	838.4	858.8
Percent Change	12.5	5.9	8.9	0.3	-2.9	-3.4	-2.8	0.8	1.9	2.4	2.4	2.4
Service Cable: JBUCBSLV	549.0	592.0	634.6	659.0	674.8	688.2	714.6	741.6	769.0	794.8	819.4	843.9
Percent Change	-1.8	7.8	7.2	3.9	2.4	2.0	3.8	3.8	3.7	3.4	3.1	3.0
Condensers & Tubes: JBUCD&TB	721.9	814.3	725.7	695.3	689.9	698.4	702.1	711.6	720.1	727.5	735.6	744.0
Percent Change	28.6	12.8	-10.9	-4.2	-0.8	1.2	0.5	1.4	1.2	1.0	1.1	1.1
Turbo-Generators: JBUTG	733.5	775.1	682.6	663.5	654.3	642.3	631.2	636.4	644.2	652.7	661.0	668.9
Percent Change	33.8	5.7	-11.9	-2.8	-1.4	-1.8	-1.7	0.8	1.2	1.3	1.3	1.2
Gas Compressors: JBUCMG	815.9	879.9	907.7	900.8	897.3	896.7	897.7	904.8	915.6	928.9	942.8	957.3
Percent Change	3.0	7.8	3.2	-0.8	-0.4	-0.1	0.1	0.8	1.2	1.4	1.5	1.5
Gas Trans. Line Pipe: JBUPGTL	1008.5	1184.6	895.1	765.1	741.8	735.0	733.3	756.8	783.9	809.3	835.3	862.2
Percent Change	49.9	17.5	-24.4	-14.5	-3.0	-0.9	-0.2	3.2	3.6	3.2	3.2	3.2
Steel Distr. Pipe: JBUPSD	1992.4	2279.1	2047.4	1840.6	1757.1	1781.9	1820.4	1860.1	1907.3	1953.6	2001.0	2048.9
Percent Change	27.2	14.4	-10.2	-10.1	-4.5	1.4	2.2	2.2	2.5	2.4	2.4	2.4
Plastic Pipe: JBUPP	552.3	608.0	653.8	549.4	528.7	531.7	536.9	548.1	559.5	571.4	584.5	598.4
Percent Change	16.3	10.1	7.5	-16.0	-3.8	0.6	1.0	2.1	2.1	2.1	2.3	2.4
Gas Meters: JBUMTG	467.9	468.2	483.3	489.0	498.7	512.0	512.5	511.6	517.8	525.0	529.9	535.8
Percent Change	-3.4	0.1	3.2	1.2	2.0	2.7	0.1	-0.2	1.2	1.4	0.9	1.1
House Regulators: JBURH	557.4	602.5	611.6	579.2	561.6	565.1	572.3	580.4	591.4	601.2	610.8	620.4
Percent Change	0.2	8.1	1.5	-5.3	-3.0	0.6	1.3	1.4	1.9	1.7	1.6	1.6
Cast Iron Pipe: JBUPCI	851.9	899.3	912.8	926.6	943.5	976.0	1015.9	1027.5	1036.5	1052.5	1071.3	1087.8
Percent Change	-4.0	5.6	1.5	1.5	1.8	3.5	4.1	1.1	0.9	1.5	1.8	1.5
Cast Iron Fittings: JBUFICI	2357.5	2150.0	2472.0	2307.5	2044.1	1984.0	1990.9	2035.7	2062.4	2121.6	2173.3	2215.7
Percent Change	19.0	-8.8	15.0	-6.7	-11.4	-2.9	0.3	2.3	1.3	2.9	2.4	1.9

Table A1

Utility Plant Materials: All Regions (continued)**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Ductile Iron Pipe: JBUPDI	777.4	789.6	789.2	799.9	796.0	808.2	832.8	836.9	832.7	836.5	839.9	838.5
Percent Change	0.8	1.6	-0.1	1.4	-0.5	1.5	3.0	0.5	-0.5	0.5	0.4	-0.2
Gate Valves: JBUVG	1119.6	1045.5	1004.5	978.2	958.2	944.6	936.8	944.2	953.8	963.1	972.3	981.7
Percent Change	21.2	-6.6	-3.9	-2.6	-2.0	-1.4	-0.8	0.8	1.0	1.0	1.0	1.0
Meter Yokes: JBUYMT	1921.8	1958.2	1980.7	1949.4	1928.0	1947.2	1976.4	2009.5	2046.4	2080.1	2114.6	2148.1
Percent Change	6.3	1.9	1.2	-1.6	-1.1	1.0	1.5	1.7	1.8	1.6	1.7	1.6
Construction Equipment: JBUCEQ	645.2	698.0	701.9	687.0	681.1	686.9	697.7	710.6	724.2	737.7	751.8	767.8
Percent Change	4.3	8.2	0.6	-2.1	-0.9	0.9	1.6	1.8	1.9	1.9	1.9	2.1
Curb Stops: JBUSPC	1013.0	1056.9	1091.2	1100.6	1101.9	1104.5	1108.4	1115.6	1126.2	1137.3	1147.8	1158.4
Percent Change	6.6	4.3	3.2	0.9	0.1	0.2	0.4	0.6	1.0	1.0	0.9	0.9

Source: IHS Markit

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Table A2

Proxied Utility Plant Materials: All Regions *

(TREND 221)

(2007=1.000)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Air Compressor: AIRCOMPRESSOR	1.636	1.846	1.914	1.867	1.838	1.822	1.813	1.824	1.846	1.874	1.903	1.934
Percent Change	5.5	12.8	3.7	-2.5	-1.5	-0.9	-0.5	0.6	1.2	1.5	1.6	1.6
Aluminum Pipe: ALUMPIPE	1.207	1.442	1.350	1.221	1.157	1.125	1.112	1.114	1.121	1.131	1.141	1.150
Percent Change	27.3	19.5	-6.4	-9.5	-5.2	-2.8	-1.2	0.2	0.6	0.9	0.9	0.8
Asphalt: ASPHALT	1.495	1.643	1.619	1.631	1.662	1.690	1.722	1.754	1.788	1.823	1.859	1.893
Percent Change	3.2	9.9	-1.4	0.7	1.9	1.7	1.9	1.8	1.9	2.0	1.9	1.9
Insulated Building Siding: BLDGSIDING	1.541	1.658	1.520	1.458	1.440	1.444	1.458	1.475	1.498	1.521	1.542	1.570
Percent Change	12.3	7.6	-8.3	-4.1	-1.2	0.3	1.0	1.2	1.6	1.5	1.4	1.8
Building Wire: BLDINGWIRE	1.364	1.478	1.431	1.352	1.321	1.337	1.371	1.408	1.444	1.484	1.533	1.595
Percent Change	28.4	8.4	-3.2	-5.5	-2.3	1.3	2.5	2.7	2.6	2.7	3.3	4.0
Busses: BUSSES	1.273	1.373	1.374	1.328	1.319	1.330	1.346	1.362	1.377	1.392	1.408	1.426
Percent Change	6.0	7.9	0.1	-3.3	-0.7	0.9	1.2	1.2	1.1	1.1	1.1	1.2
Cable Tray: CBLTRAY	1.692	1.606	1.323	1.257	1.195	1.190	1.209	1.229	1.250	1.266	1.282	1.297
Percent Change	57.8	-5.1	-17.6	-5.0	-4.9	-0.4	1.5	1.7	1.6	1.3	1.3	1.2
Cement: CEMENT	1.307	1.386	1.423	1.440	1.471	1.501	1.534	1.571	1.611	1.648	1.684	1.733
Percent Change	4.4	6.0	2.7	1.2	2.2	2.1	2.2	2.4	2.5	2.3	2.2	2.9
Control Panel: CNTRL PANEL	1.312	1.408	1.406	1.356	1.324	1.326	1.339	1.353	1.369	1.385	1.402	1.420
Percent Change	5.9	7.3	-0.1	-3.6	-2.3	0.1	0.9	1.1	1.2	1.2	1.2	1.2
Communication Equipment: COMMEQUIP	0.981	1.015	1.036	1.034	1.031	1.029	1.028	1.027	1.028	1.029	1.030	1.031
Percent Change	0.4	3.4	2.1	-0.2	-0.3	-0.2	-0.1	0.0	0.0	0.1	0.1	0.1
Circuit Breaker: CRCTBRKR	1.312	1.408	1.406	1.356	1.324	1.326	1.339	1.353	1.369	1.385	1.402	1.420
Percent Change	5.9	7.3	-0.1	-3.6	-2.3	0.1	0.9	1.1	1.2	1.2	1.2	1.2
Culvert Pipe: CULVPIPE	1.384	1.494	1.373	1.303	1.275	1.271	1.278	1.288	1.302	1.316	1.329	1.343
Percent Change	12.1	8.0	-8.1	-5.1	-2.1	-0.3	0.5	0.8	1.1	1.1	1.0	1.0
Cutouts: CUTOUTS	1.273	1.373	1.374	1.328	1.319	1.330	1.346	1.362	1.377	1.392	1.408	1.426
Percent Change	6.0	7.9	0.1	-3.3	-0.7	0.9	1.2	1.2	1.1	1.1	1.1	1.2
Electronic Devices: ELECDEVICE	1.145	1.190	1.212	1.217	1.226	1.235	1.244	1.256	1.269	1.283	1.296	1.310
Percent Change	0.2	3.9	1.8	0.4	0.8	0.7	0.8	0.9	1.0	1.1	1.1	1.1
Fabricated Structural Steel: FABRSTL	1.536	1.772	1.561	1.417	1.341	1.320	1.325	1.338	1.350	1.363	1.374	1.386
Percent Change	26.1	15.3	-11.9	-9.3	-5.3	-1.6	0.4	0.9	1.0	0.9	0.9	0.9
Fans & Blowers: FANBLOWERS	1.412	1.559	1.578	1.553	1.545	1.542	1.545	1.550	1.557	1.567	1.592	1.619
Percent Change	5.7	10.4	1.2	-1.5	-0.6	-0.2	0.2	0.3	0.4	0.7	1.6	1.7
Flues & Ducts: FLUEDUCT	1.384	1.494	1.373	1.303	1.275	1.271	1.278	1.288	1.302	1.316	1.329	1.343
Percent Change	12.1	8.0	-8.1	-5.1	-2.1	-0.3	0.5	0.8	1.1	1.1	1.0	1.0
Fuel Holders & Accessories: FUELHLDRINSTR	1.318	1.391	1.387	1.375	1.369	1.376	1.393	1.415	1.441	1.467	1.491	1.517
Percent Change	3.7	5.5	-0.3	-0.9	-0.4	0.5	1.3	1.6	1.8	1.8	1.7	1.7
Galvanized Steel Sheet: GALVSHEET	2.365	1.796	1.253	1.218	1.262	1.287	1.302	1.320	1.339	1.354	1.369	1.383
Percent Change	100.9	-24.1	-30.2	-2.8	3.6	2.0	1.2	1.4	1.4	1.2	1.1	1.0
Gravel: GRAVEL	1.670	1.759	1.797	1.832	1.867	1.905	1.945	1.985	2.027	2.071	2.117	2.167
Percent Change	4.4	5.3	2.2	1.9	1.9	2.0	2.1	2.1	2.1	2.2	2.2	2.4
Hardware: HARDWARE	1.433	1.572	1.493	1.441	1.424	1.426	1.437	1.454	1.472	1.490	1.508	1.527
Percent Change	11.8	9.7	-5.0	-3.5	-1.1	0.1	0.8	1.1	1.2	1.2	1.2	1.3
Heat Exchanger: HEATEXCH	1.475	1.559	1.525	1.503	1.522	1.555	1.589	1.628	1.675	1.721	1.761	1.804
Percent Change	9.1	5.7	-2.2	-1.4	1.2	2.2	2.2	2.4	2.9	2.7	2.4	2.4
Insulation: INSULATION	1.777	1.903	1.741	1.691	1.686	1.704	1.729	1.756	1.793	1.828	1.862	1.910
Percent Change	12.6	7.1	-8.5	-2.9	-0.2	1.1	1.5	1.5	2.1	2.0	1.9	2.6
Insulators: INSULATOR	1.055	1.136	1.166	1.148	1.115	1.102	1.107	1.117	1.124	1.132	1.140	1.148
Percent Change	2.7	7.7	2.6	-1.6	-2.8	-1.2	0.5	0.9	0.6	0.7	0.7	0.7
Junction Box: JUNCBOX	1.625	2.039	2.063	1.914	1.698	1.544	1.502	1.496	1.509	1.533	1.559	1.590
Percent Change	26.1	25.5	1.2	-7.2	-11.3	-9.1	-2.7	-0.4	0.9	1.6	1.7	2.0
Laboratory Equipment: LABEQUIP	1.238	1.266	1.283	1.296	1.310	1.325	1.341	1.358	1.375	1.392	1.409	1.427
Percent Change	1.8	2.3	1.3	1.0	1.1	1.2	1.2	1.2	1.2	1.3	1.2	1.3
Lamp Ballast: LAMPBALLAST	1.496	1.927	1.994	1.895	1.782	1.721	1.706	1.702	1.709	1.720	1.730	1.740
Percent Change	18.4	28.8	3.5	-5.0	-5.9	-3.4	-0.9	-0.2	0.4	0.6	0.6	0.6
Line Heater: LINEHEATER	1.510	1.601	1.437	1.417	1.424	1.440	1.461	1.483	1.506	1.533	1.563	1.594
Percent Change	22.4	6.0	-10.2	-1.4	0.5	1.2	1.4	1.5	1.5	1.8	2.0	2.0
Magnesium Ingot: MAGNINGOT	2.194	3.575	2.372	2.246	2.259	2.291	2.345	2.389	2.428	2.477	2.530	2.587
Percent Change	47.8	62.9	-33.7	-5.3	0.6	1.4	2.4	1.9	1.6	2.0	2.1	2.3
Mast Arms: MASTARMS	2.365	1.796	1.253	1.218	1.262	1.287	1.302	1.320	1.339	1.354	1.369	1.383
Percent Change	100.9	-24.1	-30.2	-2.8	3.6	2.0	1.2	1.4	1.4	1.2	1.1	1.0
Misc. Hydro Equipment: MISCHYRDOEQUIP	1.055	1.136	1.166	1.148	1.115	1.102	1.107	1.117	1.124	1.132	1.140	1.148
Percent Change	2.7	7.7	2.6	-1.6	-2.8	-1.2	0.5	0.9	0.6	0.7	0.7	0.7
Misc. Steam Equipment: MISCSTEAMEQUIP	1.055	1.136	1.166	1.148	1.115	1.102	1.107	1.117	1.124	1.132	1.140	1.148
Percent Change	2.7	7.7	2.6	-1.6	-2.8	-1.2	0.5	0.9	0.6	0.7	0.7	0.7
Office Equipment: OFFICEEQUIP	1.339	1.431	1.416	1.425	1.444	1.466	1.490	1.517	1.543	1.568	1.594	1.621
Percent Change	4.5	6.9	-1.0	0.6	1.3	1.5	1.7	1.8	1.7	1.6	1.7	1.7
Pre-Fabricated Buildings: PREFABBLDING	1.692	1.606	1.323	1.257	1.195	1.190	1.209	1.229	1.250	1.266	1.282	1.297
Percent Change	57.8	-5.1	-17.6	-5.0	-4.9	-0.4	1.5	1.7	1.6	1.3	1.3	1.2

Table A2

Proxied Utility Plant Materials: All Regions * (continued)**(TREND 221)****(2007=1.000)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Relays & Industrial Controls (incl. SCADA): RELAYINDCNTRL	1.217	1.245	1.267	1.278	1.290	1.306	1.326	1.347	1.370	1.394	1.419	1.443
Percent Change	1.5	2.3	1.7	0.9	1.0	1.3	1.5	1.6	1.7	1.8	1.8	1.7
Shop Equipment: SHOPEQUIP	1.258	1.349	1.377	1.368	1.368	1.380	1.398	1.418	1.439	1.460	1.482	1.505
Percent Change	2.0	7.3	2.1	-0.7	0.1	0.8	1.3	1.4	1.5	1.5	1.5	1.6
Steel Pipe Conduit: STEELCONDUIT	1.936	2.181	1.616	1.412	1.404	1.424	1.443	1.466	1.490	1.512	1.534	1.557
Percent Change	44.4	12.7	-25.9	-12.7	-0.6	1.4	1.4	1.6	1.6	1.5	1.4	1.5
Steel Pipe: STLPIPE	1.936	2.181	1.616	1.412	1.404	1.424	1.443	1.466	1.490	1.512	1.534	1.557
Percent Change	44.4	12.7	-25.9	-12.7	-0.6	1.4	1.4	1.6	1.6	1.5	1.4	1.5
Steel Plate: STLPLATE	1.711	1.608	1.166	1.067	1.045	1.052	1.069	1.090	1.111	1.129	1.145	1.161
Percent Change	101.5	-6.1	-27.5	-8.5	-2.1	0.7	1.7	2.0	1.9	1.6	1.5	1.3
Steel Shapes: STLSHAPES	1.711	1.608	1.166	1.067	1.045	1.052	1.069	1.090	1.111	1.129	1.145	1.161
Percent Change	101.5	-6.1	-27.5	-8.5	-2.1	0.7	1.7	2.0	1.9	1.6	1.5	1.3
Stores Equipment: STOREEQUIP	1.382	1.448	1.413	1.409	1.419	1.436	1.455	1.476	1.497	1.519	1.541	1.564
Percent Change	9.3	4.8	-2.4	-0.3	0.7	1.1	1.3	1.4	1.5	1.5	1.4	1.5
Tanks & Vessels: TANKS	1.510	1.601	1.437	1.417	1.424	1.440	1.461	1.483	1.506	1.533	1.563	1.594
Percent Change	22.4	6.0	-10.2	-1.4	0.5	1.2	1.4	1.5	1.5	1.8	2.0	2.0
Tower Steel: TOWERSTEEL	1.536	1.772	1.561	1.417	1.341	1.320	1.325	1.338	1.350	1.363	1.374	1.386
Percent Change	26.1	15.3	-11.9	-9.3	-5.3	-1.6	0.4	0.9	1.0	0.9	0.9	0.9
Trucks: TRUCKS	1.263	1.277	1.298	1.287	1.283	1.288	1.297	1.305	1.315	1.325	1.335	1.332
Percent Change	3.1	1.1	1.7	-0.9	-0.3	0.4	0.7	0.7	0.7	0.8	0.7	-0.3
Valves & Fittings: VALVEFITTING	1.544	1.661	1.610	1.556	1.517	1.500	1.511	1.532	1.550	1.565	1.581	1.596
Percent Change	14.9	7.5	-3.1	-3.4	-2.5	-1.1	0.7	1.4	1.2	1.0	1.0	1.0
Voltage Regulators: VLTGREG	1.496	1.927	1.994	1.895	1.782	1.721	1.706	1.702	1.709	1.720	1.730	1.740
Percent Change	18.4	28.8	3.5	-5.0	-5.9	-3.4	-0.9	-0.2	0.4	0.6	0.6	0.6

* These forecasts are based on proxy relationships which define each unpublished cost series used in the Handy-Whitman Index in terms of the most closely associated variable or group of variables forecasted by the Pricing & Purchasing Service. Each item's proxy is identified in the documentation for the series.

Source: IHS Markit

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Table A3

Cost Trends of Building Construction: North Atlantic Region

(TREND 221)

(1973=100)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Building Construction												
Reinf. Conc. Bldg. Constr: JBCCRF@NTL	705.2	712.9	704.4	704.4	702.9	704.1	707.7	719.6	733.6	746.4	759.3	774.5
Percent Change	13.0	1.1	-1.2	0.0	-0.2	0.2	0.5	1.7	2.0	1.7	1.7	2.0
Brick Building Constr: JBCBR@NTL	724.3	732.3	735.2	744.0	749.2	754.6	761.1	773.4	786.7	798.6	810.6	824.6
Percent Change	8.1	1.1	0.4	1.2	0.7	0.7	0.9	1.6	1.7	1.5	1.5	1.7
Structural Steel Erected: JBCSS@NTL	739.8	759.5	714.5	695.9	685.7	680.3	679.3	689.8	702.2	714.9	727.9	741.2
Percent Change	20.8	2.7	-5.9	-2.6	-1.5	-0.8	-0.2	1.6	1.8	1.8	1.8	1.8
Reinf. Concrete (Ready-Mix): JBCCRFRM@NTL	675.2	693.4	717.8	718.9	718.2	724.0	732.7	747.3	762.5	774.5	787.0	803.0
Percent Change	6.6	2.7	3.5	0.2	-0.1	0.8	1.2	2.0	2.0	1.6	1.6	2.0
Reinf. Concrete (Plant-Mix): JBCCRFP@NTL	643.5	641.4	650.3	651.9	647.6	649.3	654.0	666.5	682.8	696.9	711.1	729.9
Percent Change	11.9	-0.3	1.4	0.2	-0.7	0.3	0.7	1.9	2.5	2.1	2.0	2.6
Building Material												
Ready-Mix Concrete: JBMCRRM@NTL	533.6	543.7	557.4	568.6	576.4	587.7	597.1	603.2	609.1	613.4	617.8	625.8
Percent Change	4.6	1.9	2.5	2.0	1.4	2.0	1.6	1.0	1.0	0.7	0.7	1.3
Lumber for Reinf. Conc: JBMCRRFLM@NTL	466.7	450.3	389.6	360.0	338.7	318.3	300.4	298.4	299.5	300.3	300.7	303.2
Percent Change	71.1	-3.5	-13.5	-7.6	-5.9	-6.0	-5.6	-0.7	0.4	0.3	0.1	0.8
Steel Bars for Reinf. Conc: JBMCRRFSB@NTL	548.5	554.7	466.2	432.9	391.8	365.9	349.3	351.6	354.7	357.2	360.0	362.6
Percent Change	65.6	1.1	-16.0	-7.2	-9.5	-6.6	-4.5	0.6	0.9	0.7	0.8	0.7
Common Brick: JBMBRC@NTL	767.6	781.7	781.2	783.3	788.2	795.0	803.9	813.5	821.7	829.3	837.6	846.3
Percent Change	1.1	1.8	-0.1	0.3	0.6	0.9	1.1	1.2	1.0	0.9	1.0	1.0
Labor	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Building Trades Labor: JBLB@NTL	755.7	763.3	790.9	823.7	845.9	860.9	873.7	889.2	904.1	917.1	929.8	944.2
Percent Change	2.4	1.0	3.6	4.2	2.7	1.8	1.5	1.8	1.7	1.4	1.4	1.6
Heavy Constr. Trades Labor: JBLHV@NTL	755.9	770.6	796.8	822.7	840.0	859.6	878.5	896.0	912.6	928.0	943.3	960.0
Percent Change	2.5	2.0	3.4	3.3	2.1	2.3	2.2	2.0	1.8	1.7	1.7	1.8
Labor for Reinf. Conc: JBLCRF@NTL	743.9	763.0	813.7	829.6	840.3	849.5	860.9	880.2	898.8	912.7	927.2	944.4
Percent Change	2.1	2.6	6.6	2.0	1.3	1.1	1.3	2.2	2.1	1.5	1.6	1.8
Common Labor: JBLC@NTL	779.5	795.5	813.1	842.7	875.4	890.8	900.4	916.0	933.8	951.0	968.1	985.2
Percent Change	3.0	2.0	2.2	3.6	3.9	1.8	1.1	1.7	1.9	1.8	1.8	1.8
Electricians: JBLEL@NTL	816.4	827.1	853.8	885.2	900.9	915.7	927.7	944.1	959.5	972.3	984.2	999.0
Percent Change	2.8	1.3	3.2	3.7	1.8	1.6	1.3	1.8	1.6	1.3	1.2	1.5
Pipefitters: JBLPF@NTL	797.5	812.7	832.5	861.5	894.9	914.3	929.3	944.5	959.2	972.0	983.4	997.4
Percent Change	1.7	1.9	2.4	3.5	3.9	2.2	1.6	1.6	1.6	1.3	1.2	1.4
Plumbers: JBLPU@NTL	782.1	807.1	819.8	835.1	865.0	878.7	889.4	907.7	927.1	942.4	958.5	975.8
Percent Change	3.3	3.2	1.6	1.9	3.6	1.6	1.2	2.1	2.1	1.6	1.7	1.8

Source: IHS Markit

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Table A4

Cost Trends of Building Construction: South Atlantic Region**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Building Construction												
Reinf. Conc. Bldg. Constr: JBCCRF@STL	574.8	587.5	573.3	562.2	552.6	549.1	549.5	556.9	565.0	572.8	580.4	587.6
Percent Change	16.6	2.2	-2.4	-1.9	-1.7	-0.6	0.1	1.3	1.5	1.4	1.3	1.2
Brick Building Constr: JBCBR@STL	618.1	633.8	633.4	631.1	630.6	634.1	640.7	651.2	662.0	672.5	682.9	694.1
Percent Change	10.7	2.5	-0.1	-0.4	-0.1	0.6	1.0	1.6	1.7	1.6	1.6	1.6
Structural Steel Erected: JBCSS@STL	667.1	683.6	638.3	615.1	599.9	590.1	585.3	591.2	598.8	606.6	614.5	622.6
Percent Change	23.3	2.5	-6.6	-3.6	-2.5	-1.6	-0.8	1.0	1.3	1.3	1.3	1.3
Reinf. Concrete (Ready-Mix): JBCCRFRM@STL	558.4	583.4	589.8	594.0	588.7	594.6	603.1	614.5	629.6	644.3	658.6	675.2
Percent Change	8.8	4.5	1.1	0.7	-0.9	1.0	1.4	1.9	2.5	2.3	2.2	2.5
Reinf. Concrete (Plant-Mix): JBCCRFP@STL	525.6	535.4	533.6	522.1	509.7	508.2	510.3	518.3	527.1	535.2	543.0	551.6
Percent Change	16.6	1.9	-0.3	-2.2	-2.4	-0.3	0.4	1.6	1.7	1.5	1.5	1.6
Building Material												
Ready-Mix Concrete: JBMC RM@STL	676.0	698.4	708.7	722.2	726.4	723.6	731.3	748.6	760.2	769.8	783.7	798.6
Percent Change	7.8	3.3	1.5	1.9	0.6	-0.4	1.1	2.4	1.5	1.3	1.8	1.9
Lumber for Reinf. Conc: JBMC RFLM@STL	549.0	766.2	678.6	589.9	561.2	544.0	528.6	531.3	535.6	540.0	543.9	551.8
Percent Change	61.9	39.6	-11.4	-13.1	-4.9	-3.1	-2.8	0.5	0.8	0.8	0.7	1.5
Steel Bars for Reinf. Conc: JBMC RFSB@STL	549.6	558.0	472.9	440.0	399.1	373.2	355.7	357.5	360.7	363.4	366.4	369.1
Percent Change	64.8	1.5	-15.3	-7.0	-9.3	-6.5	-4.7	0.5	0.9	0.7	0.8	0.7
Common Brick: JBMBRC@STL	1166.3	1188.1	1187.9	1204.7	1232.5	1255.2	1276.1	1297.0	1317.4	1338.2	1359.2	1380.5
Percent Change	3.3	1.9	0.0	1.4	2.3	1.8	1.7	1.6	1.6	1.6	1.6	1.6
Labor												
Building Trades Labor: JBLB@STL	507.4	519.0	534.2	543.7	548.8	551.9	559.5	567.3	574.4	580.9	587.3	594.6
Percent Change	2.4	2.3	2.9	1.8	0.9	0.6	1.4	1.4	1.3	1.1	1.1	1.2
Heavy Constr. Trades Labor: JBLHV@STL	549.4	560.3	581.5	597.2	609.2	620.3	631.7	642.4	652.6	661.4	670.1	679.9
Percent Change	1.9	2.0	3.8	2.7	2.0	1.8	1.8	1.7	1.6	1.3	1.3	1.5
Labor for Reinf. Conc: JBLCRF@STL	533.8	542.2	557.8	577.9	585.5	595.8	606.5	617.6	628.0	637.0	645.2	654.0
Percent Change	2.1	1.6	2.9	3.6	1.3	1.8	1.8	1.8	1.7	1.4	1.3	1.4
Common Labor: JBLC@STL	573.1	581.7	600.5	620.2	631.2	640.0	649.1	660.1	671.0	681.1	690.8	700.7
Percent Change	1.7	1.5	3.2	3.3	1.8	1.4	1.4	1.7	1.7	1.5	1.4	1.4
Electricians: JBLEL@STL	511.3	509.2	524.4	534.4	539.9	547.4	554.7	563.9	572.9	578.3	583.6	591.5
Percent Change	2.8	-0.4	3.0	1.9	1.0	1.4	1.3	1.6	1.6	1.0	0.9	1.4
Pipefitters: JBLPF@STL	607.8	614.4	627.2	644.4	657.8	679.5	685.0	697.5	710.6	721.2	732.5	744.4
Percent Change	3.2	1.1	2.1	2.7	2.1	3.3	0.8	1.8	1.9	1.5	1.6	1.6
Plumbers: JB LPU@STL	575.6	580.2	599.8	606.3	631.5	650.2	657.8	671.0	684.6	696.2	708.7	721.9
Percent Change	2.7	0.8	3.4	1.1	4.2	3.0	1.2	2.0	2.0	1.7	1.8	1.9

Source: IHS Markit

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Table A5

Cost Trends of Building Construction: North Central Region

(TREND 221)

(1973=100)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Building Construction												
Reinf. Conc. Bldg. Constr: JBCCR@NOC	666.9	677.3	657.2	649.5	645.6	644.5	646.6	655.9	665.8	675.4	685.1	695.9
Percent Change	15.6	1.6	-3.0	-1.2	-0.6	-0.2	0.3	1.4	1.5	1.4	1.4	1.6
Brick Building Constr: JBCBR@NOC	705.9	717.7	709.3	709.7	716.1	724.4	733.6	746.8	760.0	773.0	785.9	798.1
Percent Change	10.0	1.7	-1.2	0.1	0.9	1.2	1.3	1.8	1.8	1.7	1.7	1.5
Structural Steel Erected: JBCSS@NOC	706.3	724.5	677.9	658.9	647.2	640.6	638.6	647.2	657.4	668.0	678.8	689.8
Percent Change	21.8	2.6	-6.4	-2.8	-1.8	-1.0	-0.3	1.4	1.6	1.6	1.6	1.6
Reinf. Concrete (Ready-Mix): JBCCRFRM@NOC	644.8	658.3	678.3	689.6	689.0	696.0	705.2	714.7	726.0	739.1	752.4	765.8
Percent Change	8.0	2.1	3.0	1.7	-0.1	1.0	1.3	1.3	1.6	1.8	1.8	1.8
Reinf. Concrete (Plant-Mix): JBCCRFBM@NOC	629.2	632.4	625.6	621.1	619.4	618.7	621.3	631.1	640.9	650.2	659.7	669.9
Percent Change	16.0	0.5	-1.1	-0.7	-0.3	-0.1	0.4	1.6	1.6	1.5	1.4	1.6
Building Material												
Ready-Mix Concrete: JBMC@NOC	653.6	663.9	673.2	682.1	695.7	711.9	727.9	740.0	749.6	758.3	768.6	781.8
Percent Change	6.8	1.6	1.4	1.3	2.0	2.3	2.2	1.7	1.3	1.2	1.4	1.7
Lumber for Reinf. Conc: JBMCFLM@NOC	613.9	577.8	527.6	499.0	490.8	445.3	416.6	416.8	418.3	420.0	423.0	430.6
Percent Change	85.9	-5.9	-8.7	-5.4	-1.6	-9.3	-6.5	0.1	0.4	0.4	0.7	1.8
Steel Bars for Reinf. Conc: JBMCFSB@NOC	544.1	552.7	468.9	435.6	394.4	368.4	350.5	352.3	355.7	358.5	361.7	364.5
Percent Change	65.0	1.6	-15.2	-7.1	-9.4	-6.6	-4.9	0.5	1.0	0.8	0.9	0.8
Common Brick: JBMBRC@NOC	952.4	966.5	974.6	982.5	1012.1	1034.1	1049.7	1064.5	1081.3	1100.0	1118.4	1136.0
Percent Change	3.2	1.5	0.8	0.8	3.0	2.2	1.5	1.4	1.6	1.7	1.7	1.6
Labor												
Building Trades Labor: JBLB@NOC	655.6	667.5	680.5	692.7	703.2	715.2	727.1	738.4	749.1	759.1	769.0	780.7
Percent Change	2.2	1.8	1.9	1.8	1.5	1.7	1.7	1.6	1.5	1.3	1.3	1.5
Heavy Constr. Trades Labor: JBLHV@NOC	662.5	687.3	711.7	722.4	734.1	748.5	763.5	778.5	792.4	804.3	816.8	832.1
Percent Change	2.5	3.8	3.6	1.5	1.6	2.0	2.0	2.0	1.8	1.5	1.6	1.9
Labor for Reinf. Conc: JBLCRF@NOC	660.2	680.1	702.7	718.0	730.6	741.5	751.4	763.5	775.5	787.1	799.2	812.8
Percent Change	2.7	3.0	3.3	2.2	1.8	1.5	1.3	1.6	1.6	1.5	1.5	1.7
Common Labor: JBLC@NOC	672.7	697.9	716.8	728.8	740.0	749.7	758.6	770.6	782.4	793.8	805.5	818.9
Percent Change	3.1	3.8	2.7	1.7	1.5	1.3	1.2	1.6	1.5	1.5	1.5	1.7
Electricians: JBLEL@NOC	676.7	702.5	715.0	721.2	727.7	735.4	741.9	749.7	756.8	763.5	770.4	779.4
Percent Change	2.2	3.8	1.8	0.9	0.9	1.1	0.9	1.1	0.9	0.9	0.9	1.2
Pipefitters: JBLPF@NOC	691.3	715.7	731.5	743.8	754.9	765.6	775.2	785.2	795.9	805.3	814.8	826.2
Percent Change	2.1	3.5	2.2	1.7	1.5	1.4	1.2	1.3	1.4	1.2	1.2	1.4
Plumbers: JB LPU@NOC	669.9	703.4	719.7	727.3	738.4	749.5	761.2	776.7	790.6	800.6	812.4	828.0
Percent Change	2.8	5.0	2.3	1.1	1.5	1.5	1.6	2.0	1.8	1.3	1.5	1.9

Source: IHS Markit

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Table A6

Cost Trends of Building Construction: South Central Region**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Building Construction												
Reinf. Conc. Bldg. Constr: JBCCRF@SOC	559.9	568.6	542.1	528.2	516.6	511.1	511.8	517.4	523.7	529.8	535.7	540.8
Percent Change	18.1	1.6	-4.7	-2.6	-2.2	-1.1	0.1	1.1	1.2	1.2	1.1	0.9
Brick Building Constr: JBCBR@SOC	618.6	621.2	610.6	609.6	611.4	615.1	621.6	630.5	640.4	650.3	660.0	669.5
Percent Change	10.2	0.4	-1.7	-0.2	0.3	0.6	1.0	1.4	1.6	1.6	1.5	1.4
Structural Steel Erected: JBCSS@SOC	648.9	663.3	614.1	590.5	574.5	563.9	558.2	563.6	570.6	577.9	585.3	592.9
Percent Change	24.4	2.2	-7.4	-3.8	-2.7	-1.8	-1.0	1.0	1.2	1.3	1.3	1.3
Reinf. Concrete (Ready-Mix): JBCCRFRM@SOC	507.5	518.2	518.4	515.5	517.3	529.5	541.2	551.1	560.6	571.6	582.9	596.7
Percent Change	9.2	2.1	0.1	-0.6	0.4	2.4	2.2	1.8	1.7	2.0	2.0	2.4
Reinf. Concrete (Plant-Mix): JBCCRFP@SOC	485.6	481.7	463.9	462.0	461.6	464.0	466.5	471.8	477.4	483.6	490.1	497.4
Percent Change	16.0	-0.8	-3.7	-0.4	-0.1	0.5	0.5	1.2	1.2	1.3	1.3	1.5
Building Material												
Ready-Mix Concrete: JBMC RM@SOC	606.4	622.3	632.9	642.6	658.1	674.8	689.9	705.9	719.7	731.9	742.7	753.7
Percent Change	3.4	2.6	1.7	1.5	2.4	2.5	2.2	2.3	2.0	1.7	1.5	1.5
Lumber for Reinf. Conc: JBMC RFLM@SOC	512.9	491.6	438.9	432.4	427.3	419.5	413.3	416.1	418.1	420.8	424.2	431.4
Percent Change	49.0	-4.2	-10.7	-1.5	-1.2	-1.8	-1.5	0.7	0.5	0.6	0.8	1.7
Steel Bars for Reinf. Conc: JBMC RFSB@SOC	541.6	551.3	467.0	435.0	395.3	370.2	354.1	356.2	359.5	362.3	365.4	368.2
Percent Change	66.0	1.8	-15.3	-6.9	-9.1	-6.3	-4.4	0.6	0.9	0.8	0.9	0.8
Common Brick: JBMBRC@SOC	1105.5	1117.2	1128.9	1137.0	1145.5	1155.4	1165.7	1176.2	1187.1	1198.6	1210.7	1222.6
Percent Change	1.6	1.1	1.0	0.7	0.7	0.9	0.9	0.9	0.9	1.0	1.0	1.0
Labor												
Building Trades Labor: JBLB@SOC	484.2	489.4	497.7	506.8	520.1	530.4	542.3	553.2	562.6	570.9	579.3	588.7
Percent Change	2.3	1.1	1.7	1.8	2.6	2.0	2.2	2.0	1.7	1.5	1.5	1.6
Heavy Constr. Trades Labor: JBLHV@SOC	494.0	502.2	512.1	527.4	545.9	557.1	569.0	581.2	593.5	604.9	616.2	627.7
Percent Change	2.9	1.7	2.0	3.0	3.5	2.0	2.1	2.1	2.1	1.9	1.9	1.9
Labor for Reinf. Conc: JBLCRF@SOC	469.0	475.0	486.4	503.7	522.8	536.1	546.5	556.1	566.1	577.0	588.2	599.7
Percent Change	3.0	1.3	2.4	3.6	3.8	2.6	1.9	1.8	1.8	1.9	1.9	2.0
Common Labor: JBLC@SOC	477.6	482.0	487.4	505.9	526.5	532.3	540.0	551.1	562.8	573.6	583.8	593.9
Percent Change	3.7	0.9	1.1	3.8	4.1	1.1	1.4	2.1	2.1	1.9	1.8	1.7
Electricians: JBLEL@SOC	516.2	533.2	547.7	563.2	572.8	581.7	590.4	601.1	611.6	620.8	629.7	640.5
Percent Change	1.2	3.3	2.7	2.8	1.7	1.5	1.5	1.8	1.7	1.5	1.4	1.7
Pipefitters: JB LPF@SOC	535.3	545.1	561.5	576.4	593.1	601.5	611.1	622.7	633.9	643.2	651.9	661.6
Percent Change	2.4	1.8	3.0	2.7	2.9	1.4	1.6	1.9	1.8	1.5	1.4	1.5
Plumbers: JB LPU@SOC	536.9	546.3	555.9	567.3	586.8	595.8	602.9	612.0	620.4	627.5	634.7	644.7
Percent Change	2.3	1.7	1.8	2.1	3.4	1.5	1.2	1.5	1.4	1.2	1.1	1.6

Source: IHS Markit

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Table A7

Cost Trends of Building Construction: Plateau Region**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Building Construction												
Reinf. Conc. Bldg. Constr: JBCCRF@PLA	592.5	600.5	585.2	579.5	576.3	576.2	578.6	587.9	597.7	607.3	616.8	626.7
Percent Change	15.2	1.3	-2.5	-1.0	-0.6	0.0	0.4	1.6	1.7	1.6	1.6	1.6
Brick Building Constr: JBCBR@PLA	689.4	686.9	679.8	681.1	682.8	686.0	690.5	699.4	708.4	717.1	725.8	735.2
Percent Change	9.0	-0.4	-1.0	0.2	0.2	0.5	0.7	1.3	1.3	1.2	1.2	1.3
Structural Steel Erected: JBCSS@PLA	671.1	680.4	649.4	632.1	620.0	612.6	609.7	618.5	629.0	639.8	650.9	662.2
Percent Change	22.4	1.4	-4.5	-2.7	-1.9	-1.2	-0.5	1.4	1.7	1.7	1.7	1.7
Reinf. Concrete (Ready-Mix): JBCCRFRM@PLA	527.0	543.3	547.0	551.3	557.9	564.4	575.1	588.3	600.6	612.7	625.4	637.1
Percent Change	6.1	3.1	0.7	0.8	1.2	1.2	1.9	2.3	2.1	2.0	2.1	1.9
Reinf. Concrete (Plant-Mix): JBCCRFP@PLA	513.0	521.6	514.8	513.7	515.0	520.0	526.2	535.9	544.9	552.9	560.6	568.3
Percent Change	10.0	1.7	-1.3	-0.2	0.3	1.0	1.2	1.9	1.7	1.5	1.4	1.4
Building Material												
Ready-Mix Concrete: JBMCRRM@PLA	621.8	643.3	647.9	651.8	661.8	677.4	689.9	700.1	712.3	721.7	730.9	741.7
Percent Change	4.8	3.5	0.7	0.6	1.5	2.4	1.8	1.5	1.7	1.3	1.3	1.5
Lumber for Reinf. Conc: JBMCRRFLM@PLA	405.3	394.0	378.7	385.9	387.1	385.1	385.8	390.6	393.2	396.0	399.4	405.3
Percent Change	17.2	-2.8	-3.9	1.9	0.3	-0.5	0.2	1.2	0.7	0.7	0.8	1.5
Steel Bars for Reinf. Conc: JBMCRRFSB@PLA	534.9	542.5	459.4	426.8	386.9	361.2	343.7	345.0	347.8	350.0	352.5	354.7
Percent Change	63.7	1.4	-15.3	-7.1	-9.4	-6.6	-4.8	0.4	0.8	0.6	0.7	0.6
Common Brick: JBMBRC@PLA	1573.7	1581.4	1591.7	1598.5	1604.8	1610.3	1615.8	1621.7	1626.9	1632.4	1638.3	1643.6
Percent Change	3.4	0.5	0.7	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.3
Labor												
Building Trades Labor: JBLB@PLA	523.9	530.1	542.6	559.9	572.9	584.3	594.9	606.0	616.8	627.1	637.5	648.7
Percent Change	2.7	1.2	2.3	3.2	2.3	2.0	1.8	1.9	1.8	1.7	1.7	1.7
Heavy Constr. Trades Labor: JBLHV@PLA	523.8	539.3	537.4	547.9	563.6	578.3	592.4	606.3	619.6	631.8	644.5	657.3
Percent Change	3.3	2.9	-0.3	1.9	2.9	2.6	2.4	2.3	2.2	2.0	2.0	2.0
Labor for Reinf. Conc: JBLCRF@PLA	516.6	532.2	545.9	556.2	571.2	584.0	595.9	609.3	621.8	633.1	643.9	654.0
Percent Change	2.9	3.0	2.6	1.9	2.7	2.2	2.0	2.2	2.1	1.8	1.7	1.6
Common Labor: JBLC@PLA	519.7	521.7	533.1	555.9	572.6	594.2	594.8	608.4	622.8	633.6	644.3	654.0
Percent Change	3.1	0.4	2.2	4.3	3.0	3.8	0.1	2.3	2.4	1.7	1.7	1.5
Electricians: JBLEL@PLA	525.1	535.2	542.1	553.9	567.2	575.4	582.2	587.7	595.1	605.0	614.6	625.9
Percent Change	1.8	1.9	1.3	2.2	2.4	1.4	1.2	1.0	1.2	1.7	1.6	1.8
Pipefitters: JBLPF@PLA	608.4	601.2	613.0	635.5	657.2	667.5	676.3	690.3	705.7	717.6	728.8	740.8
Percent Change	4.1	-1.2	2.0	3.7	3.4	1.6	1.3	2.1	2.2	1.7	1.6	1.7
Plumbers: JBLPU@PLA	607.7	603.2	625.1	640.5	663.2	676.6	687.4	702.3	719.0	730.8	742.2	754.8
Percent Change	3.9	-0.7	3.6	2.5	3.5	2.0	1.6	2.2	2.4	1.6	1.6	1.7

Source: IHS Markit

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Table A8

Cost Trends of Building Construction: Pacific Region**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Building Construction												
Reinf. Conc. Bldg. Constr: JBCCRF@PCF	702.9	716.3	690.7	685.1	686.3	687.7	690.9	702.1	714.0	725.1	736.0	748.1
Percent Change	14.8	1.9	-3.6	-0.8	0.2	0.2	0.5	1.6	1.7	1.6	1.5	1.6
Brick Building Constr: JBCBR@PCF	737.2	736.7	724.4	729.0	735.6	741.0	747.3	758.9	770.2	780.1	789.5	800.4
Percent Change	9.5	-0.1	-1.7	0.6	0.9	0.7	0.9	1.5	1.5	1.3	1.2	1.4
Structural Steel Erected: JBCSS@PCF	713.1	741.7	690.1	666.6	656.5	651.2	650.2	660.2	671.8	683.8	696.0	708.5
Percent Change	22.2	4.0	-6.9	-3.4	-1.5	-0.8	-0.1	1.5	1.8	1.8	1.8	1.8
Reinf. Concrete (Ready-Mix): JBCCRFM@PCF	698.5	700.4	707.4	717.2	725.0	732.5	741.9	752.0	764.2	778.4	791.9	806.8
Percent Change	8.0	0.3	1.0	1.4	1.1	1.0	1.3	1.4	1.6	1.9	1.7	1.9
Reinf. Concrete (Plant-Mix): JBCCRFPM@PCF	667.9	674.7	663.8	660.1	662.7	666.5	671.6	683.3	695.7	707.2	718.4	730.3
Percent Change	12.8	1.0	-1.6	-0.6	0.4	0.6	0.8	1.7	1.8	1.7	1.6	1.7
Building Material												
Ready-Mix Concrete: JBMC RM@PCF	681.4	693.3	718.5	738.6	755.2	769.6	784.0	798.6	812.7	826.2	841.0	855.6
Percent Change	1.8	1.7	3.6	2.8	2.2	1.9	1.9	1.9	1.8	1.7	1.8	1.7
Lumber for Reinf. Conc: JBMC RFLM@PCF	525.2	599.4	545.9	465.7	437.8	419.1	403.0	406.0	410.1	413.6	417.0	420.3
Percent Change	47.9	14.1	-8.9	-14.7	-6.0	-4.3	-3.8	0.8	1.0	0.8	0.8	0.8
Steel Bars for Reinf. Conc: JBMC RFSB@PCF	557.4	563.8	475.1	440.0	396.6	369.0	350.9	352.3	355.2	357.5	360.2	362.6
Percent Change	65.6	1.1	-15.7	-7.4	-9.9	-7.0	-4.9	0.4	0.8	0.7	0.7	0.7
Common Brick: JBMBRC@PCF	841.9	847.5	851.1	851.3	855.0	865.8	877.7	887.9	895.7	901.9	907.8	913.3
Percent Change	3.9	0.7	0.4	0.0	0.4	1.3	1.4	1.2	0.9	0.7	0.6	0.6
Labor												
Building Trades Labor: JBLB@PCF	753.4	750.6	759.5	793.9	820.9	836.0	847.9	863.3	877.6	889.3	900.1	913.4
Percent Change	4.2	-0.4	1.2	4.5	3.4	1.8	1.4	1.8	1.7	1.3	1.2	1.5
Heavy Constr. Trades Labor: JBLHV@PCF	735.5	742.1	754.7	775.7	804.2	819.7	838.0	856.7	875.2	891.6	906.7	922.1
Percent Change	4.7	0.9	1.7	2.8	3.7	1.9	2.2	2.2	2.2	1.9	1.7	1.7
Labor for Reinf. Conc: JBLCRF@PCF	733.7	737.3	751.1	774.9	795.4	810.1	824.4	841.6	859.4	876.0	892.3	909.8
Percent Change	4.8	0.5	1.9	3.2	2.6	1.9	1.8	2.1	2.1	1.9	1.9	2.0
Common Labor: JBLC@PCF	737.3	738.7	749.1	762.2	777.9	797.6	815.0	831.9	847.1	861.2	875.3	891.4
Percent Change	4.8	0.2	1.4	1.7	2.1	2.5	2.2	2.1	1.8	1.7	1.6	1.8
Electricians: JBLEL@PCF	840.2	841.5	857.7	890.8	911.8	928.9	945.7	964.9	983.6	1001.5	1019.1	1038.8
Percent Change	5.1	0.2	1.9	3.9	2.3	1.9	1.8	2.0	1.9	1.8	1.8	1.9
Pipefitters: JBLPF@PCF	829.1	840.6	862.2	906.4	946.3	950.4	970.8	993.9	1016.6	1036.0	1056.1	1078.0
Percent Change	3.3	1.4	2.6	5.1	4.4	0.4	2.1	2.4	2.3	1.9	1.9	2.1
Plumbers: JB LPU@PCF	843.3	855.2	882.2	921.1	954.9	972.3	993.8	1016.9	1040.2	1061.6	1082.0	1105.8
Percent Change	3.2	1.4	3.2	4.4	3.7	1.8	2.2	2.3	2.3	2.1	1.9	2.2

