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

January 10, 2017

Via e-filing
opuc.filingcenter@state.or.us

Filing Center
Public Utility Commission of Oregon
201 High St SE, Suite 100
P.O. Box 1088
Salem, Oregon 97301-1088

Re: UE 294 – PGE's General Rate Case (2016 Test Year) – Construction Overhead Expert Review

Attention Filing Center:

Pursuant to OPUC Order No. 15-356, Portland General Electric Company (PGE) submits the attached expert report based on an analysis of PGE's construction overhead allocation process.

In UE 294, Parties raised the issue of PGE's methodology for allocation of construction overhead costs to capital projects. Staff's concerns were summarized as follows:

- PGE's overhead allocation method (overheads follow labor)
- The ratio of overhead costs to direct labor costs for projects
- Trade-off between allocations and direct charges

The parties stipulated that PGE would hire an outside expert to review its overhead allocation methodology and determine if PGE's methods readily identify the (1) source of the expenses, and (2) bases for their allocation.

PGE and parties collaborated on the process and schedule for seeking an expert opinion. Due to unforeseen circumstances, the review schedule shifted significantly.

The attached report includes:

- A description of the current process used to capture, allocate, and assign costs to the related FERC accounts and to individual work orders.
- Documentation of procedures performed on a sampling of transactions from different methods of the overhead allocation process. This procedure included tracing selections

back to source documents, comparing the allocation process for each selection to the process narrative and PGE policies.

- Comparison of current PGE policies and procedures to the guidance provided in the FERC Uniform System of Accounts (USoA).

As a result of their assessment, the expert concluded that PGE's process for capturing overhead construction costs, direct charging, and indirectly allocating such costs to construction work orders is reasonable, supportable, operating as described, and in compliance with FERC USoA.

PGE is planning a discussion regarding this expert report with OPUC Staff on February 8, 2017. Questions regarding the expert report should be directed to me at 503-464-7580 or Rebecca Brown at 503-464-8545.

Sincerely,

Patrick G. Hager, III
Manager, Regulatory Affairs

cc: Marc Hellman, OPUC
Doug Tingey, PGE
Kirk Stevens, PGE
Scott Gardner, PGE
Preston Martin, PGE

Encl.

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January 5, 2017

Scott Gardner
Manager - Operations and Asset Accounting
121 S.W. Salmon Street
Portland, Oregon 97204

Dear Mr. Gardner:

Enclosed is our Expert Report evaluating PGE's capital project overhead allocation process. I would be happy to discuss the contents of this report with the Oregon Public Utility Commission should the need arise.

If we can be of any further assistance, please let me know.

Very truly yours,

Alan D. Felsenthal
Managing Director
PricewaterhouseCoopers LLP

www.pwc.com

Portland General Electric Company

Expert Report

January 5, 2017

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Scope of the Report

At the request of Portland General Electric ("PGE", "the Company"), I have prepared this report to explain, document and evaluate the process used by PGE in capturing construction overhead costs and the subsequent direct and indirect allocation of those costs by PGE to the appropriate FERC plant accounts in accordance with the FERC Uniform System of Accounts ("USoA").

Through discussions with management, we understand that the Oregon Public Utility Commission ("the PUC") have inquired about the overhead allocation process at PGE. The PUC has expressed difficulties in being able to conclude on the appropriateness of the overhead allocation methodology at PGE.

This report includes:

- A description of the current process used to capture, allocate, and assign costs to the related FERC accounts and to individual work orders.
- Documentation of procedures performed on a sampling of transactions from different methods of the overhead allocation process. This procedure included tracing selections back to source documents, comparing the allocation process for each selection to the process narrative and PGE policies.
- Comparison of current PGE policies and procedures to the guidance provided in the FERC USoA.

Our work was limited to the specific procedures and analysis described herein. Our work was performed on the basis that information provided was accurate and complete. Additionally, our engagement cannot be relied upon to detect errors, irregularities, or illegal acts, including fraud or defalcations that may exist. Further, we are not providing an audit, accounting, tax or attest opinion or other form of assurance.

Qualifications of the expert

I, Alan Felsenthal, am currently a Managing Director with PricewaterhouseCoopers LLP ("PwC") and work exclusively in our Power & Utilities practice, where I lead the rate case support group. PwC is an international public accounting firm and a leading provider of services to the power and utilities industry.

In the United States, PwC are the public accountants or consultants for many clients in the electric, gas, water, and green energy sectors. We are auditors for more than 40% of US Utility Companies with more than $1 billion of revenue and audit 34% of the Fortune 500 Power and Utility Companies.

I received a Bachelor of Science degree in Accounting from University of Illinois. I joined the Regulated Industries Division of Arthur Andersen LLP in 1971 and became a Principal at that Firm in 1985. I remained at Arthur Andersen until 2002 when I joined PwC as a Managing Director. Throughout my 40+ year career, I have focused on the unique accounting, tax and financial reporting issues at regulated entities.

Among various duties, I have provided rate case assistance for a number of utilities on various issues including, but not limited to, reasonableness of projections in connection with service company cost allocations, forecast test periods, application of regulatory accounting in specific situations, appropriate regulatory treatment of asset retirement obligations and cost of removal, lead-lag studies, various income tax issues and inclusion of the prepaid pension asset in rate base. In addition, I have prepared and submitted expert testimony on a number of issues in Arizona, Florida, Illinois, Indiana, Texas and Washington State.

In addition to my regulatory consulting experience I have been a financial statement auditor and supported companies from a financial audit and consulting perspective including review and reporting on financial statements filed with the NYSE and SEC, reporting on FERC Form 1's, consulting on matters involving cost allocations and compliance with applicable guidelines.

I developed and instructed a Rate Case Experience Seminar which is a week-long seminar conducted each year on an open enrollment basis for utility professionals. I also developed and instructed PwC's Utility Industry Basic Accounting and Ratemaking Seminar and PwC's Utility Income Taxes – Accounting and Ratemaking Issues training, both of which are 2 to 2.5-day seminars provided to utility professionals. I have been a frequent speaker at Edison Electric Institute and American Gas Association seminars and a presenter at training sponsored by SNL/Regulatory Research Associates. Additionally, I have conducted numerous special purpose trainings for over 30 utility companies and regulators including the FERC.

I am a member of the American Institute of Certified Public Accountants as well as the Illinois CPA Society.

I, as well as other PwC personnel working under my supervision and direction, have read and analyzed supporting documentation and information relevant to the issues on this engagement. I have been assisted by several other PwC professionals, each with applicable experience on utility accounting processes.

Executive Summary

We were engaged by PGE to evaluate the Company's process for allocating capital project overhead costs to construction work orders and determine if the process and resulting charges comply with the guidance contained in the Federal Energy Regulatory Commission's ("FERC") Uniform System of Accounts ("USoA"). The FERC USoA Electric Plant Instruction, Number 4, Overhead Construction Costs (Electric Plant Instruction 4) contains the following guidance:

A All overhead construction costs, such as engineering, supervision, general office salaries and expenses, construction engineering and supervision by others than the accounting utility, law expenses, insurance, injuries and damages, relief and pensions, taxes and interest, shall be charged to particular jobs or units on the basis of the amounts of such overheads reasonably applicable thereto, to the end that each job or unit shall bear its equitable proportion of such costs and that the entire cost of the unit, both direct and overhead, shall be deducted from the plant accounts at the time the property is retired.

B As far as practicable, the determination of payroll charges includible in construction overheads shall be based on time card distributions thereof. Where this procedure is impractical, special studies shall be made periodically of the time of supervisory employees devoted to construction activities to the end that only such overhead costs as have a definite relation to construction shall be capitalized. The addition to direct construction costs of arbitrary percentages or amounts to cover assumed overhead costs is not permitted.

C For Major utilities, the records supporting the entries for overhead construction costs shall be so kept as to show the total amount of each overhead for each year, the nature and amount of each overhead expenditure charged to each construction work order and to each electric plant account, and the bases of distribution of such costs.

The above guidance and certain other provisions of the FERC USOA Electric Plant instructions make it clear that construction work orders should contain all costs, direct charged and indirectly allocated, related to construction activity. Documentation should exist to support such charges.

Our process for completing this evaluation included the following steps:

- Interviewing PGE personnel responsible for this process (accounting personnel, systems personnel, and internal audit) to obtain an understanding of the existing methodology and to determine the completeness and accuracy of the overhead amounts to be allocated.
- Reviewing documents used in the construction overhead allocation process to evaluate the procedures and rationale used to charge direct labor dollars to capital projects vs. maintenance projects.
- Documenting the methodology for direct and indirect allocation of construction overheads to capital projects including the basis used to identify costs to allocate to capital.
- On a test basis, selecting various capital overhead costs, monthly factors for allocating such costs, and amounts allocated to capital projects to determine if such processes are operating as described.
- Comparing PGE's methodology for determining the nature of overhead costs to be allocated to construction activities to authoritative sources and to several peers.
- Concluding as to whether the methodology complies with the FERC's guidance.

As a result of our assessment, we conclude that PGE's process for capturing overhead construction costs, direct charging, and indirectly allocating such costs to construction work orders is reasonable, supportable, operating as described, and in compliance with the FERC USoA.

Overview of PGE's capital overhead allocation process

Capital projects contain many different types of costs, including direct materials, direct labor, and overhead. PGE's overhead process is designed to capture costs that support capital projects either directly or indirectly and to allocate those costs to various individual capital project work orders. This section of the report is intended to document our understanding of each type of overhead at PGE and the process of how that cost travels from the source of the cost, through a direct or indirect charging methodology, accumulating in the individual work order comprising the Construction Work in Process ("CWIP") account 1070001 which is eventually closed to Property, Plant and Equipment account 101.

Direct labor costs

To start, it is important to note that the methodology PGE applies for assigning certain direct labor costs associated with engineers to individual capital project work orders is different for its Generation department than it is for its Transmission and Distribution department.

- Generation – Engineers direct charge those capital project work orders for which they are performing or supervising various functions. This is due to the fact that a Generation engineer is responsible for fewer work orders given their size, as well as the fact that most Generation capital work orders are often performed with contract labor. Although there are overhead allocations for Generation related capital costs (administrative type activities), direct labor costs within the Generation department are primarily directly charged to individual capital project work orders.

- Transmission and Distribution – Transmission and distribution engineers directly charge less time to capital project work orders than Generation engineers. Instead, engineers often charge their time to clearing accounts (PAD and DOSE, as described below), which are then allocated to capital project work orders on the basis of direct labor hours that have been charged to those work orders. This is due to the fact that PGE has their own distribution line crews and substation crews performing construction (vs. contract labor) and the engineers are responsible for numerous projects at various sites. In the course of an hour, Transmission and Distribution engineers may move through several projects for which they have responsibility, making accurate direct charging of time to individual work orders more difficult.

Although this results in more significant direct labor charges being allocated to work orders than if those costs were charged directly to work orders, the Company believes the above methodologies allow for increased financial control management. In our experience, allocation approaches based on a measure of cost causation, such as direct charges, is not unreasonable and, generally, the costs and burden associated with direct charging often outweighs the benefits.

Overhead cost pools

There are a number of different cost pools used to accumulate the different types of costs, which includes allocated direct labor, indirect labor and other overheads. Charges accumulated within these cost pools may be related to either capital or operations and maintenance ("O&M") projects. We have specifically focused our report on the following six cost pools:

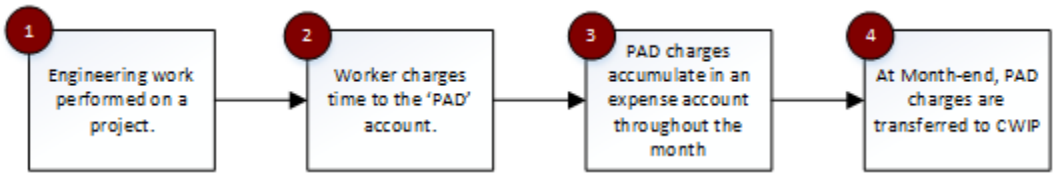
1. Plan, Analyze, Design ("PAD")
2. Distribution, Operations, Supervision, Engineering ("DOSE")
3. Labor Loadings
4. World Trade Center
5. Corporate Governance
6. Generation

Although there are several other cost pools that are used to allocate other types of overhead, these six represent the most significant in terms of dollars and are described in more detail below.

