

e-FILING REPORT COVER SHEET

REPORT NAME: 2012 New Construction Budget Report

COMPANY NAME: PORTLAND GENERAL ELECTRIC COMPANY

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION?  No  Yes

If yes, please submit only the cover letter electronically. Submit confidential information as directed OAR 860-001-0070 or the terms of an applicable protective order.

If known, please select designation:  RE (Electric)  RG (Gas)  RW (Water)  
 RO (Other)

Report is required by:  OAR OAR 860-027-0015.  
 Statute SEND TO UTILITY PROGRAM  
 Order MELANIE FORSYTH  
 Other

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

Key words: Construction Budget Report 2012

If known, please select the PUC Section to which the report should be directed:

- Corporate Analysis and Water Regulation
- Economic and Policy Analysis
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- Electric Rates and Planning
- Natural Gas Rates and Planning
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- Administrative Hearings Division
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- Accident reports required by ORS 654.715.



**Portland General Electric Company**  
121 SW Salmon Street • Portland, Oregon 97204  
PortlandGeneral.com

December 28, 2011

*E-Filed only*

Oregon Public Utility Commission  
Attention: Filing Center  
550 Capitol Street, N.E., Ste 215  
Salem, OR 97301-2551

Enclosed for filing is Portland General Electric Company's New Construction Budget for the 2012 calendar year. This report is being provided per OAR 860-027-0015 and the October 1, 2011, OPUC E-Report Filing requirements. No hardcopy will be submitted.

Should you have any questions, please call Greg Rife, Manager - Business Decision Support, at 503.464.7439 or Patrick Hager, Manager – Regulatory Affairs, at 503.464.7580.

Sincerely,

Patrick G. Hager  
Manager, Regulatory Affairs

Encls.  
Includes E-File Report Cover Sheet

cc: Greg Rife



PUBLIC UTILITY COMMISSION OF OREGON  
 550 CAPITOL ST NE SUITE 215, SALEM OR 97301-2551  
 PO BOX 2148, SALEM OR 97308-2148

**ELECTRIC COMPANY NEW CONSTRUCTION BUDGET FOR 2012**

**GENERAL INSTRUCTIONS**

1. EACH ENERGY AND LARGE TELECOMMUNICATIONS 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 DECEMBER 31ST, AND REPORT INFORMATION ON NEW CONSTRUCTION, EXTENSION, AND NEW ADDITIONS TO PROPERTY OF THE UTILITY IN ACCORDANCE WITH OREGON ADMINISTRATIVE RULE 860-027-0015.
2. THE CONSTRUCTION BUDGET SHOULD BE RETURNED TO THE PUBLIC UTILITY COMMISSION OF OREGON, 555 CAPITOL ST NE, PO BOX 2148, SALEM, OR 97308-1248, NO LATER THAN DECEMBER 31ST OF THE YEAR PRECEDING THAT FOR WHICH THE BUDGET IS MADE.

**PROJECT NARRATIVE**

FOR MAJOR PROJECTS (THE THREE LARGEST PROJECTS IN TERMS OF COST AND ALL PROJECTS GREATER THAN \$10 MILLION) A NARRATIVE SUPPLYING THE FOLLOWING INFORMATION IS REQUIRED:

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: PROVIDE 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 PROVIDE COPIES OF PREPARED DOCUMENTATION OR PLANS DESCRIBING GENERATION TRANSMISSION, AND GENERAL PLANT PROJECTS EXCEEDING \$1,000,000 IN TOTAL COST AND FOR WHICH CONSTRUCTION WILL COMMENCE IN THE BUDGET YEAR. INFORMATION SUBMITTED SHOULD CONTAIN:

1. A BRIEF PROJECT DESCRIPTION: INCLUDE THE PROJECT FUNCTION (E.G., PRODUCTION, TRANSMISSION, DISTRIBUTION, GENERAL PLANT, THERMAL, HYDRO, OR OTHER), PROJECT IDENTIFICATION.
2. LOCATION: INCLUDE A STARTING AND ENDING DATE
3. TOTAL BUDGETED COST.

