

CALIFORNIA PUBLIC UTILITIES COMMISSION
Water Division

STANDARD PRACTICE FOR
PREPARING RESULTS OF OPERATION MODELS
FOR GENERAL RATE INCREASE REQUESTS
OF SMALL WATER AND SEWER UTILITIES

Standard Practice U-3-SM

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STANDARD PRACTICE FOR PREPARING RESULTS OF OPERATION MODELS FOR GENERAL RATE INCREASE REQUESTS OF SMALL WATER UTILITIES

A — PURPOSE AND SCOPE

1. The purpose of this Standard Practice¹ is to provide guidance to engineers and analysts (staff) in preparing the Results of Operation Models (RO) for General Rate Cases (GRCs) for Class B, C and D water and sewer utilities. These GRCs are categorized as Tier 3² Advice Letter (AL) filings consistent with the requirements referenced in General Order 96-B, Rule 7.3.3.
2. The RO Model provides details and analyses of a utility's proposed rate increase and is a component of the GRC process outlined in Standard Practice (SP) U-9-W. The RO Model produces the Summary of Earnings (SOE), adopted quantities, and proposed rates for the California Public Utilities Commission (Commission) to consider when adopting a staff resolution in response to a filed GRC. The RO Model provides the information necessary to determine the rates charged to ratepayers.
3. While this standard practice contains the detailed policy and procedural steps necessary to develop the RO Model, many policies and procedures will not apply in every case. In such cases, staff is expected to apply their own logic and reasoning in their analysis and determine best estimates of numerical accounts.
4. This standard practice provides the basic information needed to prepare a simple GRC analysis as required by (SP) U-9-W. As with all Commission work, the aspects of analysis described in this document are subject to change, may not be appropriate in a particular instance or may be too simple to adequately answer the questions the Commission is addressing.
5. Standard of Review: The level of review should balance the level of importance, both in terms of the impact on the customers and the amount of staff's time spent. The staff is responsible for taking whatever action is necessary to prepare as sophisticated a resolution as is required to assess and analyze the utility's filed request. Staff is also responsible for considering all available and relevant information in preparing the RO Models. This is best done by maintaining an active dialog with the Supervisor and Program Manager. In all instances where their advice and guidance differ from this Standard Practice, that advice and guidance shall govern.
6. This document will be revised and updated as necessary, and those updates will be available on Water Division's SharePoint and on the Commission's Website³.

¹ This standard practice may also apply to Class A water utilities when specifically authorized by the Commission (see Resolution No.4556-W, August 25, 2005).

² Tier 3 Advice Letters (AL) concern matters whose disposition is expected to require action by the Commission. Under GO 96-B (Rule 7.5.2), there is a 30 day review period and a 180 day period.

³ <https://www.cpuc.ca.gov/about-cpuc/divisions/water-division>

B — GENERAL PROCEDURE

7. Each staff member working on a GRC is responsible for doing a suitable study of the utility's operations, reliability, investment, financing arrangements, low-income program, plans for the future including conservation efforts, and relations with its customers, as assigned. All of these factors are important in developing the RO Model.
8. When dealing with water company personnel, staff should always approach them in a friendly, helpful manner, avoiding unnecessarily burdensome requests or directives where possible and still properly and reasonably process the GRC.
9. Preparation of the RO Model begins when the utility files a GRC advice letter and submits acceptable workpapers. See U-9-W, Standard Practice for Processing Informal General Rate Cases of Water Utilities for the steps in processing a GRC. Of the estimated five to six months allotted for processing a GRC, staff should normally complete the RO Model in a few months, depending on the availability of information. If staff needs additional time to prepare the RO Model, staff should inform your Supervisor of the reasons for the expected delay. The Supervisor will inform the Program Manager, and if necessary, the utility, of the new due date for completion of the RO Model and the reason for the delay.
10. Information for writing the GRC resolution comes from the utility's filing of the advice letter, the filed annual reports, responses to data requests, site visit, the public meeting and written protests and protest responses, comments, and from data requests. Data requests from staff to the utility can be issued by telephone, by electronic mail, or in writing to the contact person indicated in the Advice Letter or utility workpapers. If data requests are made by telephone, staff should record that information in the GRC workpapers. Staff should also keep a copy of each data request and all responses in the workpapers. Data responses should always have an expected due date agreed upon by the utility. If data responses are inadequate, discuss this issue with the Supervisor.
11. Staff should also work with the Supervisor to identify recent and past adopted resolutions for GRCs and the associated RO models. At a minimum, staff should review the last adopted resolution for the utility to which they are assigned to and the utility's own current RO model.
12. The objective of the RO Model is to produce the Summary of Earnings, adopted quantities, and proposed rates for the Commission to consider in approving a respective GRC. As presented in the GRC resolution, the RO Model summarizes the financial operations of the utility for the purpose of developing reasonable rates and presenting information to the Commission and interested parties. The proposed GRC resolution will explain the evaluation done by the staff that formalizes the recommendation of utility rates and related matters for Commission consideration and adoption. Often, the RO Model may be the only record of the facts and calculations used to determine reasonable rates. Thus, the proposed GRC resolution should be as complete and professional as possible in documenting this record. Additionally, the proposed resolution may comment on the condition of the utility's infrastructure and its reliability, both operational and in the event of an emergency or natural disaster. A copy of the RO Model and all workpapers must be filed and saved electronically on SharePoint by company name and must be made available to other staff.

13. Each analyst shall keep their physical workpapers in reasonable order, properly identified and indexed, in an appropriate binder or folder and reasonably available to the Supervisor. The physical workpapers should include copies of information from prior rate cases when applicable. Staff should keep their physical workpapers binder available in their workspace in case someone needs to refer to it when you are absent. On the other hand, if staff workpapers are documented electronically, staff should maintain those workpapers in SharePoint.

C — GRC RESOLUTION CONTENTS

14. The proposed GRC resolution should follow the format shown below. Tables should be embedded in the resolution as much as possible. Charts and maps, however, may be included as appendices.

