



e-FILING REPORT COVER SHEET

COMPANY NAME:

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes If yes, submit a redacted public version (or a cover letter) by email. Submit the confidential information as directed in OAR 860-001-0070 or the terms of an applicable protective order.

Select report type: RE (Electric) RG (Gas) RW (Water) RT (Telecommunications)
RO (Other, for example, industry safety information)

Did you previously file a similar report? No Yes, report docket number:

Report is required by: OAR

Statute

Order

Note: A one-time submission required by an order is a compliance filing and not a report (file compliance in the applicable docket)

Other

(For example, federal regulations, or requested by Staff)

Is this report associated with a specific docket/case? No Yes, docket number:

List Key Words for this report. We use these to improve search results.

Send the completed Cover Sheet and the Report in an email addressed to PUC.FilingCenter@state.or.us

Send confidential information, voluminous reports, or energy utility Results of Operations Reports to PUC Filing Center, PO Box 1088, Salem, OR 97308-1088 or by delivery service to 201 High Street SE Suite 100, Salem, OR 97301.



PUBLIC UTILITY COMMISSION OF OREGON
 PO BOX 1088, SALEM, OR 97308-1088
PUC.FilingCenter@state.or.us

GAS UTILITY NEW CONSTRUCTION BUDGET FOR 2019

GENERAL INSTRUCTIONS

1. Each energy utility operating within the State of Oregon and having gross operating revenues of \$50,000 or more per year is required to file a New Construction Budget annually on or before March 31st and report information on new construction, extensions, and new additions to property of the utility in accordance with Oregon Administrative Rule 860-027-0015.
2. The New Construction Budget report should be completed and filed with the Public Utility Commission of Oregon Filing Center. Complete the e-Filing Report Cover Sheet found at http://www.puc.state.or.us/eFiling/eReports/efiling_report_cover_sheet_FM050.pdf. Email both the report and cover sheet to PUC.FilingCenter@state.or.us no later than March 31st.

For major projects (total project cost greater than \$300,000) a narrative supplying the following information is required:

PROJECT NARRATIVE

1. Project Description: Include a brief technical specification of the project, ownership, if jointly owned, operating date, stage of construction, and other relevant information.
2. Need for the Project: Attach all prepared information documenting the need for the project, including the specific need the project is intended to fill. Economic comparisons with alternatives are to be provided. All the underlying assumptions of the economic analyses are to be specified.
3. Contingencies: Provide a listing of existing or potential future problems which might impact the final cost or successful completion and operation of the project, such as licensing problems, labor difficulties, litigation, etc.
4. Reconciliation with Prior Budget: Each successive year's budget can be expected to reflect differing estimates of project costs as the project progresses. For each major project, prepare a reconciliation with the prior budget's estimates and provide specific reasons for the changes.

In addition, please attach copies of prepared documentation or plans describing transmission, distribution, and general plant projects located in Oregon exceeding \$100,000 in total cost and for which construction will commence in the budget year. Information submitted should contain a brief project description, location, and total budgeted cost.

FULL NAME OF GAS UTILITY

Cascade Natural Gas Corporation

ADDRESS: PO BOX OR STREET NUMBER

8113 W. Grandridge Blvd.

CITY

Kennewick

STATE

WA

ZIP CODE

99336

CERTIFICATION: I CERTIFY THAT THE INFORMATION REPORTED IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

SIGNATURE

Eric Martuscelli

TITLE

VP, Field Operations

DATE

3/26/19

INSTRUCTIONS

1. Report percent ownership, scheduled operating dates, and expenditures required to complete project for major production, transmission, and general plant projects.
2. Major projects are defined as those projects having a total estimated cost to completion exceeding \$300,000.
3. Under "Distribution," report specific line item expenditures for the budget year only. All expenditures for distribution following the budget year should be aggregated for the year and only total distribution expenditures reported for the period.
4. Non-major project expenditures within each category should be aggregated and only the totals reported.
5. Report all expenditures in thousands of dollars.