FULL NAME OF ELECTRIC COMPANY Portland General Electric			
ADDRESS: PO BOX OR STREET NUMBER 121 S.W. Salmon St.	CITY Portland	STATE OR	ZIP CODE 97204
CERTIFICATION: I CERTIFY THAT THE INFORMATION REPORTED IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.			
SIGNATURE 	TITLE SVP, CFO & Treasurer	DATE 12/23/2011	

INSTRUCTIONS  
 1. REPORT SIZE OF MAJOR PRODUCTION PROJECTS ONLY, AND 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 \$10 MILLION.  
 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	SIZE	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 <sup>(4)</sup>
				PRIOR TO B.Y. <sup>(1)</sup>	B.Y. <sup>(2)</sup>	B.Y. + 1 <sup>(3)</sup>	B.Y. + 2 <sup>(3)</sup>	B.Y. + 3 <sup>(3)</sup>	B.Y. + 4 <sup>(3)</sup>			
<b>MAJOR PRODUCTION PROJECTS:</b>												
Coyote Springs Combustion Turbine Upgrade		100%	Jul-11	15,850	4,394							15,850
River Mill - Down Stream Migrant Surface Collector		100%	Dec-12	6,373	272							10,767
Bull Run - Engineering/Decommissioning		100%	Dec-16	265	1,042	19,467						20,654
North Fork - Down Stream Migrant Surface Collector		100%	Dec-15	1,321	10,372	91						11,528
Boardman Emissions Controls <sup>(5)</sup>		65%	Dec-17	14,443	44,559	46,375						103,377
<b>NON-MAJOR PRODUCTION PROJECTS</b>				61,403	57,892	68,550						187,845
<b>TOTAL PRODUCTION PROJECTS</b>				99,655	123,913	137,473						361,041
<b>MAJOR TRANSMISSION PROJECTS:</b>												
California Oregon Intertie		20%	Dec-11	1,256	9,586							10,842
Horizon 230kV Substation (formerly Sunset 230 kV Substation)		100%	Dec-12	4,623	200	7,300						12,123
Marquam Substation		100%	Dec-17	298	16,700							17,000
Cascade Crossing Project <sup>(1)</sup>			Dec-12	2,021	1,897	1,974						5,892
<b>NON-MAJOR TRANSMISSION PROJECTS</b>				8,138	28,383	9,274						45,795
<b>TOTAL TRANSMISSION PROJECTS</b>				15,036	46,466	18,548						70,050
<b>DISTRIBUTION (SEE INSTRUCTION 3):</b>												
STATION EQUIPMENT					37,724							37,724
POLES, TOWERS AND FIXTURES					18,766							18,766
OVERHEAD CONDUCTORS AND DEVICES					33,348							33,348
UNDERGROUND CONDUCTORS AND DEVICES					34,313							34,313
UNDERGROUND CONDUIT					148							148
LINE TRANSFORMERS					5,744							5,744
SERVICES					10,161							10,161
METERS					1,524							1,524
STREET LIGHTING AND SIGNAL SYSTEMS					1,723							1,723
OTHER:					1,857							1,857
<b>TOTAL DISTRIBUTION</b>				134,441	145,308	151,228						431,977
<b>MAJOR GENERAL PLANT PROJECTS:</b>												
Smart Meter (formerly Automated Meter Infrastructure)			Jun-11	3,520	14,471							17,991
2020 Vision Enterprise Program Phase I			Dec-11	16,686	9,270	20,250						46,206
2020 Vision Enterprise Program Phases II & III			Dec-16		10,334							10,334
Readiness Center			Dec-13	6,391	7,420							13,811
Avery Project			Dec-13	32,340	42,719	44,459						119,518
<b>NON-MAJOR GENERAL PLANT PROJECTS</b>				52,556	79,301	64,709						196,566
<b>TOTAL GENERAL PLANT PROJECTS</b>				102,502	144,185	109,418						356,105
<b>TOTAL NEW CONSTRUCTION BUDGET</b>				294,790	314,231	291,143						900,164