- (A) **Summary:** Briefly describes the Advice Letter (AL), amount of additional revenues being produced for test year and potential escalation years, and whether the utility is utilizing a ROR or ROM method.
- (B) **Background:** Includes a description of the utility system itself, its physical condition, a discussion of when infrastructure needs to be replaced, the personnel who operate the system, any other business interests of the owner, any other situations that exist today that bear upon the elements of developing the GRC Resolution, and a brief summary of the history that is necessary to allow the reader to understand the utility's background.
- (C) **Notice, Protests, and Public Meeting:** Includes the notice that was sent to the utility's service list from the AL, the number of protests that were received for or against the rate increase request, and a summary of what occurred during the public meeting.
- (D) **Discussion:** This section includes the summary of how each of the Operating Expenses were estimated by the Water Division in comparison to the utility. In addition, the section includes the analysis on the utility plant and rate base, working cash, depreciation, Rate of Return (ROR) and Rate of Margin (ROM). This section explains how the rates were designed, including any deviations from the Commission's adopted design as described in Standard Practice U-7-W. Finally, the section discusses the affordability of proposed rates and how the monthly bill is calculated for customers.
- (E) **Environmental & Social Justice:** Includes a summary of the Environmental and Social Justice Action Plan (ESJ Action Plan) that was adopted by the Commission in February 2019 and updated to Version 2.0 in April 2022. Using the California Communities Environmental Health Screening Tool, Version 4 (CalEnviroScreen 4.0), staff should identify how the utility ranks in Drinking Water, Groundwater Threats, and whether the utility is located in a disadvantaged community.
- (F) **Compliance:** This section reviews any outstanding compliance orders of the Commission, or from DDW/SWRCB, or any other government authority. This also includes the review of the Compliance Monitoring Worksheet of the Compliance Monitoring and Enforcement Program (CMEP), including whether user fees were paid and the Annual Report was filed.
- (G) **Utility Safety:** This section summarizes the utility's water quality record as provided by the Division of Drinking Water (DDW) and State Water Resources Control Board (SWRCB) and its efforts to improve water

conservation and its low-income program, if any.

- (H) Comments: This section includes the reference from Public Utilities Code Section 311(g)(1) which receives customers' comments from the mailed draft resolution.
- (I) Findings: This section is the summary of the resolution which highlights the most significant parts such as the SOE, water quality standards, and recommendations being adopted.
- (J) Ordering Paragraphs: This section states the recommendations in the resolution that should be adopted and what is required of the utility to implement the GRC rates.
- (K) Appendix A – Summary of Earnings: The Summary of Earnings table calculates the revenue requirement and thus determines the just and reasonable rates that the water company may charge. The revenues are calculated for a future test year under the anticipated operating conditions. Consequently, the components that make up the rates are estimates. The purpose of a rate case is not to "make the utility whole" for incurred expenses, except for memorandum account and balancing account protection that was provided prospectively. The adopted resolution should contain sufficient information and explanation to enable the Commission to set rates that will be reasonable in the test year or potential escalation years to both the utility and its customers.
- (L) Appendix B – Tariff Schedules: The resulting rates produced from the RO Model should be formatted into proposed tariff schedules consistent with the format of the utility's existing tariff schedules. The proposed tariff schedules should be adopted in the GRC resolution. These tariff schedules outline the pricing schedule or rates that the water utility offers to its customers along with certain rules impacting the application of tariffs.
- (M) Appendix C – Comparison of Rates: This appendix compares the present rates and recommended rates proposed in the GRC Resolution by a percentage change (increase or decrease).
- (N) Appendix D – Adopted Quantities: This appendix outlines the adopted quantities for purchased power, number of service connections, metered water sales, and tax calculations for test years and potential escalation years.
- (O) Advice Letter Service List: Advice Letters are public records and utilities are required to give proper notice to customers affected by an Advice Letter. Customers can call, mail, or email their local utility and request to be placed on the service list. Being on the service list requires the utility to send via mail or email current and future Advice Letters to all customers on the service list. This particular appendix should contain the Service List specific to the utility.

D — CALCULATING REVENUE REQUIREMENT

15. Staff must estimate the test year expenses for each category of expense applicable to the utility's operations or accept the utility's estimate. While the Commission adopts rates based on a test year concept, additional test years will be considered as escalation years. The Uniform System of Accounts (USOA) (D.16-11-006, November 16, 2016, "Rulemaking on the Commission's own motion to revise the Uniform System of Accounts for Class B, C and D Water Utilities" memorialized as U-39-W, "Uniform System of Accounts (Class B, C, and D) Rulemaking") specifies how to account for expenses, plant,

and other ratemaking costs.

16. In order to develop reasonable estimates of test year expenses, staff should review those expenses in the filed annual reports. (If the utility hasn't filed an annual report for the year prior to the test year, staff should halt the processing of the GRC until the report has been filed. Annual reports are required to be filed by the Commission⁴. The Commission cannot authorize a rate increase when the utility is in breach of the law.) Verification of reported amounts in the Annual Reports are conducted through the Audit Branch of the Utility Audits Risk and Compliance Division (UARCD). When available, staff should review the most recent audit report performed by UARCD of the utility. These expenses booked by the utility should be verified during the site visit. Generally, staff may adopt the utility's estimate of expenses if the amounts are within 5% of the staff's estimate. If the booked expenses seem unreasonable, staff may develop their estimate of reasonable expenses based on what was adopted in the last GRC or recently for similar systems.

17. There are many ways of estimating expenses. Staff is expected to use the most appropriate, in coordination with the Supervisor. The purpose of estimating expenses and other values during the test year is to provide an independent assessment of the correctness of the utility's estimates. The purpose of all estimates for test year values is to provide verification of the reasonableness of these amounts in establishing utility rates.

18. If the operations of the utility have changed (more people have been hired, some employees have been promoted, work has shifted from contract to in-house) then staff should modify the estimates in each account accordingly. Since these estimates must be forward-looking, consider any changes in expenses that will occur in the test year. For example, determine whether any new water quality requirements are anticipated or effective during the test year and how these might impact expenses.

19. The following methods are all valid approaches to estimating expenses:

(A) Three-Year Average: Applying this method, staff calculates the average of the recorded operating expenses from the previous three years. The numerical values for each of the operating expense accounts are listed in the annual reports which the utility is expected to submit every year. A three-year average may reflect the most recent expenses for a particular cost and provide a reasonable estimate.

