



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 2018

GENERAL INSTRUCTIONS

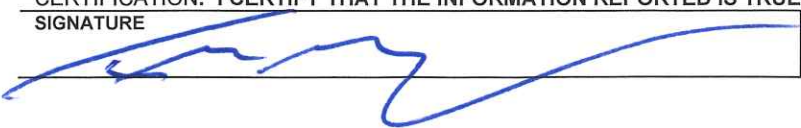
1. Each energy utility operating within the State of Oregon and having gross operating revenues of \$50,000 or more per year is required to file a New Construction Budget annually on or before March 31st and report information on new construction, extensions, and new additions to property of the utility 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 		TITLE Vice President, Operations	DATE 3-28-18

- 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				48,940							
Measuring & Reg. Sta. Equipment				4,849							
Compressor Station Equipment				0							
Services				8,212							
Meters and Regulators				3,699							
Meter Installations				15,904							
Other (Land, Equipment, Structures)				835							
Total Distribution				82,439	111,210	73,965	64,515	62,158			394,287
Major General Plant Projects:											
Longview – New Operations Building (FP-307020)	100%	11/30/2018	756	2,562							
Aberdeen – New Operations Building (FP-307044)	100%	12/30/2019	0	545							
PIM [formerly GL Essentials] (FP-101472)	100%	12/31/2019	1,344	252							
Enterprise Work Asset Management (FP-101480)	100%	10/01/2018	0	650							
GPS Based Leak Survey (FP-101481)	100%	01/01/2019	327	235							
Customer Self-Service Web/IVR (FP-200064)	100%	10/01/2019	1,516	163							
GIS Enhancements (FP-200663)	100%	12/01/2021	539	119							
GIS Landbase Replace & Enhancements (FP-316047)	100%	12/31/2022	0	110							
CC&B Upgrade to v2.6+ (FP-316182)	100%	12/31/2020	0	465							
GIS High Acc Trans Line Survey Enhancmt (FP-316284)	100%	12/31/2020	0	0							

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Bellingham – New Operations Building (FP-316309)	100%	12/31/2021	0	0						
Implement Fixed Network (FP-316409)	100%	09/01/2019	0	0						
PCAD Annual Enhancements (FP-316451)	100%	06/01/2018	0	74						
Replace Asphalt at Yakima Facility (FP-316487)	100%	06/01/2018	0	361						
Non-Major General Plant Projects				5,528						
Total General Plant Projects				11,064	9,969	6,386	7,398	3,758		38,575
Total New Construction Budget				93,503	121,179	80,351	71,913	65,916		432,862

INSTRUCTIONS

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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				13,814							
Measuring & Reg. Sta. Equipment				559							
Compressor Station Equipment				0							
Services				1,658							
Meters and Regulators				936							
Meter Installations				4,186							
Other (Land, Equipment, Structures)				298							
Total Distribution				21,451	22,628	20,149	16,199	16,931		97,358	
Major General Plant Projects:											
PIM [formerly GL Essentials] (FP-101472)	100%	12/31/2019	456	63							
Enterprise Work Asset Management (FP-101480)	100%	10/01/2018	0	162							
GPS Based Leak Survey (FP-101481)	100%	01/01/2019	105	59							
Customer Self-Service Web/IVR (FP-200064)	100%	10/01/2019	481	41							
GIS Enhancements (FP-200663)	100%	12/01/2021	147	30							
GIS Landbase Replace & Enhancements (FP-316047)	100%	12/31/2022	0	27							
CC&B Upgrade to v2.6+ (FP-316182)	100%	12/31/2020	0	116							
GIS High Acc Trans Line Survey Enhancmt (FP-316284)	100%	12/31/2020	0	0							

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Implement Fixed Network (FP-316409)	100%	09/01/2019	0	0						
PCAD Annual Enhancements (FP-316451)	100%	06/01/2018	0	18						
Non-Major General Plant Projects				1,293						
Total General Plant Projects				1,809	2,340	1,398	1,042	1,140		7,729
Total New Construction Budget				23,260	24,968	21,547	17,241	18,071		105,087

NARRATIVES

Longview District Office/Shop/Warehouse (FP-307020) - \$ 2,561,653.82 (CY 2018 Budget)

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. The bid submittal to contractors began on March 19, 2018 and bids are to be returned for review on April 2, 2018. Construction start is estimated to start on May 15, 2018.
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 2018. There are \$756,411.25 of actual costs incurred to date through 12/31/2017.

