

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 among its public utility activities, its other activities, and its affiliates.

General

NWN has limited assets invested in affiliates or non-public utility activities. At December 31, 2016, these assets accounted for 9% of total assets, and revenue from them was 4% of gross operating revenues. The vast majority of the Company's activities are related to utility operations, and it has maintained a utility parent non-regulated subsidiary organization structure.

Management oversight and other labor performed by NWN employees for the benefit of affiliates or non-public utility activities are recorded on the books of the utility in accordance with the labor allocation methods described below. *See* Labor Allocation Methods. Costs of insurance coverage purchased by NWN on behalf of its affiliates and non-public utility activities are allocated as described below. *See* Insurance Cost Allocation Methods. Income and property taxes attributable to affiliate and non-public utility activities are allocated as described below. *See* "Tax Allocation Methods." Any variation from the general allocation procedures described below is described in the specific description of the particular affiliate or non-public utility activity set forth below.

Affiliates or non-public utility activities are charged directly for materials, supplies and services (e.g., consulting services) purchased by NWN on behalf of the affiliate on the basis of the full cost of the items supplied.

Intercompany balances between NWN and its affiliates are paid on a monthly basis. However, NWN may elect to defer payment of any intercompany balance up to the amount of its net equity contributions to the affiliate for periods of more than one month. If NWN does defer payment, then it will pay monthly interest to the affiliate based on its avoided cost of short-term borrowing for as long as the intercompany balance remains outstanding.

Affiliates & Non-Public Utility Activities

The following is a list of NWN's affiliates that currently meet the requirements of ORS 757.015 and RCW 80.16.010, respectively.

1. NNG Financial Corporation
2. KB Pipeline Company
3. Northwest Energy Corporation
4. NWN Gas Reserves LLC
5. Northwest Energy Sub Corporation
6. Northwest Biogas, LLC
7. NW Natural Energy, LLC
8. NW Natural Gas Storage, LLC
9. Gill Ranch Storage, LLC
10. Trail West Holdings, LLC
11. Trail West Pipeline, LLC
12. BL Credit Holdings, LLC

The following is a list of NWN's non-public-utility activities.

1. Appliance Center/Miscellaneous Merchandising
2. Lan Su Chinese Garden (formerly Classical Chinese Garden) Block
3. Company-Owned Life Insurance
4. Coos County Pipeline
5. Corporate Philanthropy
6. Enerfin Contracts
7. Interstate Storage
8. Lobbying, Civic, and Political Contributions
9. Non-Operating Advertising
10. Oil Storage Tanks/Dock Lease
11. Other Deductions
12. Parking
13. Regulatory and Tax Penalties
14. Service Solutions
15. Sherwood House
16. Smart Energy

Labor Allocation Methods

Beginning in February 2009, NWN completed the second phase of its Integrated Information Initiative (“III Project”), which included a new time keeping system referred to as “CATS” (the Cross Application Time System). Wages and salaries of all NWN employees are charged to a default account within the employee’s home cost center. If an employee has any exception time to this default account, the employee must report and record the exception time in the CATS system. The CATS system then calculates the cost of the reported hours for each employee, adds the appropriate overhead load and generates an accounting entry in which the costs of the reported hours including overhead load are transferred at the employee average pay rate, by pay grade, from the employee’s cost center to the cost center for the reported activity.

Examples of exception time are:

- Vacation,
- Holidays,
- Capital projects,
- Work for other cost centers,
- Work for Non-utility activity within NWN, and
- Work for an affiliate of NWN.

Payroll Overhead Allocation Methods

Payroll overhead is comprised of two types of costs, as follows:

Vacation and Holiday Overhead Load

A vacation and holiday overhead load is added to the pay of all NWN employees to cover the estimated cost of vacations and company-designated paid holidays. This cost is absorbed by the employee’s home cost center while they are at work. If exception time is reported by the employee (*see* “Labor Allocation Methods”), the vacation and holiday overhead load follows the payroll dollars.