(B) Three-Year Average with Escalation Factor: Applying this method recognizes that there are both labor and non-labor inflation factors that impact the average value of recorded costs. After calculating the three-year average, the analyst multiplies the average by the appropriate escalation rates provided by the Public Advocates Office (Cal Advocates). See Appendix A for a sample. Escalation rates should reflect the year for which they are developed. Specifically, each account of the operating expenses is either multiplied by the escalation factor from the non-labor inflation rate or the labor inflation rate applied to the specific year for which the factors were developed.

Operating expense accounts that are normally considered non-labor expenses include:

Purchased Water (Account #610), Purchased Power (Account #615), Other Volume Related Expenses (Account #618), Materials (Account #640),

⁴ Public Utilities Code Section 581, General Order 104, July 14, 1967

Transportation Expense (Account #660), Other Plant Maintenance Expenses (Account #664), Uncollectible Accounts Expense (Account #676), Office Supplies & Expenses (Account #681), , Regulatory Compliance Expense (Account #689), and General Expenses (Account #689).

Operating expense accounts normally considered labor expenses include:

Employee Labor (Account #630), Contract Work (Account #650), Office Salaries (Account #670), Management Salaries (Account #671), and Professional Services (Account #682).

(C) Trending From Past Three Years (consider using the Forecast Function – Microsoft Excel): This method should be applied when the expenses indicate increasing amounts over time and that these increases are likely to continue. The current approach to apply the trending method is to perform the “FORECAST” function on Microsoft Excel. To complete this function, via Microsoft Excel, staff must have operating expense information for the duration of the previous years, which can be three or more. Apply the “FORECAST” function on the TY data.

The “FORECAST” function can be used to predict future values based on historical data. The existing values are known x-values (years) and y-values (operating expenses), and the future value is predicted by using linear regression. In addition, there may be other variables that may assist in developing a test year estimate. For example, customer expenses are likely related directly to the number of customers. Similarly, chemical expenses are likely related to the volume of water sold.

(D) Budgeting: Certain costs may need to be estimated based on the current recorded cost plus escalation. An example cost would be insurance, which has become increasingly costly and will likely continue to increase significantly. Consequently, staff should review the current insurance cost and apply that escalation factor which represents the most recent utility experience.

(E) Consistency: It is important that the estimates developed for expenses are consistent. For example, if staff is developing purchased power costs, they should be proportional to other adopted quantities, such as projected sales. Since the purchased power expense will be proportional to expected sales, staff shouldn't average or trend past purchased power costs, but rather, starting from expected sales, calculate such costs based on existing electric rates and expected sales. This makes the estimating of these figures consistent.

(F) Exceptions: There are exceptions to applying the estimation techniques above. While this SP provides guidance material, it is critical that the assigned staff consider the various factors that affect their estimates. There are many expense accounts for which the future cost is not necessarily estimated by past costs or application of estimating methods such as trending or averaging.

Some examples of exceptions could be if a utility is adhering to new rules from the SWRCB, installing automatic meter reading, or addressing the effects of a drought or a wildfire which may impact insurance costs. In addition, if staff observes a worn water tank during the site visit and realizes there are leaks and must be replaced, this is an example of how staff should apply their knowledge and existing circumstances to

develop reasonable estimates of expenses and not just trend past repair expenses. Such observations should occur consistent with the implementation and use of the Site Inspection Worksheet outlined in the CMEP. (see SP U-9).

20. Expenses. Refer to Standard Practice No. U-26, Adjusting and Estimating Operating Expenses of Water Utilities (Exclusive of Taxes and Depreciation) for information on operating expenses. Some items for consideration are given below.

21. Purchased power. This expense is calculated by taking the adopted water sales and the historical cost to pump that much water. Staff should also review current energy utility tariffs applicable to the utility in question.

22. Contract Work. One potential problem in estimating expenses for small water utilities occurs around affiliate transactions. Some small water utilities are affiliated with a well drilling company, or the owner may also run a development company or construction business. Staff must be extremely careful to make sure the ratepayers are paying only for work done for the utility and are paying only reasonable charges for supporting activities such as contract work, especially when the work is done by an affiliated company. Generally, the utility should obtain at least three competitive bids for all major contract work. If the utility doesn't perform this step, the utility should explain why and prove why the charges were reasonable.

23. Rent. Normally, staff should allow in rates any formal contract that the utility has signed such as a lease for rent unless the utility shares space or staff with the owner's other businesses. In that case, staff should determine comparable rates for rent in the area and apply that.

24. Transportation. Transportation expense can be controversial if the owner is charging some or all of their (or the family's) automobiles to the utility. If actual costs are not available, or if the employees use their own vehicles for company work, the allowable IRS cost per mile may be used to calculate that part of the expense.⁵ Example calculations of transportation expenses for purchase or lease options of utility vehicles are given in Appendix B.

25. Management Expenses. Management Salaries are described as "the portion of salaries of managers, owners, partners or principal stockholders of a utility chargeable to utility operations." This requires that the individuals whose salaries are being estimated must be owners or stockholders in the company or designated as managers by their job title.

(A) The most important item for review here is to be sure that the time spent by the manager is fully chargeable to the utility's operations. Especially with smaller water companies where the managers have other interests, staff should separate activities that assist the water company from those that promote the other interests of the owner. In some instances, the owner will delegate both operations through a contract such that a management salary of zero is reasonable. In addition, some part of the manager's (or an employee's) salary may be classified as capitalized labor, because this cost is related to construction of facilities, and should be capitalized and not used in calculating

⁵ The standard mileage rate for transportation or travel expense is 65.5 cents per mile for all miles of business use (business standard mileage rate). – [2023 Standard Mileage Rates \(irs.gov\)](https://www.irs.gov/standard-mileage-rates)

the management salary.