Aberdeen District Office/Shop/Warehouse (FP-307044) - \$ 2,152,811.80 (CY 2018/19 Budget)

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 2019.

Utility Group Work Management-GL Essentials (FP-101472) - \$379,976 (CY 2018/2019 Budget plus actual expenditures of \$1,344,204.92 through 2017)

1. Project Description: GL Essentials (renamed to Pipeline Inspection Manager) is designed to schedule, track, execute and archive field data inspections for a variety of assets and business processes. It is designed to manage compliance activities for assets that are defined and maintained in an ESRI Geo-database, or for assets defined and maintained in the Essentials Asset Register. The Essentials Scheduling and Tracking module is used to manage the compliance activities, while the Essentials Field Manager application provides a set of electronic forms to support the automated (non-paper based) field data capture. Configuration, hardware, and software implementation began in 2011.

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2. Need for the project: Implementation of the PIM (Pipeline Inspection Software) transitions O&M record keeping from multiple databases and paper formats to a single operational repository of data and activity at Cascade Natural Gas Corporation. Project also includes the consolidation of existing systems at Montana-Dakota Utilities, Great Plains Natural Gas, and Intermountain Gas Company onto a common database for O&M activities and reporting. PIM interfaces with the ESRI GIS, allowing field personnel the opportunity to view O&M record data from the GIS system while in the field. Also, automates scheduling of O&M activities, and provides reporting and notification of activities before they are out of compliance.
3. Contingencies: Cascade Natural Gas will continue to use the existing electronic document management systems until the PIM modules are in production.
4. Reconciliation with prior year budget: This is a continued phase in the project. AC Survey has been implemented at CNGC and has been used for the past two years. Valve Inspections have recently been moved into PIM. The project has been extended in order to complete additional interfaces and modules. We anticipated this project to be multi-year completing in 2018. The extended time frame is due to more complicated dependencies within the systems and business processes at Cascade Natural Gas.

Utility Group Work Asset Management (FP-101480) – \$650,182.24 (CY 2018 Budget)

1. Project Description: Provide research on the feasibility of implementing an Enterprise/Utility wide "Asset Management" software solution. The tool could 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 researching the potential to implement 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: For this specific research project there are no contingencies required. If Cascade elects to purchase an Asset Management system in the future it will continue to use the existing systems and manual process until the new Asset Management system is ready for production.
4. Reconciliation with prior year budget: This is an extension to a "Preliminary Survey and Investigation" project with a purchase decision in 2018. The 2018 funding would also be used as part of the 1st phase of implementation.

Utility Group GPS Based Leak Survey Software project (FP-101481) – \$293,854.09 (CY 2018/2019 Budget plus actual expenditures of \$326,541.95 through 2017)

1. Project Description: GPS Based Leak Survey Software project is intended to design, create and implement a computer based Leak Survey system to replace the existing paper process. It is designed to manage compliance activities for Leak Survey that are defined and maintained via a paper process utilizing maps and assets in an ESRI mapping system. The Leak Survey system would utilize GPS enabled devices giving feedback regarding the inspection process. The hardware and software tools would be used to manage the inspection process while utilizing back office hardware and software to monitor and report on the inspection activities.
2. Need for the project: Implementation of the GPS Based Leak Survey Software will help streamline the O&M record keeping paper formats to a single operational repository of data and activity at Cascade Natural Gas Corporation. GPS Based Leak Survey Software interfaces with the ESRI GIS, allowing field personnel the

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opportunity to view O&M record data from the GIS system while in the office. Also, automates scheduling of Leak Survey activities, and provides reporting and notification of activities before they are out of compliance.