Plan, Analyze, Design ("PAD")

PGE defines these costs as the directly incurred engineering and all associated expenses for Transmission or Distribution capital construction projects. These costs – whether incurred by PGE engineers or by contracted engineers are directly and specifically applicable to constructed assets (O&M costs are not included). As the charges accumulate in PAD throughout the month they are first charged to a '580' expense account, meaning it has been designated by the Company as an operation, supervision, and engineering account based on the FERC USoA guidance.

Engineers charge their time to the PAD cost pool based on the department for which they are performing work and the nature of the projects in the department. Details about the type of work performed in each department is gathered through surveys of department managers. This information is used to validate the appropriateness of the work being charged to the PAD cost pool account. The following flowchart and supplemental narrative provide further illustration of the "PAD" cost pool process.



As an example, an engineer in department 326 at PGE would charge their costs to the 'PAD' account. Department 326 is Central Service & Design and typically performs engineering work associated with the planning, analysis, and design of Transmission and Distribution capital projects. At month-end, the PAD charges are transferred into the CWIP 107 account where they are allocated to work orders based on the amount of direct charges to the work orders during the month. The 107 account is consistent with the FERC USoA for Construction work in progress – electric.

Distribution, Operations, Supervision, Engineering ("DOSE")

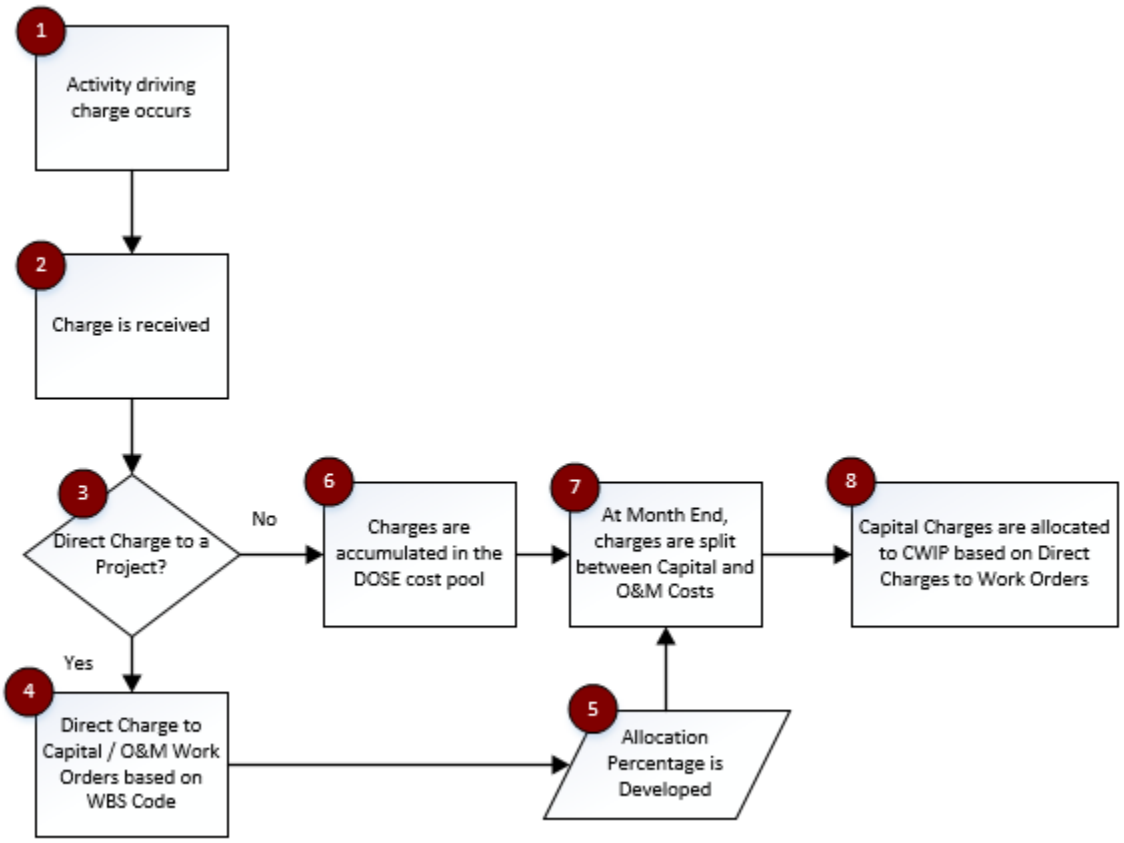
This cost pool is also specific to the Transmission and Distribution department and includes costs associated with system planning, engineering, design, system mapping, scheduling, coordinate new customer connects, dispatch crews, system control to ensure continued service during construction, safety inspections, system testing, system reliability, substation engineering, process work orders, dispatch for repair, damage claims, inspection of customers facilities for construction, and permitting. Although this is not an all-inclusive list of every work activity, it demonstrates the high volume of different types of work activities and the difficulties that would arise in trying to capture these costs by direct charging to individual work orders.

PGE uses the PowerPlan software system ("PowerPlan'), which is used by virtually all of the industry for plant accounting and maintenance. Within the PowerPlan module, work orders are identified as being either a capital work order or an expense (O&M) work order. As work is performed throughout the month on these work orders costs are accumulated and directly charged to the work order. These capitalized costs are generally the labor of the line crews working on the specific projects.

The Company determines what departments and projects to include as a capital work order versus an expense work order based on surveys/discussions and review of the Maximo work management system. Maximo details the scope of the individual project and allows an accounting determination (capital versus expense) to be made for all future charges based on the scope. In addition to being assigned a capital vs. expense designation, the Company will also assign a general ledger account for these charges to accumulate. These charges are tracked in the cost repository (CR) module within PowerPlan and used to perform the monthly capitalization split analysis.

A capitalization percentage/rate is developed each month based on the amount of actual capital/O&M work that has been performed on a year-to-date basis. This capitalization rate is applied to the overall DOSE charges at month end. The capital portion of the DOSE charges is reclassified from the '580' expense account to a '107' capital account. This is consistent with the FERC USoA for CWIP-Electric. The

following flowchart and supplemental narrative provide further illustration of the “DOSE” account process.



An example of a DOSE overhead charge is a company cell phone charge belonging to an engineer. This expense would not be allocated to a specific project but would rather be charged to the ‘DOSE’ cost pool. Throughout the month, direct labor charges to T&D project accumulate within the individual work orders. The work orders that are accumulating the direct charges could be related to either capital or O&M related projects. The amount of direct labor for either capital or O&M is used to derive an allocation split for the month.

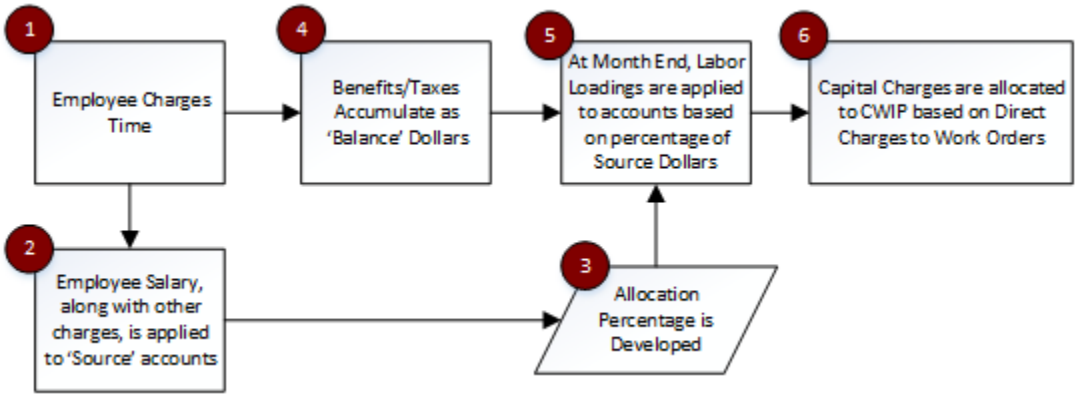
The cell phone expense that was originally charged to the DOSE overhead cost pool would be split between capital and O&M using the allocation percentage developed by the direct labor charges. In addition to materials, such as the cell phone, certain labor costs that cannot be directly charged to a specific work order are charged to the DOSE cost pool and allocated to work orders using the capitalization percentage. Similar to the cell phone charge, an engineer could allocate their time to the DOSE cost pool to be allocated based on the same direct labor split for the month.

Labor Loadings

Labor-related costs that cannot be directly assigned to “productive” or “end-use” accounts are “loaded” to productive/end-use accounts via a series of labor loading allocations based on direct labor costs. Examples of these types of costs would include Pension Service Cost, Employee Support, Paid Time Off,

and Employee Benefits. The labor-related costs incurred to date are allocated proportionately to the actual direct labor costs in specified accounts and other accounting string elements.

For accounting purposes, labor-related costs are classified as Administrative and General ("A&G") costs. In general, labor-related A&G costs are allocated to direct labor charges based on certain Cost Elements, Accounts, Accounting Work Orders (AWO) and Operating Units (representing costs allocable to co-owners). The following flowchart and supplemental narrative provide further illustration of the labor loadings process.

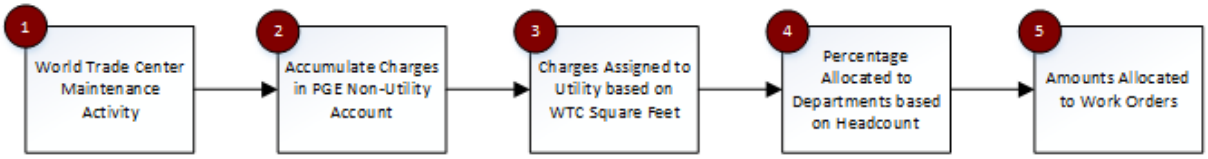


When time is charged to an account, the employee's salary (excluding benefits/taxes) is charged to a specific GL account. Employee Benefits (i.e. PTO, payroll taxes, Pension Service Cost) accumulate within the labor loadings cost pool throughout the month. As direct labor is being charged throughout the month 'Source' dollars are accumulated within each GL account. The 'Source' dollars are used to derive the allocation percentage for the labor loadings between the different GL accounts. Labor loadings capitalized as overhead are allocated to the 1070002 GL account. After the costs have been accumulated into the 1070002, all of the costs from 1070002 are distributed to the individual capital work orders based on the amount of direct charges to the work order during the month. In this manner, labor loadings follow the labor charges.

World Trade Center Facilities Cost Allocation

PGE leases, operates and maintains its corporate headquarters office at the World Trade Center (WTC). The WTC Allocation is used to allocate the costs associated with the WTC facility (including the cost of capital) between PGE (utility and non-utility) and non-PGE tenants. The amount allocated to PGE is apportioned by functional area of PGE, including O&M, A&G, Capital and non-utility accounts. Portions of the building are subleased to third parties (non-PGE tenants). Costs incurred to lease and operate the building are initially recorded in non-utility accounts. Each month, the percentage of costs related to the utility are allocated from the non-utility accounts to the relevant accounts within the regulated utility. The percentage of costs that are capitalized are reclassified to a '107' FERC account for CWIP-Electric.