- (B) Management Salaries is an Administrative and General Expense and as such is not directly allocable to either plant or operations, so staff shouldn't rely on any one parameter (such as number of customers or total plant) to use when scaling the management salary. Consequently, management salaries are somewhat subjective, but even so they need to be factually based. One concern is when management salaries are unusually high compared to past management salaries adopted in previous GRCs. In some instances, owners may increase their salary pending a sale of the utility.
- (C) To evaluate the proper management salary expense, staff should determine what are the job duties of the manager. A manager who is planning the expansion of the company's service territory, negotiating with developers, arranging for low interest loans, and supervising employees probably deserves a higher salary than a manager who is reading meters and managing customer accounts, although each activity may be deemed a reasonable one for management.
- (D) Staff should also ask for copies of an owner's or manager's timecard or other internal salary tracking document. Remember, however, that the temptation for a utility when a person is working for both regulated and unregulated firms is to bill as much work as possible to the regulated firm. Since there is no real way of double-checking timesheets, this method of tracking work cannot be used in isolation.
- (E) Another source of information is recent Commission resolutions adopted for small water utility GRC filings. Recently adopted resolutions may include the justification for the analysis that resulted in an estimate of management expenses.
- (F) With everything else being equal, staff may consider a higher management salary level for a utility with a larger number of customers, as the job requirements are probably more sophisticated and complex. Also, running a six-employee utility is more complex than running a two-employee utility, again, all other things being equal. However, most often, all other things aren't equal, such as those cases where a company "farms out" much of its management work to consultants or contract employees.
- (G) Customer satisfaction is also an important indicator of management capability. If the utility fixes leaks quickly, that indicates good management. Such factors as the location of the owner's home could have an impact since absentee ownership is rarely as responsive as a concerned local owner who might even be providing water to his or her own household. The public meeting may give staff an idea of the overall management quality. If customer complaints are being dealt with quickly and effectively, the manager is probably doing a better job than if problems languish for long periods. Overall rates are a factor as well. Prudent management can lower rates. If staff believes that management has worked hard to keep overall rates low, a higher management salary might be appropriate.

- (H) Professionalism and certifications are also significant. If the owner has an operator's permit and has been active in professional organizations that relate to water service, his/her expertise and value to the customers probably exceeds that of the owner who has no qualifications or professional or regulatory knowledge. This information is available by conversation with the owner or verifying certificates during a field visit.
- (I) The quality of the management will have an impact on the salary level (as explained above), and it will also have an additional impact in that it might justify a higher allowed rate of return. This "double whammy" might at first seem to be unfair, but it is not. Part of the Commission's job is to substitute for the free market. In a competitive market, a utility that was run poorly would likely be unprofitable and should pay its manager less. Conversely, staff should have no qualms about a utility paying an excellent utility manager what they are worth and allowing a return near the high point of the range as well, to recognize excellent service.
- (J) Preparation of the management expense estimate begins with an evaluation of the amount requested in the filing. If the owner has not requested a management salary, staff should encourage them to do so. Conversely, staff may find that the owner is requesting what staff may consider an exorbitant amount for management salary. This claim may make sense if the owner is making a profit and taking the profit out in salary, for tax purposes, instead of as dividends, since dividends are taxed twice.⁶ For estimation purposes though, staff should separate the owners' management salary estimate from the return on rate base estimate and use a reasonable salary in the Summary of Earnings.
- (K) Staff should also talk, during the site visit, to as many employees as possible about the quality of utility management. Even though most employees are very loyal, they will still have opinions and desires that they have not satisfied. As with all verbal evidence, staff should *never* rely on just one item or assertion. Some factual or corroborating evidence must verify claims and opinions before they are ever used in determining rates.

26. Regulatory Expenses. In accordance with usual practice, the Water Division allows the utility to recover actual regulatory expenses for processing a GRC over three years as an estimate of the next GRC cost.⁷ Because the small water GRC procedure was created to try to minimize costs, staff should avoid including in regulatory expenses any consultant costs for arguments and appeals that the utility makes in an attempt to increase its rates over what staff finds reasonable. However, if the utility "wins" the appeal, then the expense is reasonable. This rule gives the utility the proper incentive to look closely at the areas with which it disagrees and to see whether it is worth appealing them. If the Water Division didn't have this limitation, the utility or consultant would have the incentive to automatically appeal everything, since those extra costs would become part of the revenue

⁶ Corporate profits are taxed at the corporate tax rate. If any of the remaining profits (retained earnings) are distributed as dividends, those dividends are taxable to the recipient as personal income. Alternate corporate structures, such as Subchapter S, can get around this problem.

⁷ Memorandum from Bruno A. Davis to Tony Irving, Advisor to Commissioner Grimes, December 8, 1982, Subject: Ratemaking Treatment Accorded Utilities' Regulatory Commission Expense

requirement.

- (A) All other regulatory expenses may be included in rates, including postage and advertising expense for notices, rent for public meetings, etc. All costs of notice and compliance with Division of Drinking Water (DDW) requirements may also be allowed. Generally, costs which are associated with meeting regulatory requirements may be included in rates.

27. DDW Water Quality Testing. These costs can vary greatly from year to year, so care should be taken to estimate them prospectively. Some testing is required on an irregular basis and DDW occasionally requires systems to test for chemicals that are not yet regulated. For these reasons, recorded costs may not reflect the testing that will be required. The utility should be able to provide a sampling schedule for several years into the future as most companies are routinely provided with this information by DDW/SWRCB. However, a test being scheduled does not mean that the utility will be required to carry it out. Waivers can be granted, allowing utilities to avoid expensive tests like those for Synthetic Organic Compounds (SOCs) for up to nine years. The District Engineer can be of help in determining if waivers are likely.

28. Dues. Small water companies can be members of various professional organizations: California Water Association (CWA), American Water Works Association (AWWA), National Association of Water Companies, etc. To the extent that participation benefits the ratepayer, by making the owner or employees more knowledgeable, these costs should be allowed. For Class B companies, staff should disallow the percentage of the association's budget that is used for lobbying or other non-educational activities, just as staff does for Class A companies. For class C and D water companies, it is unlikely that part of CWA or AWWA dues are really used for lobbying for these small companies. For those companies, staff should include 100% of CWA dues and dues for other associations if the amount isn't too high and if the utility employees are actively involved so that the ratepayers receive a benefit for their investment.

29. Franchise Fees. All franchise fees⁸ that the utility must pay as a normal business expense should be included in rates, but they may require special treatment. If a municipality imposes a fee as a utility tax, the Commission has held that this should be listed separately on the bill, not hidden in rates, and should be paid by only those ratepayers that live within the municipality.⁹ This requirement for separate listing continues until surrounding municipalities or counties have raised similar fees to approximately the same level. This may be applicable to small companies if their billing system is sophisticated enough to do it but is not generally required.