DESCRIPTION	PERCENT OWNERSHIP %	SCHEDULED OPERATING DATE (MO / YR)	EXPENDITURES (B.Y. = BUDGET YEAR; B.Y.+ 1 = THE FIRST YEAR AFTER THE BUDGET YEAR, ETC.)							REQUIRED TO COMPLETE	TOTAL
			PRIOR TO B.Y.	B.Y.	B.Y. + 1	B.Y. + 2	B.Y. + 3	B.Y. + 4			
Major Production and Storage Projects:											
Non-Major Production and Storage Projects											
Total Production and Storage Projects											
Major Transmission Projects:											
Non-Major Transmission Projects											
Total Transmission Projects											
Distribution (See Instruction 3):											
Mains				49,246							
Measuring & Reg. Sta. Equipment				7,043							
Compressor Station Equipment				0							
Services				16,289							
Meters and Regulators				3,617							
Meter Installations				14,154							
Other (Land, Equipment, Structures)				819							
Total Distribution				91,168	80,859	55,923	49,322	45,718			322,990
Major General Plant Projects:											
Remodel Bremerton District Office (FP-101323)	100%	07/21/2021	0	0							
Enterprise Work Asset Management (FP-101480)	100%	12/31/2023	216	1,269							
Customer Self-Service Web/IVR (FP-200064)	100%	10/01/2019	1,690	119							
GIS Enhancements (FP-200663)	100%	12/01/2019	613	123							
Longview – New Operations Building (FP-307020)	100%	03/01/2019	2,527	733							
Aberdeen – New Operations Building (FP-307044)	100%	06/30/2020	5	315							
GIS ESRI System Upgrade (FP-316019)	100%	03/31/2019	38	164							
GIS Landbase Replace & Enhancements (FP-316047)	100%	12/31/2022	29	179							
CC&B Upgrade to v2.6+ (FP-316182)	100%	12/31/2021	331	235							
Implement Fixed Network (FP-316409)	100%	12/31/2023	0	0							

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PCAD Annual Enhancements (FP-316451)	100%	12/31/2023	9	57						
Replace Verizon 3G Modems (FP-316853)	100%	12/31/2019	0	325						
Upgrade Itron Mobile Radio Reading Tool (FP-317078)	100%	12/31/2022	0	76						
Upgrade Gate Station in Arlington, WA (FP-317322)	100%	06/01/2019	340	584						
Non-Major General Plant Projects				4,529						
Total General Plant Projects				8,708	9,330	5,717	7,352	6,406		37,513
Total New Construction Budget				99,876	90,189	61,640	56,674	52,124		360,503

INSTRUCTIONS

1. Report percent ownership, scheduled operating dates, and expenditures required to complete project for major production, transmission, and general plant projects.
2. Major projects are defined as those projects having a total estimated cost to completion exceeding \$300,000.
3. Under "Distribution," report specific line item expenditures for the budget year only. All expenditures for distribution following the budget year should be aggregated for the year and only total distribution expenditures reported for the period.
4. Non-major project expenditures within each category should be aggregated and only the totals reported.
5. Report all expenditures in thousands of dollars

DESCRIPTION	PERCENT OWNERSHIP %	SCHEDULED OPERATING DATE (MO / YR)	EXPENDITURES (B.Y. = BUDGET YEAR; B.Y.+ 1 = THE FIRST YEAR AFTER THE BUDGET YEAR, ETC.)							REQUIRED TO COMPLETE	TOTAL
			PRIOR TO B.Y.	B.Y.	B.Y. + 1	B.Y. + 2	B.Y. + 3	B.Y. + 4			
Major Production and Storage Projects:											
Non-Major Production and Storage Projects											
Total Production and Storage Projects											
Major Transmission Projects:											
Non-Major Transmission Projects											
Total Transmission Projects											
Distribution (See Instruction 3):											
Mains				8,442							
Measuring & Reg. Sta. Equipment				199							
Compressor Station Equipment				0							
Services				3,165							
Meters and Regulators				923							
Meter Installations				3,761							
Other (Land, Equipment, Structures)				292							
Total Distribution				16,782	13,806	16,466	12,610	13,036		72,700	
Major General Plant Projects:											
Enterprise Work Asset Management (FP-101480)	100%	12/31/2023	54	319							
Customer Self-Service Web/IVR (FP-200064)	100%	10/01/2019	417	30							
GIS Enhancements (FP-200663)	100%	12/01/2019	151	31							
GIS ESRI System Upgrade (FP-316019)	100%	03/31/2019	10	41							
GIS Landbase Replace & Enhancements (FP-316047)	100%	12/31/2022	7	45							
CC&B Upgrade to v2.6+ (FP-316182)	100%	12/31/2021	83	59							
Implement Fixed Network (FP-316409)	100%	12/31/2023	0	0							
PCAD Annual Enhancements (FP-316451)	100%	12/31/2023	2	14							
Replace Verizon 3G Modems (FP-316853)	100%	12/31/2019	0	82							