Source: IHS Markit

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Table A9

Cost Trends of Electric Utility Construction: North Atlantic Region

(TREND 221)

(1973=100)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Plant-All Steam Generation: JUEST@NTL	876.9	918.7	943.2	968.5	982.5	987.9	992.9	1005.2	1021.5	1039.4	1058.0	1077.3
Percent Change	6.6	4.8	2.7	2.7	1.4	0.6	0.5	1.2	1.6	1.8	1.8	1.8
Total Plant-St. & Nuclear Gen: JUEST&N@NTL	873.2	915.1	940.0	965.3	979.6	985.7	991.4	1004.2	1021.2	1039.7	1058.9	1078.8
Percent Change	6.7	4.8	2.7	2.7	1.5	0.6	0.6	1.3	1.7	1.8	1.8	1.9
Total Plant-Steam & Hyd. Gen: JUEST&H@NTL	870.0	911.0	935.5	960.7	974.7	980.5	985.9	998.4	1015.0	1033.0	1051.7	1071.2
Percent Change	6.6	4.7	2.7	2.7	1.5	0.6	0.5	1.3	1.7	1.8	1.8	1.9
STEAM PRODUCTION PLANT												
Total Steam Production Plant: JUEPPF@NTL	856.8	894.7	889.4	899.4	910.2	917.7	925.7	938.8	953.9	969.0	984.4	1001.2
Percent Change	9.9	4.4	-0.6	1.1	1.2	0.8	0.9	1.4	1.6	1.6	1.6	1.7
Structures & Improvements-Indr: JUEPPFS&I@NTL	815.9	837.9	844.3	858.6	868.2	882.0	897.2	916.8	937.1	956.1	975.3	997.3
Percent Change	9.3	2.7	0.8	1.7	1.1	1.6	1.7	2.2	2.2	2.0	2.0	2.3
Struct. & Improve.-Semi-Outdoor: JUEPPFS&IO@NTL	715.9	738.0	732.5	730.6	731.0	736.2	744.4	759.8	776.3	791.8	807.7	825.1
Percent Change	11.3	3.1	-0.7	-0.3	0.1	0.7	1.1	2.1	2.2	2.0	2.0	2.2
Boiler Plant Equip.-Coal Fired: JUEPPFBPCF@NTL	830.9	867.2	868.8	878.7	894.6	908.6	922.5	937.6	953.2	968.0	982.7	999.2
Percent Change	7.0	4.4	0.2	1.1	1.8	1.6	1.5	1.6	1.7	1.6	1.5	1.7
Boiler Plant Piping Installed: JUEPPFBPI@NTL	809.9	869.6	845.7	832.4	840.6	852.9	865.3	880.7	897.4	912.9	928.1	944.5
Percent Change	6.9	7.4	-2.7	-1.6	1.0	1.5	1.5	1.8	1.9	1.7	1.7	1.8
Turbogenerator Units: JUEPPFTG@NTL	803.0	843.2	792.0	796.2	803.7	807.5	812.3	825.3	840.6	856.9	873.6	890.4
Percent Change	16.6	5.0	-6.1	0.5	0.9	0.5	0.6	1.6	1.9	1.9	1.9	1.9
Accessory Elec. Equipment: JUEPPFELA@NTL	1464.1	1537.3	1608.5	1662.6	1685.4	1681.9	1676.1	1684.6	1702.5	1724.6	1749.0	1775.2
Percent Change	7.6	5.0	4.6	3.4	1.4	-0.2	-0.3	0.5	1.1	1.3	1.4	1.5
Misc. Power Plant Equipment: JUEPPFO@NTL	914.6	977.3	970.0	962.6	966.9	979.6	991.7	1005.3	1022.6	1040.8	1058.9	1078.4
Percent Change	9.2	6.9	-0.7	-0.8	0.4	1.3	1.2	1.4	1.7	1.8	1.7	1.8
NUCLEAR PRODUCTION PLANT												
Total Nuclear Production Plant: JUEPPN@NTL	801.2	840.5	837.8	845.5	854.7	863.2	871.8	884.9	900.4	916.4	932.4	949.0
Percent Change	10.3	4.9	-0.3	0.9	1.1	1.0	1.0	1.5	1.8	1.8	1.7	1.8
Structures & Improvements: JUEPPNS&I@NTL	661.1	684.6	684.5	693.3	703.6	715.1	727.1	741.5	756.9	772.3	788.1	804.2
Percent Change	10.6	3.6	0.0	1.3	1.5	1.6	1.7	2.0	2.1	2.0	2.0	2.0
Reactor Plant Equipment: JUEPPNRC@NTL	754.7	797.4	797.1	797.3	806.1	819.4	833.1	849.1	867.1	884.6	901.5	918.9
Percent Change	8.7	5.7	0.0	0.0	1.1	1.7	1.7	1.9	2.1	2.0	1.9	1.9
HYDRO PRODUCTION PLANT												
Total Hydraulic Prod. Plant: JUEPPH@NTL	668.2	688.6	687.1	693.6	700.0	707.4	715.9	728.8	743.1	757.5	772.2	786.1
Percent Change	9.6	3.1	-0.2	1.0	0.9	1.1	1.2	1.8	2.0	1.9	1.9	1.8
Structures & Improvements: JUEPPHS&I@NTL	815.1	835.9	859.8	888.4	899.4	907.6	916.9	936.6	959.5	980.3	1001.0	1025.0
Percent Change	9.2	2.6	2.9	3.3	1.2	0.9	1.0	2.2	2.4	2.2	2.1	2.4
Reservoirs; Dams & Waterways: JUEPPHRD&W@NTL	641.6	664.9	664.7	670.7	679.6	689.3	700.0	713.9	728.8	743.8	759.3	773.0
Percent Change	9.0	3.6	0.0	0.9	1.3	1.4	1.6	2.0	2.1	2.1	2.1	1.8
Water Wheels; Turbines & Gen: JUEPPHWT&G@NTL	644.5	664.8	655.5	662.8	669.3	671.0	672.2	678.9	687.3	696.7	706.5	716.2
Percent Change	12.1	3.2	-1.4	1.1	1.0	0.3	0.2	1.0	1.2	1.4	1.4	1.4
OTHER PRODUCTION PLANT												
Total Other Production Plant: JUEPPO@NTL	1130.9	1198.4	1276.1	1317.9	1353.5	1382.8	1395.6	1395.4	1397.0	1407.3	1422.6	1440.8
Percent Change	5.7	6.0	6.5	3.3	2.7	2.2	0.9	0.0	0.1	0.7	1.1	1.3
Fuel Holders & Accessories: JUEPPOFH@NTL	816.0	860.0	813.5	803.8	812.2	824.8	838.8	856.8	875.8	894.4	913.3	934.3
Percent Change	9.9	5.4	-5.4	-1.2	1.0	1.5	1.7	2.1	2.2	2.1	2.1	2.3
Gas Turbogenerators: JUEPPOTGG@NTL	1143.1	1215.1	1307.3	1353.7	1394.8	1430.5	1445.6	1442.1	1439.7	1447.9	1461.9	1479.2
Percent Change	5.0	6.3	7.6	3.5	3.0	2.6	1.1	-0.2	-0.2	0.6	1.0	1.2
TRANSMISSION PLANT												
Total Transmission Plant: JUEPT@NTL	870.3	924.2	960.4	974.6	975.4	974.1	977.0	986.9	1001.1	1017.7	1034.1	1049.5
Percent Change	4.7	6.2	3.9	1.5	0.1	-0.1	0.3	1.0	1.4	1.7	1.6	1.5
Station Equipment: JUEPTST@NTL	968.4	1038.2	1082.8	1096.2	1095.8	1091.0	1090.1	1096.8	1108.5	1123.0	1138.7	1154.6
Percent Change	7.4	7.2	4.3	1.2	0.0	-0.4	-0.1	0.6	1.1	1.3	1.4	1.4
Towers & Fixtures: JUEPTTW&FX@NTL	753.3	792.6	794.9	804.7	818.8	837.1	858.0	880.6	904.1	928.0	952.5	972.9
Percent Change	10.7	5.2	0.3	1.2	1.8	2.2	2.5	2.6	2.7	2.6	2.6	2.1
Poles & Fixtures: JUEPTPL&FX@NTL	740.9	759.6	779.1	795.8	809.6	822.9	836.9	853.5	870.8	887.4	903.9	920.5
Percent Change	1.4	2.5	2.6	2.1	1.7	1.6	1.7	2.0	2.0	1.9	1.9	1.8
Overhead Conductors & Devices: JUEPTCN&DO@NTL	602.5	660.5	720.3	749.2	760.7	773.5	793.8	817.4	845.5	871.9	895.5	920.7
Percent Change	-17.8	9.6	9.0	4.0	1.5	1.7	2.6	3.0	3.4	3.1	2.7	2.8
Underground Conduit: JUEPTCNU@NTL	800.0	848.0	822.9	815.4	822.7	830.2	836.2	846.8	857.8	867.0	875.9	885.9
Percent Change	6.2	6.0	-3.0	-0.9	0.9	0.9	0.7	1.3	1.3	1.1	1.0	1.1
Underground Conductors & Dev: JUEPTCN&DU@NTL	1450.2	1511.0	1609.4	1636.4	1593.6	1540.8	1498.4	1482.5	1480.5	1494.2	1503.2	1505.0
Percent Change	9.9	4.2	6.5	1.7	-2.6	-3.3	-2.7	-1.1	-0.1	0.9	0.6	0.1
DISTRIBUTION PLANT												
Total Distribution Plant: JUEPD@NTL	904.6	946.1	998.5	1044.9	1067.9	1074.6	1078.1	1091.2	1110.7	1133.0	1156.6	1181.2
Percent Change	4.1	4.6	5.5	4.7	2.2	0.6	0.3	1.2	1.8	2.0	2.1	2.1
Station Equipment: JUEPDST@NTL	1005.3	1082.3	1131.6	1162.7	1180.7	1189.6	1190.4	1196.1	1208.5	1226.2	1245.9	1266.6
Percent Change	7.8	7.7	4.6	2.8	1.5	0.8	0.1	0.5	1.0	1.5	1.6	1.7
Poles; Towers; & Fixtures: JUEPDPT&F@NTL	738.3	758.2	779.3	799.3	813.9	827.7	840.6	856.6	872.9	888.4	903.7	921.9
Percent Change	1.5	2.7	2.8	2.6	1.8	1.7	1.6	1.9	1.9	1.8	1.7	2.0

Table A9

Cost Trends of Electric Utility Construction: North Atlantic Region (continued)**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Overhead Conductors & Devices: JUEPDCN&DO@NTL	947.6	999.5	1070.9	1114.6	1127.1	1123.5	1121.5	1128.6	1141.1	1153.8	1165.9	1181.1
Percent Change	-4.3	5.5	7.1	4.1	1.1	-0.3	-0.2	0.6	1.1	1.1	1.0	1.3
Underground Conduit: JUEPDCNU@NTL	741.6	765.7	788.7	808.9	821.5	831.8	843.6	859.3	876.3	892.2	907.6	923.5
Percent Change	4.7	3.2	3.0	2.6	1.6	1.3	1.4	1.9	2.0	1.8	1.7	1.7
Undgr. Cond. & Dev. in Conduit: JUEPDCN&DU@NTL	947.1	995.8	1063.5	1085.3	1084.7	1071.4	1056.3	1060.1	1070.9	1087.2	1104.3	1120.7
Percent Change	8.4	5.1	6.8	2.0	-0.1	-1.2	-1.4	0.4	1.0	1.5	1.6	1.5
Line Transformers: JUEPDTRL@NTL	1154.7	1186.9	1258.0	1372.5	1433.0	1433.3	1421.2	1429.1	1453.5	1484.3	1518.7	1554.0
Percent Change	6.5	2.8	6.0	9.1	4.4	0.0	-0.8	0.6	1.7	2.1	2.3	2.3
Pad Mounted Transformers: JUEPDTRPM@NTL	971.2	1096.4	1157.5	1159.0	1145.6	1144.7	1159.4	1179.3	1202.3	1227.8	1253.6	1279.5
Percent Change	20.4	12.9	5.6	0.1	-1.2	-0.1	1.3	1.7	2.0	2.1	2.1	2.1
Services-Overhead: JUEPDSVO@NTL	680.2	702.4	730.0	755.5	770.0	783.9	800.4	819.6	838.5	855.7	872.3	889.9
Percent Change	2.0	3.3	3.9	3.5	1.9	1.8	2.1	2.4	2.3	2.1	1.9	2.0
Services-Underground: JUEPDSVU@NTL	553.6	586.5	612.9	610.3	608.2	605.2	607.2	617.6	633.1	650.5	666.5	681.9
Percent Change	3.8	5.9	4.5	-0.4	-0.3	-0.5	0.3	1.7	2.5	2.7	2.5	2.3
Meters Installed: JUEPDMTI@NTL	417.8	414.6	418.8	428.3	433.3	436.5	438.0	441.0	443.9	446.0	448.0	450.3
Percent Change	2.1	-0.8	1.0	2.3	1.2	0.7	0.3	0.7	0.6	0.5	0.4	0.5
Street Lighting-Overhead: JUEPDLISO@NTL	863.4	942.7	1087.7	1187.0	1170.2	1130.8	1099.9	1095.9	1103.6	1115.2	1128.9	1142.3
Percent Change	-3.5	9.2	15.4	9.1	-1.4	-3.4	-2.7	-0.4	0.7	1.1	1.2	1.2
Mast Arms & Luminaries Inst: JUEPDLI&MAI@NTL	740.8	785.3	730.5	741.3	818.3	895.6	899.5	877.9	856.3	848.7	854.4	861.9
Percent Change	-9.1	6.0	-7.0	1.5	10.4	9.4	0.4	-2.4	-2.5	-0.9	0.7	0.9
Street Lighting-Underground: JUEPDLISU@NTL	911.1	989.8	1240.8	1405.5	1368.2	1295.4	1239.6	1227.9	1232.8	1241.7	1254.8	1269.5
Percent Change	-3.3	8.6	25.4	13.3	-2.6	-5.3	-4.3	-0.9	0.4	0.7	1.1	1.2

Source: IHS Markit

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Table A10

Cost Trends of Electric Utility Construction: South Atlantic Region

(TREND 221)

(1973=100)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Plant-All Steam Generation: JUEST@STL	779.4	821.3	833.3	849.7	858.3	861.4	866.9	876.7	890.7	906.0	921.7	938.1
Percent Change	7.4	5.4	1.5	2.0	1.0	0.4	0.6	1.1	1.6	1.7	1.7	1.8
Total Plant-St. & Nuclear Gen: JUEST&N@STL	779.9	822.1	835.7	852.5	861.2	864.4	869.7	879.8	894.0	909.4	925.3	941.9
Percent Change	7.5	5.4	1.6	2.0	1.0	0.4	0.6	1.2	1.6	1.7	1.8	1.8
Total Plant-Steam & Hyd. Gen: JUEST&H@STL	770.0	810.9	823.8	840.6	849.2	852.4	858.0	868.0	882.0	897.3	913.1	929.5
Percent Change	7.4	5.3	1.6	2.0	1.0	0.4	0.6	1.2	1.6	1.7	1.8	1.8
STEAM PRODUCTION PLANT												
Total Steam Production Plant: JUEPPF@STL	794.4	837.9	822.0	823.9	828.8	833.2	841.5	851.1	863.6	877.1	890.7	904.8
Percent Change	11.7	5.5	-1.9	0.2	0.6	0.5	1.0	1.1	1.5	1.6	1.6	1.6
Structures & Improvements-Indr: JUEPPFS&I@STL	699.9	721.0	719.4	723.0	725.9	734.6	745.6	760.0	774.3	787.3	800.5	815.2
Percent Change	11.1	3.0	-0.2	0.5	0.4	1.2	1.5	1.9	1.9	1.7	1.7	1.8
Struct. & Improve.-Semi-Outdoor: JUEPPFS&IO@STL	624.5	647.6	635.7	630.5	626.6	628.9	634.5	646.0	659.3	672.3	685.6	699.8
Percent Change	13.6	3.7	-1.8	-0.8	-0.6	0.4	0.9	1.8	2.1	2.0	2.0	2.1
Boiler Plant Equip.-Coal Fired: JUEPPFBPCF@STL	783.6	831.3	822.0	821.5	830.1	841.4	859.6	871.6	885.9	901.3	916.2	931.6
Percent Change	8.5	6.1	-1.1	-0.1	1.0	1.4	2.2	1.4	1.6	1.7	1.7	1.7
Boiler Plant Piping Installed: JUEPPFBPI@STL	730.1	791.0	760.7	737.9	734.9	746.9	755.1	769.1	785.0	799.7	815.0	830.5
Percent Change	9.1	8.3	-3.8	-3.0	-0.4	1.6	1.1	1.9	2.1	1.9	1.9	1.9
Turbogenerator Units: JUEPPFTG@STL	765.0	806.3	755.7	757.6	762.2	764.5	767.6	779.2	792.9	807.5	822.6	837.8
Percent Change	18.5	5.4	-6.3	0.3	0.6	0.3	0.4	1.5	1.8	1.8	1.9	1.8
Accessory Elec. Equipment: JUEPPFELA@STL	1375.4	1444.9	1509.9	1555.0	1572.9	1566.5	1559.0	1564.3	1579.3	1598.4	1620.1	1643.3
Percent Change	8.3	5.1	4.5	3.0	1.2	-0.4	-0.5	0.3	1.0	1.2	1.4	1.4
Misc. Power Plant Equipment: JUEPPFO@STL	846.4	909.6	900.8	888.6	888.0	900.1	911.0	924.2	941.3	959.5	977.9	997.5
Percent Change	10.7	7.5	-1.0	-1.4	-0.1	1.4	1.2	1.5	1.8	1.9	1.9	2.0
NUCLEAR PRODUCTION PLANT												
Total Nuclear Production Plant: JUEPPN@STL	760.3	804.3	799.6	802.0	807.2	813.3	820.3	832.0	846.3	861.1	876.2	891.8
Percent Change	11.5	5.8	-0.6	0.3	0.7	0.7	0.9	1.4	1.7	1.7	1.8	1.8
Structures & Improvements: JUEPPNS&I@STL	621.8	658.0	651.8	651.1	655.3	662.7	672.6	685.2	698.3	711.2	724.8	738.7
Percent Change	12.1	5.8	-0.9	-0.1	0.6	1.1	1.5	1.9	1.9	1.9	1.9	1.9
Reactor Plant Equipment: JUEPPNRC@STL	696.5	740.1	736.2	730.9	735.5	747.5	760.0	775.0	792.5	809.6	826.1	843.2
Percent Change	9.9	6.3	-0.5	-0.7	0.6	1.6	1.7	2.0	2.3	2.2	2.0	2.1
HYDRO PRODUCTION PLANT												
Total Hydraulic Prod. Plant: JUEPPH@STL	598.0	619.9	615.3	615.7	614.9	616.6	621.9	631.8	643.0	654.0	665.1	676.0
Percent Change	11.6	3.7	-0.7	0.1	-0.1	0.3	0.9	1.6	1.8	1.7	1.7	1.6
Structures & Improvements: JUEPPHS&I@STL	698.2	712.0	729.5	744.0	742.0	739.4	740.7	753.5	769.9	783.0	795.8	811.5
Percent Change	10.8	2.0	2.5	2.0	-0.3	-0.4	0.2	1.7	2.2	1.7	1.6	2.0
Reservoirs; Dams & Waterways: JUEPPHRD&W@STL	557.8	589.4	586.1	586.8	591.1	598.0	606.4	617.4	629.0	640.8	652.8	663.5
Percent Change	11.5	5.7	-0.6	0.1	0.7	1.2	1.4	1.8	1.9	1.9	1.9	1.6
Water Wheels; Turbines & Gen: JUEPPHWT&G@STL	616.1	635.5	624.5	629.9	634.1	633.7	632.9	637.7	644.3	651.7	659.4	667.1
Percent Change	12.9	3.1	-1.7	0.9	0.7	-0.1	-0.1	0.8	1.0	1.2	1.2	1.2
OTHER PRODUCTION PLANT												
Total Other Production Plant: JUEPPO@STL	1077.0	1143.3	1217.6	1257.3	1291.4	1320.0	1333.2	1333.4	1335.5	1346.1	1361.5	1379.8
Percent Change	6.0	6.2	6.5	3.3	2.7	2.2	1.0	0.0	0.2	0.8	1.1	1.3
Fuel Holders & Accessories: JUEPPOFH@STL	744.7	791.3	738.8	724.8	728.9	740.0	751.9	768.0	785.7	803.5	821.8	841.5
Percent Change	11.4	6.2	-6.6	-1.9	0.6	1.5	1.6	2.1	2.3	2.3	2.3	2.4
Gas Turbogenerators: JUEPPOTGG@STL	1125.2	1197.5	1290.4	1337.0	1377.6	1412.5	1427.1	1422.7	1419.7	1427.2	1440.7	1457.6
Percent Change	5.1	6.4	7.8	3.6	3.0	2.5	1.0	-0.3	-0.2	0.5	0.9	1.2
TRANSMISSION PLANT												
Total Transmission Plant: JUEPT@STL	708.7	759.9	791.8	802.7	805.0	808.3	816.1	828.1	843.7	859.9	876.1	892.2
Percent Change	1.9	7.2	4.2	1.4	0.3	0.4	1.0	1.5	1.9	1.9	1.9	1.8
Station Equipment: JUEPTST@STL	911.6	980.7	1024.1	1035.2	1031.5	1025.8	1024.0	1029.6	1040.4	1053.7	1068.6	1083.9
Percent Change	7.8	7.6	4.4	1.1	-0.4	-0.5	-0.2	0.5	1.0	1.3	1.4	1.4
Towers & Fixtures: JUEPTTW&FX@STL	637.7	676.7	672.5	674.8	680.5	692.1	707.1	723.4	740.3	757.6	775.3	789.3
Percent Change	12.6	6.1	-0.6	0.3	0.8	1.7	2.2	2.3	2.3	2.3	2.3	1.8
Poles & Fixtures: JUEPTPL&FX@STL	599.6	612.5	625.5	634.0	642.5	651.6	662.0	674.0	686.6	698.3	710.1	721.9
Percent Change	0.8	2.2	2.1	1.4	1.3	1.4	1.6	1.8	1.9	1.7	1.7	1.7
Overhead Conductors & Devices: JUEPTCN&DO@STL	502.3	557.7	614.7	636.9	645.4	656.3	675.8	697.8	724.7	749.7	772.2	796.1
Percent Change	-21.1	11.0	10.2	3.6	1.3	1.7	3.0	3.3	3.9	3.5	3.0	3.1
Underground Conduit: JUEPTCNU@STL	632.3	676.6	646.4	628.3	624.6	628.4	634.1	641.8	650.1	656.4	662.6	669.3
Percent Change	7.5	7.0	-4.5	-2.8	-0.6	0.6	0.9	1.2	1.3	1.0	0.9	1.0
Underground Conductors & Dev: JUEPTCN&DU@STL	1323.6	1378.6	1471.1	1485.8	1435.6	1378.1	1330.3	1309.3	1300.7	1307.8	1311.0	1306.3
Percent Change	10.3	4.2	6.7	1.0	-3.4	-4.0	-3.5	-1.6	-0.7	0.5	0.2	-0.4
DISTRIBUTION PLANT												
Total Distribution Plant: JUEPD@STL	798.0	834.9	879.9	921.3	938.4	939.4	939.6	949.1	965.2	983.3	1002.6	1023.1
Percent Change	3.8	4.6	5.4	4.7	1.9	0.1	0.0	1.0	1.7	1.9	2.0	2.0
Station Equipment: JUEPDST@STL	836.2	929.2	961.7	951.9	934.7	928.2	927.6	931.6	939.9	951.1	963.0	975.1
Percent Change	7.9	11.1	3.5	-1.0	-1.8	-0.7	-0.1	0.4	0.9	1.2	1.3	1.2
Poles; Towers; & Fixtures: JUEPDPT&F@STL	581.4	595.6	610.0	620.4	628.8	639.3	650.8	663.8	677.2	689.4	701.8	717.0
Percent Change	0.8	2.4	2.4	1.7	1.4	1.7	1.8	2.0	2.0	1.8	1.8	2.2

Table A10

Cost Trends of Electric Utility Construction: South Atlantic Region (continued)**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Overhead Conductors & Devices: JUEPDCN&DO@STL	766.4	808.5	869.9	901.5	909.5	904.3	902.0	907.0	917.1	927.0	936.7	948.7
Percent Change	-5.1	5.5	7.6	3.6	0.9	-0.6	-0.3	0.6	1.1	1.1	1.0	1.3
Underground Conduit: JUEPDCNU@STL	576.0	592.1	607.8	617.4	620.7	627.7	637.9	650.1	663.3	675.4	687.4	700.6
Percent Change	5.0	2.8	2.6	1.6	0.5	1.1	1.6	1.9	2.0	1.8	1.8	1.9
Undgr. Cond. & Dev. in Conduit: JUEPDCN&DU@STL	833.2	872.7	935.3	952.7	941.5	917.0	895.1	892.9	898.6	907.3	917.0	928.2
Percent Change	8.8	4.7	7.2	1.9	-1.2	-2.6	-2.4	-0.2	0.6	1.0	1.1	1.2
Line Transformers: JUEPDTRL@STL	1114.1	1142.8	1213.0	1329.5	1386.8	1380.3	1362.6	1366.1	1387.1	1413.8	1444.2	1475.3
Percent Change	6.6	2.6	6.1	9.6	4.3	-0.5	-1.3	0.3	1.5	1.9	2.1	2.2
Pad Mounted Transformers: JUEPDTRPM@STL	914.9	1038.2	1097.6	1098.4	1081.3	1079.6	1093.1	1111.5	1132.8	1156.4	1181.0	1206.1
Percent Change	21.9	13.5	5.7	0.1	-1.5	-0.2	1.2	1.7	1.9	2.1	2.1	2.1
Services-Overhead: JUEPDSVO@STL	505.8	522.0	542.7	556.1	564.5	573.4	586.6	600.9	615.3	627.8	640.0	652.9
Percent Change	1.5	3.2	4.0	2.5	1.5	1.6	2.3	2.4	2.4	2.0	1.9	2.0
Services-Underground: JUEPDSVU@STL	466.9	494.8	519.1	515.3	506.9	501.6	501.5	509.9	522.7	536.7	550.8	565.0
Percent Change	4.0	6.0	4.9	-0.7	-1.6	-1.0	0.0	1.7	2.5	2.7	2.6	2.6
Meters Installed: JUEPDMTI@STL	362.2	356.6	358.6	364.0	367.2	369.1	369.8	371.5	373.2	374.1	374.9	376.1
Percent Change	2.1	-1.5	0.5	1.5	0.9	0.5	0.2	0.5	0.5	0.2	0.2	0.3
Street Lighting-Overhead: JUEPDLISO@STL	771.6	844.0	966.1	1050.2	1026.6	988.7	959.9	957.3	964.9	973.7	985.1	998.1
Percent Change	-4.1	9.4	14.5	8.7	-2.2	-3.7	-2.9	-0.3	0.8	0.9	1.2	1.3
Mast Arms & Luminaries Inst: JUEPDLI&MAI@STL	659.7	703.3	651.7	664.8	739.0	813.6	820.0	801.8	783.9	778.4	786.3	796.4
Percent Change	-10.5	6.6	-7.3	2.0	11.1	10.1	0.8	-2.2	-2.2	-0.7	1.0	1.3
Street Lighting-Underground: JUEPDLISU@STL	813.3	891.3	1142.9	1299.8	1257.2	1182.4	1125.1	1110.3	1112.3	1118.7	1130.1	1142.9
Percent Change	-3.9	9.6	28.2	13.7	-3.3	-6.0	-4.8	-1.3	0.2	0.6	1.0	1.1

Source: IHS Markit

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Table A11

Cost Trends of Electric Utility Construction: North Central Region

(TREND 221)

(1973=100)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Plant-All Steam Generation: JUEST@NOC	819.5	862.9	879.3	897.2	906.8	911.3	917.0	928.7	944.0	960.6	978.0	996.2
Percent Change	6.5	5.3	1.9	2.0	1.1	0.5	0.6	1.3	1.6	1.8	1.8	1.9
Total Plant-St. & Nuclear Gen: JUEST&N@NOC	816.5	859.9	876.5	894.2	903.9	908.7	914.6	926.5	942.0	958.8	976.4	994.7
Percent Change	6.5	5.3	1.9	2.0	1.1	0.5	0.7	1.3	1.7	1.8	1.8	1.9
Total Plant-Steam & Hyd. Gen: JUEST&H@NOC	815.6	858.2	874.5	891.9	900.7	904.6	909.7	920.8	935.5	951.5	968.2	985.6
Percent Change	6.5	5.2	1.9	2.0	1.0	0.4	0.6	1.2	1.6	1.7	1.8	1.8
STEAM PRODUCTION PLANT												
Total Steam Production Plant: JUEPPF@NOC	817.4	857.9	847.5	852.4	858.0	863.8	870.9	882.5	896.0	910.0	924.6	940.1
Percent Change	10.5	5.0	-1.2	0.6	0.7	0.7	0.8	1.3	1.5	1.6	1.6	1.7
Structures & Improvements-Indr: JUEPPFS&I@NOC	782.5	813.2	811.4	814.6	821.0	831.6	844.5	861.2	877.4	892.9	909.3	927.6
Percent Change	10.3	3.9	-0.2	0.4	0.8	1.3	1.5	2.0	1.9	1.8	1.8	2.0
Struct. & Improve.-Semi-Outdoor: JUEPPFS&IO@NOC	682.3	704.8	696.0	693.9	693.4	697.9	705.4	718.0	731.9	746.1	760.7	776.0
Percent Change	12.4	3.3	-1.2	-0.3	-0.1	0.7	1.1	1.8	1.9	1.9	2.0	2.0
Boiler Plant Equip.-Coal Fired: JUEPPFBPCF@NOC	805.0	847.4	846.1	849.1	856.2	867.0	879.0	892.2	906.1	919.5	933.4	948.7
Percent Change	7.6	5.3	-0.2	0.4	0.8	1.3	1.4	1.5	1.6	1.5	1.5	1.6
Boiler Plant Piping Installed: JUEPPFBPPI@NOC	757.5	820.4	796.1	775.8	773.4	781.8	792.1	805.5	820.7	835.1	849.9	865.6
Percent Change	7.4	8.3	-3.0	-2.5	-0.3	1.1	1.3	1.7	1.9	1.8	1.8	1.8
Turbogenerator Units: JUEPPFTG@NOC	773.6	814.0	762.1	766.1	771.9	774.2	777.8	789.8	804.0	819.3	835.1	851.1
Percent Change	17.4	5.2	-6.4	0.5	0.8	0.3	0.5	1.5	1.8	1.9	1.9	1.9
Accessory Elec. Equipment: JUEPPFELA@NOC	1395.4	1468.4	1529.3	1571.8	1591.7	1590.0	1587.1	1595.3	1611.9	1633.2	1656.9	1682.0
Percent Change	7.5	5.2	4.1	2.8	1.3	-0.1	-0.2	0.5	1.0	1.3	1.5	1.5
Misc. Power Plant Equipment: JUEPPFO@NOC	857.0	922.4	914.6	902.6	901.8	912.3	923.6	936.2	952.4	969.8	987.5	1006.6
Percent Change	9.6	7.6	-0.9	-1.3	-0.1	1.2	1.2	1.4	1.7	1.8	1.8	1.9
NUCLEAR PRODUCTION PLANT												
Total Nuclear Production Plant: JUEPPN@NOC	764.1	806.4	799.5	802.0	808.7	816.6	825.7	838.9	854.3	870.3	886.4	903.1
Percent Change	11.0	5.5	-0.8	0.3	0.8	1.0	1.1	1.6	1.8	1.9	1.9	1.9
Structures & Improvements: JUEPPNS&I@NOC	648.1	674.0	673.1	678.3	686.7	696.1	707.3	721.0	735.2	749.8	764.8	780.3
Percent Change	12.0	4.0	-0.1	0.8	1.2	1.4	1.6	1.9	2.0	2.0	2.0	2.0
Reactor Plant Equipment: JUEPPNRC@NOC	723.3	769.0	767.2	762.2	766.7	777.8	789.9	804.4	821.1	837.5	853.5	870.0
Percent Change	9.0	6.3	-0.2	-0.6	0.6	1.4	1.6	1.8	2.1	2.0	1.9	1.9
HYDRO PRODUCTION PLANT												
Total Hydraulic Prod. Plant: JUEPPH@NOC	653.3	675.6	671.7	674.2	677.2	682.6	689.9	701.4	714.0	726.8	740.1	752.4
Percent Change	10.6	3.4	-0.6	0.4	0.4	0.8	1.1	1.7	1.8	1.8	1.8	1.7
Structures & Improvements: JUEPPHS&I@NOC	782.6	814.2	826.4	839.9	844.8	846.0	849.6	862.6	877.8	892.6	907.7	924.7
Percent Change	10.3	4.0	1.5	1.6	0.6	0.1	0.4	1.5	1.8	1.7	1.7	1.9
Reservoirs; Dams & Waterways: JUEPPHRD&W@NOC	628.0	655.3	656.5	662.0	670.1	679.3	690.2	703.9	718.3	732.9	747.9	761.0
Percent Change	10.4	4.4	0.2	0.8	1.2	1.4	1.6	2.0	2.0	2.0	2.1	1.7
Water Wheels; Turbines & Gen: JUEPPHWT&G@NOC	631.4	650.8	640.7	646.8	651.5	651.8	651.7	657.2	664.4	672.4	680.8	689.2
Percent Change	12.4	3.1	-1.5	0.9	0.7	0.0	0.0	0.8	1.1	1.2	1.2	1.2
OTHER PRODUCTION PLANT												
Total Other Production Plant: JUEPPO@NOC	1116.4	1185.7	1268.4	1310.9	1347.7	1378.8	1392.4	1390.7	1390.5	1399.7	1414.3	1431.9
Percent Change	5.4	6.2	7.0	3.3	2.8	2.3	1.0	-0.1	0.0	0.7	1.0	1.2
Fuel Holders & Accessories: JUEPPOFH@NOC	781.4	826.8	780.5	768.5	772.8	783.3	795.9	811.3	827.9	845.2	862.8	881.9
Percent Change	10.3	5.8	-5.6	-1.5	0.6	1.4	1.6	1.9	2.1	2.1	2.1	2.2
Gas Turbogenerators: JUEPPOTGG@NOC	1130.0	1202.0	1294.0	1339.8	1379.8	1414.2	1428.6	1424.6	1421.8	1429.4	1442.9	1459.7
Percent Change	5.0	6.4	7.7	3.5	3.0	2.5	1.0	-0.3	-0.2	0.5	0.9	1.2
TRANSMISSION PLANT												
Total Transmission Plant: JUEPT@NOC	803.0	859.0	893.1	904.1	905.2	906.4	912.0	923.0	937.9	954.7	971.4	987.5
Percent Change	2.4	7.0	4.0	1.2	0.1	0.1	0.6	1.2	1.6	1.8	1.8	1.7
Station Equipment: JUEPTST@NOC	934.3	1004.0	1046.0	1056.7	1056.2	1053.2	1053.4	1060.4	1072.2	1086.5	1102.2	1118.4
Percent Change	7.4	7.5	4.2	1.0	-0.1	-0.3	0.0	0.7	1.1	1.3	1.4	1.5
Towers & Fixtures: JUEPTTW&FX@NOC	701.7	740.9	740.3	746.0	755.5	770.5	788.6	807.8	827.6	848.0	868.9	885.6
Percent Change	11.5	5.6	-0.1	0.8	1.3	2.0	2.3	2.4	2.4	2.5	2.5	1.9
Poles & Fixtures: JUEPTPL&FX@NOC	672.2	692.8	706.5	715.5	725.6	736.1	747.7	760.9	774.7	788.5	802.4	816.3
Percent Change	0.7	3.1	2.0	1.3	1.4	1.4	1.6	1.8	1.8	1.8	1.8	1.7
Overhead Conductors & Devices: JUEPTCN&DO@NOC	611.2	687.5	754.3	779.0	789.6	802.5	825.2	850.4	881.5	911.4	938.3	966.7
Percent Change	-21.7	12.5	9.7	3.3	1.4	1.6	2.8	3.1	3.7	3.4	3.0	3.0
Underground Conduit: JUEPTCNU@NOC	716.5	771.1	746.7	729.6	728.8	733.6	739.2	746.7	754.2	761.4	768.9	776.9
Percent Change	6.4	7.6	-3.2	-2.3	-0.1	0.7	0.8	1.0	1.0	1.0	1.0	1.0
Underground Conductors & Dev: JUEPTCN&DU@NOC	1410.6	1466.5	1562.5	1583.7	1529.3	1467.3	1416.5	1393.8	1383.8	1390.0	1392.0	1386.9
Percent Change	9.9	4.0	6.5	1.4	-3.4	-4.1	-3.5	-1.6	-0.7	0.4	0.1	-0.4
DISTRIBUTION PLANT												
Total Distribution Plant: JUEPD@NOC	838.4	878.5	924.1	964.5	983.3	986.8	989.5	1000.7	1018.0	1037.8	1058.8	1081.1
Percent Change	3.0	4.8	5.2	4.4	2.0	0.4	0.3	1.1	1.7	1.9	2.0	2.1
Station Equipment: JUEPDST@NOC	860.8	934.6	967.7	975.4	971.6	970.2	969.8	973.5	981.4	992.2	1003.9	1016.5
Percent Change	6.9	8.6	3.5	0.8	-0.4	-0.1	0.0	0.4	0.8	1.1	1.2	1.3
Poles; Towers; & Fixtures: JUEPDPT&F@NOC	661.3	687.3	702.9	712.9	723.0	735.0	747.6	761.8	776.3	790.9	805.9	823.3
Percent Change	1.0	3.9	2.3	1.4	1.4	1.7	1.7	1.9	1.9	1.9	1.9	2.2

Table A11

Cost Trends of Electric Utility Construction: North Central Region (continued)**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Overhead Conductors & Devices: JUEPDCN&DO@NOC	869.1	928.1	992.6	1024.3	1032.8	1026.3	1022.4	1026.1	1035.3	1045.9	1056.4	1069.3
Percent Change	-5.1	6.8	6.9	3.2	0.8	-0.6	-0.4	0.4	0.9	1.0	1.0	1.2
Underground Conduit: JUEPDCNU@NOC	668.4	693.4	711.6	719.9	724.3	731.5	741.3	752.7	764.4	776.4	788.9	802.1
Percent Change	4.8	3.7	2.6	1.2	0.6	1.0	1.3	1.5	1.5	1.6	1.6	1.7
Undgr. Cond. & Dev. in Conduit: JUEPDCN&DU@NOC	900.8	947.6	1016.0	1035.8	1025.7	1001.5	980.5	978.6	985.1	995.6	1007.1	1019.3
Percent Change	8.3	5.2	7.2	1.9	-1.0	-2.4	-2.1	-0.2	0.7	1.1	1.1	1.2
Line Transformers: JUEPDTRL@NOC	1137.5	1170.3	1240.8	1356.6	1415.0	1410.9	1395.7	1401.2	1424.0	1452.7	1485.2	1518.9
Percent Change	6.4	2.9	6.0	9.3	4.3	-0.3	-1.1	0.4	1.6	2.0	2.2	2.3
Pad Mounted Transformers: JUEPDTRPM@NOC	949.5	1071.2	1130.9	1133.8	1121.8	1121.3	1135.7	1155.2	1177.5	1202.0	1227.6	1253.7
Percent Change	21.0	12.8	5.6	0.3	-1.1	0.0	1.3	1.7	1.9	2.1	2.1	2.1
Services-Overhead: JUEPDSVO@NOC	598.7	627.9	648.0	660.5	670.2	680.2	693.7	708.3	722.7	736.5	750.3	764.6
Percent Change	1.3	4.9	3.2	1.9	1.5	1.5	2.0	2.1	2.0	1.9	1.9	1.9
Services-Underground: JUEPDSVU@NOC	512.8	542.5	566.2	562.3	552.2	544.2	542.6	550.4	562.3	575.0	587.4	600.1
Percent Change	3.3	5.8	4.4	-0.7	-1.8	-1.4	-0.3	1.4	2.2	2.3	2.1	2.2
Meters Installed: JUEPDMTI@NOC	389.5	386.6	389.5	396.7	400.1	401.7	402.5	403.8	405.2	406.4	407.6	408.2
Percent Change	1.8	-0.8	0.8	1.8	0.9	0.4	0.2	0.3	0.3	0.3	0.3	0.1
Street Lighting-Overhead: JUEPDLISO@NOC	827.2	910.0	1032.2	1112.9	1086.5	1045.3	1013.8	1008.2	1012.7	1019.6	1029.1	1039.1
Percent Change	-4.1	10.0	13.4	7.8	-2.4	-3.8	-3.0	-0.6	0.4	0.7	0.9	1.0
Mast Arms & Luminaries Inst: JUEPDLI&MAI@NOC	703.7	749.8	702.9	718.0	794.0	870.3	878.2	860.9	844.1	840.1	849.7	861.5
Percent Change	-10.2	6.5	-6.3	2.2	10.6	9.6	0.9	-2.0	-2.0	-0.5	1.1	1.4
Street Lighting-Underground: JUEPDLISU@NOC	871.6	958.5	1220.1	1381.0	1334.0	1251.6	1188.7	1171.0	1170.6	1175.5	1185.6	1196.0
Percent Change	-4.0	10.0	27.3	13.2	-3.4	-6.2	-5.0	-1.5	0.0	0.4	0.9	0.9

Source: IHS Markit

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Table A12

Cost Trends of Electric Utility Construction: South Central Region**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Plant-All Steam Generation: JUEST@SOC	767.6	808.5	825.8	848.0	859.7	863.1	867.5	878.1	892.5	908.2	924.6	941.7
Percent Change	6.7	5.3	2.1	2.7	1.4	0.4	0.5	1.2	1.6	1.8	1.8	1.8
Total Plant-St. & Nuclear Gen: JUEST&N@SOC	768.6	809.7	827.3	849.6	861.6	865.3	869.9	880.8	895.5	911.5	928.2	945.6
Percent Change	6.6	5.3	2.2	2.7	1.4	0.4	0.5	1.2	1.7	1.8	1.8	1.9
Total Plant-Steam & Hyd. Gen: JUEST&H@SOC	766.6	807.6	824.8	846.9	858.6	861.9	866.2	876.7	891.1	906.7	923.0	940.0
Percent Change	6.7	5.3	2.1	2.7	1.4	0.4	0.5	1.2	1.6	1.8	1.8	1.8
STEAM PRODUCTION PLANT												
Total Steam Production Plant: JUEPPF@SOC	772.0	810.7	799.0	806.5	815.3	821.1	828.2	840.0	853.4	867.3	881.8	897.0
Percent Change	11.9	5.0	-1.5	0.9	1.1	0.7	0.9	1.4	1.6	1.6	1.7	1.7
Structures & Improvements-Indr: JUEPPFS&I@SOC	612.7	625.4	615.4	616.2	619.6	624.9	631.8	642.0	652.5	663.1	673.9	685.5
Percent Change	9.5	2.1	-1.6	0.1	0.6	0.9	1.1	1.6	1.6	1.6	1.6	1.7
Struct. & Improve.-Semi-Outdoor: JUEPPFS&IO@SOC	689.3	712.0	714.9	730.4	747.8	765.2	783.5	802.4	821.4	840.7	860.5	881.7
Percent Change	11.2	3.3	0.4	2.2	2.4	2.3	2.4	2.4	2.4	2.4	2.4	2.5
Boiler Plant Equip.-Coal Fired: JUEPPFBPCF@SOC	723.5	760.7	758.2	761.7	771.0	780.8	792.7	806.4	820.3	833.7	847.3	861.8
Percent Change	8.1	5.1	-0.3	0.5	1.2	1.3	1.5	1.7	1.7	1.6	1.6	1.7
Boiler Plant Piping Installed: JUEPPFBPPI@SOC	686.9	745.7	715.9	692.5	690.6	696.1	704.7	717.4	731.5	744.5	757.6	771.0
Percent Change	8.8	8.6	-4.0	-3.3	-0.3	0.8	1.2	1.8	2.0	1.8	1.8	1.8
Turbogenerator Units: JUEPPFTG@SOC	736.3	775.7	728.3	729.9	734.4	736.0	739.0	749.9	762.7	776.4	790.5	804.6
Percent Change	18.5	5.4	-6.1	0.2	0.6	0.2	0.4	1.5	1.7	1.8	1.8	1.8
Accessory Elec. Equipment: JUEPPFELA@SOC	1369.5	1443.1	1506.5	1552.9	1573.6	1570.0	1565.2	1572.7	1589.3	1610.7	1634.7	1660.0
Percent Change	8.1	5.4	4.4	3.1	1.3	-0.2	-0.3	0.5	1.1	1.3	1.5	1.5
Misc. Power Plant Equipment: JUEPPFO@SOC	810.8	874.0	864.6	852.1	851.4	860.6	871.1	883.1	898.7	915.5	932.4	950.4
Percent Change	10.7	7.8	-1.1	-1.4	-0.1	1.1	1.2	1.4	1.8	1.9	1.8	1.9
NUCLEAR PRODUCTION PLANT												
Total Nuclear Production Plant: JUEPPN@SOC	740.4	781.2	777.3	781.1	787.4	792.9	799.4	810.4	823.9	838.1	852.4	867.0
Percent Change	11.3	5.5	-0.5	0.5	0.8	0.7	0.8	1.4	1.7	1.7	1.7	1.7
Structures & Improvements: JUEPPNS&I@SOC	562.5	584.6	580.6	584.5	591.0	599.1	608.5	619.6	631.1	642.8	654.6	666.5
Percent Change	12.2	3.9	-0.7	0.7	1.1	1.4	1.6	1.8	1.9	1.8	1.8	1.8
Reactor Plant Equipment: JUEPPNRC@SOC	688.9	732.5	728.8	724.5	730.1	740.8	752.9	767.8	784.8	801.5	817.7	834.3
Percent Change	9.8	6.3	-0.5	-0.6	0.8	1.5	1.6	2.0	2.2	2.1	2.0	2.0
HYDRO PRODUCTION PLANT												
Total Hydraulic Prod. Plant: JUEPPH@SOC	572.2	592.2	585.4	587.5	589.2	592.8	598.5	608.6	619.8	631.0	642.4	653.3
Percent Change	11.6	3.5	-1.1	0.4	0.3	0.6	1.0	1.7	1.8	1.8	1.8	1.7
Structures & Improvements: JUEPPHS&I@SOC	613.7	633.8	641.8	658.7	664.8	667.6	672.1	684.3	698.5	712.0	725.4	740.6
Percent Change	9.7	3.3	1.3	2.6	0.9	0.4	0.7	1.8	2.1	1.9	1.9	2.1
Reservoirs; Dams & Waterways: JUEPPHRD&W@SOC	548.9	572.5	565.5	566.1	569.8	575.1	582.3	592.5	603.3	614.3	625.6	635.6
Percent Change	12.4	4.3	-1.2	0.1	0.7	0.9	1.2	1.8	1.8	1.8	1.8	1.6
Water Wheels; Turbines & Gen: JUEPPHWT&G@SOC	615.6	634.8	623.2	628.5	632.3	631.4	630.1	634.6	640.9	648.0	655.5	663.0
Percent Change	12.9	3.1	-1.8	0.8	0.6	-0.1	-0.2	0.7	1.0	1.1	1.2	1.1
OTHER PRODUCTION PLANT												
Total Other Production Plant: JUEPPO@SOC	1092.3	1154.9	1229.1	1268.2	1301.9	1330.1	1343.0	1342.9	1344.2	1353.7	1367.8	1384.7
Percent Change	5.5	5.7	6.4	3.2	2.7	2.2	1.0	0.0	0.1	0.7	1.0	1.2
Fuel Holders & Accessories: JUEPPOFH@SOC	732.1	774.9	723.5	709.1	713.8	724.1	736.4	751.7	767.8	784.3	801.2	819.6
Percent Change	11.4	5.9	-6.6	-2.0	0.7	1.4	1.7	2.1	2.1	2.1	2.2	2.3
Gas Turbogenerators: JUEPPOTGG@SOC	1114.3	1179.3	1261.7	1303.2	1339.4	1370.4	1383.8	1381.0	1379.3	1386.8	1399.4	1415.0
Percent Change	4.9	5.8	7.0	3.3	2.8	2.3	1.0	-0.2	-0.1	0.5	0.9	1.1
TRANSMISSION PLANT												
Total Transmission Plant: JUEPT@SOC	692.7	745.4	776.8	787.5	789.8	792.0	799.0	810.2	824.9	840.4	855.8	871.2
Percent Change	1.2	7.6	4.2	1.4	0.3	0.3	0.9	1.4	1.8	1.9	1.8	1.8
Station Equipment: JUEPTST@SOC	890.0	959.6	1001.0	1010.9	1007.0	1000.8	999.3	1005.0	1015.7	1028.7	1042.9	1057.6
Percent Change	7.8	7.8	4.3	1.0	-0.4	-0.6	-0.1	0.6	1.1	1.3	1.4	1.4
Towers & Fixtures: JUEPTTW&FX@SOC	598.0	632.9	622.9	619.9	622.1	629.2	639.6	650.9	662.6	674.5	686.6	694.8
Percent Change	13.7	5.8	-1.6	-0.5	0.3	1.1	1.6	1.8	1.8	1.8	1.8	1.2
Poles & Fixtures: JUEPTPL&FX@SOC	599.8	618.0	631.0	640.7	650.0	658.9	669.4	681.6	694.6	707.2	719.8	732.1
Percent Change	0.3	3.0	2.1	1.5	1.4	1.4	1.6	1.8	1.9	1.8	1.8	1.7
Overhead Conductors & Devices: JUEPTCN&DO@SOC	504.4	566.9	624.5	648.8	658.7	670.0	690.2	713.0	740.8	767.3	791.2	816.4
Percent Change	-21.9	12.4	10.2	3.9	1.5	1.7	3.0	3.3	3.9	3.6	3.1	3.2
Underground Conduit: JUEPTCNU@SOC	608.2	662.1	619.7	598.2	599.3	603.9	610.3	618.3	626.5	633.9	641.2	648.5
Percent Change	8.1	8.9	-6.4	-3.5	0.2	0.8	1.0	1.3	1.3	1.2	1.2	1.1
Underground Conductors & Dev: JUEPTCN&DU@SOC	1362.0	1413.9	1510.4	1526.9	1469.2	1404.1	1350.6	1325.4	1314.0	1318.6	1318.8	1311.6
Percent Change	10.0	3.8	6.8	1.1	-3.8	-4.4	-3.8	-1.9	-0.9	0.4	0.0	-0.5
DISTRIBUTION PLANT												
Total Distribution Plant: JUEPD@SOC	795.0	833.1	877.7	922.2	941.8	943.1	943.4	952.7	968.6	986.8	1006.3	1026.8
Percent Change	3.0	4.8	5.4	5.1	2.1	0.1	0.0	1.0	1.7	1.9	2.0	2.0
Station Equipment: JUEPDST@SOC	726.0	796.4	817.9	812.5	800.5	797.4	798.2	802.3	809.3	818.3	827.6	837.3
Percent Change	7.2	9.7	2.7	-0.7	-1.5	-0.4	0.1	0.5	0.9	1.1	1.1	1.2
Poles; Towers; & Fixtures: JUEPDPT&F@SOC	573.2	594.3	608.7	619.3	628.2	637.3	647.7	659.8	672.3	684.4	696.7	711.5
Percent Change	0.3	3.7	2.4	1.8	1.4	1.5	1.6	1.9	1.9	1.8	1.8	2.1