(1) Based on 2011 OPUC Construction Budget Report - Schedule B.  
 (2) Budget includes costs that are subject to change and future Board of Directors approval. Does not include integrated Resource Planning projects.  
 (3) Based on 2013-2016 capital forecast.  
 (4) Total does not necessarily equal total project cost due to timing and expenditures prior to 2011.  
 (5) Total includes costs associated with the installation of nitrogen oxide (NOx) controls, mercury controls, and sulfur oxide (SO2) controls.  
 (6) PGE's ownership in Boardman is 65% as a result of a 1985 sale transaction in which PGE sold an undivided 15% interest to a third party financial institution (Purchaser). Under various agreements associated with the sale in regards to capital expenditures, the Purchaser has certain rights to participate in the financing of the portion of the total cost attributable to its interest. PGE's share of the total cost for the Boardman emission controls is expected to be 80% if the Purchaser does not exercise these rights. Therefore, costs for this project are reported at 80%.  
 (7) Budget only includes the amount to be approved by the Board of Directors for the Budget Year. Future year budget amounts to be determined by circuit configuration and path. Total project estimates are summarized in the IRP Update filed on November 22, 2011.

SCHEDULE B: ELECTRIC COMPANY NEW CONSTRUCTION BUDGET (SYSTEM)		COMPANY: Portland General Electric										BUDGET YEAR: 2012	
		EXPENDITURES (B.Y. = BUDGET YEAR; B.Y. + 1 = THE FIRST YEAR AFTER THE BUDGET YEAR, ETC.)											
DESCRIPTION	SIZE	PERCENT OWNERSHIP %	SCHEDULED OPERATING DATE (MO/YR)	PRIOR TO B.Y. (1)	B.Y. (2)	B.Y. + 1 (3)	B.Y. + 2 (3)	B.Y. + 3 (3)	B.Y. + 4 (3)	REQUIRED TO COMPLETE	TOTAL (4)		
2012 OPUC Construction Budget B	-	-	-	-	2,402	2,448	2,494	2,542	2,590	-	103,084		
Trojan Decommissioning	-	67.50%	-	3,117	0	0	0	0	0	87,491	3,528		
Independent Spent Fuel Storage Installation	-	67.50%	-	0	2,402	2,448	2,494	2,542	2,590	3,528	106,612		
Non-Major Decommissioning Projects	-	-	-	3,117	2,402	2,448	2,494	2,542	2,590	91,019	106,612		
Total Decommissioning Projects	-	-	-	3,117	2,402	2,448	2,494	2,542	2,590	91,019	106,612		

(1) Based on 2011 OPUC Construction Budget Report - Schedule B.

(2) Budget includes costs that are subject to future Board of Directors approval.

(3) Based on 2013-2016 capital forecast.

(4) Total does not necessarily equal total project cost due to timing and expenditures prior to 2011.