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Upgrade Itron Mobile Radio Reading Tool (FP-317078)	100%	12/31/2022	0	19						
Non-Major General Plant Projects				1,258						
Total General Plant Projects				1,898	1,720	1,445	1,991	1,760		8,814
Total New Construction Budget				18,680	15,526	17,911	14,601	14,796		81,514

NARRATIVES

Remodel Bremerton District Office (FP-101323) - \$ 1,211,640.00 (CY 2020 Budget)

1. Project Description: Remodel existing district office located at 6313 Kitsap Way, Bremerton, WA 98312.
2. Need for the Project: There is currently not enough space/offices for the number of employees on staff. The office space needs to be reconfigured to accommodate the needs of the district.
3. Contingencies: Costs of the Architect, permits, and materials may increase by 2020.
4. Reconciliation with Prior Budget: This is a multi-phase project estimated to complete in 2021.

Utility Group Enterprise Work Asset Management (FP-101480) – \$8,267,383.39 (CY 2019-2023 Budget plus actual expenditures of \$215,938.65 through 2018)

1. Project Description: Implementation of an Enterprise/Utility wide "Asset Management" software solution. The tool will be used to track the operation, maintenance, and disposal of assets (Plant and production, vehicles, gas distribution networks, infrastructure, real estate, and facilities).
2. Need for the Project: Currently the utility company implements several different applications to support field operations and maintenance activity. For these systems to interact it requires the development and maintenance of several interfaces. Preventive and Emergency maintenance of assets have manual-based processes. We are implementing an integrated tool for Asset Management. The tool has the capabilities to support: crew management, labor skills and certifications (OQ) tracking, provide mobile workforce management, meter sampling, Meter Data Management, work order management. It can be configured to support State Commission Agency, NERC/FERC and CIP compliance requirements. It has integration with GIS, JDE and PowerPlan for fixed asset accounting and purchase ordering. Utility specific functionality includes: Compatible unit estimating, Crew management, Labor skills and certifications tracking, Fixed asset accounting integration, Mobile workforce management integration, Graphical design tool integration, Geographic information system support, Work order task analysis using Gantt view.
3. Contingencies: This project will be completed in phases. Each phase includes implementation in several specific functional areas. During the development phase Cascade will continue to use its existing operations-based systems and manual business processes until the new functions are rolled into production.
4. Reconciliation with prior year budget: This is an extension to a "Preliminary Survey and Investigation" project. A purchase decision was made mid-year 2018 and the implementation budget was established.

Utility Group Customer Self-Service Web/IVR (FP-200064) – \$118,850.12 (CY 2019 Budget plus actual expenditures of \$1,689,548.60 through 2018)

1. Project Description: IVR-WEB is designed to provide utility customers common self-service functionality for all utility brands: CNG (Cascade), MDU, GPNG, and IGC.
2. Need for the Project: CNG's utility customers are accustomed to being able to view and pay bills via an IVR or WEB site. They are requesting and, in some cases demanding, increased functionality with their utility bills and service requests. Increasing the self-service functions to CNG's utility customers will have a positive impact on the number of customer service agents required to handle in-bound calls.

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3. Contingencies: This continual project will extend more features to the existing base line functions provided to all CNG utility customers.
4. Reconciliation with Prior Budget: The IVR-WEB applications are a utility-wide platform. The costs of the entire project are being shared across the entire utility group in order that the first utility to implement is not unduly burdened. Cascade was the first to implement followed by Montana-Dakota Utilities Co. in 2013. Post implementation activity continues expanding the self-service features made available to the utility customers.