Table A12

Cost Trends of Electric Utility Construction: South Central Region (continued)**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Overhead Conductors & Devices: JUEPDCN&DO@SOC	786.8	840.9	905.0	940.5	950.3	944.4	941.4	946.3	956.6	967.8	978.7	991.7
Percent Change	-6.1	6.9	7.6	3.9	1.0	-0.6	-0.3	0.5	1.1	1.2	1.1	1.3
Underground Conduit: JUEPDCNU@SOC	544.4	561.2	572.0	580.6	588.5	596.2	606.7	618.6	630.6	642.4	654.4	667.4
Percent Change	5.0	3.1	1.9	1.5	1.3	1.3	1.8	2.0	1.9	1.9	1.9	2.0
Undgr. Cond. & Dev. in Conduit: JUEPDCN&DU@SOC	851.2	895.5	961.8	981.8	973.5	949.0	927.2	925.3	932.3	943.4	955.2	967.3
Percent Change	8.5	5.2	7.4	2.1	-0.8	-2.5	-2.3	-0.2	0.7	1.2	1.3	1.3
Line Transformers: JUEPDTRL@SOC	1120.2	1150.1	1221.1	1340.9	1398.6	1389.7	1369.2	1370.7	1390.3	1416.0	1445.4	1475.6
Percent Change	6.5	2.7	6.2	9.8	4.3	-0.6	-1.5	0.1	1.4	1.8	2.1	2.1
Pad Mounted Transformers: JUEPDTRPM@SOC	913.1	1033.9	1091.6	1090.8	1075.6	1074.3	1088.5	1107.1	1128.0	1151.4	1175.8	1200.8
Percent Change	21.7	13.2	5.6	-0.1	-1.4	-0.1	1.3	1.7	1.9	2.1	2.1	2.1
Services-Overhead: JUEPDSVO@SOC	507.0	531.8	552.5	568.5	578.7	588.2	602.2	617.4	632.6	646.9	660.9	675.1
Percent Change	0.5	4.9	3.9	2.9	1.8	1.6	2.4	2.5	2.5	2.3	2.2	2.2
Services-Underground: JUEPDSVU@SOC	466.9	494.6	515.6	516.0	510.5	507.1	509.1	519.2	533.5	549.3	565.0	580.8
Percent Change	3.5	5.9	4.2	0.1	-1.1	-0.7	0.4	2.0	2.7	3.0	2.9	2.8
Meters Installed: JUEPDMTI@SOC	363.3	360.6	360.6	367.1	371.7	374.8	375.7	377.0	378.3	379.9	381.4	382.6
Percent Change	1.8	-0.7	0.0	1.8	1.2	0.9	0.2	0.4	0.3	0.4	0.4	0.3
Street Lighting-Overhead: JUEPDLISO@SOC	768.8	841.9	993.8	1093.8	1069.5	1023.1	988.3	982.0	987.7	996.4	1007.8	1019.5
Percent Change	-4.9	9.5	18.0	10.1	-2.2	-4.3	-3.4	-0.6	0.6	0.9	1.1	1.2
Mast Arms & Luminaries Inst: JUEPDLI&MAI@SOC	660.0	704.3	655.4	669.8	744.4	818.5	825.9	809.1	792.8	789.2	798.4	809.5
Percent Change	-10.9	6.7	-6.9	2.2	11.1	9.9	0.9	-2.0	-2.0	-0.5	1.2	1.4
Street Lighting-Underground: JUEPDLISU@SOC	805.1	883.4	1136.4	1294.4	1250.6	1171.6	1114.2	1097.6	1097.9	1104.1	1115.1	1125.9
Percent Change	-4.6	9.7	28.6	13.9	-3.4	-6.3	-4.9	-1.5	0.0	0.6	1.0	1.0

Source: IHS Markit

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Table A13

Cost Trends of Electric Utility Construction: Plateau Region**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Plant-All Steam Generation: JUEST@PLA	789.1	828.5	844.0	865.3	877.7	882.5	887.9	899.7	915.7	932.8	950.7	969.2
Percent Change	6.6	5.0	1.9	2.5	1.4	0.5	0.6	1.3	1.8	1.9	1.9	1.9
Total Plant-Steam & Hyd. Gen: JUEST&H@PLA	771.7	809.8	825.1	845.5	857.0	861.5	866.6	878.0	893.4	910.0	927.4	945.3
Percent Change	6.6	4.9	1.9	2.5	1.4	0.5	0.6	1.3	1.8	1.9	1.9	1.9
STEAM PRODUCTION PLANT												
Total Steam Production Plant: JUEPPF@PLA	808.9	844.6	833.0	841.4	850.8	856.3	862.6	875.1	890.0	904.9	920.2	936.2
Percent Change	11.1	4.4	-1.4	1.0	1.1	0.6	0.7	1.5	1.7	1.7	1.7	1.7
Structures & Improvements-Indr: JUEPPFS&I@PLA	766.8	795.6	791.8	800.7	813.7	829.0	845.3	864.0	882.8	902.1	921.8	942.7
Percent Change	10.4	3.8	-0.5	1.1	1.6	1.9	2.0	2.2	2.2	2.2	2.2	2.3
Struct. & Improve.-Semi-Outdoor: JUEPPFS&IO@PLA	616.2	632.1	618.9	613.6	612.9	615.3	620.7	633.1	646.2	659.2	672.6	686.0
Percent Change	13.5	2.6	-2.1	-0.8	-0.1	0.4	0.9	2.0	2.1	2.0	2.0	2.0
Boiler Plant Equip.-Coal Fired: JUEPPFBPCF@PLA	781.5	812.3	809.2	818.0	831.3	843.4	856.3	872.7	890.5	906.5	922.8	940.0
Percent Change	8.1	3.9	-0.4	1.1	1.6	1.4	1.5	1.9	2.0	1.8	1.8	1.9
Boiler Plant Piping Installed: JUEPPFBPPI@PLA	727.4	781.5	752.2	735.1	737.8	746.2	756.6	772.5	790.7	807.1	823.6	840.4
Percent Change	9.1	7.4	-3.7	-2.3	0.4	1.1	1.4	2.1	2.4	2.1	2.0	2.0
Turbogenerator Units: JUEPPFTG@PLA	761.1	799.8	750.3	753.1	758.2	760.3	763.2	774.6	788.1	802.4	817.2	832.0
Percent Change	17.9	5.1	-6.2	0.4	0.7	0.3	0.4	1.5	1.7	1.8	1.8	1.8
Accessory Elec. Equipment: JUEPPFELA@PLA	1398.4	1477.0	1545.6	1597.0	1621.6	1617.6	1611.1	1618.0	1635.9	1660.2	1687.3	1715.7
Percent Change	8.1	5.6	4.6	3.3	1.5	-0.2	-0.4	0.4	1.1	1.5	1.6	1.7
Misc. Power Plant Equipment: JUEPPFO@PLA	841.9	903.1	893.3	882.1	883.0	893.5	904.2	917.0	934.0	952.1	970.3	989.5
Percent Change	10.8	7.3	-1.1	-1.3	0.1	1.2	1.2	1.4	1.9	1.9	1.9	2.0
NUCLEAR PRODUCTION PLANT												
Total Nuclear Production Plant: JUEPPN@PLA	764.4	805.1	804.4	810.7	819.1	826.4	833.9	846.0	861.3	877.4	893.8	910.5
Percent Change	10.5	5.3	-0.1	0.8	1.0	0.9	0.9	1.5	1.8	1.9	1.9	1.9
Structures & Improvements: JUEPPNS&I@PLA	595.4	618.8	615.1	620.6	627.8	638.2	648.5	661.1	674.7	688.5	702.6	716.7
Percent Change	10.4	3.9	-0.6	0.9	1.2	1.7	1.6	1.9	2.1	2.0	2.1	2.0
Reactor Plant Equipment: JUEPPNRC@PLA	707.1	749.1	744.9	741.7	749.0	760.9	773.8	789.6	807.9	825.9	843.4	861.3
Percent Change	9.8	5.9	-0.6	-0.4	1.0	1.6	1.7	2.0	2.3	2.2	2.1	2.1
HYDRO PRODUCTION PLANT												
Total Hydraulic Prod. Plant: JUEPPH@PLA	628.1	648.9	642.5	644.8	647.1	651.9	657.5	667.9	679.8	692.2	704.9	716.8
Percent Change	11.7	3.3	-1.0	0.4	0.4	0.7	0.9	1.6	1.8	1.8	1.8	1.7
Structures & Improvements: JUEPPHS&I@PLA	766.5	793.5	808.6	831.5	845.3	851.5	859.1	874.2	893.7	914.8	935.8	958.5
Percent Change	10.4	3.5	1.9	2.8	1.7	0.7	0.9	1.8	2.2	2.4	2.3	2.4
Reservoirs; Dams & Waterways: JUEPPHRD&W@PLA	593.8	620.4	617.5	620.2	625.1	633.1	641.4	653.9	667.2	680.5	694.2	706.1
Percent Change	11.8	4.5	-0.5	0.4	0.8	1.3	1.3	1.9	2.0	2.0	2.0	1.7
Water Wheels; Turbines & Gen: JUEPPHWT&G@PLA	617.7	636.4	624.4	629.5	633.3	632.3	630.9	635.2	641.3	648.4	655.8	663.3
Percent Change	12.8	3.0	-1.9	0.8	0.6	-0.2	-0.2	0.7	1.0	1.1	1.1	1.1
OTHER PRODUCTION PLANT												
Total Other Production Plant: JUEPPO@PLA	1081.1	1148.8	1219.3	1259.0	1294.2	1322.9	1336.6	1338.1	1341.8	1354.0	1371.1	1391.0
Percent Change	6.1	6.3	6.1	3.3	2.8	2.2	1.0	0.1	0.3	0.9	1.3	1.4
Fuel Holders & Accessories: JUEPPOFH@PLA	756.8	800.1	745.7	732.9	740.2	751.6	765.1	782.7	801.6	820.8	840.4	861.2
Percent Change	11.2	5.7	-6.8	-1.7	1.0	1.5	1.8	2.3	2.4	2.4	2.4	2.5
Gas Turbogenerators: JUEPPOTGG@PLA	1119.2	1192.1	1285.4	1332.9	1374.8	1410.9	1426.5	1423.4	1421.6	1430.4	1445.4	1463.6
Percent Change	5.1	6.5	7.8	3.7	3.1	2.6	1.1	-0.2	-0.1	0.6	1.0	1.3
TRANSMISSION PLANT												
Total Transmission Plant: JUEPT@PLA	689.9	740.6	770.5	781.6	785.3	789.0	796.7	808.0	823.0	839.5	855.8	871.6
Percent Change	0.6	7.4	4.0	1.4	0.5	0.5	1.0	1.4	1.9	2.0	1.9	1.8
Station Equipment: JUEPTST@PLA	916.4	986.4	1028.8	1041.2	1040.3	1037.1	1038.0	1045.3	1058.2	1074.2	1091.4	1108.8
Percent Change	7.6	7.6	4.3	1.2	-0.1	-0.3	0.1	0.7	1.2	1.5	1.6	1.6
Towers & Fixtures: JUEPTTW&FX@PLA	642.1	677.0	669.2	668.8	672.6	682.0	693.0	705.9	719.1	732.3	745.8	754.3
Percent Change	12.8	5.4	-1.2	-0.1	0.6	1.4	1.6	1.9	1.9	1.8	1.8	1.1
Poles & Fixtures: JUEPTPL&FX@PLA	602.1	618.2	628.9	637.1	646.8	655.8	665.2	675.7	687.4	699.7	711.9	723.8
Percent Change	0.4	2.7	1.7	1.3	1.5	1.4	1.4	1.6	1.7	1.8	1.7	1.7
Overhead Conductors & Devices: JUEPTCN&DO@PLA	507.6	567.3	621.9	644.8	655.9	667.1	686.6	707.5	734.1	760.8	784.9	810.1
Percent Change	-21.2	11.8	9.6	3.7	1.7	1.7	2.9	3.0	3.8	3.6	3.2	3.2
Underground Conduit: JUEPTCNU@PLA	613.7	662.5	620.9	601.6	603.7	611.4	614.0	620.8	628.5	635.7	642.8	649.4
Percent Change	7.4	7.9	-6.3	-3.1	0.3	1.3	0.4	1.1	1.2	1.2	1.1	1.0
Underground Conductors & Dev: JUEPTCN&DU@PLA	1353.6	1406.9	1499.6	1516.7	1464.6	1406.6	1358.4	1336.8	1327.6	1334.2	1337.4	1333.7
Percent Change	10.1	3.9	6.6	1.1	-3.4	-4.0	-3.4	-1.6	-0.7	0.5	0.2	-0.3
DISTRIBUTION PLANT												
Total Distribution Plant: JUEPD@PLA	822.3	862.1	909.5	955.7	978.3	983.8	987.8	1000.3	1019.4	1041.5	1065.2	1090.2
Percent Change	3.6	4.8	5.5	5.1	2.4	0.6	0.4	1.3	1.9	2.2	2.3	2.4
Station Equipment: JUEPDST@PLA	879.7	960.1	996.4	1007.4	1004.3	1001.1	997.0	996.5	1001.5	1009.8	1019.8	1031.4
Percent Change	7.5	9.1	3.8	1.1	-0.3	-0.3	-0.4	-0.1	0.5	0.8	1.0	1.1
Poles; Towers; & Fixtures: JUEPDPT&F@PLA	579.9	597.8	610.3	620.4	630.6	641.7	651.1	662.1	674.1	687.0	700.0	715.2
Percent Change	0.5	3.1	2.1	1.7	1.6	1.8	1.5	1.7	1.8	1.9	1.9	2.2
Overhead Conductors & Devices: JUEPDCN&DO@PLA	787.1	837.6	897.5	931.1	943.0	937.5	934.3	937.4	946.8	958.8	970.5	984.1
Percent Change	-5.7	6.4	7.2	3.7	1.3	-0.6	-0.3	0.3	1.0	1.3	1.2	1.4

Table A13

Cost Trends of Electric Utility Construction: Plateau Region (continued)**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Underground Conduit: JUEPDCNU@PLA	559.4	575.9	587.6	599.1	609.4	620.3	630.1	643.0	656.6	670.3	684.2	697.9
Percent Change	4.4	2.9	2.0	2.0	1.7	1.8	1.6	2.0	2.1	2.1	2.1	2.0
Undgr. Cond. & Dev. in Conduit: JUEPDCN&DU@PLA	850.8	898.8	960.6	979.6	970.7	949.3	930.9	930.2	936.9	947.4	959.5	973.2
Percent Change	8.6	5.6	6.9	2.0	-0.9	-2.2	-1.9	-0.1	0.7	1.1	1.3	1.4
Line Transformers: JUEPDTRL@PLA	1118.3	1150.9	1220.5	1335.6	1393.6	1390.4	1376.7	1382.6	1405.6	1434.3	1466.9	1500.1
Percent Change	6.5	2.9	6.0	9.4	4.3	-0.2	-1.0	0.4	1.7	2.0	2.3	2.3
Pad Mounted Transformers: JUEPDTRPM@PLA	916.8	1040.7	1101.2	1100.5	1083.7	1080.5	1093.8	1112.9	1134.0	1157.2	1181.1	1205.8
Percent Change	21.5	13.5	5.8	-0.1	-1.5	-0.3	1.2	1.7	1.9	2.0	2.1	2.1
Services-Overhead: JUEPDSVO@PLA	513.3	534.6	551.6	565.8	577.4	586.6	599.5	612.2	625.8	640.2	654.2	668.4
Percent Change	1.0	4.2	3.2	2.6	2.1	1.6	2.2	2.1	2.2	2.3	2.2	2.2
Services-Underground: JUEPDSVU@PLA	469.6	497.8	519.5	514.6	503.4	495.6	495.2	502.6	514.0	526.3	538.8	552.5
Percent Change	3.5	6.0	4.4	-0.9	-2.2	-1.5	-0.1	1.5	2.3	2.4	2.4	2.5
Meters Installed: JUEPDMTI@PLA	365.3	362.0	362.4	368.3	372.9	375.0	375.7	376.8	378.2	379.9	381.7	383.4
Percent Change	2.0	-0.9	0.1	1.6	1.3	0.6	0.2	0.3	0.4	0.5	0.5	0.5
Street Lighting-Overhead: JUEPDLISO@PLA	769.7	845.0	992.8	1089.5	1063.9	1020.2	987.4	981.3	985.9	993.7	1005.0	1017.4
Percent Change	-4.5	9.8	17.5	9.7	-2.3	-4.1	-3.2	-0.6	0.5	0.8	1.1	1.2
Mast Arms & Luminaries Inst: JUEPDLI&MAI@PLA	661.5	706.5	655.6	669.5	743.8	817.7	824.7	807.3	790.3	786.4	795.5	806.7
Percent Change	-10.5	6.8	-7.2	2.1	11.1	9.9	0.9	-2.1	-2.1	-0.5	1.2	1.4
Street Lighting-Underground: JUEPDLISU@PLA	808.3	887.9	1136.4	1291.9	1248.8	1174.5	1117.2	1101.5	1102.3	1107.9	1119.1	1131.5
Percent Change	-4.3	9.9	28.0	13.7	-3.3	-6.0	-4.9	-1.4	0.1	0.5	1.0	1.1

Source: IHS Markit

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Table A14

Cost Trends of Electric Utility Construction: Pacific Region

(TREND 221)

(1973=100)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Plant-All Steam Generation: JUEST@PCF	868.2	909.4	931.3	959.6	976.5	982.9	991.4	1006.2	1025.0	1045.2	1066.4	1088.4
Percent Change	6.8	4.7	2.4	3.0	1.8	0.7	0.9	1.5	1.9	2.0	2.0	2.1
Total Plant-St. & Nuclear Gen: JUEST&N@PCF	870.5	912.1	933.1	960.6	977.4	983.9	992.6	1007.6	1026.6	1046.9	1068.3	1090.4
Percent Change	6.8	4.8	2.3	3.0	1.7	0.7	0.9	1.5	1.9	2.0	2.0	2.1
Total Plant-Steam & Hyd. Gen: JUEST&H@PCF	844.1	883.2	903.7	929.5	944.8	951.3	959.6	974.1	992.5	1012.2	1032.7	1053.9
Percent Change	6.7	4.6	2.3	2.8	1.6	0.7	0.9	1.5	1.9	2.0	2.0	2.0
STEAM PRODUCTION PLANT												
Total Steam Production Plant: JUEPPF@PCF	857.8	895.6	882.5	894.6	907.6	911.7	920.7	935.0	951.0	967.1	983.9	1001.5
Percent Change	11.0	4.4	-1.5	1.4	1.5	0.4	1.0	1.5	1.7	1.7	1.7	1.8
Structures & Improvements-Indr: JUEPPFS&I@PCF	830.9	853.6	848.8	861.0	877.0	891.7	908.8	929.7	950.4	970.5	990.4	1011.7
Percent Change	10.2	2.7	-0.6	1.4	1.9	1.7	1.9	2.3	2.2	2.1	2.1	2.1
Struct. & Improve.-Semi-Outdoor: JUEPPFS&IO@PCF	716.0	736.1	717.8	713.6	717.0	721.6	729.4	742.8	757.6	772.6	787.6	803.1
Percent Change	12.9	2.8	-2.5	-0.6	0.5	0.6	1.1	1.8	2.0	2.0	1.9	2.0
Boiler Plant Equip.-Coal Fired: JUEPPFBPCF@PCF	829.1	864.9	865.2	881.2	900.5	907.5	923.3	941.4	959.7	976.6	994.2	1013.2
Percent Change	7.7	4.3	0.0	1.9	2.2	0.8	1.7	2.0	1.9	1.8	1.8	1.9
Boiler Plant Piping Installed: JUEPPFBPI@PCF	814.0	871.4	850.0	845.7	858.5	864.6	880.4	900.3	921.6	941.1	961.3	982.3
Percent Change	7.8	7.1	-2.5	-0.5	1.5	0.7	1.8	2.3	2.4	2.1	2.1	2.2
Turbogenerator Units: JUEPPFTG@PCF	789.8	829.1	778.5	782.6	789.8	793.1	798.3	811.4	826.7	842.9	859.5	876.4
Percent Change	17.2	5.0	-6.1	0.5	0.9	0.4	0.7	1.6	1.9	2.0	2.0	2.0
Accessory Elec. Equipment: JUEPPFELA@PCF	1489.1	1555.9	1619.8	1672.6	1698.2	1699.5	1699.7	1711.9	1732.9	1758.5	1786.5	1816.0
Percent Change	8.2	4.5	4.1	3.3	1.5	0.1	0.0	0.7	1.2	1.5	1.6	1.7
Misc. Power Plant Equipment: JUEPPFO@PCF	916.6	976.8	971.2	968.8	975.8	987.2	1002.3	1019.0	1039.2	1060.2	1081.5	1104.3
Percent Change	9.9	6.6	-0.6	-0.2	0.7	1.2	1.5	1.7	2.0	2.0	2.0	2.1
NUCLEAR PRODUCTION PLANT												
Total Nuclear Production Plant: JUEPPN@PCF	876.6	919.6	919.8	931.4	942.9	949.9	958.5	972.5	989.5	1007.5	1025.8	1044.7
Percent Change	10.6	4.9	0.0	1.3	1.2	0.7	0.9	1.5	1.8	1.8	1.8	1.8
Structures & Improvements: JUEPPNS&I@PCF	674.1	701.8	703.9	709.8	719.1	731.0	743.9	758.6	774.1	789.8	805.9	822.2
Percent Change	10.6	4.1	0.3	0.8	1.3	1.6	1.8	2.0	2.0	2.0	2.0	2.0
Reactor Plant Equipment: JUEPPNRC@PCF	761.4	802.7	801.6	803.9	815.7	827.6	842.6	860.6	880.7	900.3	919.3	938.8
Percent Change	9.4	5.4	-0.1	0.3	1.5	1.5	1.8	2.1	2.3	2.2	2.1	2.1
HYDRO PRODUCTION PLANT												
Total Hydraulic Prod. Plant: JUEPPH@PCF	674.6	698.0	694.1	697.6	703.2	712.1	722.6	736.8	751.9	767.3	783.0	797.6
Percent Change	11.0	3.5	-0.6	0.5	0.8	1.3	1.5	2.0	2.1	2.0	2.1	1.9
Structures & Improvements: JUEPPHS&I@PCF	830.3	850.7	863.6	893.1	910.3	922.0	935.7	958.2	983.2	1007.7	1032.2	1058.6
Percent Change	10.2	2.5	1.5	3.4	1.9	1.3	1.5	2.4	2.6	2.5	2.4	2.6
Reservoirs; Dams & Waterways: JUEPPHRD&W@PCF	660.9	689.9	689.4	693.2	701.5	712.6	725.1	740.4	756.3	772.4	788.9	803.4
Percent Change	11.0	4.4	-0.1	0.5	1.2	1.6	1.8	2.1	2.1	2.1	2.1	1.8
Water Wheels; Turbines & Gen: JUEPPHWT&G@PCF	645.6	665.0	654.2	660.9	666.0	666.3	666.3	672.1	679.7	688.1	696.9	705.8
Percent Change	12.6	3.0	-1.6	1.0	0.8	0.1	0.0	0.9	1.1	1.2	1.3	1.3
OTHER PRODUCTION PLANT												
Total Other Production Plant: JUEPPO@PCF	1062.4	1123.3	1185.9	1221.7	1254.2	1280.2	1292.8	1294.3	1297.5	1308.2	1323.3	1341.0
Percent Change	6.4	5.7	5.6	3.0	2.7	2.1	1.0	0.1	0.2	0.8	1.2	1.3
Fuel Holders & Accessories: JUEPPOFH@PCF	825.4	867.4	819.5	813.6	824.8	836.4	852.5	872.0	892.7	913.7	935.1	958.2
Percent Change	10.7	5.1	-5.5	-0.7	1.4	1.4	1.9	2.3	2.4	2.3	2.3	2.5
Gas Turbogenerators: JUEPPOTGG@PCF	1130.0	1201.4	1293.9	1339.8	1380.4	1413.8	1426.4	1420.4	1415.6	1421.4	1433.3	1448.5
Percent Change	5.1	6.3	7.7	3.5	3.0	2.4	0.9	-0.4	-0.3	0.4	0.8	1.1
TRANSMISSION PLANT												
Total Transmission Plant: JUEPT@PCF	802.3	854.1	885.2	898.8	904.1	909.8	920.0	934.2	951.9	970.5	989.3	1007.9
Percent Change	2.9	6.5	3.6	1.5	0.6	0.6	1.1	1.5	1.9	2.0	1.9	1.9
Station Equipment: JUEPTST@PCF	983.0	1052.8	1096.5	1108.4	1107.5	1104.4	1105.5	1113.2	1125.8	1141.1	1157.7	1175.0
Percent Change	7.8	7.1	4.1	1.1	-0.1	-0.3	0.1	0.7	1.1	1.4	1.5	1.5
Towers & Fixtures: JUEPTTW&FX@PCF	734.3	771.7	767.3	771.2	780.2	795.4	813.8	833.0	852.7	872.9	893.5	910.1
Percent Change	11.9	5.1	-0.6	0.5	1.2	1.9	2.3	2.4	2.4	2.4	2.4	1.9
Poles & Fixtures: JUEPTPL&FX@PCF	747.1	762.3	777.8	793.4	806.9	819.9	834.4	850.7	867.5	884.1	900.7	917.3
Percent Change	2.5	2.0	2.0	2.0	1.7	1.6	1.8	2.0	2.0	1.9	1.9	1.8
Overhead Conductors & Devices: JUEPTCN&DO@PCF	612.6	666.5	722.1	752.0	765.4	779.1	801.0	825.6	854.9	883.2	909.0	936.0
Percent Change	-16.5	8.8	8.3	4.1	1.8	1.8	2.8	3.1	3.5	3.3	2.9	3.0
Underground Conduit: JUEPTCNU@PCF	797.1	836.1	801.0	788.9	793.3	802.9	812.9	824.2	835.0	845.1	855.0	866.0
Percent Change	7.9	4.9	-4.2	-1.5	0.6	1.2	1.3	1.4	1.3	1.2	1.2	1.3
Underground Conductors & Dev: JUEPTCN&DU@PCF	1434.5	1496.3	1588.8	1609.4	1563.3	1507.9	1462.5	1444.2	1439.3	1449.9	1456.3	1455.8
Percent Change	10.4	4.3	6.2	1.3	-2.9	-3.5	-3.0	-1.3	-0.3	0.7	0.4	0.0
DISTRIBUTION PLANT												
Total Distribution Plant: JUEPD@PCF	907.3	947.4	998.4	1047.9	1073.4	1082.5	1090.0	1105.9	1128.1	1153.2	1179.9	1207.8
Percent Change	4.6	4.4	5.4	4.9	2.4	0.8	0.7	1.5	2.0	2.2	2.3	2.4
Station Equipment: JUEPDST@PCF	912.9	997.2	1037.0	1042.1	1038.6	1040.8	1041.9	1046.5	1056.0	1069.0	1083.2	1098.3
Percent Change	8.0	9.2	4.0	0.5	-0.3	0.2	0.1	0.4	0.9	1.2	1.3	1.4
Poles; Towers; & Fixtures: JUEPDPT&F@PCF	740.5	755.3	770.9	789.3	803.5	818.7	834.5	851.7	868.9	885.9	903.0	922.7
Percent Change	2.8	2.0	2.1	2.4	1.8	1.9	1.9	2.1	2.0	2.0	1.9	2.2

Table A14

Cost Trends of Electric Utility Construction: Pacific Region (continued)**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Overhead Conductors & Devices: JUEPDCN&DO@PCF	932.1	974.4	1035.3	1078.3	1093.9	1093.6	1096.0	1105.9	1120.7	1136.4	1151.8	1169.4
Percent Change	-2.7	4.5	6.2	4.2	1.4	0.0	0.2	0.9	1.3	1.4	1.4	1.5
Underground Conduit: JUEPDCNU@PCF	744.3	752.7	766.7	783.4	794.8	806.6	820.9	836.5	852.1	867.9	883.7	900.8
Percent Change	6.0	1.1	1.9	2.2	1.5	1.5	1.8	1.9	1.9	1.9	1.8	1.9
Undgr. Cond. & Dev. in Conduit: JUEPDCN&DU@PCF	951.8	1004.1	1074.7	1090.5	1084.5	1070.3	1054.8	1056.7	1066.1	1080.3	1095.3	1111.0
Percent Change	9.0	5.5	7.0	1.5	-0.6	-1.3	-1.5	0.2	0.9	1.3	1.4	1.4
Line Transformers: JUEPDTRL@PCF	1159.6	1191.3	1265.6	1388.0	1445.3	1439.1	1423.8	1428.5	1450.6	1478.7	1510.9	1543.5
Percent Change	6.8	2.7	6.2	9.7	4.1	-0.4	-1.1	0.3	1.5	1.9	2.2	2.2
Pad Mounted Transformers: JUEPDTRPM@PCF	974.8	1096.2	1157.2	1159.4	1148.0	1151.6	1168.5	1190.1	1214.2	1241.0	1268.6	1296.8
Percent Change	20.9	12.4	5.6	0.2	-1.0	0.3	1.5	1.8	2.0	2.2	2.2	2.2
Services-Overhead: JUEPDSVO@PCF	688.6	706.4	728.6	754.7	771.5	786.2	805.0	825.4	845.7	865.3	884.6	904.4
Percent Change	3.4	2.6	3.2	3.6	2.2	1.9	2.4	2.5	2.5	2.3	2.2	2.2
Services-Underground: JUEPDSVU@PCF	556.9	588.7	617.4	615.8	613.2	617.5	625.3	638.5	655.2	673.2	690.9	708.7
Percent Change	4.8	5.7	4.9	-0.3	-0.4	0.7	1.3	2.1	2.6	2.8	2.6	2.6
Meters Installed: JUEPDMTI@PCF	418.5	413.5	415.6	425.3	431.2	434.8	437.1	440.6	444.0	447.1	450.1	453.3
Percent Change	2.8	-1.2	0.5	2.3	1.4	0.8	0.5	0.8	0.8	0.7	0.7	0.7
Street Lighting-Overhead: JUEPDLISO@PCF	879.1	962.7	1099.4	1194.3	1181.1	1145.2	1118.3	1117.7	1128.5	1142.3	1158.8	1176.0
Percent Change	-2.7	9.5	14.2	8.6	-1.1	-3.0	-2.4	-0.1	1.0	1.2	1.4	1.5
Mast Arms & Luminaries Inst: JUEPDLI&MAI@PCF	750.4	798.7	745.5	758.9	835.9	910.8	917.3	899.2	881.8	877.1	885.5	895.9
Percent Change	-8.4	6.4	-6.7	1.8	10.1	9.0	0.7	-2.0	-1.9	-0.5	1.0	1.2
Street Lighting-Underground: JUEPDLISU@PCF	927.9	1018.6	1265.5	1424.2	1392.5	1321.2	1266.8	1254.9	1260.7	1271.7	1287.1	1303.7
Percent Change	-2.3	9.8	24.2	12.5	-2.2	-5.1	-4.1	-0.9	0.5	0.9	1.2	1.3

Source: IHS Markit

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Table A15

Cost Trends of Gas Utility Construction: North Atlantic Region**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Gas Plant: JUG@NTL	1071.9	1160.6	1114.5	1077.3	1074.1	1092.4	1112.1	1134.3	1159.2	1183.2	1207.3	1232.5
Percent Change	13.2	8.3	-4.0	-3.3	-0.3	1.7	1.8	2.0	2.2	2.1	2.0	2.1
PRODUCTION PLANT												
L.P.G. Equipment: JUGPLPG@NTL	766.1	797.0	779.1	780.5	791.7	802.8	813.5	826.7	841.0	855.4	870.0	885.6
Percent Change	2.8	4.0	-2.2	0.2	1.4	1.4	1.3	1.6	1.7	1.7	1.7	1.8
S.N.G. Equipment: JUGPPSNG@NTL	727.6	760.4	750.9	758.9	774.7	789.4	804.1	820.3	836.8	853.0	869.2	885.8
Percent Change	7.3	4.5	-1.2	1.1	2.1	1.9	1.9	2.0	2.0	1.9	1.9	1.9
STORAGE PLANT												
Gas Holders Excl. Foundation: JUGPSHEF@NTL	641.4	660.5	644.1	654.0	668.3	682.3	696.2	711.3	726.8	742.9	759.5	776.6
Percent Change	8.7	3.0	-2.5	1.5	2.2	2.1	2.0	2.2	2.2	2.2	2.2	2.2
TRANSMISSION PLANT												
Gas Transmission Plant: JUGPT@NTL	842.2	926.7	830.4	791.9	796.0	804.5	813.9	834.4	857.1	879.2	901.5	921.2
Percent Change	20.7	10.0	-10.4	-4.6	0.5	1.1	1.2	2.5	2.7	2.6	2.5	2.2
Structures & Improvements: JUGPTS&I@NTL	699.4	709.0	715.2	719.2	722.8	729.4	737.9	752.1	766.8	779.4	792.3	807.6
Percent Change	9.8	1.4	0.9	0.6	0.5	0.9	1.2	1.9	2.0	1.6	1.7	1.9
Mains: JUGPTM@NTL	855.6	948.6	831.6	785.3	789.4	797.9	807.2	829.0	853.1	876.4	899.9	919.9
Percent Change	23.5	10.9	-12.3	-5.6	0.5	1.1	1.2	2.7	2.9	2.7	2.7	2.2
Compressor Station Equipment: JUGPTSTCM@NTL	822.2	880.4	878.9	873.4	877.7	885.6	894.1	907.8	923.7	940.2	957.1	975.1
Percent Change	6.2	7.1	-0.2	-0.6	0.5	0.9	1.0	1.5	1.7	1.8	1.8	1.9
Meas. & Reg. Sta. Equip: JUGPTSTM&R@NTL	1013.9	1094.9	1038.0	1006.0	1005.4	1019.2	1034.3	1053.1	1074.1	1094.4	1114.4	1135.6
Percent Change	13.3	8.0	-5.2	-3.1	-0.1	1.4	1.5	1.8	2.0	1.9	1.8	1.9
DISTRIBUTION PLANT												
Structures & Improvements: JUGPDS&I@NTL	699.4	709.0	715.2	719.2	722.8	729.4	737.9	752.1	766.8	779.4	792.3	807.6
Percent Change	9.8	1.4	0.9	0.6	0.5	0.9	1.2	1.9	2.0	1.6	1.7	1.9
Mains; Cast Iron: JUGPDMCI@NTL	1053.7	1047.0	1096.3	1097.0	1079.6	1093.4	1120.4	1141.1	1155.5	1178.4	1200.2	1218.6
Percent Change	4.3	-0.6	4.7	0.1	-1.6	1.3	2.5	1.8	1.3	2.0	1.8	1.5
Mains; Steel: JUGPDMS@NTL	1177.9	1288.2	1222.6	1169.0	1159.3	1179.1	1201.5	1225.8	1253.1	1279.4	1305.8	1333.2
Percent Change	15.4	9.4	-5.1	-4.4	-0.8	1.7	1.9	2.0	2.2	2.1	2.1	2.1
Mains; Plastic: JUGPDMP@NTL	649.0	689.2	700.7	689.9	693.7	701.8	711.5	723.7	736.5	748.8	761.2	775.3
Percent Change	4.6	6.2	1.7	-1.5	0.6	1.2	1.4	1.7	1.8	1.7	1.7	1.8
Compressor Station Equipment: JUGPDSTCM@NTL	821.0	888.3	892.8	886.1	890.5	898.8	907.5	920.5	936.2	952.7	969.7	987.6
Percent Change	6.0	8.2	0.5	-0.7	0.5	0.9	1.0	1.4	1.7	1.8	1.8	1.9
Meas. & Reg. Sta. Equip: JUGPDSTM&R@NTL	983.1	1059.9	995.8	962.1	962.0	974.6	987.6	1004.5	1023.3	1041.3	1059.0	1077.9
Percent Change	13.8	7.8	-6.0	-3.4	0.0	1.3	1.3	1.7	1.9	1.8	1.7	1.8
Meas. & Reg. Eq.-City Gate: JUGPDSTM&RL@NTL	988.8	1068.4	1003.9	967.0	964.7	977.5	990.9	1007.6	1026.7	1045.0	1062.9	1082.0
Percent Change	14.3	8.1	-6.0	-3.7	-0.2	1.3	1.4	1.7	1.9	1.8	1.7	1.8
Services; Steel: JUGPDVS@NTL	895.0	953.2	937.8	928.5	938.6	955.4	971.9	991.6	1013.4	1034.7	1056.1	1077.7
Percent Change	8.9	6.5	-1.6	-1.0	1.1	1.8	1.7	2.0	2.2	2.1	2.1	2.1
Services; Plastic: JUGPDVSP@NTL	728.3	753.3	769.2	784.2	806.4	820.6	832.3	847.0	862.5	877.1	891.4	907.0
Percent Change	3.2	3.4	2.1	2.0	2.8	1.8	1.4	1.8	1.8	1.7	1.6	1.8
Meters: JUGPDMT@NTL	467.9	468.2	483.3	489.0	498.7	512.0	512.5	511.6	517.8	525.0	529.9	535.8
Percent Change	-3.4	0.1	3.2	1.2	2.0	2.7	0.1	-0.2	1.2	1.4	0.9	1.1
Meter Installations: JUGPDMTI@NTL	1289.2	1417.2	1335.1	1267.4	1252.5	1275.1	1301.3	1328.1	1357.9	1386.3	1414.6	1444.1
Percent Change	16.7	9.9	-5.8	-5.1	-1.2	1.8	2.1	2.1	2.2	2.1	2.0	2.1
House Regulators: JUGPDRH@NTL	557.4	602.5	611.6	579.2	561.6	565.1	572.3	580.4	591.4	601.2	610.8	620.4
Percent Change	0.2	8.1	1.5	-5.3	-3.0	0.6	1.3	1.4	1.9	1.7	1.6	1.6
House Reg. Installations: JUGPDRHI@NTL	1240.1	1357.6	1284.4	1225.4	1214.9	1236.9	1261.6	1286.9	1314.8	1341.3	1367.5	1394.9
Percent Change	15.7	9.5	-5.4	-4.6	-0.9	1.8	2.0	2.0	2.2	2.0	2.0	2.0

Source: IHS Markit

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Table A16

Cost Trends of Gas Utility Construction: South Atlantic Region**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Gas Plant: JUG@STL	1001.5	1096.2	1039.8	989.0	971.7	988.6	1006.9	1027.8	1051.5	1074.4	1097.8	1121.9
Percent Change	15.9	9.5	-5.1	-4.9	-1.7	1.7	1.9	2.1	2.3	2.2	2.2	2.2
PRODUCTION PLANT												
L.P.G. Equipment: JUGPPLPG@STL	691.9	721.9	702.1	699.9	704.8	716.8	726.5	739.7	754.3	769.2	784.9	801.0
Percent Change	3.3	4.3	-2.7	-0.3	0.7	1.7	1.4	1.8	2.0	2.0	2.0	2.0
S.N.G. Equipment: JUGPPSNG@STL	637.2	669.0	655.7	657.6	666.1	680.3	692.3	707.1	722.4	737.4	753.1	768.4
Percent Change	9.1	5.0	-2.0	0.3	1.3	2.1	1.8	2.1	2.2	2.1	2.1	2.0
STORAGE PLANT												
Gas Holders Excl. Foundation: JUGPSHEF@STL	518.7	532.0	522.1	528.8	537.2	546.6	556.8	567.4	578.1	588.9	600.0	611.3
Percent Change	8.5	2.6	-1.9	1.3	1.6	1.8	1.9	1.9	1.9	1.9	1.9	1.9
TRANSMISSION PLANT												
Gas Transmission Plant: JUGPT@STL	780.7	870.3	752.7	701.9	695.6	699.7	705.4	722.9	743.0	762.3	781.9	799.9
Percent Change	24.9	11.5	-13.5	-6.8	-0.9	0.6	0.8	2.5	2.8	2.6	2.6	2.3
Structures & Improvements: JUGPTS&I@STL	569.4	584.4	578.9	579.8	576.1	579.7	586.1	595.9	608.2	620.2	631.9	645.3
Percent Change	11.9	2.6	-0.9	0.1	-0.6	0.6	1.1	1.7	2.1	2.0	1.9	2.1
Mains: JUGPTM@STL	801.5	902.1	759.0	697.8	690.5	694.4	700.1	719.1	740.7	761.3	782.2	800.9
Percent Change	28.6	12.6	-15.9	-8.1	-1.0	0.6	0.8	2.7	3.0	2.8	2.7	2.4
Compressor Station Equipment: JUGPTSTCM@STL	767.2	824.4	820.0	811.4	811.0	817.9	824.3	836.6	851.5	867.1	883.4	900.2
Percent Change	6.9	7.5	-0.5	-1.0	0.0	0.9	0.8	1.5	1.8	1.8	1.9	1.9
Meas. & Reg. Sta. Equip: JUGPTSTM&R@STL	955.9	1039.9	973.5	930.7	918.6	931.8	943.9	961.6	982.0	1001.7	1021.8	1042.5
Percent Change	15.7	8.8	-6.4	-4.4	-1.3	1.4	1.3	1.9	2.1	2.0	2.0	2.0
DISTRIBUTION PLANT												
Structures & Improvements: JUGPDS&I@STL	569.4	584.4	578.9	579.8	576.1	579.7	586.1	595.9	608.2	620.2	631.9	645.3
Percent Change	11.9	2.6	-0.9	0.1	-0.6	0.6	1.1	1.7	2.1	2.0	1.9	2.1
Mains; Cast Iron: JUGPDMCI@STL	1024.9	1012.4	1061.7	1057.1	1030.9	1039.9	1063.5	1081.0	1091.5	1110.8	1129.1	1143.4
Percent Change	4.4	-1.2	4.9	-0.4	-2.5	0.9	2.3	1.6	1.0	1.8	1.6	1.3
Mains; Steel: JUGPDMS@STL	1132.9	1252.2	1175.1	1106.1	1081.8	1101.5	1123.0	1147.3	1174.8	1201.2	1228.4	1256.1
Percent Change	18.2	10.5	-6.2	-5.9	-2.2	1.8	2.0	2.2	2.4	2.3	2.3	2.3
Mains; Plastic: JUGPDMP@STL	593.9	634.1	645.0	628.7	625.6	633.9	642.2	654.1	666.5	678.4	690.8	704.5
Percent Change	5.2	6.8	1.7	-2.5	-0.5	1.3	1.3	1.8	1.9	1.8	1.8	2.0
Compressor Station Equipment: JUGPDSTCM@STL	766.0	832.3	834.7	824.4	823.2	829.7	836.4	848.3	863.2	878.8	895.1	911.9
Percent Change	6.8	8.7	0.3	-1.2	-0.1	0.8	0.8	1.4	1.8	1.8	1.8	1.9
Meas. & Reg. Sta. Equip: JUGPDSTM&R@STL	913.6	992.8	919.2	875.2	863.9	876.3	886.3	902.3	920.8	938.4	956.4	975.0
Percent Change	16.7	8.7	-7.4	-4.8	-1.3	1.4	1.1	1.8	2.0	1.9	1.9	1.9
Meas. & Reg. Eq.-City Gate: JUGPDSTM&RL@STL	926.2	1008.5	935.2	888.5	875.6	888.1	898.5	914.3	932.9	950.7	968.7	987.4
Percent Change	17.1	8.9	-7.3	-5.0	-1.5	1.4	1.2	1.8	2.0	1.9	1.9	1.9
Services; Steel: JUGPDSSVS@STL	800.6	861.8	837.7	814.0	807.8	821.2	836.0	853.0	871.4	889.1	907.2	925.9
Percent Change	10.8	7.6	-2.8	-2.8	-0.8	1.7	1.8	2.0	2.2	2.0	2.0	2.1
Services; Plastic: JUGPDSSVP@STL	592.0	612.7	626.5	631.4	637.6	650.4	658.3	670.2	682.7	693.8	705.3	717.7
Percent Change	3.5	3.5	2.2	0.8	1.0	2.0	1.2	1.8	1.9	1.6	1.7	1.8
Meters: JUGPDMT@STL	467.9	468.2	483.3	489.0	498.7	512.0	512.5	511.6	517.8	525.0	529.9	535.8
Percent Change	-3.4	0.1	3.2	1.2	2.0	2.7	0.1	-0.2	1.2	1.4	0.9	1.1
Meter Installations: JUGPDMTI@STL	1359.6	1518.3	1402.1	1299.9	1261.8	1285.1	1309.9	1337.8	1370.1	1401.1	1433.0	1464.7
Percent Change	21.5	11.7	-7.7	-7.3	-2.9	1.8	1.9	2.1	2.4	2.3	2.3	2.2
House Regulators: JUGPDRH@STL	557.4	602.5	611.6	579.2	561.6	565.1	572.3	580.4	591.4	601.2	610.8	620.4
Percent Change	0.2	8.1	1.5	-5.3	-3.0	0.6	1.3	1.4	1.9	1.7	1.6	1.6
House Reg. Installations: JUGPDRHI@STL	1169.3	1289.6	1206.6	1135.0	1110.3	1133.1	1153.5	1177.9	1205.6	1231.8	1258.9	1285.8
Percent Change	18.7	10.3	-6.4	-5.9	-2.2	2.1	1.8	2.1	2.4	2.2	2.2	2.1

Source: IHS Markit

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Table A17

Cost Trends of Gas Utility Construction: North Central Region

(TREND 221)