**Project Narrative  
Projects Greater Than \$10 Million**

Title	Start	End	Amount	Notes
Readiness Center (P35200)	06/01/2011	10/31/2013	17,000,000	<p>This project will construct a seismically engineered back-up facility on Carver Substation property in order to relocate critical/essential back-up functions currently located at Portland Service Center (PSC). Those back-up functions include Data Center, System Control Center, Corporate Security Operations, and Power Operations.</p> <p>Critical/essential back-up functions currently reside in the basement of the PSC. These functions and site were recognized as being "at risk" in the event of a disaster based on the 2008 Risk Assessment and Business Impact Analysis conducted by the Business Continuity Emergency Management department. PSC is a brick building constructed in 1956 without benefit of seismic retrofits and suffers from a number of resiliency risks including:</p> <ul style="list-style-type: none"> <li>- Proximity to primary functions at the World Trade Center (WTC)</li> <li>- Residing on the same seismic fault as WTC (Portland Hills Fault)</li> <li>- Constructed on soil which is prone to liquefaction and ground amplification hazards</li> <li>- Impacts from light rail implementation</li> </ul> <p>Additionally, it is anticipated that the back-up data center will run out of capacity in 2014 and other critical/essential functions are provisioned with inadequate space for effective extended operations.</p> <p>This combined back-up facility will provide the following benefits:</p> <ul style="list-style-type: none"> <li>- Mitigate the risk of critical business function loss due to common failures to both primary and back-up facilities;</li> <li>- Addresses an Enterprise Risk Management top operational resiliency risk;</li> <li>- Replaces aging and limited disaster recovery capacity at the Portland Service Center;</li> <li>- Supports regulatory and OPUC direction for improved energy company resiliency;</li> <li>- Maximizes the value of existing real estate that would have otherwise remained unrealized.</li> </ul>
Avery Project (P27256 & P35340)	10/01/2010	12/31/2013	14,100,000	<p>In 2007, PGE was notified by Metro Regional Government of a plan to construct a new light rail line between downtown Portland and Milwaukie. A portion of this new line will run along SE 17th Avenue in the vicinity of PGE's Portland Service Center facility. This will require PGE to reorganize the storage yard and</p>

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**Project Narrative  
Projects Greater Than \$10 Million**

Title	Start	End	Amount	Notes
Cascade Crossing Transmission Project (P25311)	10/15/2008	12/31/2012	41,100,000	<p>parking areas on the east side of SE 17th, and sell 58,000 square feet of land and PGE's Corporate Shop building to Trimet. PGE anticipates receiving approximately \$2.2 million from Trimet for the property on the west side of SE 17th. Negotiations were completed in the first quarter of 2011 with affected areas vacating in 2012 and light rail construction slated to begin in 2013.</p> <p>As part of the evaluation of the impact of the new light rail line, PGE completed an assessment of the impact of the project on PGE's operations. From this assessment it was determined that the Corporate Shops provide an important business function and should be relocated. PGE's existing facilities were considered, but it was determined that a replacement facility is required since the only plausible facilities with available land (i.e. Salem Line Center and Trojan) are impractical due to their location on the outskirts of PGE's service territory.</p> <p>For this reason, a facility search was completed within the Tigard-Tualatin-Wilsonville area due to its proximity to major thoroughfares required by these business units. One of the identified properties was a former Coke Distribution Facility (Avery) and features a large yard, warehouse, office space and garage.</p> <p>This project purchases land and existing facilities at the Avery site and constructs a new office building. Several workgroups will be relocated including Metal Works, Fleet Major Maintenance Services, Electrical Maintenance and Construction and other services. The building will be designed and constructed sustainably and efficiently for approximately 150 employees.</p> <p>This project provides for the development work to construct a new transmission line from Eastern Oregon to PGE's service territory.</p> <p>The development work includes:</p> <ul style="list-style-type: none"> <li>- System planning studies required to design the project to meet FERC,NERC, and WECC reliability standards;</li> <li>- Coordinate the project with other regional transmission plans;</li> <li>- Conduct preliminary engineering and environmental analysis to prepare permit applications to the Oregon Energy Facility Siting Council (EFSC) and other required siting and permitting bodies.</li> </ul> <p>An extensive public process and stakeholder outreach process is also expected to be required for this project.</p>

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**Project Narrative  
Projects Greater Than \$10 Million**

