NORTHWEST NATURAL GAS COMPANY
COST ALLOCATION MANUAL

Overview

The purpose of Northwest Natural Gas Company's ("NWN") Cost Allocation Manual is to describe the methodologies for allocating direct, indirect and shared services costs between NWN, and any affiliates of NWN, and its non-regulated or non-utility affiliates and activities.

NWN is a natural gas local distribution company, which operates in Oregon and Washington, and is regulated by the Public Utility Commission of Oregon ("OPUC") and Washington Utilities and Transportation Commission ("WUTC"). NWN is owned by NWN Holdings. NWN Holdings also owns certain other businesses. NWN, NWN Holdings, and the other businesses owned by NWN and NWN Holdings are "affiliated interests" to NWN under ORS 757.015, and RWC 80.16.10. As such, the allocation of costs between these entities is subject to regulation by the OPUC and WUTC, and this manual sets out the methodologies, policies, and procedures for ensuring that the allocation of costs is done appropriately.

This document is intended to provide an overview of the different types of allocations and the processes employed to direct costs to the proper affiliate or activity.

This Cost Allocation Manual ("CAM") has been completed in accordance and conformance with the NARUC *Guidelines for Cost Allocations and Affiliate Transactions ("NARUC Guidelines")* as follows:

1. To the maximum extent practicable, in consideration of administrative costs, costs should be collected and classified on a direct basis for each asset, service or product provided.
2. The general method for charging indirect costs should be on a fully allocated cost basis. Under appropriate circumstances, regulatory authorities may consider incremental cost, prevailing market pricing or other methods for allocating costs and pricing transactions among affiliates.
3. To the extent possible, all direct and allocated costs between regulated and non-regulated services and products should be traceable on the books of the applicable regulated utility to the applicable Uniform System of Accounts. Documentation should be made available to the appropriate regulatory authority upon request regarding transactions between the regulated utility and its affiliates.
4. The allocation methods should apply to the regulated entity's affiliates in order to prevent subsidization from, and ensure equitable cost sharing among the regulated entity and its affiliates, and vice versa.
5. All costs should be classified to services or products which, by their very nature, are either regulated, non-regulated, or common to both.
6. The primary cost driver of common costs, or a relevant proxy in the absence of a primary cost driver, should be identified and used to allocate the cost between regulated and non-regulated services or products.
7. The indirect costs of each business unit, including the allocated costs of shared services, should be spread to the services or products to which they relate using relevant cost allocators.

Overall, the approach to allocating costs is to directly assign costs when applicable and to allocate costs based on the primary cost driver of the common cost, or relevant proxy, and to ensure that unauthorized subsidization of unregulated activities by regulated activities, and vice versa, does not occur. Except where otherwise approved, goods or services provided to the utility by an affiliate are provided at the lower of cost or prevailing market price. Goods or services provided by the utility to an affiliate are provided at the higher of cost or market price.

Costs allocated can take the form of: direct labor, direct purchased goods or services, and indirect labor and other indirect common costs. These costs are charged by the providing party to the receiving party at fully loaded costs. For the indirect labor and common costs that cannot be direct charged or allocated based on the primary cost driver of the common cost an indirect general allocator of the Massachusetts Formula will be used as a relevant proxy. The general allocator ("Massachusetts Formula") will be developed using an average of plant, revenues, and employee headcount for the preceding year ended December 31st. Refer to "Indirect Costs - Allocation of Common Costs" below.

Affiliates & Non-Regulated Activities

Refer to the subsequent organizational chart for the list of all affiliates and subsidiaries of NWN that currently meet the requirements of ORS 757.015 and RCW 80.16.010, respectively.[1] [2]

The following is a list of NWN's non-regulated activities with additional cost allocation considerations:

1. Appliance Center/Miscellaneous Merchandising
2. Interstate Storage

NW Natural Organizational Chart – as of November 1, 2018

[redacted]

[1] BlackRock, Inc. and The Vanguard Group hold more than five percent of the voting securities of NWN, however they are not allocated any direct, indirect and shared services costs by NWN. The ownership of voting securities held by these entities are reported pursuant to ORS 757.511 and OAR 860-027-0175.

[2] On October 1, 2018, NWN consummated a holding company reorganization, whereby Northwest Natural Holding Company became the sole shareholder of all of the outstanding shares of NWN, and NWN transferred to Northwest Natural Holding Company all outstanding interests of each of its subsidiaries other than Northwest Energy Corporation and its subsidiary, NWN Gas Reserves LLC.

Labor Allocation Methods

Management oversight and other labor performed by NWN employees for the benefit of affiliates or non-public utility activities are recorded in accordance with the labor allocation methods described below.