(1973=100)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Gas Plant: JUG@NOC	1030.5	1126.3	1076.0	1028.1	1013.0	1028.1	1046.9	1067.2	1090.0	1112.5	1135.4	1159.4
Percent Change	14.6	9.3	-4.5	-4.5	-1.5	1.5	1.8	1.9	2.1	2.1	2.1	2.1
PRODUCTION PLANT												
L.P.G. Equipment: JUGPPLPG@NOC	750.3	785.3	770.8	770.0	776.3	787.4	799.6	813.7	829.2	845.4	862.3	879.9
Percent Change	3.0	4.7	-1.8	-0.1	0.8	1.4	1.5	1.8	1.9	1.9	2.0	2.0
S.N.G. Equipment: JUGPPSNG@NOC	684.7	722.2	708.9	709.5	717.6	729.0	741.6	755.7	770.2	784.8	799.8	814.9
Percent Change	8.1	5.5	-1.8	0.1	1.1	1.6	1.7	1.9	1.9	1.9	1.9	1.9
STORAGE PLANT												
Gas Holders Excl. Foundation: JUGPSHEF@NOC	581.5	600.4	590.7	596.4	606.1	617.5	629.5	642.4	655.4	668.4	681.9	696.3
Percent Change	8.8	3.3	-1.6	1.0	1.6	1.9	2.0	2.0	2.0	2.0	2.0	2.1
TRANSMISSION PLANT												
Gas Transmission Plant: JUGPT@NOC	804.4	890.6	790.8	746.9	743.8	748.5	755.7	773.6	793.6	813.1	833.1	851.4
Percent Change	21.8	10.7	-11.2	-5.5	-0.4	0.6	1.0	2.4	2.6	2.5	2.5	2.2
Structures & Improvements: JUGPTS&I@NOC	657.7	666.0	666.7	673.0	674.4	681.0	689.5	699.9	711.5	724.1	736.9	750.0
Percent Change	11.2	1.3	0.1	0.9	0.2	1.0	1.3	1.5	1.7	1.8	1.8	1.8
Mains: JUGPTM@NOC	817.8	914.2	792.0	738.8	734.7	739.1	746.1	765.4	786.8	807.4	828.5	847.4
Percent Change	24.9	11.8	-13.4	-6.7	-0.5	0.6	0.9	2.6	2.8	2.6	2.6	2.3
Compressor Station Equipment: JUGPTSTCM@NOC	793.9	851.5	849.4	842.1	842.7	849.0	856.5	868.9	883.7	899.6	916.0	933.2
Percent Change	6.4	7.3	-0.2	-0.9	0.1	0.8	0.9	1.5	1.7	1.8	1.8	1.9
Meas. & Reg. Sta. Equip: JUGPTSTM&R@NOC	970.8	1056.5	996.1	955.2	943.9	953.6	966.4	982.8	1001.5	1020.0	1038.7	1058.4
Percent Change	14.2	8.8	-5.7	-4.1	-1.2	1.0	1.3	1.7	1.9	1.8	1.8	1.9
DISTRIBUTION PLANT												
Structures & Improvements: JUGPDS&I@NOC	657.7	666.0	666.7	673.0	674.4	681.0	689.5	699.9	711.5	724.1	736.9	750.0
Percent Change	11.2	1.3	0.1	0.9	0.2	1.0	1.3	1.5	1.7	1.8	1.8	1.8
Mains; Cast Iron: JUGPDMCI@NOC	1028.2	1020.5	1068.9	1065.2	1041.5	1050.6	1074.7	1092.6	1103.8	1123.5	1142.3	1157.7
Percent Change	4.3	-0.8	4.7	-0.3	-2.2	0.9	2.3	1.7	1.0	1.8	1.7	1.3
Mains; Steel: JUGPDMS@NOC	1139.6	1258.3	1187.8	1121.5	1098.7	1114.8	1135.8	1158.2	1183.5	1208.1	1233.4	1259.8
Percent Change	16.7	10.4	-5.6	-5.6	-2.0	1.5	1.9	2.0	2.2	2.1	2.1	2.1
Mains; Plastic: JUGPDMP@NOC	617.8	661.9	673.3	657.9	655.4	661.9	671.3	683.0	695.3	707.3	719.8	734.0
Percent Change	4.9	7.1	1.7	-2.3	-0.4	1.0	1.4	1.7	1.8	1.7	1.8	2.0
Compressor Station Equipment: JUGPDSTCM@NOC	793.5	862.1	865.4	856.6	856.7	862.7	870.5	882.5	897.4	913.4	930.0	947.2
Percent Change	6.3	8.6	0.4	-1.0	0.0	0.7	0.9	1.4	1.7	1.8	1.8	1.9
Meas. & Reg. Sta. Equip: JUGPDSTM&R@NOC	933.6	1015.5	950.3	909.2	899.3	908.7	920.3	935.6	953.3	970.5	988.0	1006.5
Percent Change	14.9	8.8	-6.4	-4.3	-1.1	1.0	1.3	1.7	1.9	1.8	1.8	1.9
Meas. & Reg. Eq.-City Gate: JUGPDSTM&RL@NOC	943.4	1027.3	960.9	916.6	904.8	914.2	925.7	940.6	958.1	975.1	992.3	1010.5
Percent Change	15.3	8.9	-6.5	-4.6	-1.3	1.0	1.3	1.6	1.9	1.8	1.8	1.8
Services; Steel: JUGPDVS@NOC	829.5	892.6	876.4	856.7	854.0	867.0	882.3	899.5	918.0	936.1	954.8	974.3
Percent Change	9.7	7.6	-1.8	-2.2	-0.3	1.5	1.8	2.0	2.1	2.0	2.0	2.0
Services; Plastic: JUGPDVSP@NOC	648.7	680.8	695.5	696.5	702.1	710.7	719.9	731.1	742.6	753.6	764.9	777.8
Percent Change	3.5	5.0	2.2	0.2	0.8	1.2	1.3	1.6	1.6	1.5	1.5	1.7
Meters: JUGPDMT@NOC	467.9	468.2	483.3	489.0	498.7	512.0	512.5	511.6	517.8	525.0	529.9	535.8
Percent Change	-3.4	0.1	3.2	1.2	2.0	2.7	0.1	-0.2	1.2	1.4	0.9	1.1
Meter Installations: JUGPDMTI@NOC	1294.1	1440.4	1343.2	1255.2	1223.5	1242.2	1266.9	1292.4	1321.7	1350.2	1379.3	1409.0
Percent Change	19.1	11.3	-6.8	-6.5	-2.5	1.5	2.0	2.0	2.3	2.2	2.2	2.2
House Regulators: JUGPDRH@NOC	557.4	602.5	611.6	579.2	561.6	565.1	572.3	580.4	591.4	601.2	610.8	620.4
Percent Change	0.2	8.1	1.5	-5.3	-3.0	0.6	1.3	1.4	1.9	1.7	1.6	1.6
House Reg. Installations: JUGPDRHI@NOC	1237.4	1372.4	1285.1	1205.9	1178.0	1195.7	1218.9	1242.8	1270.2	1296.8	1323.9	1351.6
Percent Change	18.1	10.9	-6.4	-6.2	-2.3	1.5	1.9	2.0	2.2	2.1	2.1	2.1

Source: IHS Markit

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Table A18

Cost Trends of Gas Utility Construction: South Central Region**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Gas Plant: JUG@SOC	971.7	1066.9	1005.8	952.2	936.5	949.8	968.0	988.1	1010.7	1032.6	1054.7	1077.5
Percent Change	16.9	9.8	-5.7	-5.3	-1.6	1.4	1.9	2.1	2.3	2.2	2.1	2.2
PRODUCTION PLANT												
L.P.G. Equipment: JUGPPLPG@SOC	700.9	732.8	716.6	715.3	723.0	733.7	746.1	760.8	776.4	792.7	809.5	826.9
Percent Change	3.1	4.5	-2.2	-0.2	1.1	1.5	1.7	2.0	2.1	2.1	2.1	2.1
S.N.G. Equipment: JUGPPSNG@SOC	625.7	659.3	644.0	644.4	653.3	663.5	675.6	689.3	703.4	717.3	731.6	745.5
Percent Change	9.2	5.4	-2.3	0.1	1.4	1.6	1.8	2.0	2.0	2.0	2.0	1.9
STORAGE PLANT												
Gas Holders Excl. Foundation: JUGPSHEF@SOC	473.9	486.7	473.7	480.0	490.5	499.3	509.0	519.7	530.5	541.6	552.8	564.2
Percent Change	10.2	2.7	-2.7	1.3	2.2	1.8	2.0	2.1	2.1	2.1	2.1	2.1
TRANSMISSION PLANT												
Gas Transmission Plant: JUGPT@SOC	759.4	847.4	732.5	682.7	678.9	682.4	688.2	706.1	726.1	745.4	765.0	783.7
Percent Change	25.7	11.6	-13.6	-6.8	-0.6	0.5	0.9	2.6	2.8	2.7	2.6	2.4
Structures & Improvements: JUGPTS&I@SOC	536.4	541.7	528.2	522.7	523.1	530.3	538.2	546.8	555.3	564.5	573.9	585.0
Percent Change	13.8	1.0	-2.5	-1.0	0.1	1.4	1.5	1.6	1.6	1.7	1.7	1.9
Mains: JUGPTM@SOC	779.6	878.9	739.3	679.9	675.2	678.2	683.7	703.2	724.9	745.6	766.6	786.2
Percent Change	29.8	12.7	-15.9	-8.0	-0.7	0.4	0.8	2.9	3.1	2.9	2.8	2.6
Compressor Station Equipment: JUGPTSTCM@SOC	748.4	805.3	800.0	789.6	789.1	793.4	799.3	810.3	823.7	837.9	852.5	867.7
Percent Change	6.7	7.6	-0.7	-1.3	-0.1	0.5	0.7	1.4	1.6	1.7	1.8	1.8
Meas. & Reg. Sta. Equip: JUGPTSTM&R@SOC	933.7	1019.9	950.7	905.0	893.2	901.4	914.0	930.9	950.0	968.7	987.5	1006.7
Percent Change	16.2	9.2	-6.8	-4.8	-1.3	0.9	1.4	1.8	2.1	2.0	1.9	1.9
DISTRIBUTION PLANT												
Structures & Improvements: JUGPDS&I@SOC	536.4	541.7	528.1	522.6	523.0	530.0	537.7	546.3	554.7	563.9	573.3	584.3
Percent Change	13.8	1.0	-2.5	-1.0	0.1	1.3	1.5	1.6	1.6	1.7	1.7	1.9
Mains; Cast Iron: JUGPDMCI@SOC	1016.4	1014.4	1058.9	1061.6	1048.2	1060.7	1085.9	1106.4	1121.6	1143.9	1165.5	1184.2
Percent Change	4.8	-0.2	4.4	0.3	-1.3	1.2	2.4	1.9	1.4	2.0	1.9	1.6
Mains; Steel: JUGPDMS@SOC	1108.1	1229.6	1146.4	1072.8	1048.8	1063.4	1084.5	1107.4	1133.4	1158.4	1183.7	1209.6
Percent Change	19.2	11.0	-6.8	-6.4	-2.2	1.4	2.0	2.1	2.3	2.2	2.2	2.2
Mains; Plastic: JUGPDMP@SOC	572.0	612.8	623.0	606.2	604.9	610.2	619.3	631.1	643.5	655.2	667.3	680.8
Percent Change	5.4	7.1	1.7	-2.7	-0.2	0.9	1.5	1.9	2.0	1.8	1.8	2.0
Compressor Station Equipment: JUGPDSTCM@SOC	747.6	815.1	816.0	803.6	802.1	806.1	812.4	823.3	836.9	851.3	866.2	881.4
Percent Change	6.6	9.0	0.1	-1.5	-0.2	0.5	0.8	1.3	1.6	1.7	1.8	1.8
Meas. & Reg. Sta. Equip: JUGPDSTM&R@SOC	889.4	970.6	895.1	848.7	838.1	845.5	856.2	871.6	889.1	905.9	922.7	940.0
Percent Change	17.4	9.1	-7.8	-5.2	-1.2	0.9	1.3	1.8	2.0	1.9	1.9	1.9
Meas. & Reg. Eq.-City Gate: JUGPDSTM&RL@SOC	902.0	986.1	910.8	861.7	849.5	857.3	868.3	883.5	901.0	918.0	934.8	952.2
Percent Change	17.7	9.3	-7.6	-5.4	-1.4	0.9	1.3	1.7	2.0	1.9	1.8	1.9
Services; Steel: JUGPDSSV@SOC	756.7	817.3	788.6	764.0	761.2	771.4	785.6	802.1	820.2	837.4	854.9	872.7
Percent Change	12.2	8.0	-3.5	-3.1	-0.4	1.3	1.8	2.1	2.2	2.1	2.1	2.1
Services; Plastic: JUGPDSPV@SOC	535.9	557.3	567.9	571.8	582.8	589.5	598.7	610.8	623.1	634.3	645.4	657.3
Percent Change	4.1	4.0	1.9	0.7	1.9	1.1	1.6	2.0	2.0	1.8	1.7	1.8
Meters: JUGPDMT@SOC	467.9	468.2	483.3	489.0	498.7	512.0	512.5	511.6	517.8	525.0	529.9	535.8
Percent Change	-3.4	0.1	3.2	1.2	2.0	2.7	0.1	-0.2	1.2	1.4	0.9	1.1
Meter Installations: JUGPDMTI@SOC	1283.2	1434.5	1326.2	1229.4	1195.4	1213.0	1238.1	1264.8	1295.1	1324.2	1353.6	1383.5
Percent Change	21.2	11.8	-7.5	-7.3	-2.8	1.5	2.1	2.2	2.4	2.2	2.2	2.2
House Regulators: JUGPDRH@SOC	557.4	602.5	611.6	579.2	561.6	565.1	572.3	580.4	591.4	601.2	610.8	620.4
Percent Change	0.2	8.1	1.5	-5.3	-3.0	0.6	1.3	1.4	1.9	1.7	1.6	1.6
House Reg. Installations: JUGPDRHI@SOC	1219.2	1358.5	1261.0	1173.8	1144.0	1160.8	1184.6	1209.9	1238.5	1266.0	1293.7	1321.9
Percent Change	20.4	11.4	-7.2	-6.9	-2.5	1.5	2.1	2.1	2.4	2.2	2.2	2.2

Source: IHS Markit

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Table A19

Cost Trends of Gas Utility Construction: Plateau Region

(TREND 221)

(1973=100)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Gas Plant: JUG@PLA	1005.2	1097.1	1036.5	985.9	971.3	988.6	1006.0	1028.0	1053.0	1076.5	1100.2	1124.2
Percent Change	16.6	9.1	-5.5	-4.9	-1.5	1.8	1.8	2.2	2.4	2.2	2.2	2.2
PRODUCTION PLANT												
L.P.G. Equipment: JUGPPLPG@PLA	725.3	754.1	736.5	737.2	746.1	757.5	769.3	784.8	801.8	818.9	836.5	854.5
Percent Change	3.5	4.0	-2.3	0.1	1.2	1.5	1.6	2.0	2.2	2.1	2.2	2.1
S.N.G. Equipment: JUGPPSNG@PLA	663.7	693.9	677.1	680.0	691.2	703.1	715.6	730.9	747.2	762.8	778.8	794.4
Percent Change	9.3	4.6	-2.4	0.4	1.6	1.7	1.8	2.1	2.2	2.1	2.1	2.0
STORAGE PLANT												
Gas Holders Excl. Foundation: JUGPSHEF@PLA	516.6	530.9	516.3	524.0	535.5	549.4	560.3	573.8	587.5	600.9	614.8	628.7
Percent Change	9.9	2.8	-2.8	1.5	2.2	2.6	2.0	2.4	2.4	2.3	2.3	2.3
TRANSMISSION PLANT												
Gas Transmission Plant: JUGPT@PLA	765.6	851.4	737.2	689.4	686.4	691.3	696.3	714.3	734.8	754.3	774.0	792.8
Percent Change	25.0	11.2	-13.4	-6.5	-0.4	0.7	0.7	2.6	2.9	2.6	2.6	2.4
Structures & Improvements: JUGPTS&I@PLA	563.6	571.1	562.8	564.1	567.8	572.0	579.1	590.3	601.2	612.1	623.2	634.1
Percent Change	12.0	1.3	-1.5	0.2	0.7	0.7	1.3	1.9	1.9	1.8	1.8	1.7
Mains: JUGPTM@PLA	780.0	876.7	736.5	678.3	674.0	678.8	683.3	702.7	724.8	745.5	766.3	786.1
Percent Change	29.3	12.4	-16.0	-7.9	-0.6	0.7	0.7	2.8	3.1	2.9	2.8	2.6
Compressor Station Equipment: JUGPTSTCM@PLA	772.8	828.5	823.6	816.4	818.7	824.9	832.4	845.8	861.6	878.1	895.0	912.4
Percent Change	6.8	7.2	-0.6	-0.9	0.3	0.8	0.9	1.6	1.9	1.9	1.9	1.9
Meas. & Reg. Sta. Equip: JUGPTSTM&R@PLA	954.4	1033.6	964.2	921.7	911.4	920.9	932.3	949.7	969.9	988.9	1007.8	1027.2
Percent Change	16.1	8.3	-6.7	-4.4	-1.1	1.0	1.2	1.9	2.1	2.0	1.9	1.9
DISTRIBUTION PLANT												
Structures & Improvements: JUGPDS&I@PLA	563.7	569.7	561.2	563.2	567.8	572.7	580.4	591.7	602.9	614.0	625.4	636.5
Percent Change	12.0	1.1	-1.5	0.4	0.8	0.9	1.3	2.0	1.9	1.8	1.9	1.8
Mains; Cast Iron: JUGPDMCI@PLA	1025.0	1012.1	1060.7	1057.5	1033.7	1043.0	1066.3	1084.4	1096.0	1115.8	1134.5	1149.4
Percent Change	4.6	-1.3	4.8	-0.3	-2.3	0.9	2.2	1.7	1.1	1.8	1.7	1.3
Mains; Steel: JUGPDMS@PLA	1132.2	1248.9	1166.4	1096.2	1073.1	1091.4	1111.3	1135.6	1163.4	1189.3	1215.6	1242.3
Percent Change	18.9	10.3	-6.6	-6.0	-2.1	1.7	1.8	2.2	2.5	2.2	2.2	2.2
Mains; Plastic: JUGPDMP@PLA	588.9	626.6	636.2	621.7	620.7	628.0	636.3	648.8	662.1	674.4	687.0	700.9
Percent Change	5.4	6.4	1.5	-2.3	-0.2	1.2	1.3	2.0	2.1	1.8	1.9	2.0
Compressor Station Equipment: JUGPDSTCM@PLA	771.7	837.6	838.6	829.1	830.1	835.5	842.3	854.3	869.5	885.2	901.4	918.2
Percent Change	6.6	8.5	0.1	-1.1	0.1	0.6	0.8	1.4	1.8	1.8	1.8	1.9
Meas. & Reg. Sta. Equip: JUGPDSTM&R@PLA	913.1	987.0	910.9	867.8	858.8	867.4	877.0	892.8	911.5	928.5	945.6	963.1
Percent Change	17.2	8.1	-7.7	-4.7	-1.0	1.0	1.1	1.8	2.1	1.9	1.8	1.9
Meas. & Reg. Eq.-City Gate: JUGPDSTM&RL@PLA	922.7	1000.5	925.9	880.6	870.2	879.8	890.3	906.5	925.7	943.5	961.2	979.5
Percent Change	17.5	8.4	-7.5	-4.9	-1.2	1.1	1.2	1.8	2.1	1.9	1.9	1.9
Services; Steel: JUGPDSSVS@PLA	763.4	816.5	792.0	773.2	771.2	787.8	798.2	815.5	834.6	851.5	868.7	885.8
Percent Change	11.3	7.0	-3.0	-2.4	-0.3	2.1	1.3	2.2	2.3	2.0	2.0	2.0
Services; Plastic: JUGPDSPV@PLA	572.9	587.0	597.7	606.5	617.8	630.8	637.4	651.0	665.6	677.7	689.7	702.2
Percent Change	4.4	2.5	1.8	1.5	1.9	2.1	1.0	2.1	2.2	1.8	1.8	1.8
Meters: JUGPDMT@PLA	467.9	468.2	483.3	489.0	498.7	512.0	512.5	511.6	517.8	525.0	529.9	535.8
Percent Change	-3.4	0.1	3.2	1.2	2.0	2.7	0.1	-0.2	1.2	1.4	0.9	1.1
Meter Installations: JUGPDMTI@PLA	1336.5	1484.9	1370.4	1272.8	1239.2	1257.6	1282.6	1310.4	1342.8	1373.3	1404.1	1435.1
Percent Change	21.4	11.1	-7.7	-7.1	-2.6	1.5	2.0	2.2	2.5	2.3	2.2	2.2
House Regulators: JUGPDRH@PLA	557.4	602.5	611.6	579.2	561.6	565.1	572.3	580.4	591.4	601.2	610.8	620.4
Percent Change	0.2	8.1	1.5	-5.3	-3.0	0.6	1.3	1.4	1.9	1.7	1.6	1.6
House Reg. Installations: JUGPDRHI@PLA	1269.1	1403.0	1300.9	1214.9	1186.6	1204.5	1228.2	1254.9	1285.9	1314.8	1344.1	1373.8
Percent Change	20.6	10.6	-7.3	-6.6	-2.3	1.5	2.0	2.2	2.5	2.3	2.2	2.2

Source: IHS Markit

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Table A20

Cost Trends of Gas Utility Construction: Pacific Region**(TREND 221)****(1973=100)**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Gas Plant: JUG@PCF	1089.9	1180.9	1125.7	1081.2	1071.9	1087.8	1110.7	1135.0	1161.3	1186.7	1212.6	1239.7
Percent Change	15.2	8.4	-4.7	-3.9	-0.9	1.5	2.1	2.2	2.3	2.2	2.2	2.2
PRODUCTION PLANT												
L.P.G. Equipment: JUGPPLPG@PCF	804.5	835.6	821.2	829.1	844.0	853.3	868.8	887.0	906.2	925.3	945.4	966.3
Percent Change	3.5	3.9	-1.7	1.0	1.8	1.1	1.8	2.1	2.2	2.1	2.2	2.2
S.N.G. Equipment: JUGPPSNG@PCF	744.5	777.2	765.4	776.8	794.5	805.0	821.8	840.7	859.7	878.1	897.2	916.3
Percent Change	8.4	4.4	-1.5	1.5	2.3	1.3	2.1	2.3	2.3	2.1	2.2	2.1
STORAGE PLANT												
Gas Holders Excl. Foundation: JUGPSHEF@PCF	611.5	626.5	617.2	627.1	642.4	658.1	674.6	691.5	708.5	725.5	742.8	760.8
Percent Change	9.8	2.4	-1.5	1.6	2.4	2.4	2.5	2.5	2.5	2.4	2.4	2.4
TRANSMISSION PLANT												
Gas Transmission Plant: JUGPT@PCF	840.7	924.0	819.3	776.1	778.8	784.8	793.4	813.9	836.2	857.8	879.7	899.8
Percent Change	22.4	9.9	-11.3	-5.3	0.4	0.8	1.1	2.6	2.7	2.6	2.6	2.3
Structures & Improvements: JUGPTS&I@PCF	708.3	709.1	699.8	707.0	715.3	722.3	730.4	741.5	753.8	767.0	779.7	793.6
Percent Change	11.7	0.1	-1.3	1.0	1.2	1.0	1.1	1.5	1.7	1.7	1.7	1.8
Mains: JUGPTM@PCF	854.3	947.4	822.4	770.4	772.6	779.0	787.7	809.9	833.9	856.8	880.1	900.9
Percent Change	25.5	10.9	-13.2	-6.3	0.3	0.8	1.1	2.8	3.0	2.7	2.7	2.4
Compressor Station Equipment: JUGPTSTCM@PCF	818.0	874.2	872.1	869.3	874.8	880.3	889.3	903.8	920.6	938.1	956.3	975.2
Percent Change	6.7	6.9	-0.2	-0.3	0.6	0.6	1.0	1.6	1.9	1.9	1.9	2.0
Meas. & Reg. Sta. Equip: JUGPTSTM&R@PCF	1035.8	1118.0	1056.0	1024.6	1023.0	1030.6	1047.6	1068.9	1092.2	1114.3	1136.9	1160.6
Percent Change	14.4	7.9	-5.5	-3.0	-0.2	0.7	1.7	2.0	2.2	2.0	2.0	2.1
DISTRIBUTION PLANT												
Structures & Improvements: JUGPDS&I@PCF	708.3	709.1	699.8	707.0	715.3	722.3	730.4	741.5	753.8	767.0	779.7	793.6
Percent Change	11.7	0.1	-1.3	1.0	1.2	1.0	1.1	1.5	1.7	1.7	1.7	1.8
Mains; Cast Iron: JUGPDMCI@PCF	1060.7	1052.2	1101.7	1102.4	1083.4	1094.2	1121.4	1142.4	1156.7	1179.3	1201.1	1219.5
Percent Change	4.7	-0.8	4.7	0.1	-1.7	1.0	2.5	1.9	1.3	2.0	1.8	1.5
Mains; Steel: JUGPDMS@PCF	1218.2	1334.8	1258.3	1195.2	1178.2	1194.7	1220.5	1247.5	1277.0	1305.1	1333.9	1363.9
Percent Change	17.2	9.6	-5.7	-5.0	-1.4	1.4	2.2	2.2	2.4	2.2	2.2	2.3
Mains; Plastic: JUGPDMP@PCF	643.4	682.4	693.5	683.7	686.6	692.9	705.0	719.4	733.9	747.7	762.1	778.3
Percent Change	5.2	6.1	1.6	-1.4	0.4	0.9	1.7	2.0	2.0	1.9	1.9	2.1
Compressor Station Equipment: JUGPDSTCM@PCF	817.1	884.5	888.1	883.6	888.5	894.1	903.6	917.7	934.7	952.4	970.8	989.8
Percent Change	6.6	8.3	0.4	-0.5	0.5	0.6	1.1	1.6	1.8	1.9	1.9	2.0
Meas. & Reg. Sta. Equip: JUGPDSTM&R@PCF	1003.7	1081.9	1013.2	980.9	980.5	987.3	1002.8	1022.9	1044.8	1065.4	1086.4	1108.5
Percent Change	15.2	7.8	-6.3	-3.2	0.0	0.7	1.6	2.0	2.1	2.0	2.0	2.0
Meas. & Reg. Eq.-City Gate: JUGPDSTM&RL@PCF	1010.0	1091.2	1023.2	987.8	985.3	993.2	1009.0	1028.8	1050.9	1071.6	1092.8	1115.0
Percent Change	15.6	8.0	-6.2	-3.5	-0.3	0.8	1.6	2.0	2.1	2.0	2.0	2.0
Services; Steel: JUGPDSVS@PCF	887.1	941.4	919.6	901.2	902.2	917.9	937.6	958.1	979.1	999.1	1019.5	1041.2
Percent Change	10.5	6.1	-2.3	-2.0	0.1	1.7	2.1	2.2	2.2	2.0	2.0	2.1
Services; Plastic: JUGPDSPV@PCF	720.1	739.8	753.6	766.3	783.5	793.3	809.2	826.8	843.8	859.2	875.2	892.9
Percent Change	4.4	2.7	1.9	1.7	2.2	1.3	2.0	2.2	2.1	1.8	1.9	2.0
Meters: JUGPDMT@PCF	467.9	468.2	483.3	489.0	498.7	512.0	512.5	511.6	517.8	525.0	529.9	535.8
Percent Change	-3.4	0.1	3.2	1.2	2.0	2.7	0.1	-0.2	1.2	1.4	0.9	1.1
Meter Installations: JUGPDMTI@PCF	1434.1	1588.8	1479.5	1393.3	1368.9	1384.4	1414.5	1446.5	1482.3	1516.0	1550.7	1586.7
Percent Change	19.6	10.8	-6.9	-5.8	-1.7	1.1	2.2	2.3	2.5	2.3	2.3	2.3
House Regulators: JUGPDRH@PCF	557.4	602.5	611.6	579.2	561.6	565.1	572.3	580.4	591.4	601.2	610.8	620.4
Percent Change	0.2	8.1	1.5	-5.3	-3.0	0.6	1.3	1.4	1.9	1.7	1.6	1.6
House Reg. Installations: JUGPDRHI@PCF	1385.6	1530.0	1435.8	1361.6	1343.0	1360.8	1392.1	1425.3	1462.0	1497.0	1533.0	1569.3
Percent Change	18.7	10.4	-6.2	-5.2	-1.4	1.3	2.3	2.4	2.6	2.4	2.4	2.4

Source: IHS Markit

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Table A21

Summary Operations and Maintenance Costs: Combined Materials and Services

(TREND 221)

(2012=1.000)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
ELECTRIC EXPENSES													
Total Operation and Maintenance: JETOTALMS	1.110	1.176	1.257	1.260	1.264	1.273	1.291	1.313	1.338	1.364	1.391	1.419	1.447
Percent Change	0.2	6.0	6.8	0.3	0.3	0.8	1.4	1.8	1.9	2.0	2.0	2.0	2.0
Steam Production Plant: JEFOMMS	1.108	1.188	1.285	1.278	1.270	1.273	1.284	1.302	1.323	1.348	1.374	1.401	1.429
Percent Change	0.3	7.3	8.1	-0.5	-0.6	0.2	0.9	1.4	1.7	1.9	1.9	2.0	2.0
Nuclear Production Plant: JENOMMS	1.092	1.170	1.258	1.250	1.246	1.252	1.267	1.287	1.310	1.334	1.360	1.386	1.413
Percent Change	-0.3	7.1	7.5	-0.7	-0.3	0.5	1.2	1.6	1.8	1.9	1.9	1.9	1.9
Hydro Production Plant: JEHOMMS	1.082	1.162	1.269	1.262	1.246	1.243	1.251	1.267	1.286	1.308	1.332	1.356	1.380
Percent Change	-0.9	7.4	9.2	-0.6	-1.3	-0.2	0.7	1.3	1.5	1.7	1.8	1.8	1.8
Other Production Plant: JEOMMS	1.113	1.167	1.268	1.276	1.265	1.264	1.274	1.290	1.309	1.332	1.355	1.380	1.406
Percent Change	0.0	4.8	8.7	0.6	-0.8	-0.1	0.8	1.3	1.5	1.7	1.8	1.8	1.8
Transmission Plant: JETOMMS	1.062	1.125	1.215	1.207	1.196	1.189	1.193	1.205	1.222	1.239	1.256	1.275	1.293
Percent Change	0.2	6.0	8.0	-0.7	-1.0	-0.5	0.3	1.0	1.3	1.4	1.4	1.4	1.5
Distribution Plant: JEDOMMS	1.074	1.185	1.318	1.293	1.261	1.241	1.240	1.252	1.269	1.289	1.311	1.332	1.355
Percent Change	0.0	10.4	11.2	-1.9	-2.4	-1.6	-0.2	1.0	1.4	1.6	1.6	1.7	1.7
Customer Accounts: JECAOMS	1.138	1.207	1.292	1.303	1.316	1.336	1.360	1.386	1.412	1.438	1.466	1.493	1.523
Percent Change	-0.7	6.0	7.1	0.9	1.0	1.5	1.8	1.9	1.9	1.9	1.9	1.9	2.0
Customer Service and Information: JECSIOMS	1.089	1.158	1.261	1.254	1.255	1.263	1.279	1.299	1.321	1.343	1.365	1.388	1.412
Percent Change	-1.7	6.4	8.8	-0.5	0.1	0.6	1.3	1.6	1.7	1.7	1.7	1.7	1.7
Sales: JESALOMS	1.100	1.167	1.261	1.271	1.276	1.286	1.303	1.323	1.345	1.368	1.391	1.415	1.440
Percent Change	-1.3	6.1	8.0	0.8	0.4	0.8	1.3	1.6	1.7	1.7	1.7	1.7	1.8
Administrative and General: JEADGOMMS	1.142	1.182	1.224	1.249	1.276	1.303	1.333	1.366	1.398	1.431	1.464	1.499	1.534
Percent Change	1.1	3.6	3.5	2.0	2.1	2.2	2.3	2.4	2.4	2.3	2.4	2.4	2.4
GAS EXPENSES													
Total Operation and Maintenance: JGTOTALMS	1.107	1.187	1.262	1.257	1.260	1.273	1.294	1.317	1.343	1.369	1.396	1.424	1.452
Percent Change	-0.1	7.2	6.3	-0.4	0.2	1.1	1.6	1.8	1.9	2.0	2.0	2.0	2.0
Underground Storage: JGUSOMMS	1.082	1.185	1.279	1.239	1.226	1.232	1.249	1.269	1.291	1.314	1.338	1.363	1.389
Percent Change	-1.0	9.6	7.9	-3.1	-1.0	0.5	1.3	1.6	1.7	1.8	1.8	1.9	1.9
Other Storage: JGOSOMMS	1.101	1.200	1.297	1.276	1.275	1.289	1.309	1.332	1.359	1.387	1.416	1.447	1.478
Percent Change	-1.0	9.0	8.2	-1.7	0.0	1.1	1.6	1.8	2.0	2.1	2.1	2.1	2.1
LNG Terminaling and Processing: JGLNGOMMS	1.089	1.213	1.320	1.278	1.262	1.263	1.275	1.294	1.316	1.340	1.365	1.391	1.417
Percent Change	-1.1	11.4	8.8	-3.2	-1.3	0.1	1.0	1.5	1.7	1.8	1.9	1.9	1.9
Transmission: JGTOMMS	1.100	1.202	1.299	1.283	1.274	1.283	1.303	1.325	1.351	1.378	1.406	1.435	1.464
Percent Change	-0.7	9.3	8.1	-1.3	-0.7	0.7	1.5	1.7	1.9	2.0	2.0	2.0	2.1
Distribution: JGDOMMS	1.105	1.204	1.282	1.266	1.265	1.279	1.299	1.323	1.349	1.377	1.405	1.434	1.464
Percent Change	-0.6	8.9	6.5	-1.3	-0.1	1.1	1.6	1.8	2.0	2.1	2.1	2.1	2.1
Customer Accounts: JGCAOMS	1.134	1.201	1.286	1.296	1.309	1.328	1.352	1.377	1.403	1.429	1.456	1.483	1.512
Percent Change	-0.7	5.9	7.1	0.8	1.0	1.5	1.8	1.9	1.9	1.8	1.9	1.9	1.9
Customer Service and Information: JGCSIOMS	1.087	1.151	1.247	1.239	1.241	1.249	1.265	1.284	1.304	1.324	1.345	1.366	1.388
Percent Change	-1.3	5.9	8.3	-0.6	0.1	0.7	1.3	1.5	1.6	1.6	1.6	1.6	1.6
Sales: JGSALOMS	1.098	1.174	1.277	1.291	1.294	1.302	1.319	1.340	1.363	1.386	1.411	1.436	1.463
Percent Change	-1.9	6.9	8.8	1.1	0.2	0.6	1.3	1.6	1.7	1.7	1.8	1.8	1.8
Administrative and General: JGADGOMMS	1.122	1.170	1.213	1.231	1.250	1.271	1.295	1.320	1.346	1.372	1.398	1.425	1.453
Percent Change	0.8	4.3	3.6	1.5	1.6	1.7	1.9	1.9	1.9	1.9	1.9	1.9	2.0

Source: IHS Markit

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Table A22

Electric Steam and Nuclear Expenses: Materials and Services

(TREND 221)

(2012=1.000)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
STEAM PRODUCTION PLANT													
Total Operation and Maintenance: JEFOMMS	1.108	1.188	1.285	1.278	1.270	1.273	1.284	1.302	1.323	1.348	1.374	1.401	1.429
Percent Change	0.3	7.3	8.1	-0.5	-0.6	0.2	0.9	1.4	1.7	1.9	1.9	2.0	2.0
Operation: JEFOMS	1.093	1.152	1.217	1.223	1.232	1.249	1.271	1.296	1.323	1.353	1.384	1.415	1.447
Percent Change	-0.2	5.4	5.7	0.5	0.8	1.4	1.7	2.0	2.1	2.3	2.3	2.3	2.3
Supervision and Eng. 500: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Fuel 501*: JEF501MS	0.801	1.045	1.028	1.028	1.002	1.011	1.022	1.029	1.047	1.069	1.094	1.108	1.119
Percent Change	-9.2	30.5	-1.6	-0.1	-2.5	0.9	1.1	0.7	1.7	2.1	2.4	1.3	1.0
Steam Plant 502: JEF502MS	1.086	1.192	1.252	1.272	1.299	1.336	1.373	1.413	1.457	1.506	1.556	1.608	1.661
Percent Change	-0.1	9.8	5.0	1.6	2.1	2.8	2.8	2.9	3.1	3.3	3.4	3.3	3.3
Electric Plant 505: JEF505MS	1.163	1.225	1.333	1.352	1.357	1.381	1.409	1.440	1.475	1.514	1.554	1.595	1.638
Percent Change	-4.7	5.3	8.8	1.4	0.4	1.8	2.0	2.2	2.4	2.6	2.7	2.6	2.7
Miscellaneous 506: JEF506MS	1.073	1.126	1.188	1.179	1.185	1.196	1.212	1.230	1.250	1.271	1.292	1.314	1.336
Percent Change	-0.2	5.0	5.5	-0.8	0.5	1.0	1.3	1.5	1.6	1.6	1.7	1.7	1.7
Rents 507: JRENT	1.092	1.112	1.169	1.165	1.161	1.162	1.171	1.185	1.201	1.219	1.237	1.256	1.274
Percent Change	1.0	1.8	5.1	-0.3	-0.4	0.1	0.8	1.2	1.4	1.5	1.5	1.5	1.4
Maintenance: JEFMMS	1.120	1.217	1.338	1.322	1.300	1.291	1.295	1.307	1.324	1.344	1.367	1.390	1.414
Percent Change	0.8	8.7	9.9	-1.2	-1.6	-0.7	0.3	0.9	1.3	1.6	1.7	1.7	1.7
Supervision and Eng. 510: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Structures 511: JEF511MS	1.026	1.227	1.341	1.239	1.177	1.156	1.156	1.166	1.180	1.196	1.211	1.226	1.243
Percent Change	-2.0	19.6	9.3	-7.6	-5.0	-1.8	0.0	0.9	1.2	1.3	1.3	1.3	1.3
Boiler Plant 512: JEF512MS	1.147	1.237	1.353	1.335	1.319	1.315	1.320	1.331	1.348	1.369	1.393	1.418	1.444
Percent Change	1.3	7.8	9.4	-1.4	-1.2	-0.4	0.4	0.9	1.3	1.6	1.7	1.8	1.8
Electric Plant 513: JEF513MS	1.063	1.167	1.329	1.339	1.297	1.264	1.253	1.256	1.264	1.278	1.293	1.309	1.326
Percent Change	1.5	9.8	13.9	0.7	-3.1	-2.6	-0.9	0.3	0.7	1.0	1.2	1.2	1.3
Miscellaneous 514: JEF514MS	1.153	1.218	1.317	1.302	1.287	1.285	1.293	1.307	1.325	1.346	1.369	1.393	1.418
Percent Change	1.5	5.6	8.2	-1.1	-1.2	-0.1	0.6	1.0	1.4	1.6	1.7	1.8	1.8
NUCLEAR PRODUCTION PLANT													
Total Operation and Maintenance: JENOMMS	1.092	1.170	1.258	1.250	1.246	1.252	1.267	1.287	1.310	1.334	1.360	1.386	1.413
Percent Change	-0.3	7.1	7.5	-0.7	-0.3	0.5	1.2	1.6	1.8	1.9	1.9	1.9	1.9
Operation: JENOMS	1.086	1.145	1.214	1.214	1.222	1.235	1.254	1.276	1.300	1.326	1.353	1.380	1.407
Percent Change	-0.6	5.5	6.0	0.0	0.6	1.1	1.5	1.8	1.9	2.0	2.0	2.0	2.0
Supervision and Eng. 517: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Coolants and Water 519: JEN519MS	1.079	1.187	1.262	1.258	1.268	1.290	1.316	1.347	1.383	1.423	1.464	1.507	1.550
Percent Change	-0.7	10.1	6.3	-0.3	0.8	1.7	2.0	2.4	2.7	2.9	2.9	2.9	2.9
Steam Expenses 520: JEN520MS	1.048	1.145	1.207	1.201	1.210	1.227	1.246	1.270	1.298	1.329	1.361	1.393	1.425
Percent Change	-0.7	9.3	5.4	-0.4	0.7	1.4	1.5	1.9	2.2	2.4	2.4	2.4	2.3
Electric Expenses 523: JEN523MS	1.214	1.224	1.360	1.364	1.357	1.370	1.387	1.409	1.434	1.462	1.490	1.519	1.550
Percent Change	-4.9	0.8	11.2	0.3	-0.5	0.9	1.3	1.6	1.8	1.9	1.9	2.0	2.0
Miscellaneous 524: JEN524MS	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3
Percent Change	-0.2	5.0	5.5	-0.8	0.5	1.0	1.3	1.5	1.6	1.6	1.7	1.7	1.7
Rents 525: JRENT	1.092	1.112	1.169	1.165	1.161	1.162	1.171	1.185	1.201	1.219	1.237	1.256	1.274
Percent Change	1.0	1.8	5.1	-0.3	-0.4	0.1	0.8	1.2	1.4	1.5	1.5	1.5	1.4
Maintenance: JENMMS	1.100	1.202	1.315	1.296	1.278	1.274	1.283	1.301	1.322	1.345	1.369	1.394	1.420
Percent Change	0.0	9.2	9.4	-1.4	-1.4	-0.3	0.7	1.4	1.6	1.7	1.8	1.9	1.9
Supervision and Eng. 528: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Structures 529: JEN529MS	1.026	1.227	1.341	1.239	1.177	1.156	1.156	1.166	1.180	1.196	1.211	1.226	1.243
Percent Change	-2.0	19.6	9.3	-7.6	-5.0	-1.8	0.0	0.9	1.2	1.3	1.3	1.3	1.3
Reactor Plant 530: JEN530MS	1.118	1.229	1.344	1.298	1.279	1.282	1.296	1.316	1.339	1.365	1.392	1.419	1.448
Percent Change	0.4	10.0	9.3	-3.4	-1.5	0.2	1.1	1.6	1.8	1.9	1.9	2.0	2.0
Electric Plant 531: JEN531MS	1.063	1.167	1.329	1.339	1.297	1.264	1.253	1.256	1.264	1.278	1.293	1.309	1.326
Percent Change	1.5	9.8	13.9	0.7	-3.1	-2.6	-0.9	0.3	0.7	1.0	1.2	1.2	1.3
Miscellaneous 532: JEN532MS	1.104	1.190	1.286	1.265	1.241	1.227	1.226	1.237	1.252	1.268	1.285	1.305	1.325
Percent Change	0.7	7.7	8.1	-1.6	-1.9	-1.2	0.0	0.9	1.3	1.2	1.3	1.6	1.6

* This account receives no weight in forming the total operation and total operation and maintenance cost indexes Source: IHS Markit

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Table A23

Electric Hydraulic and Other Expenses: Materials and Services**(TREND 221)****(2012=1,000)**

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
HYDRO PRODUCTION PLANT													
Total Operation and Maintenance: JEHOOMS	1.082	1.162	1.269	1.262	1.246	1.243	1.251	1.267	1.286	1.308	1.332	1.356	1.380
Percent Change	-0.9	7.4	9.2	-0.6	-1.3	-0.2	0.7	1.3	1.5	1.7	1.8	1.8	1.8
Operation: JEHOOMS	1.063	1.120	1.207	1.205	1.204	1.213	1.227	1.246	1.268	1.292	1.317	1.343	1.369
Percent Change	-2.5	5.3	7.8	-0.2	-0.1	0.8	1.2	1.5	1.8	1.9	1.9	1.9	1.9
Supervision and Eng. 535: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Hydraulic Plant 537: JEH537MS	0.944	1.089	1.212	1.168	1.158	1.163	1.173	1.189	1.211	1.237	1.265	1.294	1.323
Percent Change	-2.7	15.3	11.3	-3.6	-0.9	0.4	0.8	1.4	1.8	2.2	2.3	2.3	2.2
Electric Plant 538: JEH538MS	1.156	1.102	1.224	1.275	1.261	1.268	1.277	1.294	1.316	1.343	1.370	1.399	1.429
Percent Change	-7.8	-4.7	11.1	4.2	-1.1	0.5	0.7	1.3	1.7	2.0	2.0	2.1	2.2
Miscellaneous 539: JEH539MS	1.036	1.114	1.180	1.159	1.160	1.169	1.184	1.201	1.219	1.239	1.259	1.279	1.300
Percent Change	-1.1	7.5	5.9	-1.8	0.1	0.8	1.2	1.4	1.5	1.6	1.6	1.6	1.6
Rents 540: JRENT	1.092	1.112	1.169	1.165	1.161	1.162	1.171	1.185	1.201	1.219	1.237	1.256	1.274
Percent Change	1.0	1.8	5.1	-0.3	-0.4	0.1	0.8	1.2	1.4	1.5	1.5	1.5	1.4
Maintenance: JEHOOMS	1.100	1.204	1.330	1.318	1.287	1.272	1.274	1.287	1.304	1.324	1.346	1.368	1.392
Percent Change	0.7	9.5	10.4	-0.9	-2.3	-1.2	0.2	1.0	1.3	1.6	1.6	1.7	1.7
Supervision and Eng. 541: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Structures 542: JEH542MS	1.026	1.227	1.341	1.239	1.177	1.156	1.156	1.166	1.180	1.196	1.211	1.226	1.243
Percent Change	-2.0	19.6	9.3	-7.6	-5.0	-1.8	0.0	0.9	1.2	1.3	1.3	1.3	1.3
Reserv.; Dams; Waterways 543: JEH543MS	1.139	1.235	1.334	1.317	1.293	1.291	1.305	1.328	1.354	1.382	1.411	1.440	1.470
Percent Change	0.7	8.5	8.0	-1.2	-1.8	-0.1	1.1	1.7	2.0	2.1	2.1	2.1	2.1
Electric Plant 544: JEH544MS	1.063	1.167	1.329	1.339	1.297	1.264	1.253	1.256	1.264	1.278	1.293	1.309	1.326
Percent Change	1.5	9.8	13.9	0.7	-3.1	-2.6	-0.9	0.3	0.7	1.0	1.2	1.2	1.3
Miscellaneous 545: JEH545MS	1.159	1.235	1.343	1.323	1.302	1.294	1.297	1.306	1.322	1.341	1.362	1.385	1.409
Percent Change	1.7	6.6	8.8	-1.5	-1.6	-0.6	0.2	0.7	1.2	1.4	1.6	1.7	1.7
OTHER PRODUCTION PLANT													
Total Operation and Maintenance: JEOOOMS	1.113	1.167	1.268	1.276	1.265	1.264	1.274	1.290	1.309	1.332	1.355	1.380	1.406
Percent Change	0.0	4.8	8.7	0.6	-0.8	-0.1	0.8	1.3	1.5	1.7	1.8	1.8	1.8
Operation: JEOOOMS	1.110	1.141	1.216	1.230	1.237	1.250	1.269	1.292	1.318	1.346	1.374	1.404	1.434
Percent Change	-1.4	2.8	6.6	1.2	0.5	1.1	1.5	1.8	2.0	2.1	2.1	2.2	2.2
Supervision and Eng. 546: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Fuel 547*: JEO547MS	0.801	1.045	1.028	1.028	1.002	1.011	1.022	1.029	1.047	1.069	1.094	1.108	1.119
Percent Change	-9.2	30.5	-1.6	-0.1	-2.5	0.9	1.1	0.7	1.7	2.1	2.4	1.3	1.0
Generation Expenses 548: JEO548MS	1.226	1.204	1.310	1.372	1.387	1.415	1.445	1.481	1.521	1.565	1.611	1.660	1.711
Percent Change	-4.0	-1.8	8.8	4.7	1.1	2.0	2.1	2.5	2.7	2.9	3.0	3.0	3.1
Miscellaneous 549: JEO549MS	1.042	1.108	1.174	1.170	1.176	1.188	1.205	1.225	1.247	1.270	1.294	1.319	1.345
Percent Change	-1.7	6.3	6.0	-0.3	0.5	1.0	1.5	1.7	1.8	1.8	1.9	1.9	1.9
Rents 550: JRENT	1.092	1.112	1.169	1.165	1.161	1.162	1.171	1.185	1.201	1.219	1.237	1.256	1.274
Percent Change	1.0	1.8	5.1	-0.3	-0.4	0.1	0.8	1.2	1.4	1.5	1.5	1.5	1.4
Maintenance: JEOOMS	1.115	1.186	1.307	1.310	1.287	1.274	1.277	1.288	1.303	1.322	1.341	1.363	1.385
Percent Change	1.1	6.3	10.2	0.2	-1.7	-1.0	0.2	0.9	1.2	1.4	1.5	1.6	1.6
Supervision and Eng. 551: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Structures 552: JEO552MS	1.026	1.227	1.341	1.239	1.177	1.156	1.156	1.166	1.180	1.196	1.211	1.226	1.243
Percent Change	-2.0	19.6	9.3	-7.6	-5.0	-1.8	0.0	0.9	1.2	1.3	1.3	1.3	1.3
Generation and Elec. Plant 553: JEO553MS	1.117	1.177	1.304	1.317	1.294	1.279	1.279	1.289	1.303	1.320	1.339	1.360	1.381
Percent Change	1.5	5.3	10.8	1.0	-1.7	-1.2	0.1	0.8	1.1	1.3	1.4	1.5	1.5
Miscellaneous 554: JEO554MS	1.153	1.218	1.317	1.302	1.287	1.285	1.293	1.307	1.325	1.346	1.369	1.393	1.418
Percent Change	1.5	5.6	8.2	-1.1	-1.2	-0.1	0.6	1.0	1.4	1.6	1.7	1.8	1.8