30. Charity. Charitable contributions are not allowed in rates. The Commission has held that if ratepayers want to contribute to a charity, they can do so themselves.¹⁰

31. Advertising and Public Relations. These expenses may be allowed to the extent that they benefit customers. This would include safety messages, essential customer service messages and conservation messages.

32. General Office. A General Office (GO) of a small utility provides administrative and

⁸ A fee charged by a municipal to do business within the municipal.

⁹ D.04-12.055, December 16, 2004, page 24.

¹⁰ D.67369, June 11, 1964, Pacific Telephone and Telegraph Company

general functions to its districts/regions. Its expenses should be allocated to individual districts if appropriate. This can be done by the “four factor” method that the Class A utilities use or, more commonly, by allocating based on the number of customers in the district compared to the number of total customers the utility serves.¹¹

The three major expense items of GO are O&M, A&G, and Rate Base.

- (1) O&M Examples: Payroll, Transportation, Purchased Services and Stores
- (2) A&G Payroll, Pensions and Benefits (P&B), Transportation, Office Supplies, Property Insurance, Franchise Requirements, Regulatory Commission Expense, Outside Services, Miscellaneous General Expenses, Maintenance of General Plant, Amortization, and Dues and Donations Adjustment. Payroll and P&B are the two biggest expenses.
- (3) Rate base = plant – depreciation reserve – deductions + additions

For example: Plant Additions could be furniture, tools, equipment, automobiles, computers, software, etc. Plant additions must have a life of over 1 year. Depreciation reserve is the accrued depreciation on a plant. Deductions are items such as deferred taxes, and unamortized investment tax credits. Additions are usually working capital and materials and supplies.

33. Depreciation. Calculating depreciation can be a profession all its own. The Commission uses the straight-line remaining life method of calculating depreciation. This means that an item which costs \$100 and is initially thought to have a 10-year life would undergo depreciation of \$10 per year. If after 5 years (\$50 remaining value) the Commission determined that the item had 8 years of remaining life instead of five, the depreciation over the last eight years would be \$50/8 or \$6.25 per year. The actual depreciation is included in rates as depreciation expense. The accumulated depreciation is subtracted from the original cost of the item to get the amount that is included in rate base. Standard Practice U-4-W describes the steps staff should use to figure the allowable depreciation. Land and water rights are not depreciable.

- (A) For small water companies, the Water Division uses a flat 2.5% depreciation rate on total plant in service. This means that staff believes that the average life of all facilities is 40 years. Some utilities may be able to justify a faster depreciation (greater than 2.5% per year). If the Commission has adopted a higher or lower depreciation figure in a previous rate case, that percentage should apply unless a new depreciation study is done. The depreciation expense used for setting rates, and the depreciation used for income tax purposes are not the same. For Class A and B utilities, the difference between the taxes paid using tax (accelerated) depreciation and the Commission's straight-line depreciation can be significant. For these larger companies the Commission "normalizes" this difference. This means that the utility books the difference between the taxes used for ratemaking and the taxes actually paid to an account (called the Deferred Tax Reserve Due to Depreciation account). The amount in this account is subtracted from working cash and results in a reduction in rate base. In this way, the ratepayers get something back for the timing difference between ratemaking income taxes and income taxes actually paid. Normalizing taxes for Class C and D utilities is not done as additions to plant,

¹¹ For the Four-Factor method see Standard Practice U-6.

hence new depreciation expense, are not usually uniform throughout a 12-month period. However, the normalizing method has been used for class B companies.

34. Retirements are booked by decreasing Plant-In-Service by the original cost of the facilities being retired and decreasing Accumulated Depreciation by the same amount.

35. Rate base is the net dollar investment of the utility. Staff should review the last adopted GRC resolution as this may provide a potential starting point for a reasonable estimate of rate base. If the utility is acquired through an acquisition from a mutual or municipal utility, Staff must use the purchase price for rate base. Detailed procedures to calculate rate base are discussed in SP U-5-SM. If staff intends to develop a rate base from an original starting point, staff should determine Utility Plant in Service (UPIS) by determining the original cost of the property to the person or entity first devoting it to public utility service. If the utility's records do not properly represent such original costs, it will be necessary to adjust the booked costs or to request that the utility have an original cost appraisal made. In the case of Class C and D utilities, staff may make such an appraisal and reserve study if approved by the Supervisor. Where an earlier appraisal has been made, that appraisal should form the starting point for the inclusion of subsequent plant improvements, additions, and retirements. Plant Held for Future Use may be included in Utility Plant if there is a specific plan for the plant (usually land). If there is no specific plan, exclude it. Note: the USOA does not require a time limit on the plan. Once staff calculates the Plant in Service, subtract the accrued depreciation (depreciation reserve), deferred tax reserve (if any), contributions and advances, and add working cash and materials and supplies (M&S) and any other adjustments. Accrued depreciation is the sum of the depreciation expense booked each year at that year's depreciation rate. If any plant or depreciation is funded through grants, they will be excluded in the calculation of rate base. Working cash is calculated using the method described in Standard Practice U-4-SM. For flat rate systems or metered systems that impose an annual charge at the beginning of the year for rates or service charges, the working cash is likely to be negative because the leads outweigh the lags, but staff may restate a negative working cash to zero.¹² M&S is estimated by staff based upon the utility's actual operating needs.

Rate Base ordinarily contains the following items, with appropriate adjustments or estimates:

- Original Cost of Organization, Franchises, Water Rights and other Intangibles
- Original Cost of Land that is used and useful for utility service
- Original Cost of Depreciable Properties that are used and useful for utility service
- Construction Work in Progress
- Reasonable Allowance for Materials and Supplies
- Allowance for Working Cash
- Less: Contributions in Aid of Construction (CIAC)
- Less: Unrefunded Advances
- Less: Depreciation Reserve¹³

¹² See Decision 83-10-002, October 5, 1983 at 24 for a situation in which a Class A water company had negative working cash.

¹³ The accounting entry for Water's CIAC plant in relation to depreciation is as follows:

- Dr. Accumulated amortization on CIAC
- Cr. Accumulated Depreciation

Water industry's CIAC plant does not get depreciation expense; therefore, there is no above- or below-the

Less: Deferred Tax Reserve (if any)

Less: Plant that is being financed by a conventional loan on which the ratepayers are paying a principal and interest surcharge.