Title	Start	End	Amount	Notes
Boardman Emission Controls.  Project costs represent 100% share of direct cost.	07/01/2008	12/31/2017	Estimated 50,000,000 to 60,000,000	<p>The cost estimate of \$41,100,000 includes the total amount that will be approved by PGE's Board for spending through 2012. Total project costs are expected to be \$700-800 million depending on the circuit configuration and path.</p> <p>This project will install equipment to satisfy Oregon Department of Environmental Quality (DEQ) requirements regarding haze-causing emissions.</p> <p>On June 19, 2009, the Oregon Environmental Quality Commission (OEQC) adopted a rule that would require the installation of emissions controls in three phases. The first two phases would meet federal requirements for installing emissions controls. The third phase, which would require the installation of Selective Catalytic Reduction for additional nitrogen oxides (NOx) control, would meet requirements for reasonable progress towards haze emissions reduction goals.</p> <p>On December 9, 2010, the OEQC approved new rules that allow Boardman to meet state and federal environmental requirements with NOx and sulfur dioxide (SO2) emission control retrofits, as well as Mercury emissions, over the next ten years with the discontinuance of coal-fired operations at Boardman in 2020. The new rules will be implemented as follows:</p> <ul style="list-style-type: none"> <li>- Installation of new low-NOx burners and modified overfire air ports in July 2011;</li> <li>- Installation of a Dry Sorbent Injection (DSI) system in July 2014;</li> <li>- Pilot studies for the DSI system to verify that SO2 limits for 2014 and 2018 are achievable;</li> <li>- Repeal of the DEQ's 2009 BART rule, which allowed the Boardman Plant to operate with the installation of another suite of emissions controls until 2040; and,</li> <li>- Permanent cessation of coal-fired operation in 2020.</li> </ul> <p>The new OEQC rules were submitted to the Environmental Protection Agency (EPA) for approval as part of the Oregon Regional Haze State Implementation Plan (SIP) and became effective August 4, 2011.</p> <p>The total estimated capital costs remain at \$50-60 million (100% of project costs). The installation of the new low-NOx burners and mercury control system was complete in 2011.</p>

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**Project Narrative  
Projects Greater Than \$10 Million**

Title	Start	End	Amount	Notes
Horizon 230kV - Phase 1 Construction Project (formerly Sunset 230kV project). (P23077)	01/01/2008	12/31/2012	10,881,000	<p>PGE's ownership in Boardman is 65% as a result of a 1985 sale transaction in which PGE sold an undivided 15% interest to a third party financial institution (Purchaser). Under various agreements associated with the sale in regards to capital expenditures, the Purchaser has certain rights to participate in the financing of the portion of the total cost attributable to its interest. PGE's share of the total cost for the Boardman emission controls is expected to be 80%, if the Purchaser does not exercise its rights under the agreements to finance the portion of the total cost attributable to its interest.</p> <p>This project will construct a new 230kV/115kV substation, designated Horizon 230kV. General system load growth in PGE's service territory is creating the need for additional 230/115kV transformer capacity in PGE's transmission system. Recent expansion of the Hillsboro urban growth boundary has increased economic development interest in the western service territory, with load growth expected in the area over six years.</p> <p>The previous budget estimate was \$10,963,000. The revised amount reflects updated estimates of project costs.</p>
River Mill - Install Down Stream Migrant Surface Collector. (P26389/Job 22209)	01/01/2004	12/31/2012	11,627,000	<p>This job constructs a screened fish collector facility, fish sampling station and outfall fish transport pipe at the River Mill dam. Effective collection and passage of a relatively large percentage of migrating fish at River Mill is an important component of PGE's overall fish passage arrangement for the Clackamas River. Performance of this job along with a goal to pass a certain percentage of migrating fish is a requirement of the new FERC license for the Clackamas River Hydroelectric Project. In addition, at least a portion of the facility is needed to meet a previous PGE commitment to provide fish passage screening of the intake for the fish ladder gravity flow attraction water.</p> <p>The previous budget estimate was \$11,574,000. The revised amount reflects updated estimates of project costs.</p>
Bull Run PME - Engineering/Decommissioning. (P19669)	06/01/1999	12/31/2015	15,665,000	<p>This work decommissions the Bull Run Hydroelectric Project. The current plan includes removal of Marmot Dam, the fish ladder, the pedestrian bridge, Little Sandy Dam, the concrete lined canal, the wood flume, securing and closing the ends of the tunnels, securing the end of the penstocks, securing the powerhouse, removal of the car barn area, the transformer building, the switchyard and removal of the transmission line to Dunns Corner.</p>