The allocation of costs to PGE is based on PGE's percentage of occupancy of the rentable space in the WTC buildings relative to the WTC total. The fixed rate percentages used to allocate costs to each functional area of PGE are calculated based on budgeted labor in the departments that occupy space in the WTC. Each employee working in the WTC is assigned an equal weight. PGE assumes that regardless of salary or hours worked, each employee requires the same amount of allocation for charges on the office building. The following flowchart and supplemental narrative provide further illustration of the allocation process for facility costs.

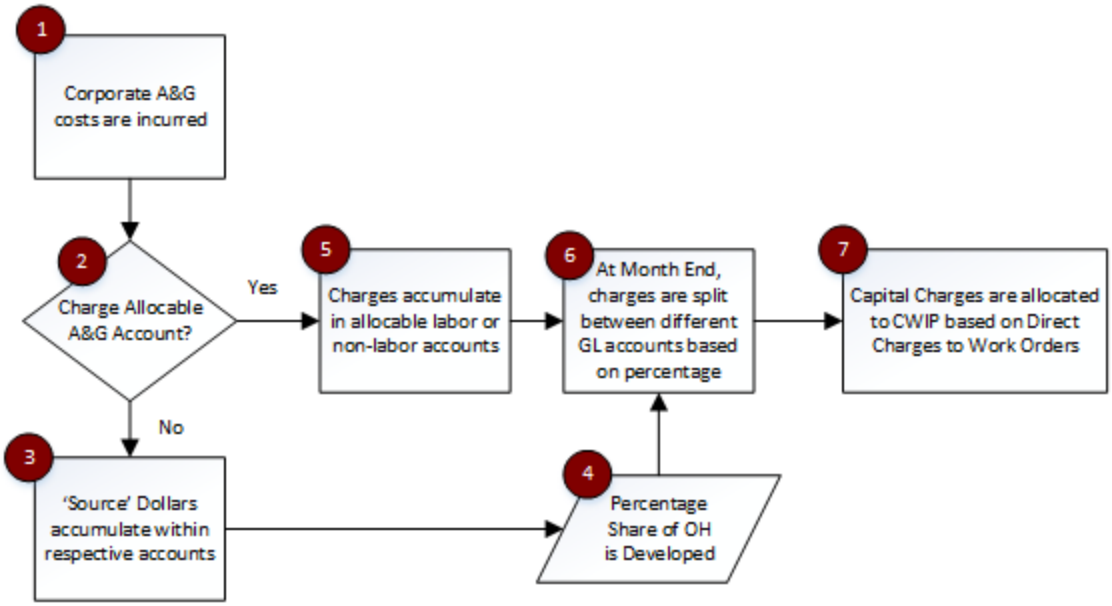


As charges are accumulated for the operations and maintenance of the WTC facility they are first accumulated in a non-utility account. As an example, a cost for window cleaning services would be charged to this account to be allocated to all tenants of the facility. The monthly accumulated charges are allocated to the PGE utility based on the amount of square feet of the office space used by the utility. The information for the total square footage and portion occupied by other tenants is received from individuals within the WTC operations group. Various PGE departments occupy space at the WTC and the overhead for the space is allocated between the different departments using Company headcount data within the WTC to determine the appropriate allocation percentage. As an example, PGE's generation department account for 7.42% of PGE employees occupying space at the WTC. As such, 7.42% of the allocated WTC costs would be identified as WTC overhead costs applicable for generation. Overhead costs for each department are recorded in account 1070002 to accumulate all overhead for the month (including DOSE, PAD, etc.) and at month end these charges are allocated to work orders based on the amount of direct charges to the individual work orders during the month.

Corporate Governance

The Corporate Governance charges are related to A&G costs (e.g. accounting, human resources, etc.) at the Company. These include accounting and human resource services that do not relate to a specific capital project, but indirectly support capital projects activities. Corporate Governance costs are accumulated in three designated accounts (allocable labor, allocable non-labor, and allocable outside services) and allocated to all accounts with labor costs elements.

The basis for this allocation is a comparison of all labor cost elements for PGE and the co-owned entities (excluding PTO and other non-applicable labor costs). The resulting percentage share applicable to each area remains with labor and non-labor as each allocation has their own 'Source' and 'Balance' dollars as discussed further below. It is important to note that the allocation does not allocate Corporate Governance non-labor to an account designated as labor only. Conversely, allocable Corporate Governance labor will not allocate to a non-labor designated account. The following flowchart and supplemental narrative provide further illustration of allocation of corporate governance charges.

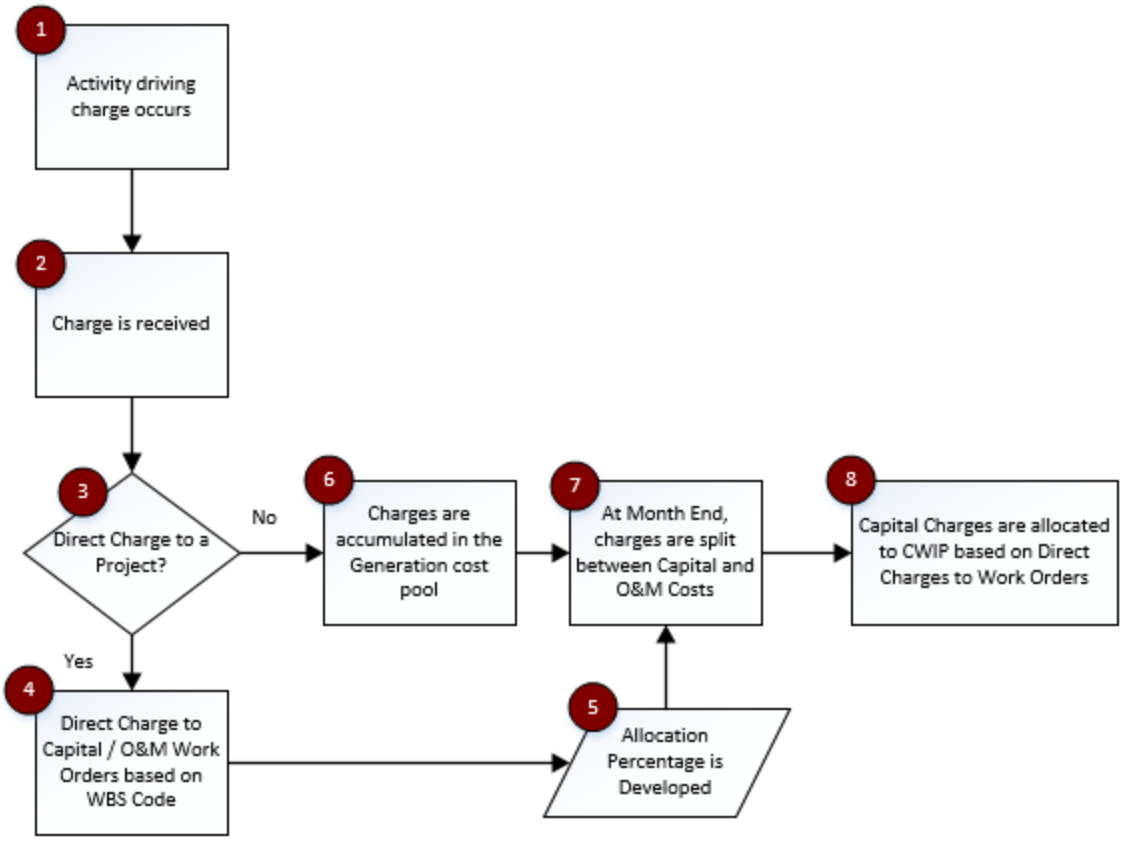


A&G at the Company will either be charged to an 'Allocable' account or applied directly to a GL account. The 'Source' dollars are comprised of charges applied directly to GL accounts. Such costs are not allocated at the end of the month and remain in the account where they were originally assigned. The 'Source' dollars are used to develop a percentage share for each GL account to spread the allocable dollars to a month end. As an example, PGE uses a third party provider for shipping and mailing services. Instead of being applied to single GL account to be expensed/capitalized in total, the charge for these services is allocated to general ledger accounts based on the amount of direct labor charges to the GL accounts.

Generation

As previously stated, workers on generation projects at the Company generally direct charge their time to a work order more frequently than workers on transmission and distribution projects. This is because there are typically fewer generation projects at any given time and, as such, the worker can more easily track his/her time to the individual project.

The allocation process for generation works similar to the DOSE method, as discussed above, but with more direct charging and less allocation. Charges within generation are accumulated within a '557' account. This is consistent with the FERC USoA for production expenses. At month-end, the charges collected in this account are reclassified into a capital account based on the capitalization rate. The capitalization rate is calculated by taking the amount of direct charged generation work charged to individual work orders and dividing it by the total amount of direct charged work (capital versus O&M) within the generation department. The following flowchart and supplemental narrative provide further illustration of the allocation of charges within the Generation division.



While less capital overhead is used in the generation department there still exists a capital overhead balance for this cost pool. As an example, there may be a shared technology service that is used across the generation departments. This charge would not be directly applied to a work order, but would rather accumulate within a generation cost pool. Throughout the month direct labor charging occurs to both capital and O&M projects which derives an allocation percentage. The allocation percentage would be used to split the shared charge of the technology service between capital and O&M, with the capital portion being applied to CWIP account 1070002.

Controls

As direct labor charges is the driver of the overhead allocation process, PGE has established the following controls to monitor the direct labor costs that are charged directly to work orders:

1) Annual department budgeting remains consistent to prior years. General guidance for budget to managers has been to remain flat. Increasing FTE's requires supporting documentation to support and needs CEO approval.
2) Monthly financial reporting analysis. Each month a review and discussion by business line, (Distribution, Transmission, Generation, etc.) occurs to compare actuals to forecast. Any differences greater than $100k are investigated.
3) Financial Reporting variance analysis of expenses - prior year to current year.
4) Monthly review by project manager of incurred capital spends on their assigned projects compared to approved and forecasted capital budget.

These controls are designed to identify any labor that would have been incorrectly charged to a project. Also, as all overhead is allocated to different work orders based on these monthly direct labor charges, the Company believes that this provides an adequate level of assurance that the overhead charges have been appropriately categorized.

Summary of procedures performed

We performed procedures in order to validate our understanding of the process implemented at PGE and to validate the appropriateness of the allocations. These procedures included reviewing the source of transactions that made up the construction overhead balance. We tailored our approach to validate the overhead process by each type of cost pool and performed scoping procedures based on the complexity and dollar amount of the cost pool. Refer below for a table showing the September 2016 YTD overhead amounts that were used for our scoping procedures:

Cost Pool	9/30 YTD Amount
Total Transmission & Distribution Allocation	**(44,212,386)**
Plan, Analyze, Design ("PAD")	9,794,388
Distribution, Operations, Supervision, Engineering ("DOSE")	17,218,831
Labor Loadings	15,645,838
World Trade Center (PGE Office Downtown)	41,934
Corporate Governance	1,695,621
Other Cost Pools	(184,226)
Difference (Total OH - Cost Pools)	-
Total Generation Allocation	**(5,095,867)**
Labor Loadings	1,579,962
World Trade Center (PGE Office Downtown)	850,693
Corporate Governance	169,245
Generation	2,654,151
Other Cost Pools	(158,184)
Difference (Total OH - Cost Pools)	-

The PAD cost pool contains significant construction overhead balances for the Company. The PAD allocation is not very complex as engineers are generally charging to a single account that is all designated as construction overhead. However, this is a unique overhead allocation when compared to some of the peers of PGE. Due to the uniqueness of this allocation we made 20 selections of the detail charges to validate the appropriateness of the allocation.

The highest dollar amount of overhead is the DOSE cost pool. This is also one of the more complex methods of allocating overhead at the Company due to the amount of labor that is charged to this account and how those charges are split between capital and O&M. Based on these factors, we selected 40 samples of this allocation in order to validate the appropriateness the charges in this overhead allocation.