The accumulated vacation and holiday load amounts are recorded as a liability in a balance sheet account (232). When employees report time for vacation or official holidays, the CATS system charges the direct labor, without vacation and holiday overhead load, to the balance sheet account (232). At year-end, any over- or under- accrual to the balance sheet account is charged or credited to corporate expense. The year-end balance reconciles to the subsidiary records by employee in the payroll system.

Benefits Overhead Load

All NWN employee benefit costs are charged into a clearing account (602). NWN allocates the costs of employee benefits and payroll taxes by adding a benefits overhead load to all labor charges that are in addition to the vacation and holiday overhead load described above. 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 2016, the following costs were allocated as payroll overhead (company averages):

Executives	
Vacation & Holiday Overhead Load	15.57% of payroll
Benefits Overhead Load	93.47% of payroll
Total Executive Payroll Overhead ¹	109.04% of payroll
Non-Executives	
Vacation & Holiday Overhead Load	15.57% of payroll
Benefits Overhead Load	74.78% of payroll
Total Non-Executives Payroll Overhead	90.35% of payroll
Overtime and Doubletime Overhead	15.84% of payroll

The benefit overhead load includes the cost of health care, pension, post-retirement medical, workers' compensation, 401K plans, payroll taxes, and bonuses. At year-end, any over- or under-allocation of costs recorded in clearing accounts (602) is charged or credited to corporate expense.

A separate entry is made to transfer the cost of payroll taxes embedded in the rates charged to O&M to Account 408, as required by FERC accounting.

For affiliate labor charges, an additional administrative overhead load of 27.5% of labor cost is added to cover the cost of rented space, furniture and equipment.² In like manner, an appropriate administrative overhead load is also charged from an affiliate to NWN when an affiliate provides services to the parent.

Insurance Allocation Methods

NWN's Risk and Land Department obtains insurance for the consolidated NWN entities in the open market. The cost of all premiums is initially charged to NWN accounts. However, Gill Ranch Storage, LLC ("GRS") pays a portion of its premiums directly. An allocation for affiliated or non-utility activity related insurance coverage is subsequently made by journal entry to the affiliate or activity. Allocation is based on the underwriting principles for each type of policy. NWN's intent is to use an allocation methodology that does not result in the utility subsidizing the affiliate or non-public utility activity.

¹ 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.

² 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.

Tax Allocation Methods

Income Tax

NWN allocates income tax expense or benefit to each affiliate or activity based on the taxable income or loss of the affiliate or activity. Intercompany tax sharing payments are based on amounts that become payable or receivable between the affiliates or activities based on their respective annual income tax results. For all affiliates or activities, the current tax expense payable or current tax benefit receivable is recorded in an intercompany account (146).”

Property Taxes

Property taxes are charged to the subsidiaries or affiliated interest based on the value of the property owned by the subsidiary or affiliated interest.

Individual Affiliate Activities

NNG Financial Corporation (“NNGFC”)

See NWN’s Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate and the affiliated transactions.

Invoices applicable to NNGFC but billed through NWN are charged directly to the intercompany account 146.

KB Pipeline Company (“KBPC”)

See NWN’s Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate and the affiliated transactions.

KBPC-related income taxes are offset through the intercompany account of NNGFC.

KBPC pays property taxes indirectly in the two states in which the pipeline operates. The portion of the pipeline located in the state of Washington is considered an asset of Portland General Electric Company (“PGE”) (the majority owner), for property tax purposes. PGE pays 100% of property taxes assessed to Cowlitz County, Washington. PGE then bills KBPC for its pro-rata share of these property taxes. The portion of the pipeline located in the state of Oregon is shown on the property rolls of Columbia County, Oregon as property of NWN. See Tax Allocation Methods, above.

Under the Gas Transportation Agreement between KBPC and NWN dated September 26, 1991, NWN pays KBPC a monthly demand charge equal to 96.83 cents per MMBtu under the contract. Based on the contract MDQ of 19,300 MMBtus, this amounts to a total monthly charge of \$18,688.19. NWN charges Account 804 and credits the intercompany account 146016. See NWN’s Affiliated Interest Report for further information on this demand charge. Additionally, if KBPC actually transports gas for NWN, there is an additional volumetric/commodity charge payable by NWN to KBPC equal to 1.44 cents per MMBtu of 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.