* This account receives no weight in forming the total operation and total operation and maintenance cost indexes

Source: IHS Markit

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Table A24

Electric Transmission and Distribution Expenses: Materials and Services**(TREND 221)****(2012=1.000)**

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
TRANSMISSION PLANT													
Total Operation and Maintenance: JETOMMS	1.062	1.125	1.215	1.207	1.196	1.189	1.193	1.205	1.222	1.239	1.256	1.275	1.293
Percent Change	0.2	6.0	8.0	-0.7	-1.0	-0.5	0.3	1.0	1.3	1.4	1.4	1.4	1.5
Operation: JETOMS	1.055	1.088	1.147	1.147	1.150	1.155	1.164	1.178	1.194	1.210	1.226	1.243	1.260
Percent Change	0.1	3.2	5.4	0.1	0.2	0.4	0.8	1.2	1.4	1.3	1.3	1.4	1.4
Supervision and Eng. 560: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Load Dispatching 561: JET561MS	1.012	1.031	1.085	1.088	1.085	1.080	1.081	1.088	1.097	1.105	1.112	1.120	1.129
Percent Change	0.4	1.9	5.2	0.3	-0.2	-0.4	0.1	0.6	0.8	0.7	0.7	0.7	0.8
Station Expenses 562: JET562MS	1.115	1.158	1.247	1.250	1.254	1.270	1.290	1.314	1.339	1.366	1.395	1.424	1.455
Percent Change	-2.2	3.8	7.7	0.2	0.4	1.2	1.6	1.8	1.9	2.0	2.1	2.1	2.1
Lines 563&4: JET563&4MS	1.092	1.175	1.273	1.252	1.252	1.262	1.279	1.299	1.320	1.342	1.365	1.388	1.412
Percent Change	-2.1	7.5	8.3	-1.6	0.0	0.8	1.4	1.5	1.6	1.7	1.7	1.7	1.7
Miscellaneous 566: JET566MS	1.062	1.100	1.145	1.136	1.143	1.152	1.163	1.177	1.194	1.211	1.228	1.245	1.262
Percent Change	0.8	3.5	4.1	-0.7	0.6	0.8	1.0	1.2	1.4	1.4	1.4	1.4	1.4
Rents 567: JRENT	1.092	1.112	1.169	1.165	1.161	1.162	1.171	1.185	1.201	1.219	1.237	1.256	1.274
Percent Change	1.0	1.8	5.1	-0.3	-0.4	0.1	0.8	1.2	1.4	1.5	1.5	1.5	1.4
Maintenance: JETMMS	1.075	1.197	1.347	1.322	1.283	1.256	1.249	1.258	1.275	1.294	1.314	1.336	1.358
Percent Change	0.5	11.3	12.5	-1.8	-2.9	-2.1	-0.6	0.8	1.3	1.5	1.6	1.6	1.7
Supervision and Eng. 568: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Structures 569: JET569MS	1.070	1.120	1.181	1.177	1.169	1.164	1.168	1.179	1.193	1.206	1.220	1.235	1.250
Percent Change	2.3	4.7	5.4	-0.3	-0.7	-0.4	0.4	0.9	1.1	1.1	1.2	1.2	1.2
Station Equipment 570: JET570MS	1.087	1.206	1.391	1.401	1.353	1.308	1.286	1.286	1.298	1.313	1.330	1.348	1.368
Percent Change	1.5	11.0	15.3	0.7	-3.4	-3.3	-1.7	0.0	0.9	1.2	1.3	1.4	1.5
Overhead Lines 571: JET571MS	1.059	1.202	1.359	1.305	1.256	1.225	1.217	1.228	1.244	1.263	1.284	1.304	1.326
Percent Change	0.1	13.5	13.1	-4.0	-3.7	-2.5	-0.6	0.9	1.3	1.6	1.6	1.6	1.7
Underground Lines 572: JET572MS	1.062	1.210	1.374	1.352	1.290	1.243	1.221	1.223	1.236	1.253	1.272	1.291	1.312
Percent Change	1.1	14.0	13.6	-1.6	-4.6	-3.6	-1.8	0.2	1.0	1.4	1.5	1.5	1.6
Miscellaneous 573: JET573MS	1.087	1.194	1.280	1.210	1.198	1.205	1.222	1.241	1.262	1.283	1.305	1.328	1.352
Percent Change	-1.2	9.9	7.2	-5.5	-1.0	0.6	1.4	1.6	1.7	1.7	1.7	1.8	1.8
DISTRIBUTION PLANT													
Total Operation and Maintenance: JEDOMMS	1.074	1.185	1.318	1.293	1.261	1.241	1.240	1.252	1.269	1.289	1.311	1.332	1.355
Percent Change	0.0	10.4	11.2	-1.9	-2.4	-1.6	-0.2	1.0	1.4	1.6	1.6	1.7	1.7
Operation: JEDOMS	1.085	1.144	1.221	1.220	1.222	1.232	1.248	1.267	1.289	1.312	1.336	1.360	1.385
Percent Change	-0.7	5.4	6.7	-0.1	0.2	0.8	1.3	1.6	1.7	1.8	1.8	1.8	1.8
Supervision and Eng. 580: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Load Dispatching 581: JED581MS	1.038	1.095	1.173	1.176	1.179	1.186	1.199	1.214	1.231	1.249	1.267	1.285	1.304
Percent Change	-2.2	5.5	7.1	0.2	0.2	0.6	1.1	1.3	1.4	1.4	1.4	1.5	1.5
Station Expenses 582: JED582MS	1.090	1.133	1.224	1.218	1.216	1.226	1.241	1.260	1.280	1.302	1.325	1.348	1.373
Percent Change	-2.8	3.9	8.0	-0.5	-0.2	0.8	1.3	1.5	1.6	1.7	1.7	1.8	1.8
Lines 583&4: JED583&4MS	1.108	1.214	1.332	1.319	1.306	1.310	1.323	1.343	1.367	1.394	1.422	1.451	1.481
Percent Change	-0.8	9.6	9.8	-1.0	-0.9	0.3	1.0	1.5	1.8	2.0	2.0	2.0	2.1
Street Lighting & Signals 585: JED585MS	1.086	1.161	1.251	1.257	1.250	1.249	1.261	1.278	1.296	1.316	1.337	1.358	1.381
Percent Change	-2.0	6.9	7.8	0.4	-0.6	0.0	1.0	1.3	1.4	1.5	1.6	1.6	1.6
Meters 586: JED586MS	1.091	1.163	1.260	1.270	1.268	1.273	1.288	1.305	1.325	1.346	1.369	1.392	1.416
Percent Change	-2.3	6.7	8.4	0.8	-0.2	0.4	1.1	1.4	1.5	1.6	1.7	1.7	1.7
Customer Installations 587: JED587MS	1.090	1.170	1.256	1.252	1.250	1.257	1.276	1.297	1.320	1.345	1.371	1.397	1.425
Percent Change	-1.5	7.3	7.4	-0.3	-0.2	0.6	1.4	1.7	1.8	1.9	1.9	2.0	1.9
Miscellaneous 588: JED588MS	1.055	1.093	1.139	1.129	1.136	1.146	1.159	1.175	1.193	1.211	1.229	1.248	1.268
Percent Change	0.8	3.5	4.2	-0.8	0.5	0.9	1.2	1.4	1.5	1.5	1.5	1.5	1.5
Rents 589: JRENT	1.092	1.112	1.169	1.165	1.161	1.162	1.171	1.185	1.201	1.219	1.237	1.256	1.274
Percent Change	1.0	1.8	5.1	-0.3	-0.4	0.1	0.8	1.2	1.4	1.5	1.5	1.5	1.4
Maintenance: JEDMMS	1.069	1.206	1.365	1.328	1.280	1.246	1.236	1.244	1.260	1.278	1.298	1.319	1.340
Percent Change	0.4	12.8	13.2	-2.7	-3.6	-2.6	-0.8	0.7	1.2	1.5	1.6	1.6	1.6
Supervision and Eng. 590: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Structures 591: JED591MS	1.026	1.227	1.341	1.239	1.177	1.156	1.156	1.166	1.180	1.196	1.211	1.226	1.243
Percent Change	-2.0	19.6	9.3	-7.6	-5.0	-1.8	0.0	0.9	1.2	1.3	1.3	1.3	1.3
Station Equipment 592: JED592MS	1.087	1.206	1.391	1.401	1.353	1.308	1.286	1.286	1.298	1.313	1.330	1.348	1.368
Percent Change	1.5	11.0	15.3	0.7	-3.4	-3.3	-1.7	0.0	0.9	1.2	1.3	1.4	1.5
Overhead Lines 593: JED593MS	1.059	1.202	1.359	1.305	1.256	1.225	1.217	1.228	1.244	1.263	1.284	1.304	1.326
Percent Change	0.1	13.5	13.1	-4.0	-3.7	-2.5	-0.6	0.9	1.3	1.6	1.6	1.6	1.7
Underground Lines 594: JED594MS	1.062	1.210	1.374	1.352	1.290	1.243	1.221	1.223	1.236	1.253	1.272	1.291	1.312
Percent Change	1.1	14.0	13.6	-1.6	-4.6	-3.6	-1.8	0.2	1.0	1.4	1.5	1.5	1.6
Line Transformers 595: JED595MS	1.312	1.456	1.684	1.702	1.638	1.561	1.517	1.510	1.513	1.522	1.535	1.547	1.561
Percent Change	2.2	11.0	15.7	1.1	-3.8	-4.7	-2.9	-0.4	0.2	0.6	0.8	0.8	0.9

Table A24

Electric Transmission and Distribution Expenses: Materials and Services (continued)**(TREND 221)****(2012=1.000)**

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Street Lighting & Signals 596: JED596MS	1.066	1.170	1.351	1.359	1.314	1.262	1.237	1.240	1.249	1.264	1.281	1.299	1.318
Percent Change	1.3	9.8	15.4	0.6	-3.4	-3.9	-2.0	0.2	0.8	1.2	1.4	1.4	1.4
Meters 597: JED597MS	1.087	1.133	1.245	1.279	1.264	1.248	1.248	1.258	1.273	1.290	1.308	1.326	1.344
Percent Change	1.1	4.3	9.9	2.7	-1.2	-1.3	0.0	0.8	1.2	1.3	1.4	1.4	1.4
Miscellaneous 598: JED598MS	1.066	1.195	1.376	1.382	1.323	1.275	1.256	1.252	1.260	1.272	1.285	1.299	1.313
Percent Change	1.6	12.0	15.2	0.4	-4.3	-3.6	-1.6	-0.3	0.6	1.0	1.1	1.1	1.1

Source: IHS Markit

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Table A25

Electric Customer Accounts; Customer Service and Information; Sales; and Administrative and General Expenses: Materials and Services

(TREND 221)

(2012=1.000)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
CUSTOMER ACCOUNTS													
Operation: JECAOMS	1.138	1.207	1.292	1.303	1.316	1.336	1.360	1.386	1.412	1.438	1.466	1.493	1.523
Percent Change	-0.7	6.0	7.1	0.9	1.0	1.5	1.8	1.9	1.9	1.9	1.9	1.9	2.0
Supervision 901: JS&MS	1.131	1.204	1.294	1.322	1.342	1.365	1.395	1.427	1.461	1.497	1.534	1.571	1.608
Percent Change	-1.7	6.4	7.5	2.2	1.5	1.7	2.2	2.3	2.4	2.5	2.4	2.4	2.4
Meter Reading Exp. 902: JECA902MS	1.113	1.176	1.261	1.261	1.266	1.279	1.297	1.316	1.336	1.355	1.375	1.395	1.417
Percent Change	-1.1	5.7	7.2	0.0	0.4	1.0	1.4	1.5	1.5	1.4	1.5	1.5	1.6
Cus. Records and Collections 903: JECA903MS	1.155	1.228	1.317	1.333	1.349	1.371	1.398	1.427	1.456	1.485	1.515	1.546	1.579
Percent Change	-0.6	6.3	7.2	1.2	1.2	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.1
Miscellaneous 905: JECA905MS	1.023	1.049	1.101	1.084	1.085	1.090	1.097	1.106	1.117	1.126	1.136	1.146	1.156
Percent Change	0.5	2.5	5.0	-1.5	0.0	0.5	0.7	0.8	0.9	0.9	0.8	0.9	0.9
CUSTOMER SERVICE and INFORMATION													
Operation: JECSOMS	1.089	1.158	1.261	1.254	1.255	1.263	1.279	1.299	1.321	1.343	1.365	1.388	1.412
Percent Change	-1.7	6.4	8.8	-0.5	0.1	0.6	1.3	1.6	1.7	1.7	1.7	1.7	1.7
Supervision 907: JS&MS	1.131	1.204	1.294	1.322	1.342	1.365	1.395	1.427	1.461	1.497	1.534	1.571	1.608
Percent Change	-1.7	6.4	7.5	2.2	1.5	1.7	2.2	2.3	2.4	2.5	2.4	2.4	2.4
Customer Assistance 908: JECS908MS	1.087	1.161	1.269	1.261	1.260	1.267	1.283	1.304	1.325	1.348	1.370	1.394	1.418
Percent Change	-2.0	6.8	9.3	-0.6	-0.1	0.5	1.3	1.6	1.7	1.7	1.7	1.7	1.7
Info. and Instruc. Advertising 909: JECS909MS	1.118	1.158	1.231	1.208	1.211	1.223	1.238	1.254	1.270	1.285	1.299	1.315	1.331
Percent Change	0.9	3.5	6.4	-1.9	0.2	1.0	1.3	1.3	1.3	1.2	1.2	1.2	1.2
Miscellaneous 910: JECS910MS	1.077	1.108	1.157	1.152	1.159	1.171	1.185	1.199	1.213	1.225	1.237	1.250	1.265
Percent Change	1.4	2.8	4.5	-0.5	0.6	1.1	1.2	1.1	1.2	1.0	1.0	1.0	1.2
SALES													
Operation: JESALOMS	1.100	1.167	1.261	1.271	1.276	1.286	1.303	1.323	1.345	1.368	1.391	1.415	1.440
Percent Change	-1.3	6.1	8.0	0.8	0.4	0.8	1.3	1.6	1.7	1.7	1.7	1.7	1.8
Supervision 911: JS&MS	1.131	1.204	1.294	1.322	1.342	1.365	1.395	1.427	1.461	1.497	1.534	1.571	1.608
Percent Change	-1.7	6.4	7.5	2.2	1.5	1.7	2.2	2.3	2.4	2.5	2.4	2.4	2.4
Demonstr. and Selling 912: JESAL912MS	1.098	1.174	1.277	1.292	1.295	1.303	1.320	1.341	1.364	1.388	1.413	1.438	1.464
Percent Change	-2.0	6.9	8.8	1.2	0.2	0.6	1.3	1.6	1.7	1.8	1.8	1.8	1.8
Advertising 913: JESAL913MS	1.131	1.170	1.243	1.227	1.234	1.248	1.266	1.284	1.302	1.319	1.335	1.352	1.371
Percent Change	0.9	3.4	6.3	-1.3	0.5	1.2	1.4	1.4	1.4	1.3	1.3	1.3	1.4
Miscellaneous 916: JESAL916MS	1.077	1.108	1.157	1.152	1.159	1.171	1.185	1.199	1.213	1.225	1.237	1.250	1.265
Percent Change	1.4	2.8	4.5	-0.5	0.6	1.1	1.2	1.1	1.2	1.0	1.0	1.0	1.2
ADMINISTRATIVE and GENERAL													
Total Operation and Maintenance: JEADGOMMS	1.142	1.182	1.224	1.249	1.276	1.303	1.333	1.366	1.398	1.431	1.464	1.499	1.534
Percent Change	1.1	3.6	3.5	2.0	2.1	2.2	2.3	2.4	2.4	2.3	2.4	2.4	2.4
Operation: JEADGOMS	1.144	1.184	1.224	1.250	1.278	1.307	1.338	1.371	1.403	1.437	1.471	1.506	1.542
Percent Change	1.1	3.5	3.4	2.1	2.2	2.2	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Office Supplies 921: JEADG921MS	1.109	1.159	1.231	1.232	1.243	1.259	1.278	1.300	1.322	1.344	1.367	1.391	1.415
Percent Change	0.6	4.5	6.2	0.1	0.8	1.3	1.6	1.7	1.7	1.7	1.7	1.7	1.8
Outside Services 923: JEADG923MS	1.084	1.156	1.189	1.204	1.215	1.228	1.244	1.262	1.280	1.300	1.318	1.338	1.358
Percent Change	-0.6	6.7	2.9	1.3	0.9	1.1	1.3	1.4	1.5	1.5	1.4	1.5	1.5
Property Insurance 924: JEADG924MS	1.182	1.208	1.246	1.281	1.312	1.339	1.365	1.393	1.419	1.447	1.475	1.505	1.535
Percent Change	3.0	2.2	3.1	2.8	2.4	2.1	2.0	2.0	1.9	2.0	2.0	2.0	2.0
Injuries and Damages 925: JEADG925MS	1.108	1.135	1.164	1.191	1.213	1.232	1.251	1.272	1.295	1.318	1.343	1.368	1.394
Percent Change	1.6	2.5	2.6	2.3	1.8	1.5	1.5	1.7	1.8	1.8	1.9	1.9	1.9
Pensions and Benefits 926: JEADG926MS	1.185	1.204	1.229	1.274	1.322	1.367	1.416	1.466	1.515	1.564	1.615	1.667	1.720
Percent Change	1.8	1.6	2.1	3.6	3.8	3.4	3.6	3.5	3.3	3.3	3.3	3.2	3.2
Franchise Fees 927: JEADG927MS	1.228	1.299	1.370	1.388	1.412	1.442	1.471	1.502	1.537	1.574	1.613	1.653	1.695
Percent Change	1.7	5.8	5.5	1.3	1.8	2.1	2.0	2.2	2.3	2.4	2.5	2.5	2.5
Regulatory Commission Exp. 928: JEADG928MS	1.105	1.182	1.264	1.268	1.277	1.293	1.313	1.336	1.360	1.385	1.410	1.435	1.461
Percent Change	-1.3	7.0	6.9	0.3	0.7	1.2	1.6	1.8	1.8	1.8	1.8	1.8	1.8
General Advertising 930.1: JEADG9301MS	1.127	1.164	1.238	1.223	1.229	1.244	1.262	1.280	1.298	1.314	1.331	1.348	1.367
Percent Change	0.9	3.3	6.3	-1.3	0.5	1.2	1.4	1.4	1.4	1.3	1.3	1.3	1.4
Miscellaneous 930.2: JEADG9302MS	1.109	1.151	1.208	1.201	1.208	1.222	1.238	1.255	1.272	1.290	1.308	1.326	1.345
Percent Change	1.7	3.8	4.9	-0.6	0.6	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.5
Rents 931: JRENT931	1.194	1.222	1.283	1.326	1.346	1.369	1.388	1.408	1.431	1.455	1.479	1.505	1.531
Percent Change	2.4	2.3	5.0	3.3	1.5	1.7	1.4	1.5	1.6	1.6	1.7	1.7	1.8
Maintenance													
General Plant 935: JEADG935MS	1.079	1.144	1.225	1.212	1.199	1.193	1.198	1.210	1.225	1.239	1.254	1.269	1.285
Percent Change	0.7	6.0	7.0	-1.1	-1.0	-0.5	0.4	1.0	1.2	1.2	1.2	1.2	1.2

Source: IHS Markit

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Table A26

Gas Storage Expenses: Materials and Services

(TREND 221)

(2012=1.000)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
UNDERGROUND STORAGE													
Total Operation and Maintenance: JGUSOMMS	1.082	1.185	1.279	1.239	1.226	1.232	1.249	1.269	1.291	1.314	1.338	1.363	1.389
Percent Change	-1.0	9.6	7.9	-3.1	-1.0	0.5	1.3	1.6	1.7	1.8	1.8	1.9	1.9
Operation: JGUSOMS	1.078	1.182	1.273	1.229	1.218	1.226	1.243	1.264	1.286	1.310	1.334	1.359	1.384
Percent Change	-1.2	9.6	7.7	-3.4	-0.9	0.6	1.4	1.6	1.8	1.8	1.9	1.9	1.9
Supervision and Eng. 814: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Maps and Records 815: JGUS815MS	1.104	1.169	1.258	1.263	1.266	1.274	1.289	1.308	1.330	1.351	1.374	1.397	1.419
Percent Change	-2.0	5.9	7.6	0.4	0.3	0.6	1.2	1.5	1.7	1.6	1.7	1.7	1.6
Wells 816: JGUS816MS	0.943	1.180	1.260	1.184	1.155	1.160	1.176	1.195	1.217	1.242	1.267	1.292	1.317
Percent Change	-6.0	25.2	6.7	-6.1	-2.4	0.4	1.4	1.6	1.9	2.0	2.1	2.0	1.9
Lines 817: JGUS817MS	1.085	1.216	1.286	1.246	1.240	1.256	1.277	1.300	1.327	1.356	1.385	1.415	1.446
Percent Change	-1.1	12.1	5.8	-3.2	-0.5	1.3	1.7	1.8	2.0	2.2	2.2	2.2	2.1
Compressor Stations 818: JGUS818MS	1.069	1.174	1.329	1.353	1.336	1.340	1.364	1.389	1.418	1.447	1.477	1.508	1.541
Percent Change	-0.9	9.8	13.2	1.8	-1.3	0.4	1.8	1.9	2.0	2.1	2.1	2.1	2.2
Comp. Sta. Fuel & Power 819*: JGUS819MS	0.749	1.139	1.159	1.103	1.065	1.088	1.120	1.146	1.185	1.228	1.270	1.309	1.345
Percent Change	-12.2	52.0	1.7	-4.8	-3.5	2.2	3.0	2.3	3.3	3.7	3.4	3.1	2.8
Mea. and Reg. Stations 820: JGUS820MS	1.125	1.190	1.282	1.281	1.297	1.321	1.347	1.376	1.407	1.441	1.475	1.511	1.548
Percent Change	-1.0	5.7	7.7	-0.1	1.2	1.8	2.0	2.1	2.3	2.4	2.3	2.5	2.4
Purification Expenses 821: JGUS821MS	1.030	1.151	1.222	1.210	1.214	1.235	1.261	1.286	1.316	1.348	1.381	1.413	1.446
Percent Change	-2.3	11.7	6.2	-0.9	0.3	1.8	2.0	2.0	2.3	2.5	2.4	2.4	2.3
Exploration and Develop. 822: JGUS822MS	0.990	1.001	1.092	1.116	1.113	1.117	1.128	1.145	1.165	1.189	1.209	1.231	1.255
Percent Change	-3.3	1.2	9.1	2.2	-0.3	0.3	1.0	1.5	1.8	2.0	1.7	1.8	2.0
Other Expenses 824: JGUS824MS	1.087	1.194	1.280	1.210	1.198	1.205	1.222	1.241	1.262	1.283	1.305	1.328	1.352
Percent Change	-1.2	9.9	7.2	-5.5	-1.0	0.6	1.4	1.6	1.7	1.7	1.7	1.8	1.8
Rents 826: JRENT	1.092	1.112	1.169	1.165	1.161	1.162	1.171	1.185	1.201	1.219	1.237	1.256	1.274
Percent Change	1.0	1.8	5.1	-0.3	-0.4	0.1	0.8	1.2	1.4	1.5	1.5	1.5	1.4
Maintenance: JGUSMMS	1.110	1.209	1.319	1.298	1.277	1.274	1.283	1.300	1.320	1.343	1.367	1.392	1.417
Percent Change	0.0	8.9	9.1	-1.5	-1.7	-0.3	0.8	1.3	1.6	1.7	1.8	1.8	1.8
Supervision and Eng. 830: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Structures 831: JGUS831MS	1.026	1.227	1.341	1.239	1.177	1.156	1.156	1.166	1.180	1.196	1.211	1.226	1.243
Percent Change	-2.0	19.6	9.3	-7.6	-5.0	-1.8	0.0	0.9	1.2	1.3	1.3	1.3	1.3
Reservoirs and Wells 832: JGUS832MS	1.029	1.130	1.218	1.178	1.172	1.176	1.189	1.206	1.227	1.249	1.271	1.295	1.320
Percent Change	-2.0	9.8	7.8	-3.3	-0.5	0.4	1.1	1.5	1.7	1.8	1.7	1.9	2.0
Lines 833: JGUS833MS	1.104	1.206	1.297	1.258	1.233	1.226	1.233	1.248	1.266	1.286	1.307	1.328	1.350
Percent Change	0.5	9.2	7.5	-3.0	-2.0	-0.6	0.6	1.2	1.5	1.5	1.6	1.7	1.7
Comp. Sta. Equip. 834: JGUS834MS	1.150	1.237	1.362	1.365	1.340	1.335	1.344	1.360	1.381	1.405	1.430	1.457	1.484
Percent Change	0.8	7.5	10.1	0.2	-1.8	-0.4	0.7	1.2	1.5	1.7	1.8	1.9	1.9
Mea. and Reg. Sta. Equip. 835: JGUS835MS	1.155	1.259	1.357	1.338	1.316	1.316	1.328	1.344	1.366	1.390	1.416	1.442	1.468
Percent Change	1.0	9.0	7.8	-1.4	-1.7	0.1	0.9	1.2	1.6	1.8	1.9	1.8	1.8
Purification Equip. 836: JGUS836MS	1.093	1.239	1.344	1.269	1.231	1.226	1.233	1.245	1.261	1.278	1.297	1.316	1.336
Percent Change	-0.3	13.4	8.5	-5.6	-3.0	-0.4	0.6	0.9	1.3	1.4	1.5	1.5	1.5
Other Equip. 837: JGUS837MS	1.176	1.221	1.309	1.314	1.310	1.316	1.335	1.361	1.388	1.417	1.447	1.478	1.508
Percent Change	2.9	3.8	7.2	0.4	-0.3	0.5	1.4	1.9	2.0	2.1	2.1	2.1	2.1
OTHER STORAGE													
Total Operation and Maintenance: JGOSOMMS	1.101	1.200	1.297	1.276	1.275	1.289	1.309	1.332	1.359	1.387	1.416	1.447	1.478
Percent Change	-1.0	9.0	8.2	-1.7	0.0	1.1	1.6	1.8	2.0	2.1	2.1	2.1	2.1
Operation: JGOSOMS	1.089	1.173	1.267	1.253	1.261	1.280	1.304	1.329	1.357	1.387	1.417	1.448	1.480
Percent Change	-1.6	7.7	8.0	-1.1	0.7	1.5	1.8	1.9	2.1	2.2	2.2	2.2	2.2
Supervision and Eng. 840: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Operation Expenses 841: JGOS841MS	1.087	1.175	1.272	1.254	1.263	1.283	1.307	1.332	1.360	1.390	1.421	1.452	1.485
Percent Change	-1.7	8.1	8.2	-1.4	0.7	1.6	1.9	1.9	2.1	2.2	2.2	2.2	2.2
Rents 842: JRENT	1.092	1.112	1.169	1.165	1.161	1.162	1.171	1.185	1.201	1.219	1.237	1.256	1.274
Percent Change	1.0	1.8	5.1	-0.3	-0.4	0.1	0.8	1.2	1.4	1.5	1.5	1.5	1.4
Fuel 842.1*: JGOS8421MS	0.550	1.109	1.085	0.969	0.886	0.894	0.917	0.935	0.966	1.003	1.040	1.069	1.094
Percent Change	-21.3	101.6	-2.2	-10.7	-8.5	0.9	2.6	2.0	3.4	3.8	3.8	2.7	2.3
Power 842.2*: JGOS8422MS	1.146	1.198	1.306	1.369	1.420	1.474	1.526	1.568	1.620	1.679	1.727	1.787	1.845
Percent Change	-1.3	4.6	9.0	4.8	3.7	3.8	3.5	2.8	3.3	3.6	2.9	3.5	3.3
Maintenance: JGOSMMS	1.129	1.264	1.371	1.332	1.310	1.309	1.322	1.340	1.362	1.388	1.415	1.443	1.472
Percent Change	0.2	12.0	8.4	-2.9	-1.6	0.0	0.9	1.4	1.7	1.9	2.0	2.0	2.0
Supervision and Eng. 843.1: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Structures 843.2: JGOS8432MS	1.026	1.227	1.341	1.239	1.177	1.156	1.156	1.166	1.180	1.196	1.211	1.226	1.243
Percent Change	-2.0	19.6	9.3	-7.6	-5.0	-1.8	0.0	0.9	1.2	1.3	1.3	1.3	1.3
Gas Holders 843.3: JGOS8433MS	1.097	1.271	1.414	1.352	1.305	1.267	1.251	1.256	1.268	1.284	1.304	1.325	1.346
Percent Change	0.5	15.9	11.3	-4.4	-3.5	-2.9	-1.3	0.4	1.0	1.3	1.5	1.6	1.6

Table A26

Gas Storage Expenses: Materials and Services (continued)**(TREND 221)****(2012=1.000)**

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Purification Equip. 843.4: JGOS8434MS	1.056	1.168	1.271	1.223	1.194	1.190	1.196	1.208	1.223	1.241	1.259	1.277	1.297
Percent Change	-1.6	10.6	8.9	-3.8	-2.3	-0.4	0.5	0.9	1.3	1.5	1.4	1.5	1.6
Liquefaction Equip. 843.5: JGOS8435MS	1.132	1.292	1.394	1.328	1.304	1.306	1.320	1.339	1.361	1.388	1.416	1.445	1.473
Percent Change	0.5	14.1	8.0	-4.7	-1.8	0.1	1.1	1.4	1.7	1.9	2.0	2.0	2.0
Vaporizing Equip. 843.6: JGOS8436MS	1.173	1.221	1.354	1.396	1.392	1.396	1.407	1.422	1.445	1.472	1.503	1.537	1.570
Percent Change	1.3	4.0	10.9	3.1	-0.3	0.3	0.8	1.0	1.6	1.9	2.1	2.2	2.2
Comp. Sta. Equip. 843.7: JGOS8437MS	1.139	1.224	1.326	1.332	1.313	1.309	1.320	1.339	1.363	1.390	1.417	1.445	1.474
Percent Change	0.6	7.4	8.4	0.4	-1.4	-0.2	0.8	1.4	1.8	1.9	2.0	1.9	2.0
Mea. and Reg. Sta. Equip 843.8: JGOS8438MS	1.155	1.259	1.357	1.338	1.316	1.316	1.328	1.344	1.366	1.390	1.416	1.442	1.468
Percent Change	1.0	9.0	7.8	-1.4	-1.7	0.1	0.9	1.2	1.6	1.8	1.9	1.8	1.8
Other Equip. 843.9: JGOS8439MS	1.136	1.277	1.384	1.350	1.334	1.335	1.349	1.368	1.392	1.417	1.446	1.476	1.507
Percent Change	0.1	12.5	8.3	-2.4	-1.2	0.1	1.0	1.4	1.7	1.8	2.0	2.1	2.1

* These accounts receive no weight in forming the total operation and total operation and maintenance cost indexes

Source: IHS Markit

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Table A27

LNG Terminating and Processing Expenses: Materials and Services

(TREND 221)

(2012=1.000)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
LNG TERMINALING and PROCESSING													
Total Operation and Maintenance: JGLNGOMMS	1.089	1.213	1.320	1.278	1.262	1.263	1.275	1.294	1.316	1.340	1.365	1.391	1.417
Percent Change	-1.1	11.4	8.8	-3.2	-1.3	0.1	1.0	1.5	1.7	1.8	1.9	1.9	1.9
Operation: JGLNGOMS	1.095	1.179	1.270	1.255	1.262	1.279	1.302	1.327	1.355	1.383	1.413	1.443	1.474
Percent Change	-1.4	7.7	7.7	-1.2	0.5	1.4	1.8	1.9	2.1	2.1	2.1	2.2	2.1
Supervision and Eng. 844.1: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
LNG and Liquef. Proc. 844.2&3: JGLNG8442&3MS	1.090	1.173	1.266	1.252	1.261	1.280	1.303	1.327	1.354	1.383	1.413	1.443	1.474
Percent Change	-1.5	7.7	8.0	-1.1	0.7	1.5	1.8	1.9	2.0	2.1	2.1	2.2	2.2
LNG Transportation 844.4: JGLNG8444MS	1.081	1.151	1.249	1.240	1.241	1.253	1.271	1.293	1.318	1.344	1.370	1.397	1.425
Percent Change	-1.6	6.4	8.5	-0.7	0.1	1.0	1.4	1.7	1.9	2.0	2.0	2.0	2.0
Mea. and Reg. Stations 844.5: JGLNG8445MS	1.125	1.190	1.282	1.281	1.297	1.321	1.347	1.376	1.407	1.441	1.475	1.511	1.548
Percent Change	-1.0	5.7	7.7	-0.1	1.2	1.8	2.0	2.1	2.3	2.4	2.3	2.5	2.4
Compressor Stations 844.6: JGLNG8446MS	1.069	1.174	1.329	1.353	1.336	1.340	1.364	1.389	1.418	1.447	1.477	1.508	1.541
Percent Change	-0.9	9.8	13.2	1.8	-1.3	0.4	1.8	1.9	2.0	2.1	2.1	2.1	2.2
Communication Expenses 844.7: JGLNG8447MS	1.039	1.098	1.173	1.171	1.175	1.184	1.196	1.212	1.230	1.249	1.269	1.290	1.312
Percent Change	-1.2	5.7	6.9	-0.2	0.3	0.8	1.1	1.3	1.5	1.6	1.6	1.7	1.7
System Control & Load Disp. 844.8: JGLNG8448MS	1.077	1.168	1.236	1.264	1.273	1.288	1.312	1.340	1.371	1.403	1.433	1.466	1.500
Percent Change	-2.2	8.4	5.8	2.3	0.7	1.2	1.9	2.1	2.3	2.3	2.2	2.3	2.3
Fuel 845.1*: JGLNG8451MS	0.550	1.109	1.085	0.969	0.886	0.894	0.917	0.935	0.966	1.003	1.040	1.069	1.094
Percent Change	-21.3	101.6	-2.2	-10.7	-8.5	0.9	2.6	2.0	3.4	3.8	3.8	2.7	2.3
Power 845.2*: JGLNG8452MS	1.146	1.198	1.306	1.369	1.420	1.474	1.526	1.568	1.620	1.679	1.727	1.787	1.845
Percent Change	-1.3	4.6	9.0	4.8	3.7	3.8	3.5	2.8	3.3	3.6	2.9	3.5	3.3
Rents 845.3: JRENT	1.092	1.112	1.169	1.165	1.161	1.162	1.171	1.185	1.201	1.219	1.237	1.256	1.274
Percent Change	1.0	1.8	5.1	-0.3	-0.4	0.1	0.8	1.2	1.4	1.5	1.5	1.5	1.4
Other Expenses 846.2: JGLNG8462MS	1.087	1.194	1.280	1.210	1.198	1.205	1.222	1.241	1.262	1.283	1.305	1.328	1.352
Percent Change	-1.2	9.9	7.2	-5.5	-1.0	0.6	1.4	1.6	1.7	1.7	1.7	1.8	1.8
Maintenance: JGLNGMMS	1.081	1.257	1.384	1.308	1.261	1.242	1.241	1.251	1.267	1.285	1.304	1.324	1.344
Percent Change	-0.6	16.3	10.1	-5.5	-3.6	-1.5	-0.1	0.9	1.3	1.4	1.5	1.5	1.5
Supervision and Eng. 847.1: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Structures 847.2: JGLNG8472MS	1.026	1.227	1.341	1.239	1.177	1.156	1.156	1.166	1.180	1.196	1.211	1.226	1.243
Percent Change	-2.0	19.6	9.3	-7.6	-5.0	-1.8	0.0	0.9	1.2	1.3	1.3	1.3	1.3
LNG Processing Equip. 847.3: JGLNG8473MS	1.158	1.321	1.481	1.427	1.394	1.370	1.363	1.372	1.389	1.411	1.435	1.459	1.484
Percent Change	1.2	14.1	12.2	-3.7	-2.3	-1.7	-0.5	0.7	1.2	1.6	1.7	1.7	1.7
LNG Trans. Equip. 847.4: JGLNG8474MS	1.053	1.100	1.157	1.155	1.158	1.168	1.185	1.206	1.227	1.250	1.272	1.295	1.317
Percent Change	-0.4	4.5	5.2	-0.2	0.3	0.9	1.4	1.7	1.8	1.8	1.8	1.8	1.7
Mea. and Reg. Sta. Equip. 847.5: JGLNG8475MS	1.155	1.259	1.357	1.338	1.316	1.316	1.328	1.344	1.366	1.390	1.416	1.442	1.468
Percent Change	1.0	9.0	7.8	-1.4	-1.7	0.1	0.9	1.2	1.6	1.8	1.9	1.8	1.8
Comp. Sta. Equip. 847.6: JGLNG8476MS	1.146	1.236	1.319	1.292	1.284	1.283	1.294	1.310	1.329	1.350	1.373	1.396	1.419
Percent Change	1.8	7.9	6.7	-2.0	-0.7	0.0	0.8	1.2	1.5	1.6	1.7	1.7	1.7
Communication Equip. 847.7: JGLNG8477MS	0.972	0.974	1.004	1.016	1.012	1.008	1.003	1.000	0.996	0.993	0.990	0.987	0.984
Percent Change	0.2	0.2	3.1	1.2	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3
Other Equip. 847.8: JGLNG8478MS	1.146	1.192	1.265	1.255	1.253	1.256	1.264	1.276	1.291	1.310	1.332	1.354	1.377
Percent Change	2.4	4.0	6.2	-0.8	-0.2	0.2	0.7	0.9	1.2	1.5	1.7	1.7	1.7

* These accounts receive no weight in forming the total operation and total operation and maintenance cost indexes

Source: IHS Markit

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Table A28

Gas Transmission and Distribution Expenses: Materials and Services**(TREND 221)****(2012=1.000)**

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
TRANSMISSION EXPENSES													
Total Operation and Maintenance: JGTOMMS	1.100	1.202	1.299	1.283	1.274	1.283	1.303	1.325	1.351	1.378	1.406	1.435	1.464
Percent Change	-0.7	9.3	8.1	-1.3	-0.7	0.7	1.5	1.7	1.9	2.0	2.0	2.0	2.1
Operation: JGTOMS	1.089	1.185	1.281	1.271	1.268	1.280	1.302	1.326	1.353	1.382	1.411	1.441	1.471
Percent Change	-1.1	8.8	8.1	-0.8	-0.3	1.0	1.7	1.9	2.0	2.1	2.1	2.1	2.1
Supervision and Eng. 850: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
System Control & Load Dispatching 851: JGT851MS	1.077	1.168	1.236	1.264	1.273	1.288	1.312	1.340	1.371	1.403	1.433	1.466	1.500
Percent Change	-2.2	8.4	5.8	2.3	0.7	1.2	1.9	2.1	2.3	2.3	2.2	2.3	2.3
Communication Expenses 852: JGT852MS	1.039	1.098	1.173	1.171	1.175	1.184	1.196	1.212	1.230	1.249	1.269	1.290	1.312
Percent Change	-1.2	5.7	6.9	-0.2	0.3	0.8	1.1	1.3	1.5	1.6	1.6	1.7	1.7
Compressor Stations 853: JGT853MS	1.069	1.174	1.329	1.353	1.336	1.340	1.364	1.389	1.418	1.447	1.477	1.508	1.541
Percent Change	-0.9	9.8	13.2	1.8	-1.3	0.4	1.8	1.9	2.0	2.1	2.1	2.1	2.2
Gas For Comp. Stations 854*: JGT854MS	0.572	1.274	1.098	1.053	0.949	0.990	1.039	1.076	1.139	1.212	1.286	1.341	1.391
Percent Change	-21.1	122.6	-13.8	-4.1	-9.8	4.3	4.9	3.6	5.9	6.4	6.1	4.3	3.7
Other Fuel & Power for Comp. Stat. 855*: JGT855MS	0.856	1.013	1.112	1.081	1.082	1.088	1.101	1.110	1.124	1.140	1.156	1.173	1.187
Percent Change	-7.6	18.3	9.8	-2.8	0.1	0.6	1.1	0.8	1.2	1.5	1.4	1.4	1.2
Mains 856: JGT856MS	1.085	1.216	1.286	1.246	1.240	1.256	1.277	1.300	1.327	1.356	1.385	1.415	1.446
Percent Change	-1.1	12.1	5.8	-3.2	-0.5	1.3	1.7	1.8	2.0	2.2	2.2	2.2	2.1
Mea. and Reg. Stations 857: JGT857MS	1.125	1.190	1.282	1.281	1.297	1.321	1.347	1.376	1.407	1.441	1.475	1.511	1.548
Percent Change	-1.0	5.7	7.7	-0.1	1.2	1.8	2.0	2.1	2.3	2.4	2.3	2.5	2.4
Other Expenses 859: JGT859MS	1.087	1.194	1.280	1.210	1.198	1.205	1.222	1.241	1.262	1.283	1.305	1.328	1.352
Percent Change	-1.2	9.9	7.2	-5.5	-1.0	0.6	1.4	1.6	1.7	1.7	1.7	1.8	1.8
Rents 860: JRENT	1.092	1.112	1.169	1.165	1.161	1.162	1.171	1.185	1.201	1.219	1.237	1.256	1.274
Percent Change	1.0	1.8	5.1	-0.3	-0.4	0.1	0.8	1.2	1.4	1.5	1.5	1.5	1.4
Maintenance: JGTMMMS	1.130	1.247	1.350	1.315	1.293	1.292	1.304	1.322	1.344	1.367	1.393	1.419	1.445
Percent Change	0.4	10.3	8.3	-2.6	-1.7	-0.1	0.9	1.4	1.6	1.8	1.8	1.9	1.9
Supervision and Eng. 861: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Structures 862: JGT862MS	1.026	1.227	1.341	1.239	1.177	1.156	1.156	1.166	1.180	1.196	1.211	1.226	1.243
Percent Change	-2.0	19.6	9.3	-7.6	-5.0	-1.8	0.0	0.9	1.2	1.3	1.3	1.3	1.3
Mains 863: JGT863MS	1.120	1.272	1.361	1.285	1.259	1.259	1.273	1.292	1.314	1.337	1.361	1.386	1.411
Percent Change	0.4	13.5	7.0	-5.6	-2.0	0.0	1.1	1.5	1.7	1.8	1.8	1.9	1.8
Comp. Sta. Equip 864: JGT864MS	1.150	1.237	1.362	1.365	1.340	1.335	1.344	1.360	1.381	1.405	1.430	1.457	1.484
Percent Change	0.8	7.5	10.1	0.2	-1.8	-0.4	0.7	1.2	1.5	1.7	1.8	1.9	1.9
Mea. and Reg. Sta. Equip. 865: JGT865MS	1.155	1.259	1.357	1.338	1.316	1.316	1.328	1.344	1.366	1.390	1.416	1.442	1.468
Percent Change	1.0	9.0	7.8	-1.4	-1.7	0.1	0.9	1.2	1.6	1.8	1.9	1.8	1.8
Communication Equip. 866: JGT866MS	0.972	0.974	1.004	1.016	1.012	1.008	1.003	1.000	0.996	0.993	0.990	0.987	0.984
Percent Change	0.2	0.2	3.1	1.2	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3
Other Equip. 867: JGT867MS	1.102	1.144	1.203	1.208	1.204	1.205	1.212	1.224	1.239	1.256	1.273	1.290	1.307
Percent Change	1.1	3.8	5.2	0.4	-0.3	0.1	0.6	1.0	1.2	1.3	1.3	1.4	1.4
DISTRIBUTION EXPENSES													
Total Operation and Maintenance: JGDOMMS	1.105	1.204	1.282	1.266	1.265	1.279	1.299	1.323	1.349	1.377	1.405	1.434	1.464
Percent Change	-0.6	8.9	6.5	-1.3	-0.1	1.1	1.6	1.8	2.0	2.1	2.1	2.1	2.1
Operation: JGDOMS	1.100	1.192	1.268	1.259	1.265	1.282	1.305	1.330	1.358	1.386	1.416	1.446	1.477
Percent Change	-0.9	8.4	6.3	-0.7	0.4	1.4	1.8	1.9	2.1	2.1	2.1	2.1	2.1
Supervision and Eng. 870: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Load Dispatching 871: JGD871MS	1.077	1.163	1.232	1.251	1.257	1.271	1.293	1.319	1.347	1.376	1.404	1.434	1.465
Percent Change	-1.8	8.0	5.9	1.6	0.5	1.1	1.7	2.0	2.1	2.2	2.0	2.1	2.1
Compressor Stations 872: JGD872MS	1.069	1.174	1.329	1.353	1.336	1.340	1.364	1.389	1.418	1.447	1.477	1.508	1.541
Percent Change	-0.9	9.8	13.2	1.8	-1.3	0.4	1.8	1.9	2.0	2.1	2.1	2.1	2.2
Comp. Sta. Fuel and Power 873*: JGD873MS	0.785	1.078	1.108	1.074	1.049	1.064	1.085	1.102	1.128	1.158	1.189	1.215	1.238
Percent Change	-10.4	37.3	2.8	-3.1	-2.3	1.4	2.0	1.5	2.4	2.7	2.6	2.2	1.9
Mains 874: JGD874MS	1.082	1.206	1.270	1.237	1.235	1.252	1.273	1.296	1.321	1.349	1.377	1.406	1.436
Percent Change	-1.1	11.5	5.4	-2.6	-0.2	1.4	1.7	1.8	2.0	2.1	2.1	2.1	2.1
Mea. and Reg. Stations 875-77: JGD875&6&7MS	1.120	1.179	1.265	1.266	1.281	1.303	1.327	1.353	1.382	1.413	1.444	1.477	1.511
Percent Change	-0.9	5.3	7.4	0.1	1.2	1.7	1.9	2.0	2.1	2.2	2.2	2.3	2.3
Meter and House Regulators 878: JGD878MS	1.096	1.165	1.257	1.246	1.253	1.268	1.288	1.309	1.334	1.361	1.388	1.417	1.446
Percent Change	-0.6	6.4	7.9	-0.9	0.6	1.2	1.5	1.7	1.9	2.0	2.0	2.1	2.1
Cus. Installations 879: JGD879MS	1.076	1.138	1.225	1.224	1.233	1.248	1.267	1.289	1.313	1.340	1.366	1.394	1.423
Percent Change	-0.8	5.7	7.6	0.0	0.7	1.2	1.5	1.7	1.9	2.0	2.0	2.1	2.1
Other Expenses 880: JGD880MS	1.155	1.223	1.289	1.284	1.282	1.289	1.307	1.327	1.347	1.366	1.387	1.408	1.432
Percent Change	1.6	5.9	5.3	-0.3	-0.2	0.5	1.4	1.5	1.5	1.4	1.5	1.5	1.7
Rents 881: JRENT	1.092	1.112	1.169	1.165	1.161	1.162	1.171	1.185	1.201	1.219	1.237	1.256	1.274
Percent Change	1.0	1.8	5.1	-0.3	-0.4	0.1	0.8	1.2	1.4	1.5	1.5	1.5	1.4
Maintenance: JGDMMS	1.121	1.241	1.329	1.287	1.266	1.267	1.280	1.299	1.321	1.344	1.369	1.394	1.420
Percent Change	0.3	10.6	7.1	-3.1	-1.7	0.1	1.0	1.5	1.7	1.8	1.8	1.9	1.8

Table A28

Gas Transmission and Distribution Expenses: Materials and Services (continued)**(TREND 221)****(2012=1.000)**