Labor loadings make up the next highest dollar amount of the cost pool. While the balance of this overhead is high in comparison to the other methods, the process the Company uses for this allocation is straightforward and does not deviate from normal industry practice. As such, we selected 10 samples of this allocation to review.

The three remaining cost pools that we reviewed are World Trade Center, Corporate Governance, and Generation. The relative dollar amount of these allocations when compared to those mentioned above is small. Additionally, these allocations are not very complex similar methods are utilized within the industry to allocate these types of the overhead. As such, we selected 10 charges for each of these overhead accounts.

The remaining cost pools were not significant to the overall construction overhead process. This was due to both their relative dollar amount as well as the lack of complexity of the allocation. Refer below for a table summarizing the amount of samples for each type of overhead:

Type of Overhead	Sample Size
PAD	20
DOSE	40
Labor Loadings	10
World Trade Center	10
Corporate Governance	10
Generation	10

In order to validate the appropriateness of the charges being accumulated in each of these cost pools, we performed the following procedures:

- Selected the number of samples noted above from the Company's PowerPlan cost repository module,
- Obtained and reviewed supporting documentation (e.g., invoices, timesheets, etc.),
- Recalculated allocation percentages and/or recomputed other amounts for mathematical accuracy where applicable, and
- Traced amounts into the total monthly overhead allocation for each cost pool.

A more detailed description of these procedures, including one example of the evidence obtained for each of the cost pools is included within Appendix A of this report.

Based on the procedures performed, no exceptions were noted.

Comparison of the PGE overhead allocation process to FERC USoA and peers

As part of our procedures we reviewed the specific guidance in the FERC USoA and compared this guidance to the process employed at PGE. Below we've selected specific portions of the Electric Plant Instructions and General Instructions to validate the appropriateness. Refer to the guidance below in *italics* as well as our assessment of PGE's compliance.

We first reviewed the 'Overhead Construction Costs' portion of the Electric Instructions in the USoA and compared it to PGE's process of allocating capital project overheads:

A. *All overhead construction costs, such as engineering, supervision, general office salaries and expenses, construction engineering and supervision by others than accounting utility, law expenses, insurance, injuries and damages, relief and pensions, taxes and interest, shall be charged to particular jobs or units on the basis of the amounts of such overheads reasonably applicable thereto, to the end that each job or unit shall bear its equitable proportion of such costs and that the entire cost of the unit, both direct and overhead, shall be deducted from the plant accounts at the time the property is retired.*

   Consistent with this guidance, the Company accumulates all overhead costs throughout each month, through the processes described in the overview section of this report, for the items mentioned within the FERC USoA guidance above. Based on the allocation, the Company has processes in place to differentiate between expense and capital charges. The capital related charges are initially gathered in account 1070002 as a part of the CWIP balance and are assigned to capital project work orders at the end of the month using the dollars direct charged to the individual work orders during the period. At this point, the accumulated capital charges are transferred from 1070002 to account 1070001, which is where the overhead charges remain until placed into service.

B. *As far as practicable, the determination of pay roll charges includible in the construction overheads shall be based on time card distributions thereof. Where this procedure is impractical, special studies shall be made periodically of the time of supervisory employees devoted to construction activities to the end that only such overhead costs as have a definite relation to construction shall be capitalized. The addition to direct construction costs of arbitrary percentages or amounts to cover assumed overhead costs is not permitted.*

   Payroll charges are directly charged to work orders where practicable (for Generation). However, because of the volume of different Transmission and Distribution projects that are typically being supervised/supported by the engineers, these payroll charges are first accumulated in the capital project overhead account and then distributed to individual work orders based on direct charges to the work orders. As time reporting is used to either directly charge labor to individual capital project work orders or to charge a capitalization "bucket" to be subsequently allocated to capital project work orders, source documentation exists (payroll records) to support the distributions.

C. *For Major utilities, the records supporting the entries for overhead construction costs shall be kept as to show the total amount of each overhead for each year, the nature and amount of each overhead expenditure charged to each construction work order and to each electric plant account, and the bases of distribution of such costs.*

   The Company uses PowerPlan financial system applications for their budgeting, asset record management, book and tax depreciation, detailed general ledger information, and monthly allocation processing. PowerPlan applications are widely used by the major electric and gas utilities.

Each overhead allocation entry is tracked within the PowerPlan system. The support is maintained within the cost repository module. In order to validate that the Company has maintained records supporting the entries for the overheads we validated various transactions as further described within Appendix A of this report.

Additionally, the FERC USoA mentions various cost categories that make up the components of construction cost as defined by item #3 of the Electric Plant Instructions. We reviewed the types/categories of these costs and determined that these costs are appropriately being capitalized at PGE.

We also considered the following guidance from the FERC USoA General Instruction items:

9. *Distribution of Pay and Expenses of Employees.*

The charges to electric plant, operating expense and other accounts for services and expenses of employees engaged in activities chargeable to various accounts, such as construction, maintenance, and operations, shall be based upon the actual time engaged in the respective classes of work, or in case that method is impracticable, upon the basis of a study of the time actually engaged during a representative period.

The Company has determined that distributing the pay and expenses of employees based on the actual time engaged is impractical in certain situations (Transmission and Distribution department where many projects are worked on/supervised at one time). As such, PGE has developed alternative methods in order to allocate the time for employees that are not able to be charged directly to a specific project. These methods are based on direct labor that is incurred to specific capital project work orders during the related period. As such, while PGE does not allocate all labor based on actual time engaged they have developed appropriate alternative methods based on the analysis within this report.

10. *Payroll Distribution.*

Underlying accounting data shall be maintained so that the distribution of the cost of labor charged direct to the various accounts will be readily available. Such underlying data shall permit a reasonably accurate distribution to be made of the cost of labor charged initially to clearing accounts so that the total labor cost may be classified among construction, cost of removal, electric operating functions (steam generation, nuclear generation, hydraulic generation, transmission, distribution, etc.) and nonutility operations.

As a part of our procedures we obtained the relevant accounting data that supported the direct cost of labor for various accounts. Additionally, we reviewed 'clearing-like' accounts such as PAD and DOSE, to which employees charge their time (vs. to a specific work order). The Company has developed a method to allocate these overhead costs based on the direct labor incurred within each specific project, which allows the total labor to be classified among construction, cost of removal, and other functions mentioned in the FERC USoA guidance above.

We also considered the results of a peer survey distributed to a sample of utility companies across the United States. The results of these surveys indicate that PGE performs less direct charging of direct labor than others. However, other types of capitalized overhead costs (indirect labor, labor benefits, etc.) are generally assigned to work orders based on some type of allocation methodology (e.g., direct charges incurred). Although direct charging is overall performed less by PGE than the group we surveyed, PGE's methodology of allocating direct labor costs to work orders represents a supportable, cost causative basis, and is in compliance with FERC requirements. It is entirely possible for PGE's combination of direct charging and allocation would produce results similar to what would occur if there was an increased level of direct charging. This is because PGE's approach allocates overheads on the basis of direct charges and

it is likely that work orders with the most direct charges would receive the greatest allocation of overhead costs.

Overall observations and conclusions

The FERC USOA clearly acknowledges in the Plant Instruction guidance that charges to plant accounts consist of direct costs and construction overheads. The guidance requires that construction costs should be supportable and that allocation of costs to work orders should be based on principles of cost causation. Different utilities have different methods/processes to direct charge work orders versus accumulating relevant costs and allocating costs indirectly based on a cost causative basis. But the purpose is the same—to charge construction work orders with all costs of construction.

Capitalizing overhead costs to construction work orders through an allocation process is similar to the allocation of service company costs to affiliates. In both cases, costs (overheads and labor) are accumulated centrally, providing the benefit of scope and scale, and charged to either construction or affiliates on a cost causative basis. The methods to allocate costs are typically through direct charging or indirect charging. Direct charging is typically based on time sheets. Indirect charging relates the costs to causation—which can be allocation human resource costs on the basis of headcount or occupancy costs based on square footage. Indirectly charging overhead costs to capital projects/work orders based on direct charges to the capital project/work order is a reasonable allocation approach for such costs.

Said another way, certain overhead costs that are allocated in this manner are the result of scope and scale that benefits ratepayers. If, for example, these work orders were totally outsourced, the vendor would presumably incur (and charge PGE) for their overhead costs including indirect labor, utilities, supplies, benefits, etc.). When PGE performs the construction activity themselves, these overheads are spread over the various work orders. Thus, while PGE allocates overhead costs to capital work orders, the total cost of the project likely benefits from a lower cost than would be incurred if the work was outsourced.

Based on the work performed as described throughout this report, PGE's processes for capturing overhead construction costs and directly charging and indirectly allocating such costs to construction projects assign costs to construction work orders that are reasonable, supportable, operating as described and in compliance with the FERC USoA.

Respectfully,

Alan Felsenthal

Appendix A

Detail of procedures performed over capital project overhead allocation process

In order to validate the appropriateness of the charges in each of the over the cost pools we made selections from the PowerPlan cost repository module. The amount of our sample size was determined by the relative dollar amount and complexity of each overhead cost pool. Refer below for a table detailing the total amount of selections made for our procedures:

Type of Overhead	Sample Size
PAD	20
DOSE	40
Labor Loadings	10
World Trade Center	10
Corporate Governance	10
Generation	10

No exceptions were identified during our procedures to validate the process for each cost pool. This section of the report will demonstrate the procedures performed by illustrating a specific example for each of the cost pools. Each corresponding example will trace a single charge from the origination to the allocation to the capital overhead allocation for the month. An additional section has been added to describe the allocation of the monthly overhead to specific work orders. The Company's processes and procedures are designed to capture construction overhead costs and allocate such costs to work orders on a cost causative basis (direct charges to the work order) so that the work order will accumulate all direct and indirect costs of construction.

Plan, Analyze, Design ("PAD")

Using detail from the PowerPlan cost repository module we selected PAD labor charges and reviewed the employee's timesheet as supporting documentation for the charge. Refer below for our selection of a labor to the PAD account:

busin	operati	account	account_description	dept_id	dept_id_description	cos	cost_elm_description	acc	a	mon	gl_journal_category	query_source_description	emplid	amount
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E59160	6,702.08
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E01102	2,924.89
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E01642	3,918.98
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E03516	1,346.15
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E03812	5,861.61
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E04337	3,268.66
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E05717	1,152.64
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E06512	3,585.99
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E09876	5,437.49
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E21127	4,733.70
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E25075	6,966.31
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E29649	5,723.03
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E44927	4,054.53
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	PRSAL	Payroll	E59160	5,319.77
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	SRCXFR	Payroll	E36766	6,160.28
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	SRCXFR	Payroll	E44927	4,386.34
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1101	Straight-Time Labor - Salary			2E+05	SRCXFR	Payroll	E59160	2,945.25
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1502	Non-PGE Labor Straight Time			2E+05	AP00100241-ACTUALS	Accounts Payable		12,160.00
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	1502	Non-PGE Labor Straight Time			2E+05	AP00101714-ACTUALS	Accounts Payable		13,740.00
PGE01	18100	5800001	DistOp-Engineering & Design	326	Central Service & Design West	2110	Other Materials & Equipment			2E+05	EXACC90535-ACTUALS	Expense		282.06

The work was performed within department #326 which is for Central Service & Design. Employees within this department charge their time to the PAD account as their work supports the planning and design of capital projects. As shown below, we obtained the corresponding time card for this selection.