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**Project Narrative  
Projects Greater Than \$10 Million**

Title	Start	End	Amount	Notes
North Fork -- Install Down Stream Migrant Surface Collector. (P26389/Job 23579 & Job 21069)	01/01/2004	12/31/2015	42,161,000	<p>The previous budget estimate was \$15,784,000. The budget decrease from last year's report reflects slightly lower-than-estimated actual costs incurred to date.</p> <p>This job constructs and installs a floating fish collector facility, fish transport pipe and a tertiary dewatering facility at North Fork Dam. The floating surface collector will be installed to attract and collect juvenile migrating fish. The existing fish facilities do not meet current regulatory criteria. As part of relicensing and PGE's response to the Endangered Species Act, we will be required to upgrade our facilities. Migrating fish will pass through the surface collector to a new fish transport pipe. The fish pipe will be provided to transport the juvenile fish through the dam and along the backside of the dam to a new tertiary dewatering facility to be constructed on the right bank adjacent to the spillway. Fish exiting this facility will bypass the three Clackamas River dams through the migrant fish by-pass pipe that is to be provided by another job. This job calls for significant design effort beginning about 5 years before the start of construction. This modification is expected to significantly improve the downstream migrant by-pass efficiency at the North Fork Dam in a cost-efficient manner.</p> <p>The previous budget estimate was \$42,142,000. The revised amount reflects updated cost estimates.</p>
Marquam Substation.	01/01/2010	12/31/2017	86,644,000	<p>This project will construct the new Marquam substation, which will be constructed on a previously purchased site, close to the Portland City core. The substation will meet the combination of projected load growth of the Southwest Water Front and the transfer to Marquam of downtown network loads presently served from Stephens Substation.</p> <p>The budget estimate has not changed since last year. This project is still in the preliminary engineering stage and reflects PGE's on-going re-evaluation of load growth and cost estimates.</p>

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**Project Narrative  
Projects Greater Than \$10 Million**

Title	Start	End	Amount	Notes
<p>2020 Vision Enterprise Program Phase 1 – Financial System Replacement, Maximo Wave 1 (formerly known as Enterprise Asset Management Foundation), Infrastructure &amp; Program Office, and Maximo for IT. (P26535, P26538, P26543, P35023)</p>	<p>10/15/2009</p>	<p>12/31/2011</p>	<p>46,402,000</p>	<p>The 2020 Vision Enterprise Program modernizes and consolidates Portland General Electric's technology infrastructure to ensure that the future technology path will accommodate the changing needs of PGE and its customers. The 2020 Vision, to be implemented in three phases, represents the transformation of PGE's current Enterprise Technology landscape into a flexible and integrated technology platform that supports PGE's business from end to end.</p> <p>Phase 1 of the 2020 Vision establishes the foundation that will underpin all future work and consists of two main components: modernizing PGE's financial systems and creating the foundation for a single enterprise-wide work and asset management system. These two components, along with the infrastructure and Project Office project, comprise the projects necessary to complete Phase 1 of the 2020 Vision Program.</p> <p>The Financial System Replacement Project modernized PGE's financial systems by replacing its 26 year-old financial system (Masterpiece) and supporting applications (spreadsheets, custom-developed programs, etc.) with consolidated and integrated software systems that will enable and support industry-standard, best-practice business processes.</p> <p>The Maximo Wave 1 Project (formerly known as Enterprise Asset Management (EAM) Foundation Project) will deliver a consolidated end-state asset management environment for the thermal plants, as well as the migration of preventive maintenance functionality currently tracked in a variety of disparate applications in Distribution. It builds the foundation for PGE's future consolidated Work and Asset Management system (defined in the industry as 'Enterprise Asset Management'), the processes and procedures, and supporting software applications. The Project also performs a critical upgrade to a related legacy system (Logica's Work Management System: WMS) to ensure continued vendor support as an interim step until possible consolidation of this application into the Enterprise Asset Management system.</p> <p>The Infrastructure and Program Office project contains costs related to the Program Management Office, which is necessary to provide governance for and ensure the alignment of the different projects that make up the 2020 Vision Program. In the early stages of the Program Office job, the business units will develop detailed policies and standards around a variety of operationally-focused and technical topics, to serve as the guiding principles for the 2020 Vision.</p>