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Supervision and Eng. 885: JS&EMS	1.123	1.193	1.281	1.308	1.327	1.351	1.381	1.414	1.449	1.485	1.521	1.559	1.597
Percent Change	-1.7	6.2	7.4	2.1	1.5	1.8	2.2	2.4	2.4	2.5	2.5	2.4	2.4
Structures 886: JGD886MS	1.026	1.227	1.341	1.239	1.177	1.156	1.156	1.166	1.180	1.196	1.211	1.226	1.243
Percent Change	-2.0	19.6	9.3	-7.6	-5.0	-1.8	0.0	0.9	1.2	1.3	1.3	1.3	1.3
Mains 887: JGD887MS	1.120	1.272	1.361	1.285	1.259	1.259	1.273	1.292	1.314	1.337	1.361	1.386	1.411
Percent Change	0.4	13.5	7.0	-5.6	-2.0	0.0	1.1	1.5	1.7	1.8	1.8	1.9	1.8
Comp. Sta. Equip 888: JGD888MS	1.150	1.237	1.362	1.365	1.340	1.335	1.344	1.360	1.381	1.405	1.430	1.457	1.484
Percent Change	0.8	7.5	10.1	0.2	-1.8	-0.4	0.7	1.2	1.5	1.7	1.8	1.9	1.9
Mea. and Reg. Sta. Equip 889-91: JGD889&90&91MS	1.155	1.259	1.357	1.338	1.316	1.316	1.328	1.344	1.366	1.390	1.416	1.442	1.468
Percent Change	1.0	9.0	7.8	-1.4	-1.7	0.1	0.9	1.2	1.6	1.8	1.9	1.8	1.8
Services 892: JGD892MS	1.124	1.244	1.334	1.281	1.251	1.250	1.263	1.282	1.304	1.328	1.352	1.377	1.401
Percent Change	0.4	10.7	7.3	-4.0	-2.3	-0.1	1.0	1.5	1.7	1.8	1.8	1.8	1.8
Meter and House Regulators 893: JGD893MS	1.083	1.209	1.287	1.252	1.234	1.237	1.250	1.268	1.288	1.311	1.334	1.359	1.384
Percent Change	-0.9	11.6	6.5	-2.7	-1.4	0.2	1.0	1.4	1.6	1.8	1.8	1.8	1.8
Other Equip 894: JGD894MS	1.138	1.173	1.247	1.280	1.275	1.274	1.284	1.304	1.325	1.348	1.373	1.398	1.424
Percent Change	1.1	3.1	6.3	2.7	-0.4	-0.1	0.8	1.5	1.7	1.7	1.8	1.8	1.8

* These accounts are given no weight in forming the total operation and total operation and maintenance cost indexes

Source: IHS Markit

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Table A29

Gas Customer Accounts; Customer Service and Information; Sales; and Administrative and General Expenses: Materials and Services

(TREND 221)

(2012=1.000)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
CUSTOMER ACCOUNTS													
Operation: JGCAOMS	1.134	1.201	1.286	1.296	1.309	1.328	1.352	1.377	1.403	1.429	1.456	1.483	1.512
Percent Change	-0.7	5.9	7.1	0.8	1.0	1.5	1.8	1.9	1.9	1.8	1.9	1.9	1.9
Supervision and Eng. 901: JS&MS	1.131	1.204	1.294	1.322	1.342	1.365	1.395	1.427	1.461	1.497	1.534	1.571	1.608
Percent Change	-1.7	6.4	7.5	2.2	1.5	1.7	2.2	2.3	2.4	2.5	2.4	2.4	2.4
Meter Reading Exp. 902: JGCA902MS	1.113	1.176	1.261	1.261	1.266	1.279	1.297	1.316	1.336	1.355	1.375	1.395	1.417
Percent Change	-1.1	5.7	7.2	0.0	0.4	1.0	1.4	1.5	1.5	1.4	1.5	1.5	1.6
Cus. Records and Collections 903: JGCA903MS	1.155	1.228	1.317	1.333	1.349	1.371	1.398	1.427	1.456	1.485	1.515	1.546	1.579
Percent Change	-0.6	6.3	7.2	1.2	1.2	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.1
Miscellaneous 905: JGCA905MS	1.023	1.049	1.101	1.084	1.085	1.090	1.097	1.106	1.117	1.126	1.136	1.146	1.156
Percent Change	0.5	2.5	5.0	-1.5	0.0	0.5	0.7	0.8	0.9	0.9	0.8	0.9	0.9
CUSTOMER SERVICE and INFORMATION													
Operation: JGCSIOMS	1.087	1.151	1.247	1.239	1.241	1.249	1.265	1.284	1.304	1.324	1.345	1.366	1.388
Percent Change	-1.3	5.9	8.3	-0.6	0.1	0.7	1.3	1.5	1.6	1.6	1.6	1.6	1.6
Supervision 907: JS&MS	1.131	1.204	1.294	1.322	1.342	1.365	1.395	1.427	1.461	1.497	1.534	1.571	1.608
Percent Change	-1.7	6.4	7.5	2.2	1.5	1.7	2.2	2.3	2.4	2.5	2.4	2.4	2.4
Customer Assistance 908: JGCSI908MS	1.087	1.161	1.269	1.261	1.260	1.267	1.283	1.304	1.325	1.348	1.370	1.394	1.418
Percent Change	-2.0	6.8	9.3	-0.6	-0.1	0.5	1.3	1.6	1.7	1.7	1.7	1.7	1.7
Info. and Instruc. Advertising 909: JGCSI909MS	1.118	1.158	1.231	1.208	1.211	1.223	1.238	1.254	1.270	1.285	1.299	1.315	1.331
Percent Change	0.9	3.5	6.4	-1.9	0.2	1.0	1.3	1.3	1.3	1.2	1.2	1.2	1.2
Miscellaneous 910: JGCSI910MS	1.077	1.108	1.157	1.152	1.159	1.171	1.185	1.199	1.213	1.225	1.237	1.250	1.265
Percent Change	1.4	2.8	4.5	-0.5	0.6	1.1	1.2	1.1	1.2	1.0	1.0	1.0	1.2
SALES													
Operation: JGSALOMS	1.098	1.174	1.277	1.291	1.294	1.302	1.319	1.340	1.363	1.386	1.411	1.436	1.463
Percent Change	-1.9	6.9	8.8	1.1	0.2	0.6	1.3	1.6	1.7	1.7	1.8	1.8	1.8
Supervision 911: JS&MS	1.131	1.204	1.294	1.322	1.342	1.365	1.395	1.427	1.461	1.497	1.534	1.571	1.608
Percent Change	-1.7	6.4	7.5	2.2	1.5	1.7	2.2	2.3	2.4	2.5	2.4	2.4	2.4
Demonstr. and Selling 912: JGSAL912MS	1.098	1.174	1.277	1.292	1.295	1.303	1.320	1.341	1.364	1.388	1.413	1.438	1.464
Percent Change	-2.0	6.9	8.8	1.2	0.2	0.6	1.3	1.6	1.7	1.8	1.8	1.8	1.8
Advertising 913: JGSAL913MS	1.131	1.170	1.243	1.227	1.234	1.248	1.266	1.284	1.302	1.319	1.335	1.352	1.371
Percent Change	0.9	3.4	6.3	-1.3	0.5	1.2	1.4	1.4	1.4	1.3	1.3	1.3	1.4
Miscellaneous 916: JGSAL916MS	1.077	1.108	1.157	1.152	1.159	1.171	1.185	1.199	1.213	1.225	1.237	1.250	1.265
Percent Change	1.4	2.8	4.5	-0.5	0.6	1.1	1.2	1.1	1.2	1.0	1.0	1.0	1.2
ADMINISTRATIVE and GENERAL													
Total Operation and Maintenance: JGADGOMMS	1.122	1.170	1.213	1.231	1.250	1.271	1.295	1.320	1.346	1.372	1.398	1.425	1.453
Percent Change	0.8	4.3	3.6	1.5	1.6	1.7	1.9	1.9	1.9	1.9	1.9	1.9	2.0
Operation: JGADGOMS	1.122	1.170	1.213	1.231	1.250	1.271	1.295	1.320	1.346	1.372	1.399	1.426	1.454
Percent Change	0.8	4.3	3.6	1.5	1.6	1.7	1.9	1.9	1.9	1.9	1.9	1.9	2.0
Office Supplies 921: JGADG921MS	1.109	1.159	1.231	1.232	1.243	1.259	1.278	1.300	1.322	1.344	1.367	1.391	1.415
Percent Change	0.6	4.5	6.2	0.1	0.8	1.3	1.6	1.7	1.7	1.7	1.7	1.7	1.8
Outside Services 923: JGADG923MS	1.084	1.156	1.189	1.204	1.215	1.228	1.244	1.262	1.280	1.300	1.318	1.338	1.358
Percent Change	-0.6	6.7	2.9	1.3	0.9	1.1	1.3	1.4	1.5	1.5	1.4	1.5	1.5
Property Insurance 924: JGADG924MS	1.182	1.208	1.246	1.281	1.312	1.339	1.365	1.393	1.419	1.447	1.475	1.505	1.535
Percent Change	3.0	2.2	3.1	2.8	2.4	2.1	2.0	2.0	1.9	2.0	2.0	2.0	2.0
Injuries and Damages 925: JGADG925MS	1.108	1.135	1.164	1.191	1.213	1.232	1.251	1.272	1.295	1.318	1.343	1.368	1.394
Percent Change	1.6	2.5	2.6	2.3	1.8	1.5	1.5	1.7	1.8	1.8	1.9	1.9	1.9
Pensions and Benefits 926: JGADG926MS	1.185	1.204	1.229	1.274	1.322	1.367	1.416	1.466	1.515	1.564	1.615	1.667	1.720
Percent Change	1.8	1.6	2.1	3.6	3.8	3.4	3.6	3.5	3.3	3.3	3.3	3.2	3.2
Franchise Fees 927: JGADG927MS	1.228	1.299	1.370	1.388	1.412	1.442	1.471	1.502	1.537	1.574	1.613	1.653	1.695
Percent Change	1.7	5.8	5.5	1.3	1.8	2.1	2.0	2.2	2.3	2.4	2.5	2.5	2.5
Regulatory Commission Exp. 928: JGADG928MS	1.105	1.182	1.264	1.268	1.277	1.293	1.313	1.336	1.360	1.385	1.410	1.435	1.461
Percent Change	-1.3	7.0	6.9	0.3	0.7	1.2	1.6	1.8	1.8	1.8	1.8	1.8	1.8
General Advertising 930.1: JGADG9301MS	1.127	1.164	1.238	1.223	1.229	1.244	1.262	1.280	1.298	1.314	1.331	1.348	1.367
Percent Change	0.9	3.3	6.3	-1.3	0.5	1.2	1.4	1.4	1.4	1.3	1.3	1.3	1.4
Miscellaneous 930.2: JGADG9302MS	1.109	1.151	1.208	1.201	1.208	1.222	1.238	1.255	1.272	1.290	1.308	1.326	1.345
Percent Change	1.7	3.8	4.9	-0.6	0.6	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.5
Rents 931: JRENT931	1.194	1.222	1.283	1.326	1.346	1.369	1.388	1.408	1.431	1.455	1.479	1.505	1.531
Percent Change	2.4	2.3	5.0	3.3	1.5	1.7	1.4	1.5	1.6	1.6	1.7	1.7	1.8
Maintenance													
General Plant 932: JGADG932MS	1.079	1.144	1.225	1.212	1.199	1.193	1.198	1.210	1.225	1.239	1.254	1.269	1.285
Percent Change	0.7	6.0	7.0	-1.1	-1.0	-0.5	0.4	1.0	1.2	1.2	1.2	1.2	1.2

Source: IHS Markit

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Table A30

Utility Price and Wage Indicators

(TREND 221)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
WAGES													
US, Avg Hourly Earnings, Utilities, Units: \$/Hr: CEU442200008	38.5	40.0	41.7	43.1	44.5	45.7	47.0	48.3	49.7	51.1	52.6	54.1	55.7
Percent Change	4.2	3.9	4.3	3.5	3.1	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9
US, Avg Hourly Earnings, Elec. Power Generation Transmission and Dist., Units: \$/Hr: CEU4422110008	39.0	40.3	42.0	43.4	44.8	46.0	47.3	48.6	50.0	51.4	52.9	54.4	56.0
Percent Change	2.2	3.5	4.2	3.4	3.1	2.8	2.8	2.8	2.8	2.9	2.8	2.9	2.9
US, Avg Hourly Earnings, Construction, Utility System, Units: \$/Hr: CEU2023710008	31.1	31.4	32.8	34.0	35.3	36.5	37.7	38.9	40.1	41.3	42.6	43.9	45.3
Percent Change	1.6	1.1	4.4	3.7	3.8	3.6	3.2	3.0	3.1	3.1	3.1	3.1	3.1
US, Wages and Sal, Private, Management, Business, Financial, Units: 2005:4=100: ECIPWMBFNS	141.2	145.3	151.2	156.3	161.2	165.8	170.6	175.6	180.9	186.5	192.3	198.1	204.1
Percent Change	2.1	2.9	4.1	3.4	3.1	2.9	2.9	2.9	3.0	3.1	3.1	3.0	3.0
US, Wages and Sal, Private, Professional, Scientific, Technical, Units: 2005:4=100: ECIPWPSTNS	144.6	148.4	154.5	159.8	165.0	170.3	175.5	181.0	186.5	192.2	197.9	203.7	209.7
Percent Change	3.0	2.6	4.1	3.4	3.3	3.2	3.1	3.1	3.1	3.0	3.0	2.9	2.9
US, Wages and Sal, Private, Professional and Related, Units: 2005:4=100: ECIPWPARNs	138.6	142.7	148.6	154.0	158.7	163.2	167.8	172.6	177.6	182.9	188.4	194.0	199.8
Percent Change	2.3	3.0	4.1	3.6	3.1	2.9	2.8	2.9	2.9	3.0	3.0	3.0	3.0
FUEL PRICES													
US, PPI, Gasoline, Units: 1985:6=100: PPI3241101	146.4	247.7	283.4	259.1	230.4	220.3	218.9	220.9	223.8	227.0	231.0	234.8	237.4
Percent Change	-29.5	69.3	14.4	-8.6	-11.1	-4.4	-0.6	0.9	1.3	1.4	1.7	1.7	1.1
US, PPI, Light Fuel Oils, Units: 1985:6=100: PPI324110AY	208.4	372.9	423.3	349.6	325.1	315.1	313.9	313.3	313.1	313.0	313.7	314.6	314.6
Percent Change	-21.5	78.9	13.5	-17.4	-7.0	-3.1	-0.4	-0.2	-0.1	0.0	0.2	0.3	0.0
US, PPI, Bituminous Coal, Units: 1982=100: WPIP051	189.0	189.2	202.4	208.9	212.2	210.0	207.4	204.7	202.4	200.7	200.1	197.6	194.5
Percent Change	-5.5	0.2	6.9	3.2	1.6	-1.0	-1.2	-1.3	-1.1	-0.8	-0.3	-1.3	-1.6
US, PPI, Natural Gas, Units: 1982=100: WPIP0531	67.5	150.2	129.5	124.1	111.9	116.7	122.5	126.9	134.4	143.0	151.7	158.1	164.0
Percent Change	-21.1	122.6	-13.8	-4.1	-9.8	4.3	4.9	3.6	5.9	6.4	6.1	4.3	3.7
US, PPI, Heavy Fuel Oils Incl. No.5 No.6 Heavy Diesel, Units: 1985:6=100: PPI324110DY	143.5	271.3	267.3	221.8	208.1	200.8	200.5	203.4	207.2	211.6	216.9	222.5	227.9
Percent Change	-28.1	89.0	-1.5	-17.0	-6.2	-3.5	-0.1	1.4	1.9	2.1	2.5	2.6	2.4
TRANSPORTATION SERVICES PRICES													
US, PPI, General Freight Trucking Long-Distance LTL, Units: 1992:6=100: PPI4841221	318.5	349.4	381.0	360.2	369.2	380.3	391.0	402.1	414.2	425.8	437.7	450.1	462.9
Percent Change	0.3	9.7	9.1	-5.5	2.5	3.0	2.8	2.8	3.0	2.8	2.8	2.8	2.8
US, PPI, Railroads Line-Haul Operations, Units: 1984:12=100: PPI482111	220.7	231.5	244.1	240.8	244.3	247.9	253.3	259.3	265.2	271.2	277.4	283.8	290.3
Percent Change	0.0	4.9	5.4	-1.3	1.5	1.5	2.2	2.4	2.3	2.3	2.3	2.3	2.3

Source: IHS Markit

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Technical appendix

Variables Endogenous to the Power Planner Construction Cost Model

AIRCOMPRESSOR	COST INDEX, AIR COMPRESSOR
ALUMPIPE	COST INDEX, ALUMINUM PIPE
ASPHALT	COST INDEX, ASPHALT
BLDGSIDING	COST INDEX, INSULATED BUILDING SIDING
BLDINGWIRE	COST INDEX, BUILDING WIRE
BUSSES	COST INDEX, BUSES
CBLTRAY	COST INDEX, CABLE TRAY
CEMENT	COST INDEX, CEMENT
CNTRLPANEL	COST INDEX, CONTROL PANEL
COMMEQUIP	COST INDEX, COMMUNICATION EQUIPMENT
CRCTBRKR	COST INDEX, CIRCUIT BREAKER
CULVPIPE	COST INDEX, CULVERT PIPE
CUTOUTS	COST INDEX, CUTOUTS
ELECDEVICE	COST INDEX, ELECTRONIC DEVICES
FABRSTL	COST INDEX, FABRICATED STRUCTURAL STEEL
FANBLOWERS	COST INDEX, FANS & BLOWERS
FLUEDUCT	COST INDEX, FLUES & DUCTS
FUELHLDRINSTR	COST INDEX, FUEL HOLDERS & ACCESSORIES
GALVSHEET	COST INDEX, GALVANIZED STEEL SHEET
GRAVEL	COST INDEX, GRAVEL
HARDWARE	COST INDEX, HARDWARE
HEATEXCH	COST INDEX, HEAT EXCHANGER
INSULATION	COST INDEX, INSULATION
INSULATOR	COST INDEX, INSULATORS
JBCBR@NOC	BLDG. CONSTR.—COST INDEX OF BRICK BUILDING CONSTR, N. CENTRAL
JBCBR@NTL	BLDG. CONSTR.—COST INDEX OF BRICK BUILDING CONSTR, N. ATLANTIC
JBCBR@PCF	BLDG. CONSTR.—COST INDEX OF BRICK BUILDING CONSTR, PACIFIC
JBCBR@PLA	BLDG. CONSTR.—COST INDEX OF BRICK BUILDING CONSTR, PLATEAU
JBCBR@SOC	BLDG. CONSTR.—COST INDEX OF BRICK BUILDING CONSTR, S. CENTRAL
JBCBR@STL	BLDG. CONSTR.—COST INDEX OF BRICK BUILDING CONSTR, S. ATLANTIC
JBCCR@NOC	BLDG. CONSTR.—COST INDEX OF REINF. CONC. BLDG. CONSTR, N. CENTRAL
JBCCR@NTL	BLDG. CONSTR.—COST INDEX OF REINF. CONC. BLDG. CONSTR, N. ATLANTIC
JBCCR@PCF	BLDG. CONSTR.—COST INDEX OF REINF. CONC. BLDG. CONSTR, PACIFIC
JBCCR@PLA	BLDG. CONSTR.—COST INDEX OF REINF. CONC. BLDG. CONSTR, PLATEAU
JBCCR@SOC	BLDG. CONSTR.—COST INDEX OF REINF. CONC. BLDG. CONSTR, S. CENTRAL
JBCCR@STL	BLDG. CONSTR.—COST INDEX OF REINF. CONC. BLDG. CONSTR, S. ATLANTIC
JBCCR@NOC	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (PLANT MIX), N. CENTRAL
JBCCR@NTL	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (PLANT MIX), N. ATLANTIC
JBCCR@PCF	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (PLANT MIX), PACIFIC
JBCCR@PLA	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (PLANT MIX), PLATEAU
JBCCR@SOC	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (PLANT MIX), S. CENTRAL
JBCCR@STL	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (PLANT MIX), S. ATLANTIC
JBCCR@NOC	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (READY MIX), N. CENTRAL
JBCCR@NTL	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (READY MIX), N. ATLANTIC
JBCCR@PCF	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (READY MIX), PACIFIC
JBCCR@PLA	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (READY MIX), PLATEAU
JBCCR@SOC	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (READY MIX), S. CENTRAL
JBCCR@STL	BLDG. CONSTR.—COST INDEX OF REINF. CONC. (READY MIX), S. ATLANTIC
JBCSS@NOC	BLDG. CONSTR.—COST INDEX OF STRUC. STEEL ERECTED, N. CENTRAL
JBCSS@NTL	BLDG. CONSTR.—COST INDEX OF STRUC. STEEL ERECTED, N. ATLANTIC

Variables Endogenous to the Power Planner Construction Cost Model (continued)

JBCSS@PCF	BLDG. CONSTR.–COST INDEX OF STRUC. STEEL ERECTED, PACIFIC
JBCSS@PLA	BLDG. CONSTR.–COST INDEX OF STRUC. STEEL ERECTED, PLATEAU
JBCSS@SOC	BLDG. CONSTR.–COST INDEX OF STRUC. STEEL ERECTED, S. CENTRAL
JBCSS@STL	BLDG. CONSTR.–COST INDEX OF STRUC. STEEL ERECTED, S. ATLANTIC
JBLB@NOC	LABOR–COST INDEX OF BLDG. TRADES LABOR, N. CENTRAL
JBLB@NTL	LABOR–COST INDEX OF BLDG. TRADES LABOR, N. ATLANTIC
JBLB@PCF	LABOR–COST INDEX OF BLDG. TRADES LABOR, PACIFIC
JBLB@PLA	LABOR–COST INDEX OF BLDG. TRADES LABOR, PLATEAU
JBLB@SOC	LABOR–COST INDEX OF BLDG. TRADES LABOR, S. CENTRAL
JBLB@STL	LABOR–COST INDEX OF BLDG. TRADES LABOR, S. ATLANTIC
JBLC@NOC	LABOR–COST INDEX OF COMMON LABOR, N. CENTRAL
JBLC@NTL	LABOR–COST INDEX OF COMMON LABOR, N. ATLANTIC
JBLC@PCF	LABOR–COST INDEX OF COMMON LABOR, PACIFIC
JBLC@PLA	LABOR–COST INDEX OF COMMON LABOR, PLATEAU
JBLC@SOC	LABOR–COST INDEX OF COMMON LABOR, S. CENTRAL
JBLC@STL	LABOR–COST INDEX OF COMMON LABOR, S. ATLANTIC
JBLCRF@NOC	LABOR–COST INDEX OF LABOR FOR REINF. CONCRETE, N. CENTRAL
JBLCRF@NTL	LABOR–COST INDEX OF LABOR FOR REINF. CONCRETE, N. ATLANTIC
JBLCRF@PCF	LABOR–COST INDEX OF LABOR FOR REINF. CONCRETE, PACIFIC
JBLCRF@PLA	LABOR–COST INDEX OF LABOR FOR REINF. CONCRETE, PLATEAU
JBLCRF@SOC	LABOR–COST INDEX OF LABOR FOR REINF. CONCRETE, S. CENTRAL
JBLCRF@STL	LABOR–COST INDEX OF LABOR FOR REINF. CONCRETE, S. ATLANTIC
JBLEL@NOC	LABOR–COST INDEX OF ELECTRICIANS, N. CENTRAL
JBLEL@NTL	LABOR–COST INDEX OF ELECTRICIANS, N. ATLANTIC
JBLEL@PCF	LABOR–COST INDEX OF ELECTRICIANS, PACIFIC
JBLEL@PLA	LABOR–COST INDEX OF ELECTRICIANS, PLATEAU
JBLEL@SOC	LABOR–COST INDEX OF ELECTRICIANS, S. CENTRAL
JBLEL@STL	LABOR–COST INDEX OF ELECTRICIANS, S. ATLANTIC
JBLHV@NOC	LABOR–COST INDEX OF HEAVY CONSTR. TRADES LABOR, N. CENTRAL
JBLHV@NTL	LABOR–COST INDEX OF HEAVY CONSTR. TRADES LABOR, N. ATLANTIC
JBLHV@PCF	LABOR–COST INDEX OF HEAVY CONSTR. TRADES LABOR, PACIFIC
JBLHV@PLA	LABOR–COST INDEX OF HEAVY CONSTR. TRADES LABOR, PLATEAU
JBLHV@SOC	LABOR–COST INDEX OF HEAVY CONSTR. TRADES LABOR, S. CENTRAL
JBLHV@STL	LABOR–COST INDEX OF HEAVY CONSTR. TRADES LABOR, S. ATLANTIC
JBLPF@NOC	LABOR–COST INDEX OF PIPEFITTERS, N. CENTRAL
JBLPF@NTL	LABOR–COST INDEX OF PIPEFITTERS, N. ATLANTIC
JBLPF@PCF	LABOR–COST INDEX OF PIPEFITTERS, PACIFIC
JBLPF@PLA	LABOR–COST INDEX OF PIPEFITTERS, PLATEAU
JBLPF@SOC	LABOR–COST INDEX OF PIPEFITTERS, S. CENTRAL
JBLPF@STL	LABOR–COST INDEX OF PIPEFITTERS, S. ATLANTIC
JBLPU@NOC	LABOR–COST INDEX OF PLUMBERS, N. CENTRAL
JBLPU@NTL	LABOR–COST INDEX OF PLUMBERS, N. ATLANTIC
JBLPU@PCF	LABOR–COST INDEX OF PLUMBERS, PACIFIC
JBLPU@PLA	LABOR–COST INDEX OF PLUMBERS, PLATEAU
JBLPU@SOC	LABOR–COST INDEX OF PLUMBERS, S. CENTRAL
JBLPU@STL	LABOR–COST INDEX OF PLUMBERS, S. ATLANTIC
JMBRC@NOC	BLDG. MATERIAL–COST INDEX OF COMMON BRICK, N. CENTRAL
JMBRC@NTL	BLDG. MATERIAL–COST INDEX OF COMMON BRICK, N. ATLANTIC
JMBRC@PCF	BLDG. MATERIAL–COST INDEX OF COMMON BRICK, N. PACIFIC
JMBRC@PLA	BLDG. MATERIAL–COST INDEX OF COMMON BRICK, PLATEAU
JMBRC@SOC	BLDG. MATERIAL–COST INDEX OF COMMON BRICK, S. CENTRAL
JMBRC@STL	BLDG. MATERIAL–COST INDEX OF COMMON BRICK, S. ATLANTIC

Variables Endogenous to the Power Planner Construction Cost Model (continued)

JBMCNFLM@NOC	BLDG. MATERIAL-COST INDEX OF LUMBER FOR REINF. CONCRETE, S. CENTRAL
JBMCNFLM@NTL	BLDG. MATERIAL-COST INDEX OF LUMBER FOR REINF. CONCRETE, N. ATLANTIC
JBMCNFLM@PCF	BLDG. MATERIAL-COST INDEX OF LUMBER FOR REINF. CONCRETE, PACIFIC
JBMCNFLM@PLA	BLDG. MATERIAL-COST INDEX OF LUMBER FOR REINF. CONCRETE, PLATEAU
JBMCNFLM@SOC	BLDG. MATERIAL-COST INDEX OF LUMBER FOR REINF. CONCRETE, S. CENTRAL
JBMCNFLM@STL	BLDG. MATERIAL-COST INDEX OF LUMBER FOR REINF. CONCRETE, S. ATLANTIC
JBMCNFSB@NOC	BLDG. MATERIAL-COST INDEX OF STEEL BARS FOR REINF. CONC., N. CENTRAL
JBMCNFSB@NTL	BLDG. MATERIAL-COST INDEX OF STEEL BARS FOR REINF. CONC., N. ATLANTIC
JBMCNFSB@PCF	BLDG. MATERIAL-COST INDEX OF STEEL BARS FOR REINF. CONC., PACIFIC
JBMCNFSB@PLA	BLDG. MATERIAL-COST INDEX OF STEEL BARS FOR REINF. CONC., PLATEAU
JBMCNFSB@SOC	BLDG. MATERIAL-COST INDEX OF STEEL BARS FOR REINF. CONC., S. CENTRAL
JBMCNFSB@STL	BLDG. MATERIAL-COST INDEX OF STEEL BARS FOR REINF. CONC., S. ATLANTIC
JBMCNRM@NOC	BLDG. MATERIAL-COST INDEX OF READY-MIX CONCRETE, N. CENTRAL
JBMCNRM@NTL	BLDG. MATERIAL-COST INDEX OF READY-MIX CONCRETE, N. ATLANTIC
JBMCNRM@PCF	BLDG. MATERIAL-COST INDEX OF READY-MIX CONCRETE, PACIFIC
JBMCNRM@PLA	BLDG. MATERIAL-COST INDEX OF READY-MIX CONCRETE, PLATEAU
JBMCNRM@SOC	BLDG. MATERIAL-COST INDEX OF READY-MIX CONCRETE, S. CENTRAL
JBMCNRM@STL	BLDG. MATERIAL-COST INDEX OF READY-MIX CONCRETE, S. ATLANTIC
JBUSC	STANDARD CROSS ARMS, COST INDEX NUMBERS
JBUBL	BOILERS, COST INDEX NUMBERS
JBUC&A	COAL AND ASH HANDLING EQUIPMENT, COST INDEX NUMBER
JBUCBLSV	SERVICE CABLE, COST INDEX NUMBERS
JBUCD&TB	CONDENSERS AND TUBES, COST INDEX NUMBERS
JBUCSEQ	CONSTRUCTION EQUIPMENT, COST INDEX NUMBERS
JBUCMG	GAS COMPRESSORS, COST INDEX NUMBERS
JBUCNDO	OVERHEAD CONDUCTOR-DISTRIBUTION, COST INDEX NUMBERS
JBUCNDU	UNDERGROUND CONDUCTOR-DISTRIBUTION, COST INDEX NUMBERS
JBUCNF	FIBRE CONDUIT, COST INDEX NUMBERS
JBUCNP	PLASTIC CONDUIT, COST INDEX NUMBERS
JBUCNTO	OVERHEAD CONDUCTOR-TRANSMISSION, COST INDEX NUMBERS
JBUCNTU	UNDERGROUND CONDUCTOR-TRANSMISSION, COST INDEX NUMBERS
JBUCR	CRANES, COST INDEX NUMBERS
JBUCFI	CAST IRON FITTINGS, COST INDEX NUMBERS
JBULIMS	MERCURY LUMINARIES WITH STANDARD, COST INDEX NUMBERS
JBUMO	MOTORS, COST INDEX NUMBERS
JBUMTE	METERS-ELECTRIC, COST INDEX NUMBERS
JBUMTG	METERS-GAS, COST INDEX NUMBERS
JBUPCI	CAST IRON PIPE, COST INDEX NUMBERS
JBUPDI	DUCTILE IRON PIPE, COST INDEX NUMBERS
JBUPGTL	GAS TRANSMISSION LINE PIPE, COST INDEX NUMBERS
JBUPLTP	TREATED PINE POLES, COST INDEX NUMBERS
JBUPM	PUMPS, COST INDEX NUMBERS
JBUPP	PLASTIC PIPE, COST INDEX NUMBERS
JBUPS	STEAM PIPE, COST INDEX NUMBERS
JBUPSD	STEEL DISTRIBUTION PIPE, COST INDEX NUMBERS
JBUR	REGULATORS, COST INDEX NUMBERS
JBURH	HOUSE REGULATORS, COST INDEX NUMBERS
JBUSB	SWITCHBOARDS, COST INDEX NUMBERS
JBUSO	OIL SWITCHES, COST INDEX NUMBERS
JBUTG	TURBO-GENERATORS, COST INDEX NUMBERS
JBUTRL	LINE TRANSFORMERS, COST INDEX NUMBERS
JBUTRP	POWER TRANSFORMERS, COST INDEX NUMBERS

Variables Endogenous to the Power Planner Construction Cost Model (continued)

JBUVG	GATE VALVES, COST INDEX NUMBERS
JBUWP&CBLG	POWER WIRE AND CONTROL CABLE, COST INDEX NUMBERS
JBUWSG	STANDARD GALV. STEEL GUY WIRE, COST INDEX NUMBERS
JBUYMT	METER YOKES, COST INDEX NUMBERS
JUEPD@NOC	DISTRIB. PROD.–TOTAL DISTRIBUTION PLANT, N. CENTRAL
JUEPD@NTL	DISTRIB. PROD.–TOTAL DISTRIBUTION PLANT, N. ATLANTIC
JUEPD@PCF	DISTRIB. PROD.–TOTAL DISTRIBUTION PLANT, PACIFIC
JUEPD@PLA	DISTRIB. PROD.–TOTAL DISTRIBUTION PLANT, PLATEAU
JUEPD@SOC	DISTRIB. PROD.–TOTAL DISTRIBUTION PLANT, S. CENTRAL
JUEPD@STL	DISTRIB. PROD.–TOTAL DISTRIBUTION PLANT, S. ATLANTIC
JUEPDCN&DO@NOC	DISTRIB. PROD.–OVERHEAD CONDUCTORS AND DEVICES, N. CENTRAL
JUEPDCN&DO@NTL	DISTRIB. PROD.–OVERHEAD CONDUCTORS AND DEVICES, N. ATLANTIC
JUEPDCN&DO@PCF	DISTRIB. PROD.–OVERHEAD CONDUCTORS AND DEVICES, PACIFIC
JUEPDCN&DO@PLA	DISTRIB. PROD.–OVERHEAD CONDUCTORS AND DEVICES, PLATEAU
JUEPDCN&DO@SOC	DISTRIB. PROD.–OVERHEAD CONDUCTORS AND DEVICES, S. CENTRAL
JUEPDCN&DO@STL	DISTRIB. PROD.–OVERHEAD CONDUCTORS AND DEVICES, S. ATLANTIC
JUEPDCN&DU@NOC	DISTRIB. PROD.–UNDERGR. CONDUCTORS AND DEVICES IN CONDUIT, N. CENTRAL
JUEPDCN&DU@NTL	DISTRIB. PROD.–UNDERGR. CONDUCTORS AND DEVICES IN CONDUIT, N. ATLANTIC
JUEPDCN&DU@PCF	DISTRIB. PROD.–UNDERGR. CONDUCTORS AND DEVICES IN CONDUIT, PACIFIC
JUEPDCN&DU@PLA	DISTRIB. PROD.–UNDERGR. CONDUCTORS AND DEVICES IN CONDUIT, PLATEAU
JUEPDCN&DU@SOC	DISTRIB. PROD.–UNDERGR. CONDUCTORS AND DEVICES IN CONDUIT, S. CENTRAL
JUEPDCN&DU@STL	DISTRIB. PROD.–UNDERGR. CONDUCTORS AND DEVICES IN CONDUIT, S. ATLANTIC
JUEPDCNU@NOC	DISTRIB. PROD.–UNDERGROUND CONDUIT, N. CENTRAL
JUEPDCNU@NTL	DISTRIB. PROD.–UNDERGROUND CONDUIT, N. ATLANTIC
JUEPDCNU@PCF	DISTRIB. PROD.–UNDERGROUND CONDUIT, PACIFIC
JUEPDCNU@PLA	DISTRIB. PROD.–UNDERGROUND CONDUIT, PLATEAU
JUEPDCNU@SOC	DISTRIB. PROD.–UNDERGROUND CONDUIT, S. CENTRAL
JUEPDCNU@STL	DISTRIB. PROD.–UNDERGROUND CONDUIT, S. ATLANTIC
JUEPDLI&MAI@NOC	DISTRIB. PROD.–MAST ARMS AND LUMINARIES INSTALLED, N. CENTRAL
JUEPDLI&MAI@NTL	DISTRIB. PROD.–MAST ARMS AND LUMINARIES INSTALLED, N. ATLANTIC
JUEPDLI&MAI@PCF	DISTRIB. PROD.–MAST ARMS AND LUMINARIES INSTALLED, PACIFIC
JUEPDLI&MAI@PLA	DISTRIB. PROD.–MAST ARMS AND LUMINARIES INSTALLED, PLATEAU
JUEPDLI&MAI@SOC	DISTRIB. PROD.–MAST ARMS AND LUMINARIES INSTALLED, S. CENTRAL
JUEPDLI&MAI@STL	DISTRIB. PROD.–MAST ARMS AND LUMINARIES INSTALLED, S. ATLANTIC
JUEPDLISO@NOC	DISTRIB. PROD.–STREET LIGHTING–OVERHEAD, N. CENTRAL
JUEPDLISO@NTL	DISTRIB. PROD.–STREET LIGHTING–OVERHEAD, N. ATLANTIC
JUEPDLISO@PCF	DISTRIB. PROD.–STREET LIGHTING–OVERHEAD, PACIFIC
JUEPDLISO@PLA	DISTRIB. PROD.–STREET LIGHTING–OVERHEAD, PLATEAU
JUEPDLISO@SOC	DISTRIB. PROD.–STREET LIGHTING–OVERHEAD, S. CENTRAL
JUEPDLISO@STL	DISTRIB. PROD.–STREET LIGHTING–OVERHEAD, S. ATLANTIC
JUEPDLISU@NOC	DISTRIB. PROD.–STREET LIGHTING–UNDERGROUND, N. CENTRAL
JUEPDLISU@NTL	DISTRIB. PROD.–STREET LIGHTING–UNDERGROUND, N. ATLANTIC
JUEPDLISU@PCF	DISTRIB. PROD.–STREET LIGHTING–UNDERGROUND, PACIFIC
JUEPDLISU@PLA	DISTRIB. PROD.–STREET LIGHTING–UNDERGROUND, PLATEAU
JUEPDLISU@SOC	DISTRIB. PROD.–STREET LIGHTING–UNDERGROUND, S. CENTRAL
JUEPDLISU@STL	DISTRIB. PROD.–STREET LIGHTING–UNDERGROUND, S. ATLANTIC
JUEPDMTI@NOC	DISTRIB. PROD.–METERS INSTALLED, N. CENTRAL
JUEPDMTI@NTL	DISTRIB. PROD.–METERS INSTALLED, N. ATLANTIC
JUEPDMTI@PCF	DISTRIB. PROD.–METERS INSTALLED, PACIFIC
JUEPDMTI@PLA	DISTRIB. PROD.–METERS INSTALLED, PLATEAU
JUEPDMTI@SOC	DISTRIB. PROD.–METERS INSTALLED, S. CENTRAL
JUEPDMTI@STL	DISTRIB. PROD.–METERS INSTALLED, S. ATLANTIC

Variables Endogenous to the Power Planner Construction Cost Model (continued)

JUEPDPT&F@NOC	DISTRIB. PROD.–POLES, TOWERS AND FIXTURES, N. CENTRAL
JUEPDPT&F@NTL	DISTRIB. PROD.–POLES, TOWERS AND FIXTURES, N. ATLANTIC
JUEPDPT&F@PCF	DISTRIB. PROD.–POLES, TOWERS AND FIXTURES, PACIFIC
JUEPDPT&F@PLA	DISTRIB. PROD.–POLES, TOWERS AND FIXTURES, PLATEAU
JUEPDPT&F@SOC	DISTRIB. PROD.–POLES, TOWERS AND FIXTURES, S. CENTRAL
JUEPDPT&F@STL	DISTRIB. PROD.–POLES, TOWERS AND FIXTURES, S. ATLANTIC
JUEPDST@NOC	DISTRIB. PROD.–STATION EQUIPMENT, N. CENTRAL
JUEPDST@NTL	DISTRIB. PROD.–STATION EQUIPMENT, N. ATLANTIC
JUEPDST@PCF	DISTRIB. PROD.–STATION EQUIPMENT, PACIFIC
JUEPDST@PLA	DISTRIB. PROD.–STATION EQUIPMENT, PLATEAU
JUEPDST@SOC	DISTRIB. PROD.–STATION EQUIPMENT, S. CENTRAL
JUEPDST@STL	DISTRIB. PROD.–STATION EQUIPMENT, S. ATLANTIC
JUEPDSVO@NOC	DISTRIB. PROD.–SERVICES–OVERHEAD, N. CENTRAL
JUEPDSVO@NTL	DISTRIB. PROD.–SERVICES–OVERHEAD, N. ATLANTIC
JUEPDSVO@PCF	DISTRIB. PROD.–SERVICES–OVERHEAD, PACIFIC
JUEPDSVO@PLA	DISTRIB. PROD.–SERVICES–OVERHEAD, PLATEAU
JUEPDSVO@SOC	DISTRIB. PROD.–SERVICES–OVERHEAD, S. CENTRAL
JUEPDSVO@STL	DISTRIB. PROD.–SERVICES–OVERHEAD, S. ATLANTIC
JUEPDSVU@NOC	DISTRIB. PROD.–SERVICES–UNDERGROUND, N. CENTRAL
JUEPDSVU@NTL	DISTRIB. PROD.–SERVICES–UNDERGROUND, N. ATLANTIC
JUEPDSVU@PCF	DISTRIB. PROD.–SERVICES–UNDERGROUND, PACIFIC
JUEPDSVU@PLA	DISTRIB. PROD.–SERVICES–UNDERGROUND, PLATEAU
JUEPDSVU@SOC	DISTRIB. PROD.–SERVICES–UNDERGROUND, S. CENTRAL
JUEPDSVU@STL	DISTRIB. PROD.–SERVICES–UNDERGROUND, S. ATLANTIC
JUEPDTRL@NOC	DISTRIB. PROD.–LINE TRANSFORMERS, N. CENTRAL
JUEPDTRL@NTL	DISTRIB. PROD.–LINE TRANSFORMERS, N. ATLANTIC
JUEPDTRL@PCF	DISTRIB. PROD.–LINE TRANSFORMERS, PACIFIC
JUEPDTRL@PLA	DISTRIB. PROD.–LINE TRANSFORMERS, PLATEAU
JUEPDTRL@SOC	DISTRIB. PROD.–LINE TRANSFORMERS, S. CENTRAL
JUEPDTRL@STL	DISTRIB. PROD.–LINE TRANSFORMERS, S. ATLANTIC
JUEPDTRPM@NOC	DISTRIB. PROD.–PAD MOUNTED TRANSFORMERS, N. CENTRAL
JUEPDTRPM@NTL	DISTRIB. PROD.–PAD MOUNTED TRANSFORMERS, N. ATLANTIC
JUEPDTRPM@PCF	DISTRIB. PROD.–PAD MOUNTED TRANSFORMERS, PACIFIC
JUEPDTRPM@PLA	DISTRIB. PROD.–PAD MOUNTED TRANSFORMERS, PLATEAU
JUEPDTRPM@SOC	DISTRIB. PROD.–PAD MOUNTED TRANSFORMERS, S. CENTRAL
JUEPDTRPM@STL	DISTRIB. PROD.–PAD MOUNTED TRANSFORMERS, S. ATLANTIC
JUEPPF@NOC	TOTAL FOSSIL PRODUCTION PLANT, N. CENTRAL
JUEPPF@NTL	TOTAL FOSSIL PRODUCTION PLANT, N. ATLANTIC
JUEPPF@PCF	TOTAL FOSSIL PRODUCTION PLANT, PACIFIC
JUEPPF@PLA	TOTAL FOSSIL PRODUCTION PLANT, PLATEAU
JUEPPF@SOC	TOTAL FOSSIL PRODUCTION PLANT, S. CENTRAL
JUEPPF@STL	TOTAL FOSSIL PRODUCTION PLANT, S. ATLANTIC
JUEPPFBI@NOC	FOSSIL PROD.–BOILER PLANT PIPING INSTALLED, N. CENTRAL
JUEPPFBI@NTL	FOSSIL PROD.–BOILER PLANT PIPING INSTALLED, N. ATLANTIC
JUEPPFBI@PCF	FOSSIL PROD.–BOILER PLANT PIPING INSTALLED, PACIFIC
JUEPPFBI@PLA	FOSSIL PROD.–BOILER PLANT PIPING INSTALLED, PLATEAU
JUEPPFBI@SOC	FOSSIL PROD.–BOILER PLANT PIPING INSTALLED, S. CENTRAL
JUEPPFBI@STL	FOSSIL PROD.–BOILER PLANT PIPING INSTALLED, S. ATLANTIC
JUEPPFBPCF@NOC	FOSSIL PROD.–BOILER PLANT EQUIPMENT–COAL FIRED, N. CENTRAL
JUEPPFBPCF@NTL	FOSSIL PROD.–BOILER PLANT EQUIPMENT–COAL FIRED, N. ATLANTIC
JUEPPFBPCF@PCF	FOSSIL PROD.–BOILER PLANT EQUIPMENT–COAL FIRED, PACIFIC
JUEPPFBPCF@PLA	FOSSIL PROD.–BOILER PLANT EQUIPMENT–COAL FIRED, PLATEAU

Variables Endogenous to the Power Planner Construction Cost Model (continued)

JUEPPFBPCF@SOC	FOSSIL PROD.–BOILER PLANT EQUIPMENT–COAL FIRED, S. CENTRAL
JUEPPFBPCF@STL	FOSSIL PROD.–BOILER PLANT EQUIPMENT–COAL FIRED, S. ATLANTIC
JUEPPFELA@NOC	FOSSIL PROD.–ACCESSORY ELECTRICAL EQUIPMENT, N. CENTRAL
JUEPPFELA@NTL	FOSSIL PROD.–ACCESSORY ELECTRICAL EQUIPMENT, N. ATLANTIC
JUEPPFELA@PCF	FOSSIL PROD.–ACCESSORY ELECTRICAL EQUIPMENT, PACIFIC
JUEPPFELA@PLA	FOSSIL PROD.–ACCESSORY ELECTRICAL EQUIPMENT, PLATEAU
JUEPPFELA@SOC	FOSSIL PROD.–ACCESSORY ELECTRICAL EQUIPMENT, S. CENTRAL
JUEPPFELA@STL	FOSSIL PROD.–ACCESSORY ELECTRICAL EQUIPMENT, S. ATLANTIC
JUEPPFO@NOC	FOSSIL PROD.–MISC. POWER PLANT EQUIPMENT, N. CENTRAL
JUEPPFO@NTL	FOSSIL PROD.–MISC. POWER PLANT EQUIPMENT, N. ATLANTIC
JUEPPFO@PCF	FOSSIL PROD.–MISC. POWER PLANT EQUIPMENT, PACIFIC
JUEPPFO@PLA	FOSSIL PROD.–MISC. POWER PLANT EQUIPMENT, PLATEAU
JUEPPFO@SOC	FOSSIL PROD.–MISC. POWER PLANT EQUIPMENT, S. CENTRAL
JUEPPFO@STL	FOSSIL PROD.–MISC. POWER PLANT EQUIPMENT, S. ATLANTIC
JUEPPFS&II@NOC	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–INDOORS, N. CENTRAL
JUEPPFS&II@NTL	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–INDOORS, N. ATLANTIC
JUEPPFS&II@PCF	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–INDOORS, PACIFIC
JUEPPFS&II@PLA	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–INDOORS, PLATEAU
JUEPPFS&II@SOC	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–INDOORS, S. CENTRAL
JUEPPFS&II@STL	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–INDOORS, S. ATLANTIC
JUEPPFS&IO@NOC	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–SEMI-OUTDOORS, N. CENTRAL
JUEPPFS&IO@NTL	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–SEMI-OUTDOORS, N. ATLANTIC
JUEPPFS&IO@PCF	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–SEMI-OUTDOORS, PACIFIC
JUEPPFS&IO@PLA	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–SEMI-OUTDOORS, PLATEAU
JUEPPFS&IO@SOC	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–SEMI-OUTDOORS, S. CENTRAL
JUEPPFS&IO@STL	FOSSIL PROD.–STRUCTURES AND IMPROVEMENTS–SEMI-OUTDOORS, S. ATLANTIC
JUEPPFTG@NOC	FOSSIL PROD.–TURBOGENERATOR UNITS, N. CENTRAL
JUEPPFTG@NTL	FOSSIL PROD.–TURBOGENERATOR UNITS, N. ATLANTIC
JUEPPFTG@PCF	FOSSIL PROD.–TURBOGENERATOR UNITS, PACIFIC
JUEPPFTG@PLA	FOSSIL PROD.–TURBOGENERATOR UNITS, PLATEAU
JUEPPFTG@SOC	FOSSIL PROD.–TURBOGENERATOR UNITS, S. CENTRAL
JUEPPFTG@STL	FOSSIL PROD.–TURBOGENERATOR UNITS, S. ATLANTIC
JUEPPH@NOC	HYDRO. PROD.–TOTAL HYDRAULIC PRODUCTION PLANT, N. CENTRAL
JUEPPH@NTL	HYDRO. PROD.–TOTAL HYDRAULIC PRODUCTION PLANT, N. ATLANTIC
JUEPPH@PCF	HYDRO. PROD.–TOTAL HYDRAULIC PRODUCTION PLANT, PACIFIC
JUEPPH@PLA	HYDRO. PROD.–TOTAL HYDRAULIC PRODUCTION PLANT, PLATEAU
JUEPPH@SOC	HYDRO. PROD.–TOTAL HYDRAULIC PRODUCTION PLANT, S. CENTRAL
JUEPPH@STL	HYDRO. PROD.–TOTAL HYDRAULIC PRODUCTION PLANT, S. ATLANTIC
JUEPPHRD&W@NOC	HYDRO. PROD.–RESERVOIRS, DAMS AND WATERWAYS, N. CENTRAL
JUEPPHRD&W@NTL	HYDRO. PROD.–RESERVOIRS, DAMS AND WATERWAYS, N. ATLANTIC
JUEPPHRD&W@PCF	HYDRO. PROD.–RESERVOIRS, DAMS AND WATERWAYS, PACIFIC
JUEPPHRD&W@PLA	HYDRO. PROD.–RESERVOIRS, DAMS AND WATERWAYS, PLATEAU
JUEPPHRD&W@SOC	HYDRO. PROD.–RESERVOIRS, DAMS AND WATERWAYS, S. CENTRAL
JUEPPHRD&W@STL	HYDRO. PROD.–RESERVOIRS, DAMS AND WATERWAYS, S. ATLANTIC
JUEPPHS&I@NOC	HYDRO. PROD.–STRUCTURES AND IMPROVEMENTS, N. CENTRAL
JUEPPHS&I@NTL	HYDRO. PROD.–STRUCTURES AND IMPROVEMENTS, N. ATLANTIC
JUEPPHS&I@PCF	HYDRO. PROD.–STRUCTURES AND IMPROVEMENTS, PACIFIC
JUEPPHS&I@PLA	HYDRO. PROD.–STRUCTURES AND IMPROVEMENTS, PLATEAU
JUEPPHS&I@SOC	HYDRO. PROD.–STRUCTURES AND IMPROVEMENTS, S. CENTRAL
JUEPPHS&I@STL	HYDRO. PROD.–STRUCTURES AND IMPROVEMENTS, S. ATLANTIC
JUEPPHWT&G@NOC	HYDRO. PROD.–WATER WHEELS, TURBINES AND GENERATORS, N. CENTRAL
JUEPPHWT&G@NTL	HYDRO. PROD.–WATER WHEELS, TURBINES AND GENERATORS, N. ATLANTIC