3. Contingencies: Cascade Natural Gas will continue to use the existing paper document management systems, until the new GPS Based Leak Survey Software is ready for production.
4. Reconciliation with prior year budget: This is a continued phase in the project. The project is anticipated to be multi-year. The extended time frame is due to enhancements to the software by the vendor, more complicated dependencies within the systems, and business processes challenges at CNGC.

Utility Group CNG IVR-WEB Implementation (FP-200064) – \$334,257.35 (CY 2018 Budget plus actual expenditures of \$1,516,150.95 through 2017)

1. Project Description: IVR-WEB is designed to provide utility customers common self-service functionality for all utility brands: MDU, GPNG, CNG 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.
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 functions made available to the utility customers.

Utility Group GIS Enhancements (FP-200663) - \$520,194.33 (CY 2018 - 2021 Budget plus actual expenditures of \$538,668.10 through 2017)

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.
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, a number of GIS related PHMSA regulations are on the horizon which will require new components.

Utility Group Replace/Enhance GIS Land-base (FP-316047) – \$735,141.39 (CY 2018-2022 Budget)

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

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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.
4. Reconciliation with Prior Budget: New budget item this year.

Utility Group CC&B Upgrade to 2.6+ (FP-316182) – \$2,012,172.79 (CY 2018 - 2021 Budget)

1. Project Description: Currently the Utility Group is running Oracle's Customer Care & Billing (CC&B) v2.4 as it Customer Information Service and Billing System. This is a base project to start the process of upgrading CC&B to v2.6 which 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.

Replace GIS Gas Transmission Line with GPS data survey (FP-316284) – \$344,019.16 (CY 2019 - 2020 Budget)

1. Project Description: This project is under review and will potentially be cancelled.
2. Need for Project: NA
3. Contingencies: NA
4. Reconciliation with Prior Budget: NA

Replace Bellingham Operations Building (FP-316309) - \$4,242,285.45 (CY 2020/21 Budget)

5. Project Description: This project has since been cancelled.
6. Need for Project: NA
7. Contingencies: NA
8. Reconciliation with Prior Budget: NA

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Implement Fixed Network at CNGC (FP-316409) – \$3,236,555.36 (CY 2019 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: 2019 would be the 1st year of a multi-year project. A 2019 budget review will include an analysis of the funds needed in future years to continue this project.

Utility Group PCAD Enhancements (FP-316451) – \$381,165.16 (CY 2018 - 2022 Budget)

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: The software vendor is phasing out MobLITE, one of the installed client applications within the PragmaCAD suite of tools. Cascade’s Service Mechanics currently use MobLITE for field work execution. With the migration to PragmaFIELD, Cascade Natural Gas will have the ability to extend software delivery to devices such as smartphones and tablets using a web based client.
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 Asphalt at Yakima District Facility (FP-316487) - \$361,286.08 CY 2018 Budget

1. Project Description: Proposal to furnish all materials and perform all labor necessary to complete the following; Removal and replacement of existing asphalt with 4” of compacted crush rock and 4” of compacted asphalt over 82,667 sq. ft. Operating date will begin in mid- April and take approximately 6 weeks. Yakima District management has met with Pendleton for Pre-Con on February 7th, 2018. Relevant information includes working with west property owners to allow us to use parking area while the excavation begins. We have communicated with Central Stores Manager to let them know deliveries will need to be made on the west side of the building temporarily while excavation takes place. Also, electric gates will be installed and coordinating the installation before asphalt gets removed.
2. Need for the Project: The need for the project is the asphalt in place is over 15 years old and has large cracks and has proven to be getting worse. All sealant has diminished and proven to be a requirement to replace rather than resealing the large parking area for currently 4 entities; Yakima District, Construction Services, Central Stores, and Meter Shop. These 4 entities have regular incoming and outgoing traffic and has worn and torn this area for a long

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period of time. Cascade to seek an improvement to parking facilities and clearly defined parking lines and arrows dictating where delivery trucks park and load and unload.

3. Contingencies: Working with Pendleton and assessing the cracks and concrete pads that are in specific areas such as the Waste Management Dump site has already been replaced. No other issues are foreseen in conflicting with this project.
4. Reconciliation with Prior Budget: This project is estimated be completed in 2018 no later than June 2018.