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**Project Narrative  
Projects Greater Than \$10 Million**

Title	Start	End	Amount	Notes
2020 Vision Enterprise Program Phases II and III	1/1/2012	12/31/2016	41,624,000	<p>The previous budget estimate for Phase I was \$37,839,000. The increase in estimated costs is due to an increase in scope for Maximo Wave I and moving work originally planned for Phases II and III into Phase I.</p> <p>The 2020 Vision Enterprise Program modernizes and consolidates Portland General Electric's technology infrastructure to ensure that the future technology path will accommodate the changing needs of PGE and its customers. The 2020 Vision, to be implemented in three phases, represents the transformation of PGE's current Enterprise Technology landscape into a flexible and integrated technology platform that supports PGE's business from end to end.</p> <p>Phases II and III of the 2020 Vision will upgrade or replace the following PGE systems:</p> <ul style="list-style-type: none"> <li>Geographic Information Systems (GIS) &amp; graphic work design tools, Outage Management System (OMS), Mobile Workforce Management (MWM),</li> <li>implementation of an additional module to PGE's Human Resource system, Document Management System (DMS), Distribution Asset and Work Management, IT Work and Asset Management, as well as the hardware and infrastructure in support of these projects.</li> </ul> <p>The two phases are still in the preliminary stage. The cost for these projects should be considered high level estimates.</p>

Project costs are incurred capital dollars which do not include any corporate overhead costs and are at 100% share in the case of co-owned plants.

**Project Narrative  
Projects Greater Than \$1.0 Million Starting in 2012  
Requiring Narrative Descriptions**

Title	Start	End	Amount	Notes
Bell Substation Upgrades (P35110)	01/01/2012	06/30/2014	7,981,538	This project will remove existing 115kV structures and equipment and replace them with a 115kV gas-insulated ring bus. Additionally, this project will add SCADA at Bell Substation as well as a 28 MVA transformer and a feeder to provide alternate service to area customers. Upgrades to area distribution equipment will also be performed. Communication equipment between Bell and Sellwood substations will be installed and relays at Sellwood Substation will be upgraded. This project will increase area reliability and reduce the costs associated with customer outages and substation maintenance.
Rewind Generator #3 at Round Butte (P35157)	01/01/2012	12/31/2013	5,591,768	This project will purchase and install coils for a Round Butte generator as well as rewind the rotor polls. This generator was last rewound in 1978, giving it a winding age of 35 years at the planned rewind date. A generator winding on a base-loaded machine will typically last 40-45 years. However, this generator is a high cycle unit which significantly lowers the life of the winding. A definitive prediction of winding failure is not possible, but based on the age and operating history, Round Butte Generator #3 is approaching its end of winding life. Rewinding this generator will increase its reliability by lowering the chances of winding failure.
Replace 500kV Series Capacitor Bank Controls (P35074)	01/01/2012	12/31/2013	4,047,784	This project replaces the existing analog control systems with new digital controls that are more reliable and readily available from a replacement perspective. The existing analog control system on PGE's section of the California-Oregon AC Intertie is no longer supported by the original equipment manufacturer.
Replace Variable Speed Drives (VSDs) at Boardman (P35182)	01/01/2012	06/15/2013	2,015,720	This project will replace the Variable Speed Drives (VSDs) on Boardman's four induced draft fans. These fans are 3500 horsepower each and are used to control furnace draft. The drives allow the motor to run at a slower speed, providing significant energy efficiency and savings. The current drives are 16 years old and are increasingly unreliable. Additionally, spare parts are unavailable from the manufacturer of this equipment. Replacing the drives will increase the reliability of a low-cost power producing asset.
Switchyard Upgrades at Round Butte (P35211)	01/01/2012	10/31/2013	2,000,000	This project will make several fitness upgrades and replacements at the Round Butte Switchyard. The upgrades have been grouped together to gain construction efficiencies, thereby reducing costs compared to doing each individually. The scope of this project includes replacing yard gravel, replacing 230kV cap and pin standoff insulators, replacing the remaining 230kV oil circuit breakers with SF6 breakers, and replacing the four 12.5kV feeder oil circuit