Utility Group GIS Enhancements (FP-200663) - \$124,010.28 (CY 2019 Budget plus actual expenditures of \$613,094.00 through 2018)

1. Project Description: The GIS Enhancements project is designed to augment and enhance the current GIS deployment. A base configuration of GIS was deployed at CNG in the past few years, but additional functionality has been required to meet the increasing needs of the business. We are implementing a repository to store as-builts and project related paperwork (allowing us to view this data from GIS). We are purchasing additional GIS licenses and tools to meet the growing demand for GIS data.
2. Need for the Project: Numerous business systems now interface or require information from CNG's GIS system. Additionally, many regulatory reports are completed using information from GIS. We need to continue to enhance this system to meet the needs of the various departments at CNG. We are also enhancing the Landbase components within the environment to increase spatial accuracy.
3. Contingencies: Cascade Natural Gas will continue to use the existing system until the enhancements can be completed and moved into production.
4. Reconciliation with Prior Budget: This is the continuation of the multi-year project; prior phases have been implemented. This year's enhancements include additional web map viewers, mobile map viewer for field and externally available web map site. We will continue to add necessary tools to create a highly effective GIS system. Additionally, several GIS related PHMSA regulations are on the horizon which will require new components.

Longview District Office/Shop/Warehouse (FP-307020) - \$ 732,795.76 (CY 2019 Budget plus actual expenditures of \$2,527,072.74 through 2018)

1. Project Description: Purchase property and construct a new District office/shop/warehouse in Cowlitz County, WA. This purchase increases safety and efficiency of district operations and allows for all equipment and materials to be stored in one location. Project to be completed March 2019.
2. Need for the Project: Cascade currently owns District office/shop/warehouse space at 1332 Vandercook Way in Longview, WA and 209 Douglas Street in Kelso, WA. Cascade intends to obtain commission approval for the sale of these properties, to purchase a single property, and to construct a new District office/shop/warehouse. With the dilapidation of the building at Cascade's current location, increasing safety concerns require Cascade to seek a new location for the safety of its employees and to improve the efficiency of its overall operations resulting in improved system safety, integrity, and reliability.
3. Contingencies: Cascade will continue to own the existing properties until the purchase of said property is finalized and new facilities are constructed and operational.
4. Reconciliation with Prior Budget: This is a multi-phase project estimated to complete in 2019. There are \$2,813,772.95 of actual costs incurred to date through 3/04/2019.

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Aberdeen District Office/Shop/Warehouse (FP-307044) - \$ 1,509,127.63 (CY 2019/20 Budget plus actual expenditures of \$5,316.39 through 2018)

1. Project Description: Purchase property and construct a new District office/shop/warehouse in Grays Harbor County, WA. This purchase increases safety and efficiency of district operations and allows for all equipment and materials to be stored in one location.
2. Need for the Project: Cascade currently owns District office/shop/warehouse space at 713 West Wishkaw Street, WA. Cascade intends to obtain commission approval for the sale of this property, to purchase a single property, and to construct a new District office/shop/warehouse. With the dilapidation of the building at Cascade's current location, increasing safety concerns require Cascade to seek a new location for the safety of its employees and to improve the efficiency of its overall operations resulting in improved system safety, integrity, and reliability.
3. Contingencies: Cascade will continue to own the existing property until the purchase of said property is finalized and new facilities are constructed and operational.
4. Reconciliation with Prior Budget: This is a multi-phase project estimated to complete in 2020.

Utility Group ESRI System Upgrade (FP-316019) - \$324,089.84 (CY 2019/2020 Budget plus actual expenditures of \$38,282.15 through 2018)

1. Project Description: Retire 6-year-old ArcGIS/ArcFM 10.2.1 software due to limited compatibility with existing software, hardware, and is nearing end-of-life support. Upgrade application to ArcGIS/ArcFM 10.6.1 to extend life of the application and geometric network. Cascade needs to upgrade their GIS software to continue to provide value added products and services to our internal and external customers.
2. Need for the project: Extended support will allow our GIS team time to plan for future technology implementations/upgrades including the ESRI ArcGIS Utility Network. The Utility Network is the main component we will work with when managing our pipeline network within ArcGIS. Combined with a service-based transaction model, attribute rules, editing tools, and more, it will allow us to completely model and analyze our complex gas pipeline network system.
3. Contingencies: During the development and implementation phase end-users can access the existing system until the upgrade is rolled out into production.
4. Reconciliation with prior year budget: The Project was delayed due to resource limitations in 2018. There is a possibility that this project will again be delayed due to other GIS projects with a higher priority.