Variables Endogenous to the Power Planner Construction Cost Model (continued)

JUEPPHWT&G@PCF	HYDRO. PROD.–WATER WHEELS, TURBINES AND GENERATORS, PACIFIC
JUEPPHWT&G@PLA	HYDRO. PROD.–WATER WHEELS, TURBINES AND GENERATORS, PLATEAU
JUEPPHWT&G@SOC	HYDRO. PROD.–WATER WHEELS, TURBINES AND GENERATORS, S. CENTRAL
JUEPPHWT&G@STL	HYDRO. PROD.–WATER WHEELS, TURBINES AND GENERATORS, S. ATLANTIC
JUEPPN@NOC	TOTAL NUCLEAR PRODUCTION PLANT, N. CENTRAL
JUEPPN@NTL	TOTAL NUCLEAR PRODUCTION PLANT, N. ATLANTIC
JUEPPN@PCF	TOTAL NUCLEAR PRODUCTION PLANT, PACIFIC
JUEPPN@PLA	TOTAL NUCLEAR PRODUCTION PLANT, PLATEAU
JUEPPN@SOC	TOTAL NUCLEAR PRODUCTION PLANT, S. CENTRAL
JUEPPN@STL	TOTAL NUCLEAR PRODUCTION PLANT, S. ATLANTIC
JUEPPNRC@NOC	NUCLEAR PROD.–REACTOR PLANT EQUIPMENT, N. CENTRAL
JUEPPNRC@NTL	NUCLEAR PROD.–REACTOR PLANT EQUIPMENT, N. ATLANTIC
JUEPPNRC@PCF	NUCLEAR PROD.–REACTOR PLANT EQUIPMENT, PACIFIC
JUEPPNRC@PLA	NUCLEAR PROD.–REACTOR PLANT EQUIPMENT, PLATEAU
JUEPPNRC@SOC	NUCLEAR PROD.–REACTOR PLANT EQUIPMENT, S. CENTRAL
JUEPPNRC@STL	NUCLEAR PROD.–REACTOR PLANT EQUIPMENT, S. ATLANTIC
JUEPPNS&I@NOC	NUCLEAR PROD.–STRUCTURES AND IMPROVEMENTS, N. CENTRAL
JUEPPNS&I@NTL	NUCLEAR PROD.–STRUCTURES AND IMPROVEMENTS, N. ATLANTIC
JUEPPNS&I@PCF	NUCLEAR PROD.–STRUCTURES AND IMPROVEMENTS, PACIFIC
JUEPPNS&I@PLA	NUCLEAR PROD.–STRUCTURES AND IMPROVEMENTS, PLATEAU
JUEPPNS&I@SOC	NUCLEAR PROD.–STRUCTURES AND IMPROVEMENTS, S. CENTRAL
JUEPPNS&I@STL	NUCLEAR PROD.–STRUCTURES AND IMPROVEMENTS, S. ATLANTIC
JUEPPO@NOC	TOTAL OTHER PRODUCTION PLANT, N. CENTRAL
JUEPPO@NTL	TOTAL OTHER PRODUCTION PLANT, N. ATLANTIC
JUEPPO@PCF	TOTAL OTHER PRODUCTION PLANT, PACIFIC
JUEPPO@PLA	TOTAL OTHER PRODUCTION PLANT, PLATEAU
JUEPPO@SOC	TOTAL OTHER PRODUCTION PLANT, S. CENTRAL
JUEPPO@STL	TOTAL OTHER PRODUCTION PLANT, S. ATLANTIC
JUEPPOFH@NOC	OTHER PRODUCTION PLANT–FUEL HOLDERS & ACCESS., N. CENTRAL
JUEPPOFH@NTL	OTHER PRODUCTION PLANT–FUEL HOLDERS & ACCESS., N. ATLANTIC
JUEPPOFH@PCF	OTHER PRODUCTION PLANT–FUEL HOLDERS & ACCESS., PACIFIC
JUEPPOFH@PLA	OTHER PRODUCTION PLANT–FUEL HOLDERS & ACCESS., PLATEAU
JUEPPOFH@SOC	OTHER PRODUCTION PLANT–FUEL HOLDERS & ACCESS., S. CENTRAL
JUEPPOFH@STL	OTHER PRODUCTION PLANT–FUEL HOLDERS & ACCESS., S. ATLANTIC
JUEPPOTGG@NOC	OTHER PROD.–GAS TURBOGENERATORS, N. CENTRAL
JUEPPOTGG@NTL	OTHER PROD.–GAS TURBOGENERATORS, N. ATLANTIC
JUEPPOTGG@PCF	OTHER PROD.–GAS TURBOGENERATORS, PACIFIC
JUEPPOTGG@PLA	OTHER PROD.–GAS TURBOGENERATORS, PLATEAU
JUEPPOTGG@SOC	OTHER PROD.–GAS TURBOGENERATORS, S. CENTRAL
JUEPPOTGG@STL	OTHER PROD.–GAS TURBOGENERATORS, S. ATLANTIC
JUEPT@NOC	TRANSMISSION PROD.–TOTAL TRANSMISSION PLANT, N. CENTRAL
JUEPT@NTL	TRANSMISSION PROD.–TOTAL TRANSMISSION PLANT, N. ATLANTIC
JUEPT@PCF	TRANSMISSION PROD.–TOTAL TRANSMISSION PLANT, PACIFIC
JUEPT@PLA	TRANSMISSION PROD.–TOTAL TRANSMISSION PLANT, PLATEAU
JUEPT@SOC	TRANSMISSION PROD.–TOTAL TRANSMISSION PLANT, S. CENTRAL
JUEPT@STL	TRANSMISSION PROD.–TOTAL TRANSMISSION PLANT, S. ATLANTIC
JUEPTCN&DO@NOC	TRANSMISSION PROD.–OVERHEAD CONDUCTORS AND DEVICES, N. CENTRAL
JUEPTCN&DO@NTL	TRANSMISSION PROD.–OVERHEAD CONDUCTORS AND DEVICES, N. ATLANTIC
JUEPTCN&DO@PCF	TRANSMISSION PROD.–OVERHEAD CONDUCTORS AND DEVICES, PACIFIC
JUEPTCN&DO@PLA	TRANSMISSION PROD.–OVERHEAD CONDUCTORS AND DEVICES, PLATEAU
JUEPTCN&DO@SOC	TRANSMISSION PROD.–OVERHEAD CONDUCTORS AND DEVICES, S. CENTRAL
JUEPTCN&DO@STL	TRANSMISSION PROD.–OVERHEAD CONDUCTORS AND DEVICES, S. ATLANTIC

Variables Endogenous to the Power Planner Construction Cost Model (continued)

JUEPTCN&DU@NOC	TRANSMISSION PROD.–UNDERGROUND CONDUCTORS AND DEVICES, N. CENTRAL
JUEPTCN&DU@NTL	TRANSMISSION PROD.–UNDERGROUND CONDUCTORS AND DEVICES, N. ATLANTIC
JUEPTCN&DU@PCF	TRANSMISSION PROD.–UNDERGROUND CONDUCTORS AND DEVICES, PACIFIC
JUEPTCN&DU@PLA	TRANSMISSION PROD.–UNDERGROUND CONDUCTORS AND DEVICES, PLATEAU
JUEPTCN&DU@SOC	TRANSMISSION PROD.–UNDERGROUND CONDUCTORS AND DEVICES, S. CENTRAL
JUEPTCN&DU@STL	TRANSMISSION PROD.–UNDERGROUND CONDUCTORS AND DEVICES, S. ATLANTIC
JUEPTCNU@NOC	TRANSMISSION PROD.–UNDERGROUND CONDUIT, N. CENTRAL
JUEPTCNU@NTL	TRANSMISSION PROD.–UNDERGROUND CONDUIT, N. ATLANTIC
JUEPTCNU@PCF	TRANSMISSION PROD.–UNDERGROUND CONDUIT, PACIFIC
JUEPTCNU@PLA	TRANSMISSION PROD.–UNDERGROUND CONDUIT, PLATEAU
JUEPTCNU@SOC	TRANSMISSION PROD.–UNDERGROUND CONDUIT, S. CENTRAL
JUEPTCNU@STL	TRANSMISSION PROD.–UNDERGROUND CONDUIT, S. ATLANTIC
JUEPTPL&FX@NOC	TRANSMISSION PROD.–POLES AND FIXTURES, N. CENTRAL
JUEPTPL&FX@NTL	TRANSMISSION PROD.–POLES AND FIXTURES, N. ATLANTIC
JUEPTPL&FX@PCF	TRANSMISSION PROD.–POLES AND FIXTURES, PACIFIC
JUEPTPL&FX@PLA	TRANSMISSION PROD.–POLES AND FIXTURES, PLATEAU
JUEPTPL&FX@SOC	TRANSMISSION PROD.–POLES AND FIXTURES, S. CENTRAL
JUEPTPL&FX@STL	TRANSMISSION PROD.–POLES AND FIXTURES, S. ATLANTIC
JUEPTST@NOC	TRANSMISSION PROD.–STATION EQUIPMENT, N. CENTRAL
JUEPTST@NTL	TRANSMISSION PROD.–STATION EQUIPMENT, N. ATLANTIC
JUEPTST@PCF	TRANSMISSION PROD.–STATION EQUIPMENT, PACIFIC
JUEPTST@PLA	TRANSMISSION PROD.–STATION EQUIPMENT, PLATEAU
JUEPTST@SOC	TRANSMISSION PROD.–STATION EQUIPMENT, S. CENTRAL
JUEPTST@STL	TRANSMISSION PROD.–STATION EQUIPMENT, S. ATLANTIC
JUEPTTW&FX@NOC	TRANSMISSION PROD.–TOWERS AND FIXTURES, N. CENTRAL
JUEPTTW&FX@NTL	TRANSMISSION PROD.–TOWERS AND FIXTURES, N. ATLANTIC
JUEPTTW&FX@PCF	TRANSMISSION PROD.–TOWERS AND FIXTURES, PACIFIC
JUEPTTW&FX@PLA	TRANSMISSION PROD.–TOWERS AND FIXTURES, PLATEAU
JUEPTTW&FX@SOC	TRANSMISSION PROD.–TOWERS AND FIXTURES, S. CENTRAL
JUEPTTW&FX@STL	TRANSMISSION PROD.–TOWERS AND FIXTURES, S. ATLANTIC
JUEST&H@NOC	TOTAL PLANT–ALL STEAM AND HYDRO. GENERATION, N. CENTRAL
JUEST&H@NTL	TOTAL PLANT–ALL STEAM AND HYDRO. GENERATION, N. ATLANTIC
JUEST&H@PCF	TOTAL PLANT–ALL STEAM AND HYDRO. GENERATION, PACIFIC
JUEST&H@PLA	TOTAL PLANT–ALL STEAM AND HYDRO. GENERATION, PLATEAU
JUEST&H@SOC	TOTAL PLANT–ALL STEAM AND HYDRO. GENERATION, S. CENTRAL
JUEST&H@STL	TOTAL PLANT–ALL STEAM AND HYDRO. GENERATION, S. ATLANTIC
JUEST&N@NOC	TOTAL PLANT–ALL STEAM AND NUCLEAR GENERATION, N. CENTRAL
JUEST&N@NTL	TOTAL PLANT–ALL STEAM AND NUCLEAR GENERATION, N. ATLANTIC
JUEST&N@PCF	TOTAL PLANT–ALL STEAM AND NUCLEAR GENERATION, PACIFIC
JUEST&N@SOC	TOTAL PLANT–ALL STEAM AND NUCLEAR GENERATION, S. CENTRAL
JUEST&N@STL	TOTAL PLANT–ALL STEAM AND NUCLEAR GENERATION, S. ATLANTIC
JUEST@NOC	TOTAL PLANT–ALL STEAM GENERATION, N. CENTRAL
JUEST@NTL	TOTAL PLANT–ALL STEAM GENERATION, N. ATLANTIC
JUEST@PCF	TOTAL PLANT–ALL STEAM GENERATION, PACIFIC
JUEST@PLA	TOTAL PLANT–ALL STEAM GENERATION, PLATEAU
JUEST@SOC	TOTAL PLANT–ALL STEAM GENERATION, S. CENTRAL
JUEST@STL	TOTAL PLANT–ALL STEAM GENERATION, S. ATLANTIC
JUG@NOC	COST INDEX OF TOTAL PLANT CONSTRUCTION AND EQUIPMENT, N. CENTRAL
JUG@NTL	COST INDEX OF TOTAL PLANT CONSTRUCTION AND EQUIPMENT, N. ATLANTIC
JUG@PCF	COST INDEX OF TOTAL PLANT CONSTRUCTION AND EQUIPMENT, PACIFIC
JUG@PLA	COST INDEX OF TOTAL PLANT CONSTRUCTION AND EQUIPMENT, PLATEAU
JUG@SOC	COST INDEX OF TOTAL PLANT CONSTRUCTION AND EQUIPMENT, S. CENTRAL

Variables Endogenous to the Power Planner Construction Cost Model (continued)

JUG@STL	COST INDEX OF TOTAL PLANT CONSTRUCTION AND EQUIPMENT, S. ATLANTIC
JUGPDMCI@NOC	DISTRIBUTION-COST INDEX OF CAST IRON MAINS, N. CENTRAL
JUGPDMCI@NTL	DISTRIBUTION-COST INDEX OF CAST IRON MAINS, N. ATLANTIC
JUGPDMCI@PCF	DISTRIBUTION-COST INDEX OF CAST IRON MAINS, PACIFIC
JUGPDMCI@PLA	DISTRIBUTION-COST INDEX OF CAST IRON MAINS, PLATEAU
JUGPDMCI@SOC	DISTRIBUTION-COST INDEX OF CAST IRON MAINS, S. CENTRAL
JUGPDMCI@STL	DISTRIBUTION-COST INDEX OF CAST IRON MAINS, S. ATLANTIC
JUGPDMP@NOC	DISTRIBUTION-COST INDEX OF PLASTIC MAINS, N. CENTRAL
JUGPDMP@NTL	DISTRIBUTION-COST INDEX OF PLASTIC MAINS, N. ATLANTIC
JUGPDMP@PCF	DISTRIBUTION-COST INDEX OF PLASTIC MAINS, PACIFIC
JUGPDMP@PLA	DISTRIBUTION-COST INDEX OF PLASTIC MAINS, PLATEAU
JUGPDMP@SOC	DISTRIBUTION-COST INDEX OF PLASTIC MAINS, S. CENTRAL
JUGPDMP@STL	DISTRIBUTION-COST INDEX OF PLASTIC MAINS, S. ATLANTIC
JUGPDMS@NOC	DISTRIBUTION-COST INDEX OF STEEL MAINS, N. CENTRAL
JUGPDMS@NTL	DISTRIBUTION-COST INDEX OF STEEL MAINS, N. ATLANTIC
JUGPDMS@PCF	DISTRIBUTION-COST INDEX OF STEEL MAINS, PACIFIC
JUGPDMS@PLA	DISTRIBUTION-COST INDEX OF STEEL MAINS, PLATEAU
JUGPDMS@SOC	DISTRIBUTION-COST INDEX OF STEEL MAINS, S. CENTRAL
JUGPDMS@STL	DISTRIBUTION-COST INDEX OF STEEL MAINS, S. ATLANTIC
JUGPDMT@NOC	DISTRIBUTION-COST INDEX OF METERS, N. CENTRAL
JUGPDMT@NTL	DISTRIBUTION-COST INDEX OF METERS, N. ATLANTIC
JUGPDMT@PCF	DISTRIBUTION-COST INDEX OF METERS, PACIFIC
JUGPDMT@PLA	DISTRIBUTION-COST INDEX OF METERS, PLATEAU
JUGPDMT@SOC	DISTRIBUTION-COST INDEX OF METERS, S. CENTRAL
JUGPDMT@STL	DISTRIBUTION-COST INDEX OF METERS, S. ATLANTIC
JUGPDMTI@NOC	DISTRIBUTION-COST INDEX OF METER INSTALLATIONS, N. CENTRAL
JUGPDMTI@NTL	DISTRIBUTION-COST INDEX OF METER INSTALLATIONS, N. ATLANTIC
JUGPDMTI@PCF	DISTRIBUTION-COST INDEX OF METER INSTALLATIONS, PACIFIC
JUGPDMTI@PLA	DISTRIBUTION-COST INDEX OF METER INSTALLATIONS, PLATEAU
JUGPDMTI@SOC	DISTRIBUTION-COST INDEX OF METER INSTALLATIONS, S. CENTRAL
JUGPDMTI@STL	DISTRIBUTION-COST INDEX OF METER INSTALLATIONS, S. ATLANTIC
JUGPDRH@NOC	DISTRIBUTION-COST INDEX OF HOUSE REGULATORS, N. CENTRAL
JUGPDRH@NTL	DISTRIBUTION-COST INDEX OF HOUSE REGULATORS, N. ATLANTIC
JUGPDRH@PCF	DISTRIBUTION-COST INDEX OF HOUSE REGULATORS, PACIFIC
JUGPDRH@PLA	DISTRIBUTION-COST INDEX OF HOUSE REGULATORS, PLATEAU
JUGPDRH@SOC	DISTRIBUTION-COST INDEX OF HOUSE REGULATORS, S. CENTRAL
JUGPDRH@STL	DISTRIBUTION-COST INDEX OF HOUSE REGULATORS, S. ATLANTIC
JUGPDRHI@NOC	DISTRIBUTION-COST INDEX OF HOUSE REGULATOR INSTALLATIONS, N. CENTRAL
JUGPDRHI@NTL	DISTRIBUTION-COST INDEX OF HOUSE REGULATOR INSTALLATIONS, N. ATLANTIC
JUGPDRHI@PCF	DISTRIBUTION-COST INDEX OF HOUSE REGULATOR INSTALLATIONS, PACIFIC
JUGPDRHI@PLA	DISTRIBUTION-COST INDEX OF HOUSE REGULATOR INSTALLATIONS, PLATEAU
JUGPDRHI@SOC	DISTRIBUTION-COST INDEX OF HOUSE REGULATOR INSTALLATIONS, S. CENTRAL
JUGPDRHI@STL	DISTRIBUTION-COST INDEX OF HOUSE REGULATOR INSTALLATIONS, S. ATLANTIC
JUGPDS&I@NOC	DISTRIBUTION-COST INDEX OF STRUCTURES AND IMPROVEMENTS, N. CENTRAL
JUGPDS&I@NTL	DISTRIBUTION-COST INDEX OF STRUCTURES AND IMPROVEMENTS, N. ATLANTIC
JUGPDS&I@PCF	DISTRIBUTION-COST INDEX OF STRUCTURES AND IMPROVEMENTS, PACIFIC
JUGPDS&I@PLA	DISTRIBUTION-COST INDEX OF STRUCTURES AND IMPROVEMENTS, PLATEAU
JUGPDS&I@SOC	DISTRIBUTION-COST INDEX OF STRUCTURES AND IMPROVEMENTS, S. CENTRAL
JUGPDS&I@STL	DISTRIBUTION-COST INDEX OF STRUCTURES AND IMPROVEMENTS, S. ATLANTIC
JUGPDSTCM@NOC	DISTRIBUTION-COST INDEX OF COMPRESSOR STATION EQUIPMENT, N. CENTRAL
JUGPDSTCM@NTL	DISTRIBUTION-COST INDEX OF COMPRESSOR STATION EQUIPMENT, N. ATLANTIC
JUGPDSTCM@PCF	DISTRIBUTION-COST INDEX OF COMPRESSOR STATION EQUIPMENT, PACIFIC

Variables Endogenous to the Power Planner Construction Cost Model (continued)

JUGPDSTCM@PLA	DISTRIBUTION-COST INDEX OF COMPRESSOR STATION EQUIPMENT, PLATEAU
JUGPDSTCM@SOC	DISTRIBUTION-COST INDEX OF COMPRESSOR STATION EQUIPMENT, S. CENTRAL
JUGPDSTCM@STL	DISTRIBUTION-COST INDEX OF COMPRESSOR STATION EQUIPMENT, S. ATLANTIC
JUGPDSTM&R@NOC	DISTRIBUTION-COST INDEX OF MEAS. AND REG. STATION EQUIP., N. CENTRAL
JUGPDSTM&R@NTL	DISTRIBUTION-COST INDEX OF MEAS. AND REG. STATION EQUIP., N. ATLANTIC
JUGPDSTM&R@PCF	DISTRIBUTION-COST INDEX OF MEAS. AND REG. STATION EQUIP., PACIFIC
JUGPDSTM&R@PLA	DISTRIBUTION-COST INDEX OF MEAS. AND REG. STATION EQUIP., PLATEAU
JUGPDSTM&R@SOC	DISTRIBUTION-COST INDEX OF MEAS. AND REG. STATION EQUIP., S. CENTRAL
JUGPDSTM&R@STL	DISTRIBUTION-COST INDEX OF MEAS. AND REG. STATION EQUIP., S. ATLANTIC
JUGPDSTM&RL@NOC	DISTRIB.-COST INDEX OF MEAS. & REG. STA. EQUIP., CITY GT., N. CENTRAL
JUGPDSTM&RL@NTL	DISTRIB.-COST INDEX OF MEAS. & REG. STA. EQUIP., CITY GT., N. ATLANTIC
JUGPDSTM&RL@PCF	DISTRIB.-COST INDEX OF MEAS. & REG. STA. EQUIP., CITY GT., PACIFIC
JUGPDSTM&RL@PLA	DISTRIB.-COST INDEX OF MEAS. & REG. STA. EQUIP., CITY GT., PLATEAU
JUGPDSTM&RL@SOC	DISTRIB.-COST INDEX OF MEAS. & REG. STA. EQUIP., CITY GT., S. CENTRAL
JUGPDSTM&RL@STL	DISTRIB.-COST INDEX OF MEAS. & REG. STA. EQUIP., CITY GT., S. ATLANTIC
JUGPDSVP@NOC	DISTRIBUTION-COST INDEX OF PLASTIC SERVICES, N. CENTRAL
JUGPDSVP@NTL	DISTRIBUTION-COST INDEX OF PLASTIC SERVICES, N. ATLANTIC
JUGPDSVP@PCF	DISTRIBUTION-COST INDEX OF PLASTIC SERVICES, PACIFIC
JUGPDSVP@PLA	DISTRIBUTION-COST INDEX OF PLASTIC SERVICES, PLATEAU
JUGPDSVP@SOC	DISTRIBUTION-COST INDEX OF PLASTIC SERVICES, S. CENTRAL
JUGPDSVP@STL	DISTRIBUTION-COST INDEX OF PLASTIC SERVICES, S. ATLANTIC
JUGPDSVS@NOC	DISTRIBUTION-COST INDEX OF STEEL SERVICES, N. CENTRAL
JUGPDSVS@NTL	DISTRIBUTION-COST INDEX OF STEEL SERVICES, N. ATLANTIC
JUGPDSVS@PCF	DISTRIBUTION-COST INDEX OF STEEL SERVICES, PACIFIC
JUGPDSVS@PLA	DISTRIBUTION-COST INDEX OF STEEL SERVICES, PLATEAU
JUGPDSVS@SOC	DISTRIBUTION-COST INDEX OF STEEL SERVICES, S. CENTRAL
JUGPDSVS@STL	DISTRIBUTION-COST INDEX OF STEEL SERVICES, S. ATLANTIC
JUGPPLPG@NOC	PRODUCTION-COST INDEX OF L.P.G. EQUIPMENT, N. CENTRAL
JUGPPLPG@NTL	PRODUCTION-COST INDEX OF L.P.G. EQUIPMENT, N. ATLANTIC
JUGPPLPG@PCF	PRODUCTION-COST INDEX OF L.P.G. EQUIPMENT, PACIFIC
JUGPPLPG@PLA	PRODUCTION-COST INDEX OF L.P.G. EQUIPMENT, PLATEAU
JUGPPLPG@SOC	PRODUCTION-COST INDEX OF L.P.G. EQUIPMENT, S. CENTRAL
JUGPPLPG@STL	PRODUCTION-COST INDEX OF L.P.G. EQUIPMENT, S. ATLANTIC
JUGPPSNG@NTL	PRODUCTION-COST INDEX OF S.N.G. EQUIPMENT, N. ATLANTIC
JUGPSHEF@NOC	STORAGE-COST INDEX OF GAS HOLDERS EXCL. OF FOUND., N. CENTRAL
JUGPSHEF@NTL	STORAGE-COST INDEX OF GAS HOLDERS EXCL. OF FOUND., N. ATLANTIC
JUGPSHEF@PCF	STORAGE-COST INDEX OF GAS HOLDERS EXCL. OF FOUND., PACIFIC
JUGPSHEF@PLA	STORAGE-COST INDEX OF GAS HOLDERS EXCL. OF FOUND., PLATEAU
JUGPSHEF@SOC	STORAGE-COST INDEX OF GAS HOLDERS EXCL. OF FOUND., S. CENTRAL
JUGPSHEF@STL	STORAGE-COST INDEX OF GAS HOLDERS EXCL. OF FOUND., S. ATLANTIC
JUGPT@NOC	TRANSMISSION-COST INDEX OF TOTAL TRANSMISSION PLANT, N. CENTRAL
JUGPT@NTL	TRANSMISSION-COST INDEX OF TOTAL TRANSMISSION PLANT, N. ATLANTIC
JUGPT@PCF	TRANSMISSION-COST INDEX OF TOTAL TRANSMISSION PLANT, PACIFIC
JUGPT@PLA	TRANSMISSION-COST INDEX OF TOTAL TRANSMISSION PLANT, PLATEAU
JUGPT@SOC	TRANSMISSION-COST INDEX OF TOTAL TRANSMISSION PLANT, S. CENTRAL
JUGPT@STL	TRANSMISSION-COST INDEX OF TOTAL TRANSMISSION PLANT, S. ATLANTIC
JUGPTM@NOC	TRANSMISSION-COST INDEX OF MAINS, N. CENTRAL
JUGPTM@NTL	TRANSMISSION-COST INDEX OF MAINS, N. ATLANTIC
JUGPTM@PCF	TRANSMISSION-COST INDEX OF MAINS, PACIFIC
JUGPTM@PLA	TRANSMISSION-COST INDEX OF MAINS, PLATEAU
JUGPTM@SOC	TRANSMISSION-COST INDEX OF MAINS, S. CENTRAL
JUGPTM@STL	TRANSMISSION-COST INDEX OF MAINS, S. ATLANTIC

Variables Endogenous to the Power Planner Construction Cost Model (continued)

JUGPTS&I@NOC	TRANSMISSION-COST INDEX OF STRUCTS. AND IMPROVEMTS, N. CENTRAL
JUGPTS&I@NTL	TRANSMISSION-COST INDEX OF STRUCTS. AND IMPROVEMTS, N. ATLANTIC
JUGPTS&I@PCF	TRANSMISSION-COST INDEX OF STRUCTS. AND IMPROVEMTS, PACIFIC
JUGPTS&I@PLA	TRANSMISSION-COST INDEX OF STRUCTS. AND IMPROVEMTS, PLATEAU
JUGPTS&I@SOC	TRANSMISSION-COST INDEX OF STRUCTS. AND IMPROVEMTS, S. CENTRAL
JUGPTS&I@STL	TRANSMISSION-COST INDEX OF STRUCTS. AND IMPROVEMTS, S. ATLANTIC
JUGPTSTCM@NOC	TRANSMISSION-COST INDEX OF COMPRESSOR STATION EQUIP., N. CENTRAL
JUGPTSTCM@NTL	TRANSMISSION-COST INDEX OF COMPRESSOR STATION EQUIP., N. ATLANTIC
JUGPTSTCM@PCF	TRANSMISSION-COST INDEX OF COMPRESSOR STATION EQUIP., PACIFIC
JUGPTSTCM@PLA	TRANSMISSION-COST INDEX OF COMPRESSOR STATION EQUIP., PLATEAU
JUGPTSTCM@SOC	TRANSMISSION-COST INDEX OF COMPRESSOR STATION EQUIP., S. CENTRAL
JUGPTSTCM@STL	TRANSMISSION-COST INDEX OF COMPRESSOR STATION EQUIP., S. ATLANTIC
JUGPTSTM&R@NOC	TRANSMISSION-COST INDEX OF MEAS. AND REG. STA. EQUIP., N. CENTRAL
JUGPTSTM&R@NTL	TRANSMISSION-COST INDEX OF MEAS. AND REG. STA. EQUIP., N. ATLANTIC
JUGPTSTM&R@PCF	TRANSMISSION-COST INDEX OF MEAS. AND REG. STA. EQUIP., PACIFIC
JUGPTSTM&R@PLA	TRANSMISSION-COST INDEX OF MEAS. AND REG. STA. EQUIP., PLATEAU
JUGPTSTM&R@SOC	TRANSMISSION-COST INDEX OF MEAS. AND REG. STA. EQUIP., S. CENTRAL
JUGPTSTM&R@STL	TRANSMISSION-COST INDEX OF MEAS. AND REG. STA. EQUIP., S. ATLANTIC
JUNCBOX	COST INDEX, JUNCTION BOX
LABEQUIP	COST INDEX, LABORATORY EQUIPMENT
LAMPBALLAST	COST INDEX, LAMP BALLAST
LINEHEATER	COST INDEX, LINE HEATER
MAGNINGOT	COST INDEX, MAGNESIUM INGOT
MASTARMS	COST INDEX, MAST ARMS
MISCHYRDOEQUIP	COST INDEX, MISC. HYDRO EQUIPMENT
MISCSTEAMEQUIP	COST INDEX, MISC. STEAM EQUIPMENT
OFFICEEQUIP	COST INDEX, OFFICE EQUIPMENT
PREFABBLDING	COST INDEX, PRE-FABRICATED BUILDINGS
RELAYINDCNTRL	COST INDEX, RELAYS & INDUSTRIAL CONTROLS (INCL. SCADA)
SHOPEQUIP	COST INDEX, SHOP EQUIPMENT
STEELCONDUIT	COST INDEX, STEEL PIPE CONDUIT
STLPIPE	COST INDEX, STEEL PIPE
STLPLATE	COST INDEX, STEEL PLATE
STLSHAPES	COST INDEX, STEEL SHAPES
STOREEQUIP	COST INDEX, STORES EQUIPMENT
TANKS	COST INDEX, TANKS & VESSELS
TOWERSTEEL	COST INDEX, TOWER STEEL
TRUCKS	COST INDEX, TRUCKS
VALVEFITTING	COST INDEX, VALVES & FITTINGS
VLTGREG	COST INDEX, VOLTAGE REGULATORS

Variables Endogenous to the Power Planner O&M Model

JEADGM	ELEC. ADMIN. & GENERAL MAINTENANCE COST INDEX (LMS)
JEADGMMS	ELEC. ADMIN. & GENERAL MAINTENANCE COST INDEX (MS)
JEADGO	ELEC. ADMIN. & GENERAL OPERATION COST INDEX (LMS)
JEADGO@H	ELEC. ADMIN. & GENERAL OPERATION COST INDEX WITHOUT HEALTHCARE EXPENSES (LMS)
JEADGOM	TOTAL ELEC. ADMIN. AND GENERAL O&M COST INDEX (LMS)
JEADGOM@H	TOTAL ELEC. ADMIN. & GENERAL O&M COST INDEX WITHOUT HEALTHCARE EXPENSES (LMS)
JEADGOMMS	TOTAL ELEC. ADMIN. AND GENERAL O&M COST INDEX (MS)
JEADGOMMS@H	TOTAL ELEC. ADMIN. AND GENERAL O&M COST INDEX WITHOUT HEALTHCARE EXPENSES (MS)
JEADGOMS	ELEC. ADMIN. AND GENERAL OPERATION COST INDEX (MS)
JEADGOMS@H	ELEC. ADMIN. AND GENERAL OPERATION COST INDEX WITHOUT HEALTHCARE EXPENSES (MS)
JEADG920	ELEC. ADMIN. AND GENERAL SALARIES COST INDEX (LMS)
JEADG921MS	ELEC. OFFICE SUPPLIES COST INDEX (MS)
JEADG923MS	ELEC. OUTSIDE SERVICES EXPENSES COST INDEX (MS)
JEADG924MS	ELEC. PROPERTY INSURANCE EXPENSES COST INDEX (MS)
JEADG925MS	ELEC. INJURIES AND DAMAGES EXPENSES COST INDEX (MS)
JEADG926MS@H	ELEC. PENSIONS AND BENEFITS COST INDEX WITHOUT HEALTHCARE EXPENSES (MS)
JEADG926MS	ELEC. PENSIONS AND BENEFITS COST INDEX (MS)
JEADG927MS	ELEC. FRANCHISE FEES EXPENSES COST INDEX (MS)
JEADG928MS	ELEC. REGULATORY COMMISSION EXPENSES COST INDEX (MS)
JEADG9301	ELEC. GENERAL ADVERTISING EXPENSES COST INDEX (LMS)
JEADG9301MS	ELEC. GENERAL ADVERTISING EXPENSES COST INDEX (MS)
JEADG9302	ELEC. MISC. GENERAL EXPENSES COST INDEX (LMS)
JEADG9302MS	ELEC. MISC. GENERAL EXPENSES COST INDEX (MS)
JEADG935	ELEC. GENERAL PLANT MAINTENANCE COST INDEX (LMS)
JEADG935MS	ELEC. GENERAL PLANT MAINTENANCE COST INDEX (MS)
JECAO	ELEC. CUSTOMER ACCOUNTS OPERATION COST INDEX (LMS)
JECAOMS	ELEC. CUSTOMER ACCOUNTS OPERATION COST INDEX (MS)
JECA902	ELEC. METER READING EXPENSES COST INDEX (LMS)
JECA902MS	ELEC. METER READING EXPENSES COST INDEX (MS)
JECA903	ELEC. CUSTOMER RECORDS AND COLLECTION EXPENSES COST INDEX (LMS)
JECA903MS	ELEC. CUSTOMER RECORDS AND COLLECTION EXPENSES COST INDEX (MS)
JECA905	ELEC. MISC. CUSTOMER ACCOUNTS EXPENSES COST INDEX (LMS)
JECA905MS	ELEC. MISC. CUSTOMER ACCOUNTS EXPENSES COST INDEX (MS)
JECSIO	ELEC. CUSTOMER SERVICE AND INFO. OPERATION COST INDEX (LMS)
JECSIOMS	ELEC. CUSTOMER SERVICES AND INFO. OPERATION COST INDEX (MS)
JECSI908	ELEC. CUSTOMER ASSISTANCE EXPENSES COST INDEX (LMS)
JECSI908MS	ELEC. CUSTOMER ASSISTANCE EXPENSES COST INDEX (MS)
JECSI909	ELEC. INFO. AND INSTR. ADVERTISING EXPENSES COST INDEX (LMS)
JECSI909MS	ELEC. INFO. AND INSTR. ADVERTISING EXPENSES COST INDEX (MS)
JECSI910	ELEC. MISC. CUSTOMER AND INFO. EXPENSES COST INDEX (LMS)
JECSI910MS	ELEC. MISC. CUSTOMER SERVICE AND INFO. EXPENSES COST INDEX (MS)
JEDM	ELEC. DISTR. MAINTENANCE COST INDEX (LMS)
JEDMMS	ELEC. DISTR. MAINTENANCE COST INDEX (MS)
JEDO	ELEC. DISTR. OPERATION COST INDEX (LMS)
JEDOM	TOTAL ELEC. DISTR. O&M COST INDEX (LMS)
JEDOMMS	TOTAL ELEC. DISTR. O&M COST INDEX (MS)
JEDOMS	ELEC. DISTR. OPERATION COST INDEX (MS)
JED581	ELEC. DISTR., LOAD DISPATCHING COST INDEX (LMS)

Variables Endogenous to the Power Planner O&M Model (continued)

JED581MS	ELEC. DISTR., LOAD DISPATCHING COST INDEX (MS)
JED582	ELEC. DISTR., STATION EXPENSES COST INDEX (LMS)
JED582MS	ELEC. DISTR., STATION EXPENSES COST INDEX (MS)
JED583&4	ELEC. DISTR., LINES EXPENSES COST INDEX (LMS)
JED583&4MS	ELEC. DISTR., LINES EXPENSES COST INDEX (MS)
JED585	ELEC. DISTR., STREET LIGHTING AND SIGNAL SYSTEM EXPENSES COST INDEX (LMS)
JED585MS	ELEC. DISTR., STREET LIGHTING AND SIGNAL SYSTEM EXPENSES COST INDEX (MS)
JED586	ELEC. DISTR., METER READING EXPENSES COST INDEX (LMS)
JED586MS	ELEC. DISTR., METER READING EXPENSES COST INDEX (MS)
JED587	ELEC. DISTR., CUSTOMER INSTALLATION EXPENSES COST INDEX (LMS)
JED587MS	ELEC. DISTR., CUSTOMER INSTALLATION EXPENSES COST INDEX (MS)
JED588	ELEC. DISTR., MISC. EXPENSES COST INDEX (LMS)
JED588MS	ELEC. DISTR., MISC. EXPENSES COST INDEX (MS)
JED591	ELEC. DISTR., MAINTENANCE OF STRUCTURES COST INDEX (LMS)
JED591MS	ELEC. DISTR., MAINTENANCE OF STRUCTURES COST INDEX (MS)
JED592	ELEC. DISTR., MAINTENANCE OF STATION EQUIP. COST INDEX (LMS)
JED592MS	ELEC. DISTR., MAINTENANCE OF STATION EQUIP. COST INDEX (MS)
JED593	ELEC. DISTR., MAINTENANCE OF OVERHEAD LINES COST INDEX (LMS)
JED593MS	ELEC. DISTR., MAINTENANCE OF OVERHEAD LINES COST INDEX (MS)
JED594	ELEC. DISTR., MAINTENANCE OF UNDERGR. LINES COST INDEX (LMS)
JED594MS	ELEC. DISTR., MAINTENANCE OF UNDERGR. LINES COST INDEX (MS)
JED595	ELEC. DISTR., MAINTENANCE OF LINE TRANSFORMERS COST INDEX (LMS)
JED595MS	ELEC. DISTR., MAINTENANCE OF LINE TRANSFORMERS COST INDEX (MS)
JED596	ELEC. DISTR., MAINTENANCE OF STREET LIGHTING & SIGNAL SYSTEMS COST INDEX (LMS)
JED596MS	ELEC. DISTR., MAINTENANCE OF STREET LIGHTING AND SIGNAL SYSTEMS COST INDEX (MS)
JED597	ELEC. DISTR., MAINTENANCE OF METERS COST INDEX (LMS)
JED597MS	ELEC. DISTR., MAINTENANCE OF METERS COST INDEX (MS)
JED598	ELEC. DISTR., MISC. MAINTENANCE EXPENSES COST INDEX (LMS)
JED598MS	ELEC. DISTR., MISC. MAINTENANCE EXPENSES COST INDEX (MS)
JEFM	STEAM PRODUCTION MAINTENANCE COST INDEX (LMS)
JEFMMS	STEAM PRODUCTION MAINTENANCE COST INDEX (MS)
JEFO	STEAM PRODUCTION OPERATION COST INDEX (LMS)
JEFOM	TOTAL STEAM PRODUCTION O&M COST INDEX (LMS)
JEFOMMS	TOTAL STEAM PRODUCTION O&M COST INDEX (MS)
JEFOMS	STEAM PRODUCTION OPERATION COST INDEX (MS)
JEF501MS	STEAM PRODUCTION, STEAM FUEL HANDLING EXPENSES COST INDEX (MS)
JEF502	STEAM PRODUCTION, STEAM EXPENSES COST INDEX (LMS)
JEF502MS	STEAM PRODUCTION, STEAM EXPENSES COST INDEX (MS)
JEF505	STEAM PRODUCTION, ELEC. EXPENSES COST INDEX (LMS)
JEF505MS	STEAM PRODUCTION, ELEC. EXPENSES COST INDEX (MS)
JEF506	STEAM PRODUCTION, MISC. STEAM POWER EXPENSES COST INDEX (LMS)
JEF506MS	STEAM PRODUCTION, MISC. STEAM POWER EXPENSES COST INDEX (MS)
JEF511	STEAM PRODUCTION, MAINTENANCE OF STRUCTURES COST INDEX (LMS)
JEF511MS	STEAM PRODUCTION, MAINTENANCE OF STRUCTURES COST INDEX (MS)
JEF512	STEAM PRODUCTION, BOILER PLANT MAINTENANCE COST INDEX (LMS)
JEF512MS	STEAM PRODUCTION, BOILER PLANT MAINTENANCE COST INDEX (MS)
JEF513	STEAM PRODUCTION, MAINTENANCE OF ELEC. PLANT COST INDEX (LMS)
JEF513MS	STEAM PRODUCTION, MAINTENANCE OF ELEC. PLANT COST INDEX (MS)
JEF514	STEAM PRODUCTION, MAINTENANCE OF MISC. STEAM PLANT COST INDEX

Variables Endogenous to the Power Planner O&M Model (continued)

	(LMS)
JEF514MS	STEAM PRODUCTION, MAINTENANCE OF MISC. STEAM PLANT COST INDEX (MS)
JEHM	HYDRO PRODUCTION MAINTENANCE COST INDEX (LMS)
JEHMMS	HYDRO PRODUCTION MAINTENANCE COST INDEX (MS)
JEHO	HYDRO PRODUCTION OPERATION COST INDEX (LMS)
JEHOM	TOTAL HYDRO PRODUCTION O&M COST INDEX (LMS)
JEHOMMS	TOTAL HYDRO PRODUCTION O&M COST INDEX (MS)
JEHOMS	HYDRO PRODUCTION OPERATION COST INDEX (MS)
JEH537	HYDRO PRODUCTION, HYDRAULIC EXPENSES COST INDEX (LMS)
JEH537MS	HYDRO PRODUCTION, HYDRAULIC EXPENSES COST INDEX (MS)
JEH538	HYDRO PRODUCTION, ELEC. EXPENSES COST INDEX (LMS)
JEH538MS	HYDRO PRODUCTION, ELEC. EXPENSES COST INDEX (MS)
JEH539	HYDRO PRODUCTION, MISC. EXPENSES COST INDEX (LMS)
JEH539MS	HYDRO PRODUCTION, MISC. EXPENSES COST INDEX (MS)
JEH542	HYDRO PRODUCTION, MAINTENANCE OF STRUCTURES COST INDEX (LMS)
JEH542MS	HYDRO PRODUCTION, MAINTENANCE OF STRUCTURES COST INDEX (MS)
JEH543	HYDRO PROD., MAINTENANCE OF RESERVOIRS, DAMS & WATERWAYS COST INDEX (LMS)
JEH543MS	HYDRO PROD., MAINTENANCE OF RESERVOIRS, DAMS & WATERWAYS COST INDEX (MS)
JEH544	HYDRO PRODUCTION, MAINTENANCE OF ELEC. PLANT COST INDEX (LMS)
JEH544MS	HYDRO PRODUCTION, MAINTENANCE OF ELEC. PLANT COST INDEX (MS)
JEH545	HYDRO PRODUCTION, MAINTENANCE OF MISC. HYDRAULIC PLANT COST INDEX (LMS)
JEH545MS	HYDRO PRODUCTION, MAINTENANCE OF MISC. HYDRAULIC PLANT COST INDEX (MS)
JENM	NUCLEAR PRODUCTION MAINTENANCE COST INDEX (LMS)
JENMMS	NUCLEAR PRODUCTION MAINTENANCE COST INDEX (MS)
JENO	NUCLEAR PRODUCTION OPERATION COST INDEX (LMS)
JENOM	TOTAL NUCLEAR PRODUCTION O&M COST INDEX (LMS)
JENOMMS	TOTAL NUCLEAR PRODUCTION O&M COST INDEX (MS)
JENOMS	NUCLEAR PRODUCTION OPERATION COST INDEX (MS)
JEN519	NUCLEAR PRODUCTION, COOLANTS AND WATER EXPENSES COST INDEX (LMS)
JEN519MS	NUCLEAR PRODUCTION, COOLANTS AND WATER EXPENSES COST INDEX (MS)
JEN520	NUCLEAR PRODUCTION, STEAM EXPENSES COST INDEX (LMS)
JEN520MS	NUCLEAR PRODUCTION, STEAM EXPENSES COST INDEX (MS)
JEN523	NUCLEAR PRODUCTION, ELEC. EXPENSES COST INDEX (LMS)
JEN523MS	NUCLEAR PRODUCTION, ELEC. EXPENSES COST INDEX (MS)
JEN524	NUCLEAR PRODUCTION, MISC. NUCLEAR POWER EXPENSES COST INDEX (LMS)
JEN524MS	NUCLEAR PRODUCTION, MISC. NUCLEAR POWER EXPENSES COST INDEX (MS)
JEN529	NUCLEAR PRODUCTION, MAINTENANCE OF STRUCTURES COST INDEX (LMS)
JEN529MS	NUCLEAR PRODUCTION, MAINTENANCE OF STRUCTURES COST INDEX (MS)
JEN530	NUCLEAR PRODUCTION, MAINTENANCE OF REACTOR PLANT EQUIP. COST INDEX (LMS)
JEN530MS	NUCLEAR PRODUCTION, MAINTENANCE OF REACTOR PLANT EQUIP. COST INDEX (MS)
JEN531	NUCLEAR PRODUCTION, MAINTENANCE OF ELEC. PLANT COST INDEX (LMS)
JEN531MS	NUCLEAR PRODUCTION, MAINTENANCE OF ELEC. PLANT COST INDEX (MS)
JEN532	NUCLEAR PRODUCTION, MAINTENANCE OF MISC. NUCLEAR PLANT COST INDEX (LMS)
JEN532MS	NUCLEAR PRODUCTION, MAINTENANCE OF MISC. NUCLEAR PLANT COST INDEX (MS)
JEOM	OTHER PRODUCTION MAINTENANCE COST INDEX (LMS)

Variables Endogenous to the Power Planner O&M Model (continued)