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**Project Narrative  
Projects Greater Than \$1.0 Million Starting in 2012  
Requiring Narrative Descriptions**

Title	Start	End	Amount	Notes
Install Raw Water Clarifier at Port Westward (P35199)	01/01/2012	11/30/2013	1,850,000	breakers with vacuum breakers, and replace the 12.5kV system protective relays. These upgrades will improve both reliability and safety of this switchyard. This project will install a 4,000 gallon per minute capacity clarifier to supply water to Port Westward and Beaver as well as supply cooling tower makeup water to Port Westward. The new clarifier would retire the 36-year-old clarifier system at Beaver, just before its end of service life, to increase plant water reliability for Port Westward and Beaver. Additionally, the new system would be capable of supplying cooling tower makeup water with a lower concentration of total suspended solids (TSS) to Port Westward to help protect the cooling tower high efficiency, thin film fill. The lower TSS concentration would extend the life of the cooling tower fill and allow for higher cooling tower cycles, resulting in less chemical use and blowdown.
Upgrade PGE Office Space at the World Trade Center (P35144)	04/01/2012	06/30/2013	1,619,289	This project is to upgrade PGE space in the World Trade Center complex. The scope of work includes new cabling and communication closet infrastructure, carpet, paint, furniture, walls, and panels. The work in this project will be sustainable in design, materials, and work practices. For most locations, workstation cabling and network closet equipment is 25-30 years old. Updating this equipment will provide a more reliable network for improved performance for printing, data servers, and network performance.
Install NERC Critical Infrastructure Protection (CIP) Substation Access (P35155)	01/01/2012	12/31/2014	1,581,630	This project will install a system that will provide secure and reliable remote access to substation Intelligent Electronic Devices (protective relays, meters, asset monitoring devices and other SCADA and automation equipment). This system will help PGE comply with NERC Critical Infrastructure Protection (CIP) standards for access to critical cyber assets at critical substations by providing access control, account management, and logging and reporting mechanisms. Once installed, the system will allow engineering and maintenance personnel to access these substation devices for remote diagnostics and troubleshooting, non-operational data retrieval, and asset monitoring.
MyPGE Employee Portal (P35188)	01/01/2012	10/31/2013	1,518,941	MyPGE Portal will provide a task-oriented desktop that will allow for seamlessly integrating data, processes, and applications into a single consistent user interface that will significantly increase productivity and decrease training costs throughout PGE. It is a flexible environment allowing managers and content owners to deliver context specific information to employees based on a variety of criteria including workgroup, role, classification, etc. Benefits include streamlining employee business processes and targeting communications which will reduce time spent opening multiple applications, finding information relevant to employee tasks, and avoiding information overload and unnecessary

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Title	Start	End	Amount	Notes
				disruptions; better access to information which will reduce the number of calls and email to other areas of the company requesting data; and, the ability to target communication which will avoid filtering through non-relevant communications.

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