Utility Group GIS Landbase Replace and Enhancements (FP-316047) – \$708,921.42 (CY 2019-2022 Budget plus actual expenditures of \$28,593.90 through 2018)

1. Project Description: The GIS Replace/Enhance Landbase project is designed to replace the existing GIS landbase with more accurate landbase features. Over the past 30+ years, landbase information was obtained and then ultimately entered in the GIS. After GPS technology became available and has evolved, landbase information has become much more accurate allowing us to have a better picture of true spatial geography. This has created a growing demand for more accurate landbase information for CNGC field staff.
2. Need for the Project: We have deployed numerous GIS tools requiring greater accuracy. There is mounting pressure from regulatory agencies as well as consumers of our GIS information for highly accurate data. Secondly, having highly accurate information will enhance our ability to identify where our gas facilities are in relation to other entities.
3. Contingencies: Cascade Natural Gas will continue to use the existing system until the enhancements can be completed.

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4. Reconciliation with Prior Budget: This is a multi-phase project involving the analysis of spatial coordinates for each town location. The project is estimated to complete in 2022.

Utility Group CC&B Upgrade to v2.6+ (FP-316182) – \$767,822.90 (CY 2019 - 2021 Budget plus actual expenditures of \$330,926.06 through 2018)

1. Project Description: Currently the Utility Group is running Oracle's Customer Care & Billing (CC&B) v2.4 as its Customer Information and Billing System. This project involves upgrading CC&B to v2.6. This is primarily a technical upgrade to the base architecture of CC&B.
2. Need for the Project: We are in the process of preparing the billing system for the next version of Oracle CC&B by converting its legacy Cobol base code into Java modules. The next version of CC&B will only support Java modifications thus, we need to convert our Cobol custom modifications to the Java platform. This will be accomplished as an "In-place upgrade". We will deploy new code into our existing environment while we test it in both v2.4 and v2.6 environments thus greatly reducing the time it will take to do actual CC&B version changes later. In addition to the code changes, we will be re-configuring all the billing rates in the system since v2.6 introduces a new rate engine methodology.
3. Contingencies: Cascade Natural Gas will continue to use the existing system until the enhancements can be configured, tested, verified, and installed into the production environment.
4. Reconciliation with Prior Budget: Funding has been approved up to 2021 to complete this upgrade. Our intent is to accelerate this project as we gain experience at conversions/configurations.

Implement Fixed Network at CNGC (FP-316409) – \$4,937,024.98 (CY 2020 – 2023 Budget)

1. Project Description: This funding project is to implement a Fixed Network across the Cascade Service Territories. A Fixed Network consists of a series of tower based "collectors" and "repeaters" that wirelessly pick up "daily consumption" reads from the ERTs installed on Cascade's gas meters and transfers that usage data to Cascade's Field Collection System for final integration into the billing system.
2. Need for the Project: Currently Cascade collects only monthly meter usage data via a manual drive-by process using wireless technology built into the meters and vehicles. A Fixed Network replaces this function with a wireless data gathering process covering a specific geographic location. This will provide Cascade with daily consumption meter reads that will allow for improved efficiency and increase data accuracy. These efficiencies include lower cost-per-read, an improved meter-to-cash revenue cycle, ability for off-cycle reads and theft or tamper detection.
3. Contingencies: Cascade Natural Gas will continue to use the existing mobile system until the fixed network is installed, tested, verified and completed.
4. Reconciliation with Prior Budget: The project has been moved to 2020. 2020 would be the 1st year of a multi-year project. A 2020 budget review will include an analysis of the funds needed in future years to continue this project.