All intercompany balances flow through the intercompany account of KBPC’s parent company, NNGFC.

Northwest Energy Corporation (“NEC”)

See NWN’s Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate, and the affiliated transactions. Beginning in 2013, NEC began serving as the holding company for NWN Gas Reserves LLC.

Tax amounts are charged directly through the intercompany tax account (146).

NWN Gas Reserves LLC

See NWN's Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate and the affiliated transactions. NW Natural's interests in gas reserves were transferred to NWN Gas Reserves LLC in 2013.

Northwest Energy Sub Corporation ("NESC")

See NWN's Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate and the affiliated transactions.

Northwest Biogas, LLC ("NW Biogas")

See NWN's Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate and the affiliated transactions.

NW Natural Energy, LLC ("Energy")

See NWN's Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate and the affiliated transactions.

NWN will also directly allocate costs to Energy for certain services provided by NWN employees to Energy with respect to special projects not included in the services contemplated under the Shared Services Agreement, effective July 1, 2010, among NW Natural Energy, LLC, NW Natural Gas Storage, LLC and Gill Ranch Storage, LLC (Subsidiary Agreement).

NW Natural Gas Storage, LLC ("NWNGS")

See NWN's Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate and the affiliated transactions.

For management oversight and other labor services provided by NWN to or for the benefit of NW Natural Gas Storage, LLC ("NWNGS") or Gill Ranch Storage, LLC ("GRS"), NWN will bill NWNGS in accordance with the specifications of this allocation manual.

NWN will also directly allocate costs to NWNGS for certain services provided by NWN employees to NWNGS with respect to special projects not included in the services contemplated under the Subsidiary Agreement.

Gill Ranch Storage, LLC ("GRS")

See NWN's Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate and the affiliated transactions.

NWN will bill NWNGS in accordance with the specifications of this allocation manual for management oversight and other labor services provided to or for the benefit of NWNGS or GRS by NWN in accordance with the subsidiary agreement.

NWN will also directly allocate costs to GRS for certain services provided by NWN employees to GRS with respect to special projects not included in the services contemplated under the Subsidiary Agreement.

GRS as operator of the natural gas storage project co-owned by GRS with Pacific Gas & Electric Company (“PG&E”) is obligated to maintain certain insurance, including “All Risk” insurance, workers compensation, automobile liability and umbrella/excess insurance. The policies are endorsed to provide that the insurer shall waive any right of recovery that the insurer may have or acquire against the owners and their affiliates. Each owner is named as an insured. GRS purchases a majority of their insurance directly. Other insurance costs are allocated as set forth above, under Insurance Allocation Methods.

Trail West Holdings, LLC (“TWH”)

See NWN’s Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate and the affiliated transactions.

Expenses for Trail West Holdings, LLC (“TWH”) and its subsidiaries are charged to account 426, and consist of allocations of NWN employee time as described above in Labor Allocation Methods. As an equity investor, Energy receives an allocated share of income from TWH, recorded in 426. TWH is included in NWN’s consolidated financial statements as an equity investment.

Trail West Pipeline, LLC (“TWP”)

See NWN’s Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate and the affiliated transactions.

BL Credit Holdings, LLC

See NWN’s Annual Affiliated Interest Report for ownership information, a narrative description of this affiliate and the affiliated transactions.

Individual Non-Public-Utility Activities

Appliance Center

NWN's Appliance Center is a retail store that demonstrates and sells natural gas appliances to the general public. NWN has one store located in Portland. The accounting unit for the revenues and expenses for the Appliance Center is 11490.

The accounting for the product sales and cost of sales at the Appliance Center are in one of the following accounts:

Activity 415	Merchandise Revenue
Activity 416	Merchandise Expenses

NWN purchases liability insurance on behalf of the Appliance Center. See Insurance Allocation Methods, above. An additional charge for management oversight is made on a monthly basis by taking 1.5% of the selling expenses in Activity 911, Activity 912, and Activity 916 and charging Activity 416.

Certain NWN employees work exclusively on matters related to the operation of the Appliance Center. The cost of the exempt and hourly employees and all related payroll overheads are charged to Activity 416. In addition, expenses incurred in the operation of the Appliance Center are charged to Activity 416.