36. Income Taxes. Income taxes are calculated on a pro-forma basis by applying the applicable tax rates to the utility's net revenue based on straight-line depreciation. When doing this calculation, the prior year's state income tax is used as a deduction from the current year federal income tax for the test year.¹⁴ If more than one test year is estimated, staff should use the state tax calculated for prior test year as a deduction from the federal taxable income.

37. Determining Rate of Return. The Water Division's Financial Analyst (FA) will provide staff with the latest values of allowable Return on Equity (ROE) for each class of water utility (Class C and D utilities are considered to be 100% equity.) For Class C and D utilities, this value will have a range of 50 basis points (one basis point is .01%) such as 13.8% to 14.3%. Staff should choose a value from the provided range of return on equities based upon a determination of the quality of service the utility is providing. If the utility is doing a good job of meeting the needs of its customers, it should receive a return near the high end of the range. If the utility responds poorly to customer complaints and is not meeting its public utility obligations, it should receive the minimum allowable return. Most utilities will deserve a return near the average. If staff is unsure on the value, they should discuss with the Supervisor. For Class B utilities, the FA will determine a utility specific reasonable ROE.

38. If the utility is financed in part by long-term debt, staff should determine the capital structure, which considers the percentage of equity that is financing the company and the percentage of debt that the Commission has approved and that has been used to build plant. For large utilities, the capital structure normally ranges from 40% investment and 60% debt to about 60% investment and 40% debt. After staff determines the capital structure, staff should multiply the percentage of debt by the actual average cost of debt and the percentage of capital by the reasonable return on equity provided by the FA and add these two quantities to get the rate of return on rate base. For example, assume a 70% equity, 30% debt Class B utility is paying an average of 9% on its debt. The FA will provide a proposed equity such as 11%. Using this example, the rate of return for this Class B utility is:

weighted cost of equity	.70 x .11	= .077
+ weighted cost of debt	.30 x .09	= .027
rate of return		.104 = 10.4%

If the utility capital structure were 100% equity, the ROR would equal the ROE and be 11%.

39. Determining a reasonable return for Class C and D Water Utilities: Commission Decision 92-03-093 states in ordering paragraph 8 (paraphrased here):

“Staff should develop rates using both Return- on-

line treatment. The above journal entry will eventually offset the water plant in service balance and also the CIAC amount as the plant serves out its useful life.

¹⁴ D.89-11-058, December 22, 1989

Ratebase and Rate of Margin methods of ratemaking for Class C and Class D water companies requesting new rates and to recommend to the Commission that rate method that produces the higher result.”

40. Rate of Margin: This ratemaking method develops a revenue requirement where little or no rate base exists. The method used to determine an average Rate of Margin is discussed below. The average is then applied to Operating Expenses to determine the estimated dollar return that is then compared with the average dollar return on rate base. The Rate of Margin is determined as follows: Water Division’s Financial Analyst will issue a memo¹⁵ in March of each year (at the same time they issue the rate of return memo) that provides recommended average Rates of Margin for Class C and D water utilities to be used by staff. The method staff will use to calculate the rate of margin is contained in Appendix C.

41. Determining the recommended return using the Authorized Rate of Return: The calculation is based on the individual Class C or Class D Company’s rate base. The company specific Rate Base is multiplied times the Authorized Rate of Return. The pre-tax rate of return on rate base is then grossed up to provide an after-tax rate of return on rate base. The Net-to-Gross Multiplier indicates the unit change in gross revenues required to produce a unit change in net revenues. It is a factor that accounts for the additional revenue required to pay taxes and achieve a given revenue requirement after taxes.

42. Calculating the Net-to-Gross Multiplier. An example of the calculation of the net-to-gross multiplier is shown below¹⁶:

1.	Gross Operating Revenues		1.00000000	
2.	Less: Uncollectables	0.00752%	_____	%
3.	1 – uncollectables (100% - line 2)	99.92480%	_____	%
4.	Less: Local franchise 0.77412% (.77470 x line 3)	0.77470%	_____	%
5.	Less: Business license 0.10208% (.10216 x line 3)	0.10216%	_____	%
6.	Subtotal 0.95140% (line 2 + line 4 + line 5)		_____	%
7.	1 – subtotal 99.04860%		_____	%

¹⁵ By this Memorandum, the Water Division (WD) updates its recommended Rates of Returns (ROR) and Rates of Margin (ROM) for Class C, D Water and Sewer Utilities. – <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/water-division/reports/wd-memorandum/rorandrom-classcd2024.pdf>

¹⁶ Letter from Han L. Ong to All Class A Water Utilities, May 10, 1990, Subject: Deductibility of State Income Tax on Federal Tax

Remaining amount subject to California Corporation Franchise Tax (CCFT) and Federal Income Tax (FIT)

8.	CCFT 8.75589624% (line 7 x 9.3%)	9.30%	_____ %
9.	FIT 33.676524% (line 7 x 34.12%)	34.12%	_____ %
10.	Total taxes paid 43.3838202% (line 6 + line 8 + line 9)		_____ %
11.	Net after taxes 56.6161798% (1 – line 10)		_____ %
12.	Net-to-Gross multiplier 1.7662795 (1 / line 11)		_____ %

43. Determining the recommended return using the Authorized Rate of Margin¹⁷: The calculation is based on the individual Class C or Class D Company’s operating expenses. Operating expenses shall include operations and maintenance expenses, annual depreciation on non-contributed facilities, amortization of multi-year expenses and applicable taxes (income taxes are excluded from the calculation). Applicable taxes include property taxes, taxes other than income and payroll taxes. Total operating expenses are then multiplied by the Authorized Rate of Margin to determine the recommended pre-tax return under the Rate of Margin method. The pre-tax rate of margin is then grossed up using the net-to-gross multiplier, see below to determine the after-tax Rate of Margin.

44. Determining the recommended return after comparing the results from the Rate of Return and Rate of Margin calculations: The grossed-up dollar amount returns based on the average Rates of Return on Rate Base for Class C and Class D companies and the average dollar amount returns based on the Rates of Margin for Class C and Class D companies are then compared, choosing the higher one (per D.92-03-093). In the resulting Commission GRC resolution, there should be a summary of earnings that shows revenues using both the rate of margin and the rate of return on rate base. The method producing the greater revenues should be the one staff recommends for adoption.