Utility Group PCAD Annual Enhancements (FP-316451) – \$325,835.11 (CY 2019 - 2023 Budget plus actual expenditures of \$8,842.16 through 2018)

1. Project Description: Project includes enhancements to existing PragmaCAD system which include migrating to a Web-based platform enabling system to be device-agnostic, browser-based for improved service delivery operations and customer-facing resolution.
2. Need for Project: We are replacing the middleware software currently in use which is used to integrate software applications with other applications. This will result in cost savings over time as we are migrating away from the IBM WebSphere messaging server platform and moving to an open-source RabbitMQ messaging

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server platform. Also, we are consolidating VMware environments which will reduce the number of servers and images we must maintain or patch, allow us to share licenses and standardize processes, as well as increase our security presence by adding more granular firewall capabilities.

3. Contingencies: Cascade Natural Gas will continue to use the existing system until the enhancements can be completed.
4. Reconciliation with Prior Budget: New budget item this year.

Replace Verizon 3G Modems (FP-316853) – \$325,442.04 (CY 2019 Budget)

1. Project Description: The replacement of 419 wireless modems that are used for communications between flow correctors and pressure recorders to the Metretek Powerspring software.
2. Need for Project: Verizon will be shutting down their 2G network at the end of 2019. Many of the wireless modems that are used for communication to flow correctors and pressure recorders use this 2G network. To continue communication with these devices, the modems in these devices will need to be upgraded to one that communicates via a 4G network.
3. Contingencies: Cascade Natural Gas will continue to use the existing system until the enhancements can be completed. If this project isn't completed by end of 2019, field techs will need to read these devices manually until the modems are installed.
4. Reconciliation with Prior Budget: New budget item this year

Upgrade Itron Mobile Radio (IMR) Reading Tool (FP-317078) - \$303,817.68 (CY 2019 – 2022 Budget)

1. Project Description: Itron Mobile Radio (IMR) is an all-purpose, walk-by reader and programming tool for use with Itron's Smart meters and endpoints (ERTs). It is a Lightweight device that can be clipped to belt which uses Bluetooth-enabled connection to laptop or tablet (Windows, iOS, Android). It is used to communicate with endpoints (ERTs) using Itron's Mobile application or Field Deployment Manager.
2. Need for Project: The current Itron FC300 handheld device that are used in the field to program and read ERTs reach vendor End-of-Life in December 2021. Itron will continue to offer contract maintenance and support, including software updates, repairs, batteries and spare parts, through December 2021, while parts remain available. Any new additional staff will need an IMR device as we can no longer purchase the FC300 handheld. The final shipment date from Itron was December 2016.
3. Contingencies: Crew's in the field are still able to use the existing FC300 handheld device as the new Itron IMR is rolled out to them in the field. The IMR interfaces with the same data management application that the FC300's use to transfer and collect meter data.
4. Reconciliation with Prior Budget: New project for 2019.

Upgrade Gate Station in Arlington, WA (FP-317322) - \$583,892.73 (CY 2019 Budget plus actual expenditures of \$340,418.86 through 2018)

1. Project Description: Cascade Natural Gas has renewed its facilities agreement at the Arlington Gate Station with Williams Northwest Pipeline. Williams will design, permit, construct, own, operate, and maintain the upgraded interconnect facilities to accommodate Cascade's request. The agreement has been executed with a prepayment schedule that sums a total of \$831,000 and with monthly payments of \$83,100 ending on June 1, 2019. Construction is to commence on 8/8/2019 and to be completed by 8/31/2019 with the station in-service.
2. Need for Project: Cascade Natural Gas Corporation has requested a cost estimate for an upgrade of facilities on Williams Mainline in Snohomish County, Washington. This upgrade increases station capacity from 2,696 MSCFD to 12,600 MSCFD. The need for this project is due to the increase in station capacity. This is driven by the customer growth and demand that has surpassed the physical design and contract agreement at the Arlington Gate Station.
3. Contingencies: The cost estimate provided by Williams was prepared without the benefit of a site visit and assumes construction during the normal construction season. Delays could impose additional costs but, in the meantime, all scheduled milestones are being completed.
4. Reconciliation with Prior Budget: New budget item this year and not planned to reoccur.