Empl ID	Empl Record	Name	Company	Pay Group	Pay Period Begin Date	Pay Period End Date	Date of Pay
25075	0	Edward Gorman	PGE	SAL	09/12/2016	09/25/2016	09/30/2016

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Earn Code	Hours	Hourly Rate	Amount	Operating Unit	Account	Cost Element	RC/Dept	AWO	FWO	Source
PTO	32.00		1873.29	18100	9260010	1301	326	7000001967	5000000332	Workforce
REG	59.00		2809.94	18100	5800001	1101	326			Workforce

The employee charged time to expense account #5800001, which is the PAD expense account. Employees charge their time to this account throughout the month to be allocated to capital as a part of month end close. The cost element #1101 is a straight-time labor cost element for salary employees. The employee's time allocated to this project is accumulated with the PAD allocation as identified by the labor cost element. Refer below:

		CURRENT MONTH		
		2016 ACTUALS	2016 BUDGET	VARIANCE
DOSE PAD Allocation Base:				
	DOSE PAD Labor	853,361.36	689,564.72	(163,796.64)
	DOSE PAD Fleet	98,355.11	104,953.44	6,598.33
	DOSE PAD Other	44,227.30	85,076.52	40,849.22
	DOSE PAD TOTAL	**995,943.77**	**879,594.68**	**(116,349.09)**

The labor charge to the PAD account is a component of the overall PAD allocation for the month. Throughout the month, all of the charges within the components listed above have accumulated into the 5800001 expense account to be allocated at month end. As such, the employee's $2,809.94 charge from above would be included in the DOSE PAD Labor balance above.

	CURRENT MONTH		
	2016 ACTUALS	2016 BUDGET	VARIANCE
100% DSEPAD	(995,943.77)	(879,594.68)	116,349.09
DOSE Reclass	(2,037,921.16)	(2,384,253.27)	(346,332.11)
LABLD (PTO) -DOSE	(396,075.39)	(372,508.67)	23,566.72
MATLLD-DOSE	(1,108.06)	(812.82)	295.24
DOSE Billing Job	(21,391.34)	(12,726.78)	8,664.56
LABLD-Billing Job	(2,446.38)	(1,683.36)	763.02
MATLLD-Billing Job	(5.86)	(5.12)	0.74
	(3,454,891.96)	(3,651,584.70)	(196,692.74)

The total PAD charges of $995,943.77 were allocated to capital as they all relate to capital projects based on the cost element and department associated with the cost.

Distribution, Operations, Supervision, Engineering ("DOSE")

Our consideration of the allocated costs in the DOSE overhead cost pool for the entity were based on the accumulation of the cost pool used to calculate the labor split and the actual charges to DOSE to which the split is applied. Refer below for examples of a both a direct labor charge and an overhead charge.

Illustrative Cost Allocation Example – Direct Labor Charge

Using detail from the PowerPlan cost repository module we selected straight time labor charges and reviewed the employee's timesheet as supporting documentation for the charge. Refer below for our selection of a straight time labor charge to a capital work order:

Operat	Account	Account Description	Dept ID	Dept ID Description	Dept ID General I	Cost Elm	Cost Elm Description	Acct WO	Acct WO Description	Month Number	GL Journal Cates	Source	Amount
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004071	Abernethy Substation Cap	201606	PRREPR	Payroll	3.8
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004071	Abernethy Substation Cap	201609	CORDERIV	Payroll	-4.76
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004071	Abernethy Substation Cap	201609	PRREPR	Payroll	386.56
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004156	Estacada: Substation Work	201606	CORDERIV	Payroll	0
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004156	Estacada: Substation Work	201606	PRREPR	Payroll	1504.64
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004156	Estacada: Substation Work	201609	CORDERIV	Payroll	0
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004156	Estacada: Substation Work	201609	PRREPR	Payroll	2298.67
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004207	Faraday: Upgrade Switchy	201601	PRREPR	Payroll	2044.7
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004207	Faraday: Upgrade Switchy	201602	PRREPR	Payroll	3151.4
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004212	Orenco - Remove RFL-974	201601	PRREPR	Payroll	118.43
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004246	McLoughlin: New 115kV R	201601	PRREPR	Payroll	6843.21
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004557	PPS - Solar Project	201607	PRREPR	Payroll	376.16
18100	1070001	Const work in progress (CWIP	209	Substation Technical	Kellie D Cloud	1102	Straight-Time Labor - Unio	1000004557	PPS - Solar Project	201608	SRCXFR	Payroll	-376.16

The charge selected was for work at the Estacada substation. The work was performed within department 209 which is responsible for most of the work on the substation. PGE conducted an interview with the department to discuss their charging habits and validate that the overall department was charging costs appropriately. Per review of these interview responses the department generally direct charges their work with some DOSE also incorporated for the smaller projects. Given the type of work that is typically done within the department, a charge to a capital work order appears to be reasonable.

This selection represented the payroll for two employees. The detail received aggregated the time and pay periods for the two employees into one line within the detail. Refer below for the amounts that made up the $2,298.67 total selected:

Pay End Dt	Emplid	Amount
09/11/2016	E01888	$940.40
09/11/2016	E62447	$289.92
09/25/2016	E01888	$681.79
09/25/2016	E62447	$386.56
		$2,298.67

The timesheet for the first charge listed showed 20 hours were charged to the work order at an hourly rate of $47.02. Refer below for the timesheet:

Rapid Data View

Empl ID	Empl Record	Name	Company	Pay Group	Pay Period Begin Date	Pay Period End Date	Date of Pay
01888	0	Steven Minter	PGE	HRY	08/29/2016	09/11/2016	09/16/2016

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Earn Code	Hours	Hourly Rate	Amount	Operating Unit	Account	Cost Element	RC/Dept	AWO	FWO	Source
MEL	2.00			18100	1070001	2405	209	1000004156		Workforce
OT2	6.17	94.04		18100	1070001	1402	209	1000004156		Workforce
OT2	1.00	94.04		18100	1070001	1402	209	1000005227		Workforce
OT2	1.50	94.04		18100	5800002	1402	209	3000000075	1000001079	Workforce
OT2	2.75	94.04		18100	5900001	1402	209	7000002006		Workforce
REG	20.00	47.02		18100	1070001	1102	209	1000004156		Workforce
REG	12.00	47.02		18100	1070001	1102	209	1000005227		Workforce
REG	2.00	47.02		18100	5800002	1102	209	3000000156		Workforce
REG	6.00	47.02		18100	5920001	1102	209	7000002006		Workforce
VHA	40.00	47.02		18100	9260010	1302	209	7000001963	5000000289	Workforce

The screen shot above was taken from the 'Mytime' time keeping system. Within the line selected above there is an amount of hours charged to the project and an hourly rate for the time spent on the order. The hourly rate is for only the employee's salary and would not include any of the costs within the 'labor loadings' cost pool such as PTO, Employee Benefits, and Payroll Taxes. The charge has been allocated to account 1070001 (CWIP – Electric) identifying the charge as a capital charge. Further, the charge has

been allocated to a specific work order (#1000004156) evidencing the direct charge nature of these labor costs.

This charge is accumulated with other employee charges and the total of such charges form the basis to determine the overall allocation split for the DOSE charges. An analysis is performed to ensure that PowerPlan is appropriately splitting the costs into either capital or O&M. The example selected was charged to Kellie D Cloud as the general manager. By reviewing the formulas in the spreadsheet, the account #1070001 was appropriately being pulled into capital labor section of the spreadsheet.

LABOR BASE RATIO ANALYSIS
September 30, 2016

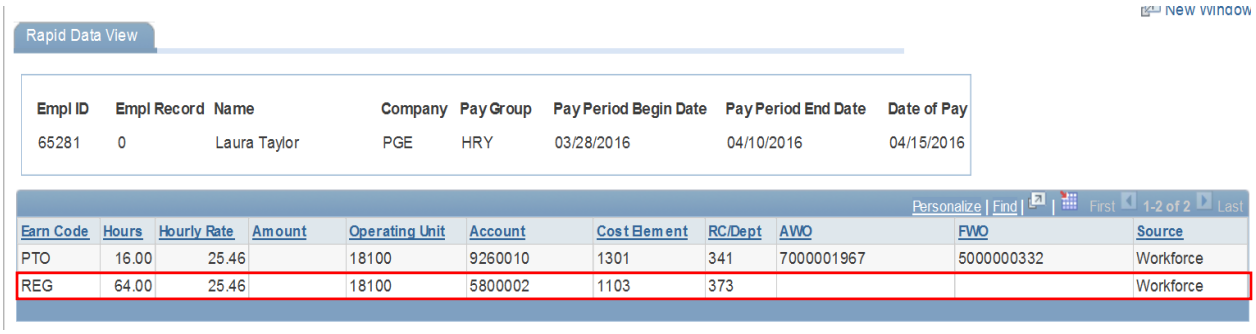
General Manager	CM	YTD	YTD ACTUAL	YTD BUDGET	YTD VARIANCE	(Fav)/Unfav CAPITAL LABOR VARIANCE BY MGR
ACTUALS:						
Capital Labor (107/108):						
David E Lamb	1,681,415.77	15,316,510.50	39.3423%	38.8438%	0.4985%	170,521.07
Jeffrey J Wheeler	-	-	0.0000%	0.0000%	0.0000%	-
Michael R Livingston	212.66	175,974.38	0.4520%	0.8517%	-0.3997%	(136,724.72)
Charles R Payne	-	1,192.19	0.0031%	0.0000%	0.0031%	1,060.41
William J Tierney	-	-	0.0000%	0.0000%	0.0000%	-
Kellie D Cloud	78,770.59	874,020.83	2.2450%	2.1060%	0.1390%	47,547.50
Brett C Phillips	287,282.13	2,372,690.49	6.0945%	6.3845%	-0.2900%	(99,199.82)
George B Jones	25,293.69	291,851.66	0.7497%	0.8265%	-0.0768%	(26,270.85)
David R Alcorn	7,280.16	13,973.09	0.0359%	0.0029%	0.0330%	11,288.26
Elizabeth A Smith	35,626.93	204,577.07	0.5255%	2.2049%	-1.6794%	(574,469.57)
James P Landstrom	-	31,355.62	0.0805%	0.0000%	0.0805%	27,536.50
John P Sullivan	-	195,995.07	0.5034%	0.0000%	0.5034%	172,197.20
Michaela S Lynn Lovel	-	-	0.0000%	0.0000%	0.0000%	-
William M. Messner	-	-	0.0000%	0.0000%	0.0000%	-
	2,115,881.93	**19,478,140.90**	**50.0319%**	**51.2203%**	**-1.1884%**	**(406,514.02)**

Illustrative Cost Allocation Example – Indirect Labor Charge

Using detail from the PowerPlan cost repository module we selected a straight time labor charge to a DOSE account and reviewed the employee's timesheet as supporting documentation for the charge. Refer below for our selection:

Business	Operatin	Operating Unit Descrip	Account	Account Description	Dept ID	Dept ID Descriptio	Cost Elm	Cost Elm Description	Acct WO	Acct WO Descri	Month Number	GL Journal Category	Source	Amount
PGE01	18100	PGE General Operations	5800002	DistOp-OpSupv-General Suppor	339	Distribution Job Proc	2450	Other Employee Business Exp			201609	EXACC02051-ACTUALS	Expense	235.10
PGE01	18100	PGE General Operations	5800002	DistOp-OpSupv-General Suppor	339	Distribution Job Proc	2450	Other Employee Business Exp			201609	EXACC02228-ACTUALS	Expense	234.00
PGE01	18100	PGE General Operations	5800002	DistOp-OpSupv-General Suppor	339	Distribution Job Proc	2450	Other Employee Business Exp			201609	EXACC02393-ACTUALS	Expense	3.00
PGE01	18100	PGE General Operations	5800002	DistOp-OpSupv-General Suppor	341	Tree Trimming	1103	Straight-Time Labor - Hourly			201609	PRNREP	Payroll	2,198.25
PGE01	18100	PGE General Operations	5800002	DistOp-OpSupv-General Suppor	341	Tree Trimming	1103	Straight-Time Labor - Hourly			201609	SRCXFR	Payroll	1,629.44
PGE01	18100	PGE General Operations	5800002	DistOp-OpSupv-General Suppor	346	Landscape Services	1101	Straight-Time Labor - Salary			201609	PRSAL	Payroll	10,486.30
PGE01	18100	PGE General Operations	5800002	DistOp-OpSupv-General Suppor	346	Landscape Services	1202	Union Premium Pay	7000002006	Substation Corre	201609	PRREPR	Payroll	228.80
PGE01	18100	PGE General Operations	5800002	DistOp-OpSupv-General Suppor	346	Landscape Services	1402	Overtime - Union	7000002006	Substation Corre	201609	PRREPR	Payroll	457.60
PGE01	18100	PGE General Operations	5800002	DistOp-OpSupv-General Suppor	349	Line Prerequisite Coc	1101	Straight-Time Labor - Salary			201609	PRSAL	Payroll	5,678.41
PGE01	18100	PGE General Operations	5800002	DistOp-OpSupv-General Suppor	349	Line Prerequisite Coc	1103	Straight-Time Labor - Hourly			201609	PRNREP	Payroll	11,201.46