45. Revenues. Once staff calculates the reasonable expenses, depreciation and all taxes, staff may then calculate net revenues by multiplying ROR by the rate base. Multiply the return by the Net to Gross multiplier to calculate additional revenue requirement. Add the expenses, including depreciation and non- income taxes to the grossed-up return to calculate the revenue requirement.

¹⁷ It should be noted that in D.92-03-093, the term “Operating Ratio” was used to describe a particular methodology, when, in fact, the method the Commission described and ordered the use of is more properly called the “Rate of Margin” method. The Rate of Margin being “1 – Operating Ratio”

46. Documentation: The resolution prepared in response to the GRC request will include a detailed discussion of the process staff went through in determining net revenue including but not limited to a discussion of the calculations performed, the results of each of these calculations, as well as a discussion of all the subjective items that were considered in the final recommendation.

47. Subjective Issues: In addition to the numerical calculations, staff should also consider all applicable subjective items in their final recommendation, such as:

- (A) Service Quality,
- (B) Whether the company's Class has or is expected to become lower or higher since the last GRC or in the near future,
- (C) The level of the company's rate base as compared to its operating expenses,
- (D) Whether the company is a subsidiary of a larger company,
- (E) Net Income per customer,
- (F) Inflation rate, and
- (G) Current and Forecast Interest Rate.

E — RATE DESIGN

48. A percentage of the fixed costs (costs that don't vary with water use) is used to calculate the service charge. For Class D companies, the percentage used for this calculation is 100%, and for class C companies, the percentage is up to 65%¹⁸. The rest of the fixed costs and all variable costs are included in the quantity charge. Service charges are scaled by the capacity equivalent of the service connection. All adjustments should be rounded to the nearest cent.

49. The detailed procedures for classifying and calculating rates are discussed in Standard Practice U-7, "Rate Design." Any change in the utility's current rate structure should be tempered by considering the impact on the customers at various usage levels. One desired attribute of rate design is rate stability so new rate designs are usually phased in. The general standards for this are that no customer should receive over 200% of the system average rate increase, and that the rate increase is usually held to not more than a 50% increase in the first test year, with the rest being made up in a second test year. Small systems with low existing rates are generally exempt from this requirement.

F — SERVICE, FIELD VISIT, NOTICE AND PUBLIC RESPONSE

50. Water Division (WD) policy supports a field investigation of the applicant's system and service area before the RO Model is finalized. This gives the staff a chance to review the operation of the water system, inspect the company's records and talk to the employees and customers.

51. In 2024, WD developed the Site Inspection Worksheet that includes many subjects for review that should be scrutinized as part of the field investigation. Each subject includes a description of the guidelines, a rule or statute reference, a question of whether

¹⁸ D.92-03-093, March 31, 1992, Ordering Paragraph 6.

the utility is or is not in compliance with the subject, and notes explaining the subject.

52. The Site Inspection Worksheet provides support for the staff recommendations in the GRC resolution and therefore should become part of the field investigation notes. Also, the Worksheet indicates whether there are sufficient or significant compliance matters directing staff to consider a notice of violation or other enforcement action to achieve compliance. This Worksheet should be included in the workpapers and other retained staff documents. Deficiencies noted in the inspection should be recorded as this may help guide whether the GRC is justified.

53. Water Division policy also supports a public meeting. At the public meeting, the utility should describe the need for the increase and staff should discuss the Commission process for a GRC review. Staff should not commit to any request made at the public meeting, except a request for a copy of the final RO Model. Staff should also keep good notes and carefully review all requests and information. Staff should discuss any service problems with the utility and, if necessary, require a follow-up report on the resolution of these problems. Experienced staff should be able to attend and run a Public Meeting themselves. If staff is not experienced, both the staff and the Supervisor should attend the Public Meeting. Staff should write a summary of the meeting including questions and issues of interest.

54. The WD requires compliance with Standard Practice U-9-W with respect to the Public Noticing requirement for GRC filings. When the utility's advice letter filing is considered complete for Commission consideration, staff provides a sample notice of the rate increase to the utility and the utility mails this notice the time, date and place of the public meeting to each customer. A subsequent customer notice is required when the rate case is completed, and the new rates go into effect.

55. Staff should check with the Consumer Affairs Branch (CAB) on any utility complaints. Staff should discuss in the GRC Resolution the number and types of letters WD received after the notice was published and how you dealt with them.

G — COMPLIANCE

56. Check to see if there are any outstanding compliance items. Review the Compliance Monitoring Worksheet in the CMEP. This would include the following:
- (A) Existing tariffs including service area maps are current, have been authorized by the Commission, and consistent with the tariffs and service area maps maintained by WD.
 - (B) Recent and/or relevant ALs and resolutions that authorized a rate change, including but not limited to new plant additions or rate base offsets, water supply expense offsets, and memorandum and/or balancing accounts are properly reflected in the GRC AL.
 - (C) For review of offsets and accounts, refer to SP U-27-W "Processing CPI, Rate Base and Expense Offset Rate Increases and Amortizing Memorandum and Reserve Accounts."

- (D) Ordering paragraphs from the last authorized GRC resolution have been implemented.
- (E) Filing of Annual Reports in compliance with GO 104-A.
- (F) User Fee payments are in order and have been made to the Commission's Fiscal Office per Public Utilities Code 433.
- (G) Findings from the most recent Audit Report from the Commission's Utility Audits Branch (UAB) have been resolved.
- (H) Staff should communicate with UAB regarding the most recent Audit Report to determine whether the utility's book of accounts is in order, and any compliance matters have been resolved.
- (I) Customer complaints from the Commission's CAB have been resolved.
- (J) Staff should communicate with CAB regarding outstanding complaints to determine if they can be resolved before the GRC resolution is issued.

All items should be cleared, or an acceptable corrective action plan must be proposed, before any rate increase can be allowed.