Direct Labor - Shared Services

NWN has several departments that may provide services to affiliates that specifically benefit another entity. These departments direct-charge time incurred in aggregate of 30 minutes per day directly to the respective affiliate, or non-utility activity in which the time relates to in the SAP time reporting system to the extent possible. The costs are assigned directly to the entity for which the service is being provided through intercompany accounts. NWN charges labor rates for these shared services at cost per the payroll systems, grossed up for payroll overheads. Refer to ‘Payroll Loadings and Overheads’ below.

The departments that direct charge time incurred include:

- Accounting, including Shared Services Management
- Accounts Payable
- Clerical Administrative Services
- Corporate Communications
- Engineering and Operations
- Environmental
- Executives – Management Oversight
- Facilities and Security
- Gas Accounting
- HR and Payroll
- Information Technology & Services
- Legal
- Marketing
- Public Policy and Government Affairs
- Purchasing and Stores
- Rates and Regulatory
- Risk and Land
- Safety
- Strategic planning, business development
- Tax
- Treasury

Indirect Labor - General and Administrative Services

NWN has several departments that perform administrative and general functions for the benefit of NWN, NW Natural Holdings and its affiliates as well as public company related activities in service of NWN and other affiliates. These departments’ labor costs are indirectly charged via a corporate allocation to the affiliates that benefit from their services. See ‘Indirect Costs - Allocations of Common Costs’ below. The below departments are determined to be indirect labor costs as they cannot be identified with a particular service or product to be charged and the labor benefits all affiliates. As such, the labor costs of these departments are allocated using allocation factors designed to equitably allocate costs between NWN and its affiliates. These allocation factors are designed with an emphasis on recognizing cost drivers, or a relevant proxy in the absence of a primary cost driver.

These departments include:

- Corporate Governance and Compliance
- Corporate Secretary
- Financial Planning & Budgeting
- Financial Reporting
- Internal Audit
- Investor Relations
- Shareholder Services

Payroll Loadings and Overheads

NWN Employee payroll overhead (POH) is comprised of Vacation and Holiday Overhead Load and Benefits Overhead Load. The Company's payroll overheads loading rate is reviewed and updated annually by HR, Accounting, and Finance. Quarterly, any over or under allocation of costs recorded to the payroll overhead clearing accounts is reviewed and allocated to corporate expense and non-utility activities consistent with the underlying payroll charged.

Vacation and Holiday Overhead Load

A vacation and holiday overhead load is included in the payroll overheads which includes the estimated cost of all vacation, sick and company designated holiday days earned by an employee so that these costs appropriately follow where an employee charges their time.

Benefits Overhead Load

The benefit overhead load includes the cost of health care, pension, post-retirement medical, workers' compensation, 401K plans, payroll taxes, and annual incentive plan and key goal bonuses. If exception time is reported (see "Labor Allocation Methods"), the benefits overhead load follows the payroll dollars. The benefits overhead load is set at a rate adequate to fully allocate by year-end all actual benefit costs. The rate is determined at the beginning of the year based on estimated costs. Because benefit cost rates may differ depending on employee grade, employees are categorized into two classes, with different benefits overhead load rates for each class. The employee classes are: (1) Executives, and (2) Non-executives.

In 2017, the following costs were allocated as payroll overhead loadings (company averages):

Executives	
Vacation & Holiday Overhead Load	15.57% of payroll
Benefits Overhead Load	91.09% of payroll
Total Executive Payroll Overhead[3]	106.66% of payroll
Non-Executives	
Vacation & Holiday Overhead Load	15.57% of payroll
Benefits Overhead Load	79.89% of payroll
Total Non-Executives Payroll Overhead	95.46% of payroll
Overtime and Doubletime Overhead[4]	15.80% of payroll

Service Provider and Administrative Allocations

For affiliate labor charges, both direct and indirect charged, an additional administrative overhead load of 27.5% of the labor cost is added to cover the cost of rented space, office supplies, IT costs, utilities, furniture and equipment and other administrative costs. [5] In like manner, an appropriate administrative overhead load is also charged from an affiliate to NWN when an affiliate provides services to NWN. The Company's administrative overhead is reviewed annually by Accounting.

Other Goods or Services

Direct Costs

Affiliates or non-regulated utility activities are charged directly for materials, supplies and services (e.g., consulting services, accounting software, office supplies, Kelso-Beaver Pipeline demand charge[6]) purchased by NWN on behalf of the affiliate on the basis of the full cost of the items supplied.

Indirect Costs - Allocation of Common Costs Incurred

Common costs incurred by NWN that may benefit other affiliates that are not able to be directly assigned will be allocated to the affiliates using the general corporate allocation methodology.

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[3] The executive payroll overhead rates do not include expenses for various elements of our executive compensation program such as stock option expense, restricted stock unit expense or long-term incentive plan expenses, because these expenses are excluded from rate base and are therefore, not necessary to allocate out.

[4] The overtime overhead rates do not include a vacation and holiday component, and only include those benefit costs that are incurred when additional salary is incurred including payroll taxes and 401k match.

[5] The administrative overhead load will not be charged if the employee providing the Services is located on affiliate premises for which all facilities related costs are borne by the Affiliate receiving the Services.