The charge selected was for tree trimming work. As tree trimming is a smaller type of project that could either support routine maintenance projects (expensed) or to support line crews with new construction (capital) these workers charge to the DOSE pool in order for them to be more efficient when charging their time. Refer below for a screenshot of the employee's time charged to the DOSE allocation cost pool:



New Window

Rapid Data View

Empl ID	Empl Record	Name	Company	Pay Group	Pay Period Begin Date	Pay Period End Date	Date of Pay
65281	0	Laura Taylor	PGE	HRY	03/28/2016	04/10/2016	04/15/2016

Personalize | Find | First 1-2 of 2 Last

Earn Code	Hours	Hourly Rate	Amount	Operating Unit	Account	Cost Element	RC/Dept	AWO	FWO	Source
PTO	16.00	25.46		18100	9260010	1301	341	7000001967	5000000332	Workforce
REG	64.00	25.46		18100	5800002	1103	373			Workforce

Account 5800002 is an expense account that is used for distribution operations. Workers charge this account to capture the cost of labor and expenses incurred in the supervision and general support of distribution operations, a portion of such costs directly support capital activities. The charges are accumulated into account 5800002 throughout the month. At month end, a portion of the charges are transferred to capital based on the portion of direct labor charges that have been capitalized throughout the year. Refer below for a summary for the month, showing the accumulation of the costs within the 5800002 account.

		CURRENT MONTH		
		2016 ACTUALS	2016 BUDGET	VARIANCE
DOSE Reclass Allocation Base:				
5600001	TransOp-OpSupv&Engine	99,149.20	112,345.22	13,196.02
5611001	Load dispatch - Reliability	-	-	-
5612001	TransOp-Load Disp Moni	-	-	-
5613001	TransOp-Load Disp Trans	-	-	-
5615001	TransOp-ReliabilityPlanin	-	-	-
5617001	TransOp-GenerationInter	-	-	-
5800002	DistOp-OpSupv-General S	2,916,272.35	3,455,647.12	539,374.77
5820001	DistOp-Substation Exp	76,883.45	47,886.52	(28,996.93)
5830001	DistOp-Overhead Line Ex	248,900.33	24,798.17	(224,102.16)
5840001	DistOp-Underground Line	253,082.79	34,952.89	(218,129.90)
5980001	DistMaint-MiscDistribPlar	383,075.66	363,446.26	(19,629.40)
		3,977,363.78	**4,039,076.18**	**61,712.40**

The charge to account #5800002 is part of the overall allocation base for the month that is shown above. In addition to charges accumulated in account 5800002 there are other accounts that accumulated charges within the DOSE cost pool. For the month of September, the total amount of the pool was $3,977,363.78. A percentage of the total base will be allocated to capital based on the direct labor split noted above.

	CURRENT MONTH		
	2016 ACTUALS	2016 BUDGET	VARIANCE
100% DSEPAD	(995,943.77)	(879,594.68)	116,349.09
DOSE Reclass	(2,037,921.16)	(2,384,253.27)	(346,332.11)
LABLD (PTO) -DOSE	(396,075.39)	(372,508.67)	23,566.72
MATLLD-DOSE	(1,108.06)	(812.82)	295.24
DOSE Billing Job	(21,391.34)	(12,726.78)	8,664.56
LABLD-Billing Job	(2,446.38)	(1,683.36)	763.02
MATLLD-Billing Job	(5.86)	(5.12)	0.74
	(3,454,891.96)	(3,651,584.70)	(196,692.74)

The total amount of the DOSE Reclass Allocation base was split between capital and expense by a percentage determined by using the direct labor dollars. For the month of September, the DOSE allocation was $2,037,921.16. Calculated by multiplying the total DOSE amount of $3,977,363.78 by the 51% allocation percentage.

Labor Loadings

As part of our procedures to verify we selected charges from the PowerPlan detail and obtained supporting documentation to validate the appropriateness. Refer below for an example of a selection made for our procedures:

target_cre	business_u	operating_u	accou	dept_	cost_e	acct_wo	month_numb	gl_journal_category	amount
BALANCE	PGE01	18100	9260020	804	2209		201603	AP00093128-ACTUALS	11,180.00
BALANCE	PGE01	18100	9260020	804	2250		201603	AP00092603-ACTUALS	70,714.00
BALANCE	PGE01	18100	9260020	804	2250		201605	AP00095542-ACTUALS	70,714.00
BALANCE	PGE01	18100	9260020	804	2250		201605	SRCXFR	1,500.00
BALANCE	PGE01	18100	9260020	804	2250		201608	AP00100016-ACTUALS	85,000.00
BALANCE	PGE01	18100	9260020	804	2250	3000000733	201602	AP00091201-ACTUALS	6,200.00
BALANCE	PGE01	18100	9260020	804	2250	3000000737	201605	AP00096349-ACTUALS	11,100.90
BALANCE	PGE01	18100	9260020	804	2250	3000000737	201608	AP00100443-ACTUALS	10,727.00
BALANCE	PGE01	18100	9260020	804	2250	7000001211	201609	PO00102397-ACTUALS	81,000.00
BALANCE	PGE01	18100	9260020	804	2404		201602	EXACC91189-ACTUALS	9.50

In order to verify the appropriateness of the charge we obtained the underlying supporting documentation. In this instance, the supporting documentation was an invoice from AON Hewitt, the consultant used by PGE for employee benefits services. As such, this amount is appropriately included within the employee benefits listing.

Sum of amount	Column Labels				
Row Labels	BALANCE	CREDIT	SOURCE	TARGET	Grand Total
9250001	$ -	$ -	$ 1,160,411.29	$ 400,239.26	$ 1,560,650.55
9260001	$ -	$ -	$ 74.00	$ 25.53	$ 99.53
9260003	$ 613,805.22	$ -	$ -	$ -	$ 613,805.22
9260004	$ 9,899,681.91	$ -	$ -	$ -	$ 9,899,681.91
9260005	$ 21,446,402.33	$ -	$ -	$ -	$ 21,446,402.33
9260008	$ 1,909,968.41	$ -	$ -	$ -	$ 1,909,968.41
9260009	$ 638,935.41	$ -	$ -	$ -	$ 638,935.41
9260011	$ 435,574.55	$ -	$ -	$ -	$ 435,574.55
9260014	$ 142,146.53	$ -	$ -	$ -	$ 142,146.53
9260015	$ -	$ (52,210,836.22)	$ -	$ -	$ (52,210,836.22)
9260016	$ 155,434.48	$ -	$ -	$ -	$ 155,434.48
9260018	$ 580,821.33	$ -	$ 215,763.16	$ 74,419.21	$ 871,003.70
9260019	$ 123,441.69	$ -	$ 71,721.51	$ 24,737.57	$ 219,900.77
9260020	$ 1,162,403.91	$ -	$ 225,397.31	$ 77,742.14	$ 1,465,543.36
9260021	$ 1,475,866.38	$ -	$ -	$ -	$ 1,475,866.38
9260022	$ 13,897,379.58	$ -	$ -	$ -	$ 13,897,379.58
9280001	$ -	$ -	$ 443,596.72	$ 153,643.78	$ 597,240.50
9280002	$ -	$ -	$ (4,894.54)	$ (1,688.18)	$ (6,582.72)

The amounts above represent the employee benefits amounts for the year through September 30, 2016. These accounts are mapped to '926' accounts, which align with the FERC USoA as Employee Pension and Benefits accounts. Given the nature of the items within these accounts, they are deemed to be appropriately classified within the 926 accounts. These amounts are removed from the 'Balance' column using the 'Credit' column. The corresponding debit is the 'Target' column which spreads the credit based on the values in the 'Source' column. The 'Source' column are charges to the corresponding GL accounts. These are not overhead accounts but rather other GL accounts to which overhead may apply. The most common example is shown below:

Sum of amount	Column Labels				
Row Labels	BALANCE	CREDIT	SOURCE	TARGET	Grand Total
1070001	$ -	$ -	$ 23,278,567.07	$ 8,037,103.00	$ 31,315,670.07
1070002	$ -	$ -	$ 19,976,621.37	$ 6,890,167.01	$ 26,866,788.38
1070003	$ -	$ -	$ (4,619.43)	$ (1,593.29)	$ (6,212.72)
1080001	$ -	$ -	$ 597,363.30	$ 204,229.26	$ 801,592.56

The accounts shown above relate to the construction work in progress at PGE. The balances in the target column above are part of the $52M credit, which allocated the employee benefits to the source pools of labor costs based on the amount charged during the year. Account 1070001 is composed of individual work orders while 1070002 aggregates overhead charges throughout the month and is then cleared to 1070001.Refer to the 'Allocation of Costs to Individual Work Orders' below for an explanation of this process.

World Trade Center

We first reviewed the split between PGE and other tenants at the World Trade Center. The World Trade Center has a total square footage of 493,541 and PGE occupies 333,436 of the total. This results in a 67.56% split between overheads related to PGE and overheads related to other tenants. Refer below for the split in September 2016:

CURRENT MONTH			
ACTUAL	BUDGET	VARIANCE	
1,352,998.66	1,308,708.86	(44,289.80)	ACTUAL
914,085.89	884,163.71	(29,922.18)	-67.56%

The above split shows the actual costs of $1,352,998.66 which represents the total amount of costs to perform administrative and maintenance type functions around the WTC. These charges accumulate in a non-utility account throughout the month. At month-end, the accumulated charges were split based on the 67.56% of the square footage occupied by PGE at the building. For September 2016 there was $914,085.89 that was allocated to the utility based on this rate.