Appendix A
Escalation Factor Memo Example

State of California

Public Utilities Commission, San Francisco

MEMORANDUM

Date: February 29, 2024

To: R. Rauschmeier, Program Manager, Public Advocates Office

From: C. Sharma, Utilities Engineer, Public Advocates Office, Water Branch

File No. : S-2559

Subject: Public Advocates Office: Estimates of Non-labor
and Wage Escalation Rates for 2023 through 2027 from the
February 2024 IHS Global Insight U.S. Economic Outlook

The purpose of the monthly Escalation Memorandum is to inform division management of the trends in the general price level of utility non-labor expenses and wage contracts. Data are provided for 13 years, which include eight historic years, the estimated current year, and four forecasted years.

The following table summarizes the major changes in forecasted labor and non-labor inflation for years 2024 through 2028. Data for 2023 are provided as benchmarks. The factors for January 2024 are presented for comparison.

	Labor		Non-Labor	
	<u>February-24</u>	<u>January-24</u>	<u>February-24</u>	<u>January-24</u>
2023	8.0%	8.0%	0.0%	-0.1%
2024	4.1%	4.1%	-0.9%	-2.4%
2025	2.8%	2.7%	-0.2%	-0.3%
2026	1.9%	2.0%	0.9%	1.0%
2027	2.3%	2.4%	1.3%	1.3%
2028	2.4%	2.4%	1.4%	1.3%
Compounded	23.4%	23.5%	2.48%	0.75%

A more extensive explanation of the derivation and use of the above factors and a complete presentation of the escalation factors from 2014 through 2026 are provided in the attached appendix.

Appendix A (Continued)
Escalation Factor Memo Example

APPENDIX: EXPLANATION OF ESCALATION RATES

The recommended NON-LABOR ESCALATION RATES for 2014 through 2026 are presented in Table A. The values for 2015 through 2022 are provided for comparison.

**TABLE
A**

Year	Non-Labor Inflation Rate*
2016	-1.1%
2017	3.7%
2018	4.1%
2019	0.1%
2020	-0.5%
2021	14.7%
2022	11.4%
2023	0.0%
2024	-0.9%
2025	-0.2%
2026	0.9%
2027	1.3%
2028	1.4%

* Revised 07/17/97 based on 1995 re-weighted purchases. [Source: BLS, Supplement to Producer Price Indexes, 1995, Table 12]

These escalation rates represent the calendar year average, or alternatively stated, the 12-month-ended spot rate at mid-year. These price factors have not been adjusted for real growth of expensed materials and services. The escalation factors are generated from a composite index of 10 Wholesale Price Indexes (WPI) for materials and supplies expenses and the CPI-U weighted 5% for services and consumer-related items. **These non-labor rates are not applicable to plant, contracted services, loans, insurance, rents, and pensions and other utility employee benefits. Escalation of these expenses is addressed on pages 10-15 of D.04-06-018/R.03-09-005 (Water Rate Case Plan).**

Appendix B

Passenger Car/Pickup

Lease Option

The estimates below are based on a 2-year lease agreement for a small passenger car/pickup. Other items taken into consideration are as follows:

- 1) Total cost \$7,000
- 2) Leasing cost per month 200
- 3) Allowed mileage per year 15,000 miles
- 4) Gasoline cost per gallon \$1.20
- 5) Estimated mileage per gallon 25
- 6) Insurance is part of the lease
- 7) Maintenance is part of the lease except dealership offers 1 year or 24,000 mile warranty.

	Annual Cost
Annual cost of lease	\$2,400
Insurance	300
Maintenance (miscellaneous items)	150
Fuel cost (\$1.20/25 miles per gal. X 15,000)	720
Total cost	\$3,570 per year

Ownership Option

- 1) Cost \$6,200
- 2) 6.5% Sales Tax 400
- 3) License 250

Total cost \$6,850

- 4) Principal and interest (7.5% for 8 yrs) 490
- 5) Assume 8 year life for vehicle
- 6) Allowed mileage per year 10,000

	Annual Cost
Annual principal and interest	\$5,880
Insurance (annual)	300
Fuel cost \$1.20/25 mi per gal x 1000	480

Maintenance	
2 tune-up @ \$50	100
2 lube/oil @ \$25	75
Tires (4 tires every 3 years at \$300)	75
Battery (one in 8 years @ \$80)	10
Brakes (one in 8 years at \$400)	50
Transmission and misc.	150

57. Total cost \$7,120

Appendix C

Determining Rate of Margin

The following is the analysis that the Water Division Financial Analyst will perform:

- A. Since the Rate of Margin for Class C and D water utilities is an unknown figure, Water Division must estimate it based on the method discussed below.
- B. To determine the Rates of Margin for Class C and D water utilities, the A&C Branch assumes that there is a comparable relationship between Class B and C Authorized Rates of Return and Class B and C Authorized Rates of Margin (the same comparison is made between Class B and Class D figures) as follows:

$$\frac{\text{Avg Class C Rate of Margin}}{\text{Avg Class B Rate of Margin}} = \frac{\text{Avg Class C Rate of Return}}{\text{Avg Class B Rate of Return}}$$

- C. The Class C and D Rates of Margin are determined based on a comparison with Class B data, rather than Class A data, because the Class B water operations and financial results are more similar to those of the Class C and D water companies than with the much larger Class A water utilities.
- D. The most current average authorized figures are used for the known amounts, which include the average Class C and Class D Rates of Return recommended by UAB. The authorized Class B Rates of Return are found in each company's most recent general rate case decision or resolution.
- E. The UAB will then calculate each Class B company's equivalent authorized Rate of Margin. The individual authorized Class B Rates of Margin are calculated based on the operating expense and revenue figures in each company's general rate decision or resolution. Operating expenses include operations and maintenance expenses, annual depreciation on non-contributed facilities, amortization of multiyear expenses and applicable taxes (income taxes, property taxes, taxes other than income, payroll taxes).
- F. The formula shown below is then solved for the unknown component, in this example the average Class C Rate of Margin for the current year:

$$\frac{\text{Avg Class C Rate of Margin}}{\text{Avg Class B Rate of Margin}} = \frac{\text{Avg Class C Rate of Return}}{\text{Avg Class B Rate of Return}}$$

Solve for **Avg Class C Rate of Margin**, so

$$\text{Avg Class C Rate of Margin} = \frac{(\text{Avg Class C Rate of Return})}{(\text{Avg Class B Rate of Return})} * \text{Avg Class B Rate of Margin}$$

The same method is then used to determine the Class D Rates of Margin