NWN owns the building in which the Appliance Center operates and rent is charged to Activity 416 based on the percentage of building square feet that is occupied by the Appliance Center. Revenue that NWN receives from this rent is recorded in activity 412, "Rent from Utility Property." NWN periodically adjusts rent based on market rates. Property taxes are included as a component of the rent. Market rental rates were last evaluated in 2008 and are adjusted annually based upon changes in the CPI Index. The rent cannot decrease despite any decreases in the CPI Index.

NWN has made Leasehold Improvements to the property and has capitalized these costs in account 186, Appliance Center Leasehold Improvements. NWN is amortizing the cost of these improvements over the life of the Appliance Center lease term. The current lease agreement term expires in June of 2022. Amortization expense is charged to Activity 416. The Accumulated Amortization of the Appliance Center Leasehold Improvements is in account 186.

Lan Su Chinese Garden (formerly Classical Chinese Garden) Block

NWN owns the land that is presently used for the Lan Su Chinese Garden (formerly Classical Chinese Garden). The land is held in Non-Utility Plant in account 121. It consists of one square block from Northwest Second Avenue to Northwest Third Avenue and from Northwest Everett Street to Northwest Flanders Street in Portland, Oregon. NWN has leased the property to the City of Portland under a long-term lease for 100 years for \$1 per year.

NWN provides no insurance coverage. Property taxes are the responsibility of the operator of the Garden.

Company-Owned and Trust Owned Life Insurance

NWN has a Corporate-Owned Life Insurance (“COLI”) Plan where it has purchased key-person life insurance contracts to provide informal funding for long-term, people-related liabilities including post-retirement medical benefits. The policies are owned by and payable to NWN and are increasing whole-life insurance. Similarly, NWN also has Trust-Owned Life Insurance Plans where the policies provide informal funding for non-qualified employee benefits and are owned by and payable to the Trust. Costs and benefits related to these investments, including the build-up of cash surrender value, are recorded in account 426. The investment balance is recorded in account 124.

Coos County Pipeline

An intrastate natural gas transmission pipeline to Coos County was built in 2004 and became operational in January 2005, for the purpose of providing natural gas service to the Southern Oregon Coast service area of NWN’s franchise. Coos County owns this pipeline and has contracted with NWN to operate it. NWN and Avista were the only Utility shippers on the Coos County Pipeline as of the end of 2016, while Knife River Corporation and Southport Lumber Company also utilized the pipeline.

NWN collects the costs of operation in a clearing account, activity 616. These costs include payroll costs of management and of operating employees who work on the pipeline. Each month these costs are cleared to Non-Utility Expense account 421. NWN bills Coos County monthly for the operating costs and records this as non-utility revenue in the same account 421. Coos County then bills NWN and Avista Utilities standard monthly amounts based on an annual budget, allocated by projected volumetric flows for each shipper. These costs are trued up at the end of each year, based on actual operating costs and actual volumes delivered for each shipper. NWN charges this payment to Cost of Gas.

NWN bills an additional monthly amount to Coos County as “compensation” to NWN, per the operations contract between the two parties. The contract allows this amount to increase each year for inflation. This revenue is recorded in account 421.

Corporate Philanthropy

NWN generally donates 1% of the average net income before tax for the three years immediately preceding the budget year. Donations are made to non-profit organizations, including those associated with education, arts, social welfare, and the environment.

The donations are directly charged to non-utility accounts 426 for Oregon and Washington. No accounting services are allocated.

Enerfin Contracts-Mist

NWN has a contract with Enerfin Corporation whereby the price of gas purchased from Enerfin for production at Mist is \$0.01 per therm less than what we collect in rates from our customers. This reduction is intended to offset general plant expenses for NWN's operation of Miller Station. This mutually beneficial agreement allows Enerfin to save money by not duplicating NWN plant and equipment at Miller Station.

The \$0.01 per therm gas savings is credited to income account 415. Labor provided by NWN employees for technical services such as meter calibration is charged directly to account 416 on daily time tickets. An overhead load is added at the same rate that is used by NWN.