JEOMMS	OTHER PRODUCTION MAINTENANCE COST INDEX (MS)
JEOO	OTHER PRODUCTION OPERATION COST INDEX (LMS)
JEOOM	TOTAL OTHER PRODUCTION O&M COST INDEX (LMS)
JEOMMS	TOTAL OTHER PRODUCTION O&M COST INDEX (MS)
JEOOMS	OTHER PRODUCTION OPERATION COST INDEX (MS)
JEO547MS	OTHER PRODUCTION, FUEL EXPENSES COST INDEX (MS)
JEO548	OTHER PRODUCTION, GENERATION EXPENSES COST INDEX (LMS)
JEO548MS	OTHER PRODUCTION, GENERATION EXPENSES COST INDEX (MS)
JEO549	OTHER PRODUCTION, MISC. OTHER POWER GENERATION EXPENSES COST INDEX (LMS)
JEO549MS	OTHER PRODUCTION, MISC. OTHER POWER GENERATION EXPENSES COST INDEX (MS)
JEO552	OTHER PRODUCTION, MAINTENANCE OF STRUCTURES COST INDEX (LMS)
JEO552MS	OTHER PRODUCTION, MAINTENANCE OF STRUCTURES COST INDEX (MS)
JEO553	OTHER PRODUCTION, MAINTENANCE OF GENERATION & ELEC. PLANT COST INDEX (LMS)
JEO553MS	OTHER PRODUCTION, MAINTENANCE OF GENERATION AND ELEC. PLANT COST INDEX (MS)
JEO554	OTHER PROD., MAINT. OF MISC. OTHER POWER GENERATION PLANT COST INDEX (LMS)
JEO554MS	OTHER PROD., MAINT. OF MISC. OTHER POWER GENERATION PLANT COST INDEX (MS)
JES&E500	STEAM OPERATION, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E510	STEAM MAINTENANCE, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E517	NUCLEAR OPERATION, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E528	NUCLEAR MAINTENANCE, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E535	HYDRO OPERATION, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E541	HYDRO MAINTENANCE, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E546	OTHER OPERATION, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E551	OTHER MAINTENANCE, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E560	ELEC. TRANS. OPERATION, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E568	ELEC. TRANS. MAINTENANCE, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E580	ELEC. DISTR. OPERATION, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E590	ELEC. DISTR. MAINTENANCE, SUPERVISION AND ENGINEERING COST INDEX (LMS)
JES&E901	ELEC. CUSTOMER ACCOUNTS, SUPERVISION EXPENSES COST INDEX (LMS)
JES&E907	ELEC. CUSTOMER SERVICE AND INFO., SUPERVISION EXPENSES COST INDEX (LMS)
JES&E911	ELEC. SALES SUPERVISION EXPENSES COST INDEX (LMS)
JESALO	ELEC. SALES EXPENSES OPERATION COST INDEX (LMS)
JESALOMS	ELEC. SALES EXPENSES OPERATION COST INDEX (MS)
JESAL912	ELEC. SALES EXPENSES, DEMONSTRATION AND SALES EXPENSES COST INDEX (LMS)
JESAL912MS	ELEC. SALES EXPENSES, DEMONSTRATION AND SALES EXPENSES COST INDEX (MS)
JESAL913	ELEC. SALES EXPENSES, ADVERTISING EXPENSES COST INDEX (LMS)
JESAL913MS	ELEC. SALES EXPENSES, ADVERTISING EXPENSES COST INDEX (MS)
JESAL916	ELEC. SALES EXPENSES, MISC. SALES EXPENSES COST INDEX (LMS)
JESAL916MS	ELEC. SALES EXPENSES, MISC. SALES EXPENSES COST INDEX (MS)
JETM	ELEC. TRANS. MAINTENANCE COST INDEX (LMS)
JETMMS	ELEC. TRANS. MAINTENANCE COST INDEX (MS)
JETO	ELEC. TRANS. OPERATION COST INDEX (LMS)
JETOM	TOTAL ELEC. TRANS. O&M COST INDEX (LMS)

Variables Endogenous to the Power Planner O&M Model (continued)

JETOMMS	TOTAL ELEC. TRANS. O&M COST INDEX (MS)
JETOMS	ELEC. TRANS. OPERATION COST INDEX (MS)
JETOTAL	TOTAL ELEC. OPERATION AND MAINTENANCE COST INDEX (LMS)
JETOTAL@H	TOTAL ELEC. OPERATION AND MAINTENANCE COST INDEX WITHOUT HEALTHCARE EXPENSES
JETOTALMS	TOTAL ELEC. OPERATION AND MAINTENANCE COST INDEX (MS)
JETOTALMS@H	TOTAL ELEC. OPERATION AND MAINTENANCE COST INDEX WITHOUT HEALTHCARE EXPENSES (MS)
JET561	ELEC. TRANS., LOAD DISPATCHING COST INDEX (LMS)
JET561MS	ELEC. TRANS., LOAD DISPATCHING COST INDEX (MS)
JET562	ELEC. TRANS., STATION EXPENSES COST INDEX (LMS)
JET562MS	ELEC. TRANS., STATION EXPENSES COST INDEX (MS)
JET563&4	ELEC. TRANS., LINES EXPENSES COST INDEX (LMS)
JET563&4MS	ELEC. TRANS., LINES EXPENSES COST INDEX (MS)
JET566	ELEC. TRANS., MISC. EXPENSES COST INDEX (LMS)
JET566MS	ELEC. TRANS., MISC. EXPENSES COST INDEX (MS)
JET569	ELEC. TRANS., MAINTENANCE OF STRUCTURES COST INDEX (LMS)
JET569MS	ELEC. TRANS., MAINTENANCE OF STRUCTURES COST INDEX (MS)
JET570	ELEC. TRANS., MAINTENANCE OF STATION EQUIP. COST INDEX (LMS)
JET570MS	ELEC. TRANS., MAINTENANCE OF STATION EQUIP. COST INDEX (MS)
JET571	ELEC. TRANS., MAINTENANCE OF OVERHEAD LINES COST INDEX (LMS)
JET571MS	ELEC. TRANS., MAINTENANCE OF OVERHEAD LINES COST INDEX (MS)
JET572	ELEC. TRANS., MAINTENANCE OF UNDERGR. LINES COST INDEX (LMS)
JET572MS	ELEC. TRANS., MAINTENANCE OF UNDERGR. LINES COST INDEX (MS)
JET573	ELEC. TRANS., MAINTENANCE OF MISC. TRANS. PLANT COST INDEX (LMS)
JET573MS	ELEC. TRANS., MAINTENANCE OF MISC. TRANS. PLANT COST INDEX (MS)
JGADGM	GAS ADMIN. AND GENERAL MAINTENANCE COST INDEX (LMS)
JGADGMMS	GAS ADMIN. AND GENERAL MAINTENANCE COST INDEX (MS)
JGADGO	GAS ADMIN. AND GENERAL OPERATION COST INDEX (LMS)
JGADGO@H	GAS ADMIN. AND GENERAL OPERATION COST INDEX WITHOUT HEALTHCARE EXPENSES (LMS)
JGADGOM	TOTAL GAS ADMIN. AND GENERAL O&M COST INDEX (LMS)
JGADGOM@H	TOTAL GAS ADMIN. AND GENERAL O&M COST INDEX WITHOUT HEALTHCARE EXPENSES (LMS)
JGADGOMMS	TOTAL GAS ADMIN. AND GENERAL O&M COST INDEX (MS)
JGADGOMMS@H	TOTAL GAS ADMIN. AND GENERAL O&M COST INDEX WITHOUT HEALTHCARE EXPENSES (MS)
JGADGOMS	GAS ADMIN. AND GENERAL OPERATION COST INDEX (MS)
JGADGOMS@H	GAS ADMIN. AND GENERAL OPERATION COST INDEX WITHOUT HEALTHCARE EXPENSES (MS)
JGADG920	GAS ADMIN. AND GENERAL SALARIES COST INDEX (LMS)
JGADG921MS	GAS OFFICE SUPPLIES COST INDEX (MS)
JGADG923MS	GAS OUTSIDE SERVICES EXPENSES COST INDEX (MS)
JGADG924MS	GAS PROPERTY INSURANCE EXPENSES COST INDEX (MS)
JGADG925MS	GAS INJURIES AND DAMAGES EXPENSES COST INDEX (MS)
JGADG926MS@H	GAS PENSIONS AND BENEFITS COST INDEX WITHOUT HEALTHCARE EXPENSES (MS)
JGADG926MS	GAS PENSIONS AND BENEFITS COST INDEX (MS)
JGADG927MS	GAS FRANCHISE FEES EXPENSES COST INDEX (MS)
JGADG928MS	GAS REGULATORY COMMISSION EXPENSES COST INDEX (MS)
JGADG9301	GAS GENERAL ADVERTISING EXPENSES COST INDEX (LMS)
JGADG9301MS	GAS GENERAL ADVERTISING EXPENSES COST INDEX (MS)
JGADG9302	GAS MISC. GENERAL EXPENSES COST INDEX (LMS)
JGADG9302MS	GAS MISC. GENERAL EXPENSES COST INDEX (MS)

Variables Endogenous to the Power Planner O&M Model (continued)

JGADG932	GAS GENERAL PLANT MAINTENANCE COST INDEX (LMS)
JGADG932MS	GAS GENERAL PLANT MAINTENANCE COST INDEX (MS)
JGCAO	GAS CUSTOMER ACCOUNTS OPERATION COST INDEX (LMS)
JGCAOMS	GAS CUSTOMER ACCOUNTS OPERATION COST INDEX (MS)
JGCA902	GAS METER READING EXPENSES COST INDEX (LMS)
JGCA902MS	GAS METER READING EXPENSES COST INDEX (MS)
JGCA903	GAS CUSTOMER RECORDS AND COLLECTION EXPENSES COST INDEX (LMS)
JGCA903MS	GAS CUSTOMER RECORDS AND COLLECTION EXPENSES COST INDEX (MS)
JGCA905	GAS CUSTOMER ACCOUNT EXPENSES COST INDEX (LMS)
JGCA905MS	GAS CUSTOMER ACCOUNT EXPENSES COST INDEX (MS)
JGCSIO	GAS CUSTOMER SERVICES AND INFO. OPERATION COST INDEX (LMS)
JGCSIOMS	GAS CUSTOMER SERVICES AND INFO. OPERATION COST INDEX (LMS)
JGCSI908	GAS CUSTOMER ASSISTANCE EXPENSES COST INDEX (LMS)
JGCSI908MS	GAS CUSTOMER ASSISTANCE EXPENSES COST INDEX (LMS)
JGCSI909	GAS INFO. AND INSTR. EXPENSES COST INDEX (LMS)
JGCSI909MS	GAS INFO. AND INSTR. EXPENSES COST INDEX (MS)
JGCSI910	GAS MISC. CUSTOMER SERVICES AND INFO. EXPENSES COST INDEX (LMS)
JGCSI910MS	GAS MISC. CUSTOMER SERVICES AND INFO. EXPENSES COST INDEX (MS)
JGDM	GAS DISTR. MAINTENANCE COST INDEX (LMS)
JGDMMS	GAS DISTR. MAINTENANCE COST INDEX (MS)
JGDO	GAS DISTR. OPERATION COST INDEX (LMS)
JGDOM	TOTAL GAS DISTR. O&M COST INDEX (LMS)
JGDOMMS	TOTAL GAS DISTR. O&M COST INDEX (MS)
JGDOMS	GAS DISTR. OPERATION EXPENSES COST INDEX (MS)
JGD871	GAS DISTR., LOAD DISPATCHING EXPENSES COST INDEX (LMS)
JGD871MS	GAS DISTR., LOAD DISPATCHING EXPENSES COST INDEX (MS)
JGD872	GAS DISTR., COMPRESSOR STATION EXPENSES COST INDEX (LMS)
JGD872MS	GAS DISTR., COMPRESSOR STATION EXPENSES COST INDEX (MS)
JGD873	GAS DISTR., COMPRESSOR STATION FUEL AND POWER EXPENSES COST INDEX (LMS)
JGD873MS	GAS DISTR., COMPRESSOR STATION FUEL AND POWER EXPENSES COST INDEX (MS)
JGD874	GAS DISTR., MAINS AND SERVICES EXPENSES COST INDEX (LMS)
JGD874MS	GAS DISTR., MAINS AND SERVICES EXPENSES COST INDEX (MS)
JGD875&6&7	GAS DISTR., MEASURING AND REGULATING EXPENSES COST INDEX (LMS)
JGD875&6&7MS	GAS DISTR., MEASURING AND REGULATING EXPENSES COST INDEX (MS)
JGD878	GAS DISTR., METER READING AND HOUSE REGULATOR EXPENSES COST INDEX (LMS)
JGD878MS	GAS DISTR., METER READING AND HOUSE REGULATOR EXPENSES COST INDEX (MS)
JGD879	GAS DISTR., CUSTOMER INSTALLATIONS EXPENSES COST INDEX (LMS)
JGD879MS	GAS DISTR., CUSTOMER INSTALLATIONS EXPENSES COST INDEX (MS)
JGD880	GAS DISTR., OTHER EXPENSES COST INDEX (LMS)
JGD880MS	GAS DISTR., OTHER EXPENSES COST INDEX (MS)
JGD886	GAS DISTR., MAINTENANCE OF STRUCTURES COST INDEX (LMS)
JGD886MS	GAS DISTR., MAINTENANCE OF STRUCTURES COST INDEX (MS)
JGD887	GAS DISTR., MAINTENANCE OF MAINS COST INDEX (LMS)
JGD887MS	GAS DISTR., MAINTENANCE OF MAINS COST INDEX (MS)
JGD888	GAS DISTR., MAINTENANCE OF COMPRESSOR STATION EQUIP. COST INDEX (LMS)
JGD888MS	GAS DISTR., MAINTENANCE OF COMPRESSOR STATION EQUIP. COST INDEX (MS)
JGD889&90&910	GAS DISTR., MAINT. OF MEASURING AND REGULATING STATION EQUIP. COST INDEX (LMS)

Variables Endogenous to the Power Planner O&M Model (continued)

JGD889&90&91MS	GAS DISTR., MAINT. OF MEASURING AND REGULATING STATION EQUIP. COST INDEX (MS)
JGD892	GAS DISTR., MAINTENANCE OF SERVICES COST INDEX (LMS)
JGD892MS	GAS DISTR., MAINTENANCE OF SERVICES COST INDEX (MS)
JGD893	GAS DISTR., MAINTENANCE OF METERS AND HOUSE REGULATORS COST INDEX (LMS)
JGD893MS	GAS DISTR., MAINTENANCE OF METERS AND HOUSE REGULATORS COST INDEX (MS)
JGD894	GAS DISTR., MAINTENANCE OF OTHER EQUIP. COST INDEX (LMS)
JGD894MS	GAS DISTR., MAINTENANCE OF OTHER EQUIP. COST INDEX (MS)
JGLNGM	LNG MAINTENANCE COST INDEX (LMS)
JGLNGMMS	LNG MAINTENANCE COST INDEX (MS)
JGLNGO	LNG OPERATION (LMS)
JGLNGOM	TOTAL LNG OPERATION AND MAINTENANCE COST INDEX (LMS)
JGLNGOMMS	TOTAL LNG OPERATION AND MAINTENANCE COST INDEX (MS)
JGLNGOMS	LNG OPERATION COST INDEX (MS)
JGLNG8442&3	LNG PROCESSING TERMINAL & LIQUEFACTION PROCESSING EXPENSES COST INDEX (LMS)
JGLMG8442&3MS	LNG PROCESSING TERMINAL AND LIQUEFACTION PROCESSING EXPENSES COST INDEX (MS)
JGLNG8444	LNG TRANSPORTATION EXPENSES COST INDEX (LMS)
JGLNG8444MS	LNG TRANSPORTATION EXPENSES COST INDEX (MS)
JGLNG8445	LNG MEASURING AND REGULATING EXPENSES COST INDEX (LMS)
JGLNG8445MS	LNG MEASURING AND REGULATING EXPENSES COST INDEX (MS)
JGLNG8446	LNG COMPRESSOR STATION EXPENSES COST INDEX (LMS)
JGLNG8446MS	LNG COMPRESSOR STATION EXPENSES COST INDEX (MS)
JGLNG8447	LNG COMMUNICATION SYSTEM EXPENSES COST INDEX (LMS)
JGLNG8447MS	LNG COMMUNICATION SYSTEM EXPENSES COST INDEX (MS)
JGLNG8448	LNG SYSTEM CONTROL AND LOAD DISPATCHING EXPENSES COST INDEX (LMS)
JGLNG8448MS	LNG SYSTEM CONTROL AND LOAD DISPATCHING EXPENSES COST INDEX (MS)
JGLNG8451MS	LNG FUEL EXPENSES COST INDEX (MS)
JGLNG8452MS	LNG POWER EXPENSES COST INDEX (MS)
JGLNG8462	LNG OTHER EXPENSES COST INDEX (LMS)
JGLNG8462MS	LNG OTHER EXPENSES COST INDEX (MS)
JGLNG8472	LNG MAINTENANCE OF STRUCTURES COST INDEX (LMS)
JGLNG8472MS	LNG MAINTENANCE OF STRUCTURES COST INDEX (MS)
JGLNG8473	LNG MAINTENANCE, PROCESSING TERMINAL EQUIP. COST INDEX (LMS)
JGLNG8473MS	LNG MAINTENANCE, PROCESSING TERMINAL EQUIP. COST INDEX (MS)
JGLNG8474	LNG MAINTENANCE, TRANSPORTATION EQUIP. COST INDEX (LMS)
JGLNG8474MS	LNG MAINTENANCE, TRANSPORTATION EQUIP. COST INDEX (MS)
JGLNG8475	LNG MAINTENANCE, MEASURING AND REGULATING EQUIP. COST INDEX (LMS)
JGLNG8475MS	LNG MAINTENANCE, MEASURING AND REGULATING EQUIP. COST INDEX (MS)
JGLNG8476	LNG MAINTENANCE, COMPRESSOR STATION EQUIP. COST INDEX (MS)
JGLNG8476MS	LNG MAINTENANCE, COMMUNICATION EQUIP. COST INDEX (LMS)
JGLNG8477	LNG MAINTENANCE, COMMUNICATION EQUIP. COST INDEX (LMS)
JGLNG8477MS	LNG MAINTENANCE, COMMUNICATION EQUIP. COST INDEX (MS)
JGLNG8478	LNG MAINTENANCE, OTHER EQUIP. COST INDEX (LMS)
JGLNG8478MS	LNG MAINTENANCE, OTHER EQUIP. COST INDEX (MS)
JGOGS807MS	OTHER GAS SPLY, PURCHASED GAS EXPENSES COST INDEX (MS)
JGOSM	OTHER STORAGE MAINTENANCE COST INDEX (LMS)
JGOSMMS	OTHER STORAGE MAINTENANCE COST INDEX (MS)
JGOSO	OTHER STORAGE OPERATION COST INDEX (LMS)
JGOSOM	TOTAL OTHER STORAGE OPERATION AND MAINTENANCE COST INDEX (LMS)

Variables Endogenous to the Power Planner O&M Model (continued)

JGOSOMMS	TOTAL OTHER STORAGE OPERATION AND MAINTENANCE COST INDEX (MS)
JGOSOMS	OTHER STORAGE OPERATION COST INDEX (MS)
JGOS841	OTHER STORAGE, OPERATION EXPENSES COST INDEX (LMS)
JGOS841MS	OTHER STORAGE, OPERATION EXPENSES COST INDEX (MS)
JGOS8421MS	OTHER STORAGE, FUEL EXPENSES COST INDEX (MS)
JGOS8422	OTHER STORAGE, POWER EXPENSES COST INDEX (LMS)
JGOS8422MS	OTHER STORAGE, POWER EXPENSES COST INDEX (MS)
JGOS8432	OTHER STORAGE, MAINTENANCE OF STRUCTURES COST INDEX (LMS)
JGOS8432MS	OTHER STORAGE, MAINTENANCE OF STRUCTURES COST INDEX (MS)
JGOS8433	OTHER STORAGE, MAINTENANCE OF GAS HOLDERS COST INDEX (LMS)
JGOS8433MS	OTHER STORAGE, MAINTENANCE OF GAS HOLDERS COST INDEX (MS)
JGOS8434	OTHER STORAGE, MAINTENANCE OF PURIFICATION EQUIP. COST INDEX (LMS)
JGOS8434MS	OTHER STORAGE, MAINTENANCE OF PURIFICATION EQUIP. COST INDEX (MS)
JGOS8435	OTHER STORAGE, MAINTENANCE OF LIQUEFACTION EQUIP. COST INDEX (LMS)
JGOS8435MS	OTHER STORAGE, MAINTENANCE OF LIQUEFACTION EQUIP. COST INDEX (MS)
JGOS8436	OTHER STORAGE, MAINTENANCE OF VAPORIZING EQUIP. COST INDEX (LMS)
JGOS8436MS	OTHER STORAGE, MAINTENANCE OF COMPRESSOR STATION EQUIP. COST INDEX
JGOS8437	OTHER STORAGE, MAINTENANCE OF COMPRESSOR STATION EQUIP. COST INDEX (LMS)
JGOS8437MS	OTHER STORAGE, MAINTENANCE OF COMPRESSOR STATION EQUIP. COST INDEX (MS)
JGOS8438	OTHER STORAGE, MAINT. OF MEASURING & REGULATING STAT. EQUIP. COST INDEX (LMS)
JGOS8438MS	OTHER STORAGE, MAINT. OF MEASURING & REGULATING STATION EQUIP. COST INDEX (MS)
JGOS8439	OTHER STORAGE, MAINTENANCE OF OTHER EQUIP. COST INDEX (LMS)
JGOS8439MS	OTHER STORAGE, MAINTENANCE OF OTHER EQUIP. COST INDEX (MS)
JGS&E814	GAS UNDERGR. STORAGE, OPERATION SUPERVISION AND ENGINEERING COST INDEX (LMS)
JGS&E830	GAS UNDERGR. STORAGE, MAINTENANCE SUPERVISION & ENGINEERING COST INDEX (MS)
JGS&E840	OTHER STORAGE, OPERATION SUPERVISION AND ENGINEERING COST INDEX (LMS)
JGS&E8431	OTHER STORAGE, MAINTENANCE SUPERVISION AND ENGINEERING COST INDEX (LMS)
JGS&E8441	LNG OPERATION SUPERVISION AND ENGINEERING COST INDEX (LMS)
JGS&E8471	LNG MAINTENANCE SUPERVISION AND ENGINEERING COST INDEX (LMS)
JGS&E850	GAS TRANS., OPERATION SUPERVISION AND ENGINEERING COST INDEX (LMS)
JGS&E861	GAS TRANS., MAINTENANCE SUPERVISION AND ENGINEERING COST INDEX (LMS)
JGS&E870	GAS DISTR., OPERATION SUPERVISION AND ENGINEERING COST INDEX (LMS)
JGS&E885	GAS DISTR., MAINTENANCE SUPERVISION AND ENGINEERING COST INDEX (LMS)
JGS&E901	GAS CUSTOMER ACCOUNTS, SUPERVISION EXPENSES COST INDEX (LMS)
JGS&E907	GAS CUSTOMER SERVICE AND INFO. SUPERVISION COST INDEX (LMS)
JGS&E911	GAS SALES, SUPERVISION EXPENSES COST INDEX (LMS)
JGSALO	GAS SALES, OPERATION COST INDEX (LMS)
JGSALOMS	GAS SALES, OPERATION COST INDEX (MS)
JGSAL912	GAS SALES, DEMONSTRATION AND SALES EXPENSES COST INDEX (LMS)
JGSAL912MS	GAS SALES, DEMONSTRATION AND SALES EXPENSES COST INDEX (MS)
JGSAL913	GAS SALES, ADVERTISING EXPENSES COST INDEX (LMS)
JGSAL913MS	GAS SALES, ADVERTISING EXPENSES COST INDEX (MS)
JGSAL916	GAS SALES, MISC. SALES EXPENSES COST INDEX (LMS)

Variables Endogenous to the Power Planner O&M Model (continued)

JGSAL916MS	GAS SALES, MISC. SALES EXPENSES COST INDEX (MS)
JGTM	GAS TRANS. MAINTENANCE COST INDEX (LMS)
JGTMMS	GAS TRANS. MAINTENANCE COST INDEX (MS)
JGTO	GAS TRANS. OPERATION COST INDEX (LMS)
JGTOM	TOTAL GAS TRANS. OPERATION AND MAINTENANCE COST INDEX (LMS)
JGTOMMS	TOTAL GAS TRANS. OPERATION AND MAINTENANCE COST INDEX (MS)
JGTOMS	GAS TRANS. OPERATION COST INDEX (MS)
JGTOTAL	TOTAL GAS OPERATION AND MAINTENANCE COST INDEX (LMS)
JGTOTAL@H	TOTAL GAS OPERATION AND MAINTENANCE COST INDEX WITHOUT HEALTH-CARE EXPENSES (LMS)
JGTOTALMS	TOTAL GAS OPERATION AND MAINTENANCE COST INDEX (MS)
JGTOTALMS@H	TOTAL GAS OPERATION AND MAINTENANCE COST INDEX WITHOUT HEALTH-CARE EXPENSES (MS)
JGT851	GAS TRANS., SYSTEM CONTROL AND LOAD DISPATCHING COST INDEX (LMS)
JGT851MS	GAS TRANS., SYSTEM CONTROL AND LOAD DISPATCHING COST INDEX (MS)
JGT852	GAS TRANS., COMMUNICATION SYSTEM EXPENSES COST INDEX (LMS)
JGT852MS	GAS TRANS., COMMUNICATION SYSTEM EXPENSES COST INDEX (MS)
JGT853	GAS TRANS., COMPRESSOR STATION EXPENSES COST INDEX (LMS)
JGT853MS	GAS TRANS., COMPRESSOR SYSTEM EXPENSES COST INDEX (MS)
JGT854MS	GAS TRANS., GAS FOR COMPRESSOR STATION FUEL COST INDEX (MS)
JGT855MS	GAS TRANS., OTHER COMPRESSOR STATION FUEL AND POWER COST INDEX (MS)
JGT856	GAS TRANS., MAINS EXPENSES COST INDEX (LMS)
JGT856MS	GAS TRANS., MAINS EXPENSES COST INDEX (MS)
JGT857	GAS TRANS., MEASURING AND REGULATING STATION EXPENSES COST INDEX (LMS)
JGT857MS	GAS TRANS., MEASURING AND REGULATING STATION EXPENSES COST INDEX (MS)
JGT859	GAS TRANS., OTHER EXPENSES COST INDEX (LMS)
JGT859MS	GAS TRANS., OTHER EXPENSES COST INDEX (MS)
JGT862	GAS TRANS., MAINTENANCE OF STRUCTURES COST INDEX (LMS)
JGT862MS	GAS TRANS., MAINTENANCE OF STRUCTURES COST INDEX (MS)
JGT863	GAS TRANS., MAINTENANCE OF MAINS COST INDEX (LMS)
JGT863MS	GAS TRANS., MAINTENANCE OF MAINS COST INDEX (MS)
JGT864	GAS TRANS., MAINTENANCE OF COMPRESSOR STATION EQUIP. COST INDEX (LMS)
JGT864MS	GAS TRANS., MAINTENANCE OF COMPRESSOR STATION EQUIP. COST INDEX (MS)
JGT865	GAS TRANS., MAINT. OF MEASURING & REGULATING STATION EQUIP. COST INDEX (LMS)
JGT865MS	GAS TRANS., MAINT. OF MEASURING & REGULATING STATION EQUIP. COST INDEX (MS)
JGT866	GAS TRANS., MAINTENANCE OF COMMUNICATION EQUIP. COST INDEX (LMS)
JGT866MS	GAS TRANS., MAINTENANCE OF COMMUNICATION EQUIP. COST INDEX (MS)
JGT867	GAS TRANS., MAINTENANCE OF OTHER EQUIP. COST INDEX (LMS)
JGT867MS	GAS TRANS., MAINTENANCE OF OTHER EQUIP. COST INDEX (MS)
JGUSM	UNDERGR. STORAGE MAINTENANCE COST INDEX (LMS)
JGUSMMS	UNDERGR. STORAGE MAINTENANCE COST INDEX (MS)
JGUSO	UNDERGR. STORAGE OPERATION COST INDEX (LMS)
JGUSOM	TOTAL UNDERGR. STORAGE OPERATION AND MAINTENANCE COST INDEX (LMS)
JGUSOMMS	TOTAL UNDERGR. STORAGE OPERATION AND MAINTENANCE COST INDEX (MS)
JGUSOMS	UNDERGR. STORAGE OPERATION COST INDEX (MS)
JGUS815	UNDERGR. STORAGE, MAPS AND RECORDS EXPENSES COST INDEX (LMS)

Variables Endogenous to the Power Planner O&M Model (continued)

JGUS815MS	UNDERGR. STORAGE, MAPS AND RECORDS EXPENSES COST INDEX (MS)
JGUS816	UNDERGR. STORAGE, WELLS EXPENSES COST INDEX (LMS)
JGUS816MS	UNDERGR. STORAGE, WELLS EXPENSES COST INDEX (MS)
JGUS817	UNDERGR. STORAGE, LINES EXPENSES COST INDEX (LMS)
JGUS817MS	UNDERGR. STORAGE, LINES EXPENSES COST INDEX (MS)
JGUS818	UNDERGR. STORAGE, COMPRESSOR STATION EXPENSES COST INDEX (LMS)
JGUS818MS	UNDERGR. STORAGE, COMPRESSOR STATION EXPENSES COST INDEX (MS)
JGUS819MS	UNDERGR. STORAGE, COMPRESSOR STATION FUEL & POWER EXPENSES COST INDEX (MS)
JGUS820	UNDERGR. STORAGE, MEASURING & REGULATING STATION EXPENSES COST INDEX (LMS)
JGUS820MS	UNDERGR. STORAGE, MEASURING AND REGULATING STATION EXPENSES COST INDEX (MS)
JGUS821	UNDERGR. STORAGE, PURIFICATION EXPENSES COST INDEX (LMS)
JGUS821MS	UNDERGR. STORAGE, PURIFICATION EXPENSES COST INDEX (MS)
JGUS822	UNDERGR. STORAGE, PURIFICATION EXPENSES COST INDEX (LMS)
JGUS822MS	UNDERGR. STORAGE, PURIFICATION EXPENSES COST INDEX (MS)
JGUS824	UNDERGR. STORAGE, OTHER EXPENSES COST INDEX (LMS)
JGUS824MS	UNDERGR. STORAGE, OTHER EXPENSES COST INDEX (MS)
JGUS831	UNDERGR. STORAGE, MAINTENANCE OF STRUCTURES COST INDEX (LMS)
JGUS831MS	UNDERGR. STORAGE, MAINTENANCE OF STRUCTURES COST INDEX (MS)
JGUS832	UNDERGR. STORAGE, MAINTENANCE OF RESERVOIRS AND WELLS OST INDEX (LMS)
JGUS832MS	UNDERGR. STORAGE, MAINTENANCE OF AND WELLS COST INDEX (MS)
JGUS833	UNDERGR. STORAGE, MAINTENANCE OF LINES COST INDEX (LMS)
JGUS833MS	UNDERGR. STORAGE, MAINTENANCE OF LINES COST INDEX (MS)
JGUS834	UNDERGR. STORAGE, MAINTENANCE OF COMPRESSOR STATION EQUIP. COST INDEX (LMS)
JGUS834MS	UNDERGR. STORAGE, MAINTENANCE OF COMPRESSOR STATION EQUIP. COST INDEX (MS)
JGUS835	UNDERGR. STOR., MAINT. OF MEASURING & REGULATING STAT. EQUIP. COST INDEX (LMS)
JGUS835MS	UNDERGR. STOR., MAINT. OF MEASURING & REGULATING STATION EQUIP. COST INDEX (MS)
JGUS836	UNDERGR. STORAGE, MAINTENANCE OF PURIFICATION EQUIP. COST INDEX (LMS)
JGUS836MS	UNDERGR. STORAGE, MAINTENANCE OF PURIFICATION EQUIP. COST INDEX (MS)
JGUS837	UNDERGR. STORAGE, MAINTENANCE OF OTHER EQUIP. COST INDEX (LMS)
JGUS837MS	UNDERGR. STORAGE, MAINTENANCE OF EQUIP. COST INDEX (MS)
JRENT	RENT EXPENSES COST INDEX
JRENT931	ACCOUNT 931 RENTAL EXPENSES COST INDEX
JS&EMS	SUPERVISION AND ENGINEERING EXPENSES COST INDEX (MS)
JS&MS	SUPERVISION AND ENGINEERING EXPENSES, CUSTOMER ACCOUNTS, SERVICES & SALES COST INDEX (MS)

Variables Exogenous to the Power Planner Operations & Maintenance Model

CEU4422000008	US, AVG HOURLY EARNINGS, UTILITIES, UNITS: \$/HR
CEU4422110008	US, AVG HOURLY EARNINGS, ELEC POWER GENERATION TRANSMISSION AND DIST., UNITS: \$/HR
CEU5500000008	US, AVG HOURLY EARNINGS, FINANCIAL ACTIVITIES, UNITS: \$/HR
CEU8081121208	US, AVG HOURLY EARNINGS, COMPUTER AND OFFICE MACHINE REPAIR AND MAINTENANCE, UNITS: \$/HR
CUSAH2NS	US, CPI, FUELS AND UTILITIES, UNITS: 1982-84=1.0
CUSAT1NS	US, CPI, PRIVATE TRANSPORTATION, UNITS: 1982-84=1.0
CUSATNS	US, CPI, TRANSPORTATION, UNITS: 1982-84=1.0
CUSEEBNS	US, CPI, TUITION OTHER SCHOOL FEES AND CHILDCARE, UNITS: 1982-84=1.0
CUSEEC01NS	US, CPI, POSTAGE, UNITS: 1982-84=1.0
CUSEFVNS	US, CPI, FOOD AWAY FROM HOME, UNITS: 1982-84=1.0
CUSEHG01NS	US, CPI, WATER AND SEWERAGE MAINTENANCE, UNITS: 1982-84=1.0
CUSEMC01NS	US, CPI, PHYSICIANS SERVICES, UNITS: 1982-84=1.0
CUSETDNS	US, CPI, MOTOR VEHICLE MAINTENANCE AND REPAIR, UNITS: 1982-84=1.0
DBSPUO	US, MULTIPLE OF STRAIGHT-LINE DEPRECIATION RATE—PUBLIC UTILITIES EXCEPT TELECOM
ECIHI	US, ECI, GROUP HEALTH INSURANCE, UNITS: 1982:1=1.0
ECIPBPARNs	US, BENEFITS, PRIVATE, PROFESSIONAL AND RELATED, UNITS: 2005:4=100
ECIPCMBFNS	US, COMPENSATION, PRIVATE, MANAGEMENT, BUSINESS, FINANCIAL, UNITS: 2005:4=100
ECIPWMBFNS	US, WAGES AND SAL, PRIVATE, MANAGEMENT, BUSINESS, FINANCIAL, UNITS: 2005:4=100
ECIPWOASNS	US, WAGES AND SAL, PRIVATE, OFFICE AND ADMINISTRATIVE SUPPORT, UNITS: 2005:4=100
ECIPWPSTNS	US, WAGES AND SAL, PRIVATE, PROFESSIONAL, SCIENTIFIC, TECHNICAL, UNITS: 2005:4=100
PPI213112	US, PPI, OIL AND GAS OPERATIONS SUPPORT ACTIVITIES, UNITS: 1985:12=100
PPI2381MR	US, PPI, NONRESIDENTIAL BUILDING MAINTENANCE & REPAIR, UNITS: 2009:4=100
PPI32311	US, PPI, PRINTING, UNITS: 2003:12=100
PPI3241101	US, PPI, GASOLINE, UNITS: 1985:6=100
PPI324110AY	US, PPI, LIGHT FUEL OILS, UNITS: 1985:6=100
PPI324110AY1	US, PPI, HOME HEATING OIL AND OTHER DISTILLATES NEC, UNITS: 1985:6=100
PPI324110AY2	US, PPI, DIESEL FUEL, UNITS: 1985:6=100
PPI3241210	US, PPI, ASPHALT PAVING MIXTURES AND BLOCKS, UNITS: 1981:6=100
PPI325120P	US, PPI, INDUSTRIAL GASES, UNITS: 1981:6=100
PPI3251808	US, PPI, INDUSTRIAL INORGANIC CHEMICALS, UNITS: 2003:12=100
PPI3253	US, PPI, PESTICIDE FERTILIZER AND OTHER AGR. CHEM. PROD., UNITS: 1984:12=100
PPI325510	US, PPI, PAINTS AND COATINGS, UNITS: 1983:6=100
PPI32561	US, PPI, SOAP AND CLEANING COMPOUNDS, UNITS: 2003:12=100
PPI325611	US, PPI, SOAP AND OTHER DETERGENTS, UNITS: 1983:6=100
PPI325998	US, PPI, ALL OTHER MISCELLANEOUS CHEMICAL PRODUCTION AND PREP, UNITS: 1985:6=100
PPI326	US, PPI, RUBBER AND PLASTICS, UNITS: 1984:12=100
PPI331222	US, PPI, STEEL WIRE DRAWING, UNITS: 1982:6=100
PPI332312P	US, PPI, FABRICATED STRUCTURAL METAL, UNITS: 1982:6=100
PPI332322	US, PPI, SHEET METAL WORK, UNITS: 1982:12=100
PPI332410	US, PPI, POWER BOILERS AND HEAT EXCHANGERS, UNITS: 2003:12=100
PPI3324101	US, PPI, FAB HEAT EXCHANGERS AND STEAM CONDENSERS EX NUCL APP, UNITS: 1980:3=100
PPI332420	US, PPI, METAL TANK, HEAVY GAUGE, UNITS: 2003:12=100
PPI3324393	US, PPI, METAL BARRELS DRUMS AND PAILS, UNITS: 1983:6=100
PPI332510	US, PPI, OTHER HARDWARE, UNITS: 1985:6=100

Variables Exogenous to the Power Planner Operations & Maintenance Model (continued)

PPI332911	US, PPI, INDUSTRIAL VALVES, UNITS: 1991:6=100
PPI332996	US, PPI, FABRICATED PIPE AND FITTINGS, UNITS: 1981:6=100
PPI333120	US, PPI, CONSTRUCTION MACHINERY, UNITS: 1980:12=100
PPI3331201	US, PPI, POWER CRANES, LOADERS, DOZERS, TRACTORS, MIXERS, PAVERS, BACKHOES, UNITS: 2003:12=100
PPI333131P	US, PPI, MINING MACHINERY AND EQUIPMENT, UNITS: 1981:6=100
PPI333132	US, PPI, OIL AND GAS FIELD MACHINERY AND EQUIP, UNITS: 1980:12=100
PPI33341311	US, PPI, DUST COLLECTION AND OTHER AIR PURIF EQ FOR GAS CLEANING SYS, UNITS: 1983:12=100
PPI333415	US, PPI, REFRIGERATION AND HEATING EQUIPMENT, UNITS: 1977:12=100
PPI33361	US, PPI, ENGINE TURBINE AND POWER TRANSMISSION EQUIPMENT, UNITS: 1984:12=100
PPI333611P	US, PPI, TURBINES AND TURBINE GENERATOR SETS, UNITS: 1984:12=100
PPI333612	US, PPI, SPEED CHANGER INDUSTR HI-SPEED DRIVE AND GEAR, UNITS: 1983:12=100
PPI333911	US, PPI, PUMPS AND PUMPING EQUIPMENT, UNITS: 1983:12=100
PPI3339121	US, PPI, AIR AND GAS COMPRESSORS, UNITS: 1984:6=100
PPI333922	US, PPI, CONVEYOR AND CONVEYING EQUIPMENT, UNITS: 1984:6=100
PPI333992	US, PPI, WELDING AND SOLDERING EQUIPMENT , UNITS: 1994:12=100
PPI334210	US, PPI, TELEPHONE APPARATUS, UNITS: 2003:12=100
PPI334220	US, PPI, RADIO AND TV BROADCAST AND WIRELESS COMM. EQUIP., UNITS: 1991:12=100
PPI334419U1	US, PPI, CRYSTALS FILTERS PIEZOELECTRIC AND RELATED DEVICES, UNITS: 1982:6=100
PPI33441K4	US, PPI, ELECTRONIC CAPACITORS, UNITS: 1981:6=100
PPI33441K6	US, PPI, ELEC COILS TRANSFORMERS AND OTHER INDUCTORS, UNITS: 2000:6=100
PPI334513	US, PPI, INDUSTRIAL PROCESS CONTROLS, UNITS: 1983:6=100
PPI3345141	US, PPI, TOTALIZING FLUID METERS AND COUNTING DEVICES FOR GAS AND LIQ-UIDS, UNITS: 1985:12=100
PPI3345159	US, PPI, INSTRUMENTS TO MEASURE ELECTRICITY, UNITS: 1991:12=100
PPI334516	US, PPI, LABORATORY ANALYTICAL INSTRUMENTS, UNITS: 1985:12=100
PPI3351	US, PPI, ELECTRIC LIGHTING EQUIPMENT, UNITS: 2003:12=100
PPI3352	US, PPI, HOUSEHOLD APPLIANCE MFG, UNITS: 1984:12=100
PPI335311	US, PPI, TRANSFORMERS, UNITS: 1981:6=100
PPI335312	US, PPI, MOTORS AND GENERATORS, UNITS: 1983:6=100
PPI3353123	US, PPI, INTEGRAL HORSEPOWER MOTORS AND GENERATORS EX. L AND TRAN., UNITS: 1983:6=100
PPI335313	US, PPI, SWITCHGEAR AND SWITCHBOARD APPARATUS, UNITS: 1985:6=100
PPI3353141	US, PPI, RELAY AND INDUSTRIAL CONTROLS, UNITS: 1990:6=100
PPI335911	US, PPI, STORAGE BATTERIES, UNITS: 1984:12=100
PPI3359291	US, PPI, POWER WIRE AND CABLE, UNITS: 1982:12=100
PPI335931	US, PPI, CURRENT-CARRYING WIRING DEVICES, UNITS: 1981:12=100
PPI335932	US, PPI, NONCURRENT-CARRYING WIRING DEVICES, UNITS: 1981:12=100
PPI335991	US, PPI, CARBON GRAPHITE PRODUCTS, UNITS: 1985:6=100
PPI336510	US, PPI, RAILROAD ROLLING STOCK, UNITS: 1984:6=100
PPI336611	US, PPI, SHIP BUILDING AND REPAIR, UNITS: 1985:12=100
PPI336612	US, PPI, BOAT BUILDING AND REPAIR, UNITS: 1981:12=100
PPI337214	US, PPI, OFFICE FURNITURE, UNITS: 1979:12=100
PPI339991	US, PPI, GASKETS PACKING AND SEALING DEVICES, UNITS: 1985:12=100
PPI482111	US, PPI, RAILROADS LINE-HAUL OPERATIONS, UNITS: 1984:12=100
PPI4841221	US, PPI, GENERAL FREIGHT TRUCKING LONG-DISTANCE LTL, UNITS: 1992:6=100
PPI511210502	US, PPI, APPLICATION SOFTWARE PUBLISHING, UNITS: 1997:12=100
PPI517110	US, PPI, WIRED TELECOMMUNICATIONS CARRIERS, UNITS: 2003:12=100

Variables Exogenous to the Power Planner Operations & Maintenance Model (continued)

PPI5171103	US, PPI, PRIVATE TELEPHONE LINE SERVICE, UNITS: 1995:6=100
PPI517210	US, PPI, WIRELESS TELECOMMUNICATIONS CARRIERS, UNITS: 1999:6=100
PPI5311202	US, PPI, LEASING OF PROFESSIONAL AND OFFICE BUILDINGS, UNITS: 1995:12=100
PPI5311203	US, PPI, LEASING OF MANUFACTURING AND INDUSTRIAL BUILDINGS , UNITS: 1995:12=100
PPI532111	US, PPI, PASSENGER CAR RENTAL, UNITS: 1991:12=100
PPI532412	US, PPI, EQUIPMENT RENTAL AND LEASING (CONSTRUCTION MINING & FORESTRY), UNITS: 2003:12=100
PPI5411	US, PPI, LEGAL SERVICES, UNITS: 1996:12=100
PPI541211	US, PPI, OFFICES OF CERTIFIED PUBLIC ACCOUNTANTS, UNITS: 2003:12=100
PPI5413	US, PPI, ENGINEERING ARCHITECTURAL AND SURVEYING SERVICES, UNITS: 1996:12=100
PPI541330	US, PPI, ENGINEERING SERVICES, UNITS: 1996:12=100
PPI541610	US, PPI, MANAGEMENT CONSULTING SERVICES, UNITS: 2006:6=100
PPI541810	US, PPI, ADVERTISING AGENCIES, UNITS: 1995:6=100
PPI561720	US, PPI, BUILDING CLEANING AND MAINTENANCE SERVICES, UNITS: 1994:12=100
PPI721110	US, PPI, HOTELS AND MOTELS, UNITS: 2003:12=100
PPI811310	US, PPI, COMMERCIAL MACHINERY REPAIR AND MAINTENANCE, UNITS: 2006:6=100
PPI924126403	US, PPI, PREMIUMS FOR PRODUCT AND OTHER NON-AUTO LIABILITY INSURANCE , UNITS: 1998:6=100
PPI9241266	US, PPI, PREMIUMS FOR WORKER'S COMPENSATION INSURANCE, UNITS: 1998:6=100
PPIBONS	US, PPI, MATERIAL INPUTS TO OTHER NONRESIDENTIAL CONSTRUCTION, UNITS: 2010:6=100
PUSCHLOR	US, CHLORINE, CONTRACT-MARKET AVERAGE PRICE, FOB US GULF COAST, UNITS: US\$/SHORT TON
TXIMGSLPROP	US, STATE & LOCAL PROPERTY TAX ACCRUALS, UNITS: BILLIONS OF DOLLARS-ANNUAL RATE
WPIFD41312NS	US, PPI, CAPITAL EQUIPMENT, UNITS: 1982=1.00
WPIID6151NS	US, PPI, SUPPLIES FOR MANUFACTURING INDUSTRIES, UNITS: 1982=1.00
WPIID615NS	US, PPI, SUPPLIES FOR INTERMEDIATE DEMAND, UNITS: 1982=1.00
WPIP0381	US, PPI, APPAREL, UNITS: 1982=100
WPIP051	US, PPI, BITUMINOUS COAL, UNITS: 1982=100
WPIP0531	US, PPI, NATURAL GAS, UNITS: 1982=100
WPIP0543	US, PPI, INDUSTRIAL ELECTRIC POWER, UNITS: 1982=100
WPIP0576	US, PPI, LUBRICATING OILS AND GREASES, UNITS: 1982=100
WPIP061	US, PPI, INDUSTRIAL CHEMICALS, UNITS: 1982=100
WPIP06130301	US, PPI, SODIUM CARBONATE (SODA ASH), UNITS: 1982=100
WPIP071304	US, PPI, RUBBER HOSE, UNITS: 1982=100
WPIP08	US, PPI, LUMBER AND WOOD PRODUCTS, UNITS: 1982=100
WPIP091501	US, PPI, SANITARY PAPER PRODUCTS, UNITS: 1982=100
WPIP091506	US, PPI, OFFICE SUPPLIES AND ACCESSORIES, UNITS: 1982=100
WPIP0937	US, PPI, COMMERCIAL PUBLICATIONS, UNITS: 1982:6=100
WPIP094	US, PPI, PUBLICATIONS PRINTED MATTER AND PRINTING MATERIAL, UNITS: 2009:6=100
WPIP102504	US, PPI, NICKEL ALLOY MILL SHAPES, UNITS: 1982=100
WPIP1026	US, PPI, NONFERROUS CABLE AND WIRE, UNITS: 1982=100
WPIP1042	US, PPI, HAND AND EDGE TOOLS, UNITS: 1982=100
WPIP1141	US, PPI, PUMPS, COMPRESSORS, AND EQUIPMENT , UNITS: 1982=100
WPIP1144	US, PPI, INDUSTRIAL MATERIAL HANDLING EQUIPMENT, UNITS: 1982=100
WPIP114404	US, PPI, HOISTS, OVERHEAD CRANES, & MONORAIL EQUIP, UNITS: 1982=100
WPIP1147	US, PPI, FANS AND BLOWERS, UNITS: 1982=100
WPIP117	US, PPI, ELECTRICAL MACHINERY AND EQUIPMENT, UNITS: 1982=100

Variables Exogenous to the Power Planner Operations & Maintenance Model (continued)

WPIP117906	US, PPI, ENGINE ELECTRICAL EQUIPMENT, UNITS: 1982=100
WPIP118	U S, PPI COMMODITY DATA, MACHINERY AND EQUIPMENT, MISCELLANEOUS INSTRUMENTS, UNITS:1982=100
WPIP119407	US, PPI, DIESEL, SEMI DIESEL, & DUAL FUEL NON-AUTOMOTIVE INTERNAL COMBUSTION ENGINES, UNITS: 1982:12=100
WPIP141106	US, PPI, TRUCKS OVER 14000 LBS GVW, UNITS: 1982=100
WPIP1542	US, PPI, PHOTOGRAPHIC SUPPLIES, UNITS: 1982=100
WPIP156	US, PPI, MEDICAL SURGICAL AND PERSONAL AID DEVICES, UNITS: 1982=100
WPIP157	US, PPI, INDUSTRIAL SAFETY EQUIPMENT, UNITS: 1982=100

Glossary of Abbreviations and Symbols

Glossary

AHE	Average Hourly Earnings
Avg	Average
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor Statistics
Btu	British Thermal units
CPIU	Consumer Price Index, All Urban Workers
CPIW	Consumer Price Index, Urban Wage and Clerical Workers
DOE	Department of Energy
ECI	Employment Cost Index
EPA	Environment Protection Agency
EPRI	Electric Power Research Institute
FERC	Federal Energy Regulatory Commission
FRB	Federal Reserve Board
GNP	Gross National Product
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
NAICS	North American Industrial Classification system
PURPA	Public Utilities Regulatory Policies Act
PPI	Producer Price Index
SAAR	Seasonally Adjusted Annual Rate
SOP	Stage of Processing
WPI	Wholesale Price Index

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