[6] Under the Gas Transportation Agreement be between Kelso-Beaver Pipeline Company ("KBPC") and NWN dated September 26, 1991, NWN pays KBPC a monthly demand charge which is charged directly. Additionally, if KBPC actually transports gas for NWN, there is an additional volumetric/commodity charge payable by NWN to KBPC for gas transported. The rates charged by KBPC to NWN for gas transportation services on the Kelso-Beaver Pipeline were approved by FERC in KBPC's 1991 certificate order.

These common costs include the indirect labor of the General and Administrative departments listed above as well as indirect department costs. See summary below.

Additionally, commons costs incurred by NWN Holdings that benefit NWN and other affiliates will be allocated using the general corporate allocation methodology and NWN will be charged its portion intercompany. NWN Holdings' structure as a publicly traded holding company provides substantial benefits to its regulated utilities and other affiliates. Indeed, the NWN Holdings' without any operations of its own, exists for the purpose of, and in service to, its subsidiaries. For these costs that benefit various functional areas and affiliates, it is not practical to charge the costs directly. Costs incurred by NWN Holdings directly related to the publicly traded company structure will be allocated to the affiliates using the general corporate allocator.

The following table shows the formulas that shall be used to allocate the cost of services and costs incurred which are not directly charged. These allocators shall be updated annually based on the preceding year ended December 31st data. However, if a significant or material event occurs during the year the Company will update the allocators to reflect such an event on a pro-rata basis. The following table includes functions and costs that do not have a direct cost causation. The general corporate allocator ("Massachusetts Formula") will be developed using an average of plant, operating revenues, and payroll expense for the preceding year ended December 31st.

NWN Indirect Costs Incurred[7]	**Basis of Allocation**
Corporate Governance and Compliance Department	General corporate allocation: 33.3% plant, 33.3% operating revenues, 33.3% payroll expense
Corporate Secretary Department	General corporate allocation: 33.3% plant, 33.3% operating revenues, 33.3% payroll expense
Financial Planning and Budgeting Department	General corporate allocation: 33.3% plant, 33.3% operating revenues, 33.3% payroll expense
Financial Reporting Department	General corporate allocation: 33.3% plant, 33.3% operating revenues, 33.3% payroll expense
Internal Audit Department	General corporate allocation: 33.3% plant, 33.3% operating revenues, 33.3% payroll expense
Investor Relations Department	General corporate allocation: 33.3% plant, 33.3% operating revenues, 33.3% payroll expense

[7] The departments include the departmental payroll and non-payroll costs incurred and additional administrative overhead charge on payroll costs.

Shareholder Services Department	General corporate allocation: 33.3% plant, 33.3% operating revenues, 33.3% payroll expense
Insurance Premiums	Allocation to affiliates and non-regulated activities covered by the group insurance based on the underwriting principles for each type of policy.
Property Taxes	Allocation to affiliates and non-regulated activities based on the value of the property owned that the taxes relate to.

NW Natural Holdings Common Costs Incurred	**Basis of Allocation**
Costs related to publicly traded company structure	General corporate allocation: 33.3% plant, 33.3% operating revenues, 33.3% payroll expense
Income tax Expense or Benefit	Allocated based on the adjusted pre-tax income or loss of the affiliate or activity

Other Goods and Services related to Individual NWN Non-Regulated Activities

Appliance Center

NWN's Appliance Center is a retail store that demonstrates and sells natural gas appliances to the general public. In addition to the allocations described within, an additional charge for management oversight of 1.5% of NWN's selling expenses is charged to the Appliance Center business. Certain NWN employees work exclusively on matters related to the operation of the Appliance Center. The cost of the employees and all related payroll overheads are charged to directly to the appliance center. In addition, all expenses incurred in the operation of the Appliance Center are charged to directly.

Interstate Storage

NWN owns and operates the Mist underground natural gas storage facility in Columbia County near Mist, Oregon. In addition to the allocations described within NWN provides the interstate storage service under a limited jurisdiction blanket certificate issued to it by FERC under Section 284.224 of FERC's regulations. *See*, Northwest Natural Gas Company, 95 FERC ¶ 61,242 (2001). Under that certificate, NWN is authorized to provide FERC-jurisdictional bundled firm and interruptible storage and related transportation services to and from its Mist storage field in interstate commerce. In addition, NWN provides an intrastate firm storage service for eligible intrastate customers and sites in Oregon under Tariff Schedule 80 (experimental). The terms of Rate Schedule 80 mirror NWN's FERC-authorized interstate service. Since the provision of the storage services is accomplished by the use of some shared storage and transportation assets that are included in the core rate base, NWN has sharing agreements in place with its Oregon and Washington regulators. In Oregon, the sharing arrangement for both storage services and asset optimization assistance is set forth in NWN's Tariff Schedules 185 and 186. These sharing agreements are in lieu of specific allocations of costs.