Once the portion of overhead attributable to the utility is determined it is then split based on the employee headcount within the different departments at the WTC. Refer below for the allocation for 2016 based on the employee headcount by department:

WTC COST ALLOCATION SPREAD							
2016 BUDGET							
8/27/2015							
							PRORATE
							67.56%
BU	OU	ACCT	AWO	DESCRIPTION	WTC EE Count	% of Total	2016 Bud
PGE01	18100	1070002	7000010810	T&D O/H	1.83	0.12%	0.08%
PGE01	18100	1070002	7000010811	PGE PROD O/H	171.83	10.99%	7.42%
PGE01	18100	1840004	7000000602	IT SERV PRO	291.42	18.64%	12.59%
PGE01	18100	1860001	7000000159	PGE FOUNDATION	0.90	0.06%	0.04%
PGE01	18100	1860001	7000000160	SALMON SPRINGS	12.00	0.77%	0.52%
PGE01	18100	5570003	7000000602	GEN PLANT SUPPORT	188.30	12.05%	8.14%
PGE01	18100	1860033	7000000602	A&G SECONDARIES	212.87	13.62%	9.20%
PGE01	18100	9310001	7000000602	RENT GEN FAC	630.73	40.34%	27.26%
PGE01	18100	4171003	7000000381	NON UTILITY	30.79	1.97%	1.33%
PGE01	18100	9302001		COY SP CONS OH & A	0.90	0.06%	0.04%
PGE01	91100	2300002	3000000633	TROJAN ARO	0.59	0.04%	0.03%
PGE01	91100	9350001	7000000602	TROJAN O&M	0.30	0.02%	0.01%
PGE01	92100	1070002	7000010813	BDMN CAP OH	0.60	0.04%	0.03%
PGE01	92100	1860038	7000000602	BDMN A&G	6.21	0.40%	0.27%
PGE01	96100	1070002	7000010815	PLTN CONS OH	0.13	0.01%	0.01%
PGE01	96100	1860038	7000000602	PLTN MNG RELATION	6.26	0.40%	0.27%
PGE01	99100	1070002	7000010814	RB CONS O/H	4.15	0.27%	0.18%
PGE01	99100	1860038	7000000602	RB OTHER	3.19	0.20%	0.14%
					1,563.00	100.00%	67.56%

Note that the employee headcount is first calculated as a percentage of the total for PGE. These percentages are then prorated for the 67.56% that incorporates the costs that are related to the utility. As the percentages are based on headcount within each department at the WTC as opposed to the amount of work performed within each department during a given month, certain departments that typically have overhead charges in a given month may not a proportionate share of costs during the period. As an example, note that T&D O/H represents only 0.08% of the WTC overhead allocation, while the PGE PROD O/H is allocated 7.42% of the WTC overhead costs. The reasoning for this is that there are far less employees related to T&D housed within the WTC than there are employees related to generation. This is an important distinction as most of the other overhead allocations at the Company are based off of the direct labor charges.

After the overhead allocation percentages have been determined they are applied to the WTC costs for the period. Refer below for the allocation for the month of September 2016:

			CURRENT MONTH			
Allocation Targets:			ACTUAL	BUDGET	VARIANCE	ACTUAL
Capital	18100-1070002-7000010810	T&D O/H	1,082.40	1,046.97	(35.43)	0.08%
Capital	18100-1070002-7000010811	PGE Prod O/H	100,392.50	97,106.20	(3,286.30)	7.42%
Capital	92100-1070002-7000010813	BDMN Cap OH	405.90	392.61	(13.29)	0.03%
Capital	96100-1070002-7000010815	PLTN Cons OH	135.30	130.87	(4.43)	0.01%
Capital	99100-1070002-7000010814	RB Cons O/H	2,435.40	2,355.68	(79.72)	0.18%
Trojan ARO	91100-2300002-3000000633	Trojan ARO	405.90	392.61	(13.29)	0.03%
Receivable	18100-1860001-7000000159	PGE Foundation	541.20	523.48	(17.72)	0.04%
		Subtotal Balance Sheet	**105,398.60**	**101,948.42**	**(3,450.18)**	**7.79%**
StmOp- Miscellan	18100-5570003-7000000602	Gen Plant Support	110,134.09	106,528.90	(3,605.19)	8.14%
Distribution O & M	18100-4171003-7000000381	Nonutility	17,994.88	17,405.83	(589.05)	1.33%
Admin and Gener	18100-1860001-7000000160	SSH01; 417.1	7,035.59	6,805.29	(230.30)	0.52%
Admin and Gener	18100-1860033-7000000602	A&G RCLFERC	124,475.88	120,401.22	(4,074.66)	9.20%
Admin and Gener	18100-9310001-7000000602	Rent Gen Fac	368,827.43	356,754.04	(12,073.39)	27.26%
Admin and Gener	18100-9302001-	Coyote Const OH, A&G	541.20	523.48	(17.72)	0.04%
Various	18100-1840004-7000000602	IT Service Prov	170,342.53	164,766.45	(5,576.08)	12.59%
Admin and Gener	91100-9350001-7000000602	Trojan O&M	135.30	130.87	(4.43)	0.01%
Admin and Gener	92100-1860038-7000000602	CBDM RCLFERC	3,653.10	3,533.51	(119.59)	0.27%
Admin and Gener	96100-1860038-7000000602	Pelton RCLFERC	3,653.10	3,533.51	(119.59)	0.27%
Admin and Gener	99100-1860038-7000000602	Round Butte RCLFERC	1,894.20	1,832.19	(62.01)	0.14%
Admin and Gener	18100-4180001-7000000394/5	WTC Leasing offset	(914,085.89)	(884,163.71)	29,922.18	-67.56%

Note that the actual rates used to split the utility's portion of the allocation are equal to the split that was calculated based on the headcount above. These budgeted rates are set at the beginning of the year and do not change throughout the year. Typically there has been no true-up as any deviation from the budgeted rates has been immaterial.

Corporate Governance

We selected charges from the detail in the PowerPlan cost repository module in order to verify the appropriateness of charges in the cost pool. Refer below for an example of a charge selected within the PowerPlan detail.

target_credi	busines	operatin	account	dept_id	cost_el	acct_wo	month_	gl_journ	amount
BALANCE	PGE01	18100	9210001	727	2110	7000000154	201601	AP000896	10,579.72
BALANCE	PGE01	18100	9210001	727	2110	7000000154	201602	AP000910	22,943.87
BALANCE	PGE01	18100	9210001	727	2110	7000000154	201603	AP000925	37,662.31
BALANCE	PGE01	18100	9210001	727	2110	7000000154	201604	AP000939	9,631.95
BALANCE	PGE01	18100	9210001	727	2110	7000000154	201605	AP000953	23,949.97
BALANCE	PGE01	18100	9210001	727	2110	7000000154	201606	AP000967	22,871.29
BALANCE	PGE01	18100	9210001	727	2110	7000000154	201607	AP000982	22,744.25
BALANCE	PGE01	18100	9210001	727	2110	7000000154	201607	BI0009824	(2,086.07)
BALANCE	PGE01	18100	9210001	727	2110	7000000154	201607	EXACC989	149.00
BALANCE	PGE01	18100	9210001	727	2110	7000000154	201608	AP000995	20,651.01
BALANCE	PGE01	18100	9210001	727	2110	7000000154	201609	AP001011	23,260.28

In order to determine the appropriateness we agreed the account number to the 'Accounts Payable Slip Sheet' and tied the amount within the invoice to the amount in the detail. These dollars represent the 'Balance' of the overhead, meaning that this is the amount that accumulates during the month and is allocated based on the proportion of 'Source' dollars. Refer below for the allocation percentages for the month of September 2016:

Sum of amount	Column Labels				
Row Labels	BALANCE	SOURCE	Grand Total	Calculated %	Calculated $
1070001	$ -	$ 26,925,466.29	$ 26,925,466.29	18.24%	$ 1,365,751.96
1070002	$ -	$ 20,012,602.78	$ 20,012,602.78	13.56%	$ 1,015,107.82
1070003	$ -	$ (4,425.00)	$ (4,425.00)	0.00%	$ (224.45)
1080001	$ -	$ 807,334.56	$ 807,334.56	0.55%	$ 40,950.78
1510003	$ -	$ 37,874.80	$ 37,874.80	0.03%	$ 1,921.14
1520001	$ -	$ 9,246.72	$ 9,246.72	0.01%	$ 469.03
1630001	$ -	$ 2,192,715.24	$ 2,192,715.24	1.49%	$ 111,222.03
1810001	$ -	$ -	$ -	0.00%	$ -
1823001	$ -	$ 349,510.72	$ 349,510.72	0.24%	$ 17,728.38

Based on the source dollars the allocation percentages are determined for the balance dollars. The source dollars are comprised of direct charge labor to the individual GL accounts listed.

Sum of amount	Column Labels				
Row Labels	BALANCE	SOURCE	Grand Total	Calculated %	Calculated $
9080001	$ -	$ 4,888,467.77	$ 4,888,467.77	3.31%	$ 247,959.84
9090001	$ -	$ 98,606.70	$ 98,606.70	0.07%	$ 5,001.67
9200001	$ 82,466.46	$ -	$ 82,466.46	0.00%	$ -
9210001	$ 7,403,824.74	$ -	$ 7,403,824.74	0.00%	$ -
9230001	$ -	$ 10,300.40	$ 10,300.40	0.01%	$ 522.47
9240001	$ -	$ 120,308.05	$ 120,308.05	0.08%	$ 6,102.44
9250001	$ -	$ 1,164,072.13	$ 1,164,072.13	0.79%	$ 59,045.73
9260001	$ -	$ 74.38	$ 74.38	0.00%	$ 3.77
9260010	$ -	$ 14,668.31	$ 14,668.31	0.01%	$ 744.03

The 'Balance' accounts above represent the accumulation of all the overhead costs during the year. These are accumulated in '920' and '921' FERC accounts. Per the USoA these are Administrative and general salaries and Office Supplies and Expenses, respectively. Based on the nature of the corporate governance function, it is reasonable for such cost types to accumulate into these accounts. The allocation of the Balance dollars to the different Source accounts occurs within PowerPlan. Refer below for the monthly allocation to account 1070002 for September 2016:

Sum of amount	Column Labels										
Row Labels	5501	5502	5503	5505	5506	5507	5509	5510	5599	Grand Total
201609	$ 0.00	$ 0.00	$ (0.00)	$ 0.00	$ 0.00	$ 0.00	$ 0.00	$ (0.00)	$ (0.00)	$ (0.00)
1070001	$ 98,430.86	$ 397.26	$ 7,749.21	$ (1.00)	$ 488.50	$ 86.66	$ 712.32	$ (1.25)	$ 90,225.24	$ 198,087.80
1070002	$ 95,239.82	$ 432.46	$ 8,011.30	$ (0.14)	$ 492.70	$ 26.54	$ 762.75	$ 0.71	$ 95,792.40	$ 200,758.54
1070003	$ 0.84	$ 0.04	$ 0.47		$ 0.02	$ (0.05)	$ 0.06		$ 7.44	$ 8.82
1080001	$ 2,070.77	$ 6.43	$ 142.46	$ (0.07)	$ 9.49	$ 4.10	$ 12.01	$ (0.15)	$ 1,557.86	$ 3,802.90
1510003	$ 172.75	$ 0.77	$ 14.40		$ 0.88	$ 0.07	$ 1.37	$ 0.01	$ 171.49	$ 361.74
1520001	$ (1.76)	$ (0.09)	$ (0.98)		$ (0.04)	$ 0.10	$ (0.14)	$ (0.01)	$ (15.54)	$ (18.46)

Note that the amount above represents all Corporate Governance allocated to the 1070002 account, including both Generation and Transmission and Distribution. Once the allocation to 1070002 has occurred for the month, the charges are cleared from the account and allocated to the individual work orders. Refer to the 'Allocation of Costs to Individual Work Orders' section below for information on this process.