Interstate Storage

NWN owns and operates the Mist underground natural gas storage facility in Columbia County near Mist, Oregon. In addition to the use of such storage facilities for its retail core customers, NWN has pre-built some storage facilities in advance of core need and uses the excess capacity of other existing facilities to provide storage services to customers in the interstate and intrastate market. 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.

Lobbying, Civic, and Political Contributions

NWN provides resources to participate in federal, state, and local government affairs, as well as in local civic organizations and initiatives. The Company also administers PAC funds that receive contributions from both employees and NWN.

Direct costs are charged to 426 accounts for the following activities:

- Contributions to political candidates,
- Contributions for ballot measures and opinion research on issues,
- Chamber of Commerce dues, and
- Social club dues.

A portion of two employee's salaries and expenses are charged to account 426.

Non-Operating Advertising

NWN charges some advertising and consumer incentive or contest expense to account 416, a non-utility account. The charges are for advertising to promote the benefits of natural gas and high-efficiency natural gas equipment, and to incent customers to sign up for payment programs such as Paperless Billing, Equal Pay, and Auto Pay.

Oil Storage Tanks/Dock Lease

NWN leases oil storage tanks and a loading/unloading dock at its Linnton property (“Dock”) to outside parties for commercial use.

The investment, accumulated depreciation, and deferred income taxes are accounted for in Non-Utility plant, accounts 121, and 283. Rental Income is credited to account 418 and depreciation is charged to account 418.

Income taxes are charged to non-utility taxes, accounts 409. See Tax Allocation Methods, above. Property taxes are billed to, and paid by, the lessee.

NWN purchases liability insurance coverage for the Dock facility. NWN’s Risk Services Department obtains insurance for the consolidated corporate entity in the open market. The policies obtained include the Dock facility’s replacement value. This insurance is charged to 426. See Insurance Allocation Methods, above.

Lessees provide their own insurance coverage.

No accounting or management costs are currently charged to this business segment.

Other Income and Deductions

The Other Deductions account, 426, is used for miscellaneous write-offs or other non-utility expenses not readily classifiable in any other utility or non-utility accounts.

Parking

Non-utility parking costs are recorded as direct invoice charges from parking vendors or as payments to employees working on non-utility business.

Costs for employee parking are directly charged to non-utility account 426. Parking reimbursement is collected from employees for personal parking and credited to the same account.

Regulatory & Tax Penalties

Any regulatory or tax penalties are charged to account 426.

Revenue from Utility Property

See “Appliance Center”. Rent income received from the Appliance Center is credited to account 412, “Revenue from Utility Property”.

Service Solutions

NWN provides a repair and maintenance referral service to customers with equipment problems or who desire equipment servicing. Customers call the Service Solutions Center and a representative connects the customer with a NWN Certified Contractor. Participating dealers agree to complete the service call within one week unless otherwise requested by the customer, or within 24 hours on an emergency basis. Dealers must meet strict qualification standards and agree to pay annual fees that are used to fund the program.

Expenses are tracked in account 416 and offset by fees paid by the participating dealers. This revenue is recorded in account 415. The expenses include directly charged labor and overhead, depreciation on original CIS (Customer Information System) program development expenses, and an answering service vendor.

Sherwood House

The Sherwood House is a residential home located at 24540 SW Old Hwy 99, in Sherwood, Oregon. The home and the land it is on were acquired by NWN because the land was needed for the Sherwood valve site of Phase 4 of the South Mist Pipeline Extension. The home cannot be partitioned from the property; therefore it is being leased to a private party.

The land is classed as utility property since it is needed for the valve site. The house is not needed for utility operations and is carried in account 121. Rental income is recorded in account 418. Depreciation on the house is recorded in account 421.

Smart Energy

Smart Energy is an Oregon-tariffed utility program which provides Oregon customers an opportunity to offset the carbon dioxide emissions from their use of natural gas by purchasing carbon offsets. The program became effective on September 1, 2007. The ongoing costs of this program are paid for by program participants. The start-up costs for the first 3 years of the 5-year pilot program were paid for by NWN Shareholders and all Oregon customers. Any ongoing incidental costs not covered under the tariff are directly charged to account 426.