Generation

Using cost detail out of the PowerPlan system we made selections of Generation costs to verify the source of the transactions for the Generation overhead allocations. Refer below for our selection out of PowerPlan:

Business	Ope	Account	Dept	Cost E	Acct WO	Month Numl	GL Journal Categor	Query Source Descript	Vendor Name	Voucher	Amount
PGE01	18100	5570003	551	2601	7000001059	201604	AP00094998-ACTUALS	Accounts Payable	CALERO SOFTWARE LLC	10498362	$154.62
PGE01	18100	5570003	551	2601	7000001059	201605	AP00096017-ACTUALS	Accounts Payable	CALERO SOFTWARE LLC	10504414	$520.16
PGE01	18100	5570003	551	2601	7000001059	201605	AP00096165-ACTUALS	Accounts Payable	CALERO SOFTWARE LLC	10505436	$184.25
PGE01	18100	5570003	551	2601	7000001059	201606	AP00096889-ACTUALS	Accounts Payable	CALERO SOFTWARE LLC	10510034	$833.26
PGE01	18100	5570003	551	2601	7000001059	201606	AP00097151-ACTUALS	Accounts Payable	CALERO SOFTWARE LLC	10511198	$148.84
PGE01	18100	5570003	551	2601	7000001059	201606	AP00097151-ACTUALS	Accounts Payable	CALERO SOFTWARE LLC	10511218	$222.75
PGE01	18100	5570003	551	2601	7000001059	201606	AP00098007-ACTUALS	Accounts Payable	CALERO SOFTWARE LLC	10515708	$185.90
PGE01	18100	5570003	551	2601	7000001059	201607	AP00098575-ACTUALS	Accounts Payable	CALERO SOFTWARE LLC	10519852	$221.25
PGE01	18100	5570003	551	2601	7000001059	201607	AP00098846-ACTUALS	Accounts Payable	CALERO SOFTWARE LLC	10521462	$797.38
PGE01	18100	5570003	551	2601	7000001059	201607	AP00099155-ACTUALS	Accounts Payable	CALERO SOFTWARE LLC	10523417	$183.11
PGE01	18100	5570003	551	2601	7000001059	201608	AP00099896-ACTUALS	Accounts Payable	CALERO SOFTWARE LLC	10528279	$798.09

We obtained the underlying support for this charge in order to verify the appropriateness of these charges in the overhead allocation. The charge was tied to the relevant account work order and account in order to verify that the support provided was accurate. Generation charges are accumulated within GL account 5570003, which is a part of USoA 'other expenses' and is to be used for production expenses. At month end, a portion of the charges accumulated in this account are reclassified into CWIP account 1070002 which is used to accumulate the monthly capital overhead. Refer below for the allocation out of the '557' account and into the '107' account for September 2016:

Actual Allocation										
Sum of Amount	Column Labels									
Row Labels	201601	201602	201603	201604	201605	201606	201607	201608	201609	Grand Total
13300	**$ 6,420.47**	**$ 4,500.55**	**$ 4,878.94**	**$ 5,098.30**	**$ 5,290.99**	**$ 5,033.88**	**$ 7,455.19**	**$ 7,038.23**	**$ 7,250.43**	**$ 52,966.98**
5000001	$ 6,420.47	$ 4,500.55	$ 4,878.94	$ 5,098.30	$ 5,290.99	$ 5,033.88	$ 7,455.19	$ 7,038.23	$ 7,250.43	$ 52,966.98
15200	**$ 2,624.42**	**$ 1,839.65**	**$ 1,994.32**	**$ 2,084.00**	**$ 2,162.72**	**$ 2,057.62**	**$ 3,047.38**	**$ 2,876.93**	**$ 2,963.71**	**$ 21,650.75**
5370001	$ 2,624.42	$ 1,839.65	$ 1,994.32	$ 2,084.00	$ 2,162.72	$ 2,057.62	$ 3,047.38	$ 2,876.93	$ 2,963.71	$ 21,650.75
18100	**$ (131,830.43)**	**$ (92,409.44)**	**$ (100,178.63)**	**$ (104,682.76)**	**$ (108,638.72)**	**$ (103,359.51)**	**$ (153,076.88)**	**$ (144,514.97)**	**$ (148,872.38)**	**$ (1,087,563.72)**
1070002	$ 321,726.18	$ 225,521.10	$ 244,481.46	$ 255,473.58	$ 265,127.92	$ 252,244.30	$ 373,577.30	$ 352,682.30	$ 363,316.36	$ 2,654,150.50
5570003	$ (468,647.03)	$ (328,508.52)	$ (356,127.40)	$ (372,139.22)	$ (386,202.35)	$ (367,435.21)	$ (544,176.69)	$ (513,739.70)	$ (529,229.95)	$ (3,866,206.07)
5600001	$ 15,090.42	$ 10,577.98	$ 11,467.31	$ 11,982.88	$ 12,435.71	$ 11,831.40	$ 17,522.51	$ 16,542.43	$ 17,041.21	$ 124,491.85

Note that the expense charges were accumulated in the 5570003 as mentioned above. These totaled $529,229.95 for the month of September. Based on the amount of labor charges to either capital or O&M projects related to generation, PowerPlan is configured to develop a rate to reclassify a portion of the charges out of the 557 account and into the 107 capital account. Based on this configuration in PowerPlan, it was determined that $363,316.36 of the expense in 5570003 should be capitalized into the 107 capital account. Note that this agrees to the summary of overheads for the month of September 2016 and shown below:

Account	Acct WO	Month Number	GL Journal Category	Amount	
1070002	7000010811 - Prodution PGE Construction Overh	201609	CSTRLD	($1,175,476.17)	
1070002	7000010811 - Prodution PGE Construction Overh	201609	JAL82	$100,392.49	Portland Down town Office Allocation (World Trade Center)
1070002	7000010811 - Prodution PGE Construction Overh	201609	JMS11H	$15,616.00	Stub Labor Accural
1070002	7000010811 - Prodution PGE Construction Overh	201609	JMS11S	$246,611.00	Stub Labor Accural
1070002	7000010811 - Prodution PGE Construction Overh	201609	LABLD	$405,551.94	Labor Loadings
1070002	7000010811 - Prodution PGE Construction Overh	201609	MATLLD	$1.50	Store Room Loading
1070002	7000010811 - Prodution PGE Construction Overh	201609	RCLCAG	$43,035.38	Corp A&G
1070002	7000010811 - Prodution PGE Construction Overh	201609	RCLGGF	$363,316.36	Generation Engineering Production allocation
1070002	7000010811 - Prodution PGE Construction Overh	201609	RCLGGH	$951.50	Generation Engineering Hydro allocation

All overheads are accumulated within the 1070002 accounts throughout the month and then as a part of the month-end close process these are reallocated to individual work orders based on the amount of direct charges to each work order. Refer to the 'Allocation of Costs to Individual Work Orders' section below for documentation of this process.

Allocation of Costs to Individual Work Orders

As discussed above, the overhead charges are accumulated within account 1070002 throughout the month and are allocated to individual work orders at month end. As a part of month end close procedures the overhead charges are reclassified out of account 1070002 and into account 1070001. The screenshot below shows the accumulated amounts of all overheads during the month of September 2016:

Account	Acct WO	Month Number	GL Journal Category	Amount
1070002	**7000010810 - T & D Construction Overhead**	**201609**	**CSTRLD**	**($4,554,658.12)**
1070002	7000010810 - T & D Construction Overhead	201609	DSEPAD	$995,943.77
1070002	7000010810 - T & D Construction Overhead	201609	JAL82	$1,082.40
1070002	7000010810 - T & D Construction Overhead	201609	JMS11H	$110,144.00
1070002	7000010810 - T & D Construction Overhead	201609	JMS11S	($147,966.00)
1070002	7000010810 - T & D Construction Overhead	201609	LABLD	$1,401,964.67
1070002	7000010810 - T & D Construction Overhead	201609	MATLLD	$1,108.06
1070002	7000010810 - T & D Construction Overhead	201609	PCT996	$11.46
1070002	7000010810 - T & D Construction Overhead	201609	RCLCAG	$154,460.06
1070002	7000010810 - T & D Construction Overhead	201609	RCLDSE	$2,037,921.16
1070002	**7000010811 - Prodution PGE Construction Overhea**	**201609**	**CSTRLD**	**($1,175,476.17)**
1070002	7000010811 - Prodution PGE Construction Overh	201609	JAL82	$100,392.49
1070002	7000010811 - Prodution PGE Construction Overh	201609	JMS11H	$15,616.00
1070002	7000010811 - Prodution PGE Construction Overh	201609	JMS11S	$246,611.00
1070002	7000010811 - Prodution PGE Construction Overh	201609	LABLD	$405,551.94
1070002	7000010811 - Prodution PGE Construction Overh	201609	MATLLD	$1.50
1070002	7000010811 - Prodution PGE Construction Overh	201609	RCLCAG	$43,035.38
1070002	7000010811 - Prodution PGE Construction Overh	201609	RCLGGF	$363,316.36
1070002	7000010811 - Prodution PGE Construction Overh	201609	RCLGGH	$951.50

Note that the amounts in bold above are a result of the aggregated overheads in both T&D and Generation being reclassified out of account 1070002 and into 1070001. This process is part of the automated close process done by PowerPlan and was verified by obtaining the detail of this allocation. Refer below for documentation of the verification procedures performed:

<u>Allocation of T&D Overhead for September 2016:</u>

Target Credit	Account	Dept ID	Cost Elm	Acct WO	Month Number	GL Journal Category	Amount
BALANCE	1070002	999	1101	7000010810 - T & D Construction Overhead	201609	JMS11S	($147,966.00)
BALANCE	1070002	999	1102	7000010810 - T & D Construction Overhead	201609	JMS11H	$110,144.00
BALANCE	1070002	999	2101	7000010810 - T & D Construction Overhead	201609	DSEPAD	$20.42
BALANCE	1070002	999	2101	7000010810 - T & D Construction Overhead	201609	RCLDSE	$3,654.44
BALANCE	1070002	999	5101	7000010810 - T & D Construction Overhead	201609	LABLD	$0.00
BALANCE	1070002	999	5102	7000010810 - T & D Construction Overhead	201609	LABLD	$7,422.01
BALANCE	1070002	999	5103	7000010810 - T & D Construction Overhead	201609	LABLD	$110,569.66

Row Labels	Sum of Amount
BALANCE	4,554,669.58
CREDIT	(4,554,658.12)
SOURCE	5,143,341.88
TARGET	4,554,658.12
Grand Total	**9,698,011.46**

The above screenshot is an output of PowerPlan showing a pivot of the detail containing all T&D overhead charges and direct charges. The 'Balance' row represents the dollars that had been accumulated within the 1070002 account during the month. The 'Credit' row represents the credit side of the journal entry the reclassifies the amounts out of the 1070002 account and into the 1070001 account. Note that the $4,554,658.12 shown here agrees to the amount reclassified from all overheads. The 'Source' row represents the charges that have been applied to work orders and are used to allocate the overhead during the month. The 'Target' row represents the debit side of the entry allocating the overhead charges to the respective work orders based on the source dollars accumulated during the month. Based on this analysis, overhead charges are allocated to work orders based on direct labor dollars charged to the work order. As there are $5,143,341.88 of direct labor charged to work orders and $4,554,658.12 of overheads, every direct labor dollar is allocated $0 .89 of overheads. ($4,554,658.12/$5,143,341.88 =$0 .8855).

To evidence appropriate allocation based on the amount of direct charges to a work order we selected a specific work order and verified that the appropriate amount of the accumulated overhead charges was applied. Refer below for an example of procedures performed for WO #0000018834 (a transmission work order):

Target Cr	Accou	Dept	Cost E	Acct WO	Month Numl	GL Journal Categor	Amount
SOURCE	1070001	312	2250	0000018834 - RIVER DISTRICT - INSTALL VAULTS AND	201609	AP00101375-ACTUALS	$15,824.00
TARGET	1070001	999	5303	0000018834 - RIVER DISTRICT - INSTALL VAULTS AND	201609	CSTRLD	$14,012.70

The amount of target dollars can be recalculated by multiplying the source dollars by $0.8855 as calculated above. This will apply an appropriate proportion of the total overhead amount for the month to the work order. Refer below for the calculation:

$$\$15,824 * \$0.8855 = \$14,012$$

The number calculated above agrees to the 'target' dollars as shown below:

Target Cr	Accou	Dept	Cost E	Acct WO	Month Numl	GL Journal Categor	Amount
SOURCE	1070001	312	2250	0000018834 - RIVER DISTRICT - INSTALL VAULTS AND	201609	AP00101375-ACTUALS	$15,824.00
TARGET	1070001	999	5303	0000018834 - RIVER DISTRICT - INSTALL VAULTS AND	201609	CSTRLD	$14,012.70

As discussed above, the 'target' dollars represent the amount of overhead applied to an individual work order through the 1070001 account. Note that the Generation department follows the same process and similar verification procedures were performed.