TOWN OF CAMP VERDE

NOTICE OF INTENT – PROPOSED INCREASE TOWN RATES, FEES, OR SERVICE CHARGES

Pursuant to A.R.S. § 9-499.15 and A.R.S. § 9-511.01, the Town of Camp Verde provides Notice of Intent to adopt new /increased rates, fees and charges for town services.

This Notice of Intent is scheduled to be heard by the Town Council at its meeting on February 21st, 2024 at 6:30 p.m. The Town Council will also hold a public hearing at least sixty days after adoption of the notice of intent on May 15th, 2024, at 6:00 p.m., in which the public may comment on the rates, fees, or service charges. The Camp Verde Town Council will consider adoption of the new rates by resolution after the public hearing on May 15th, 2024. All meetings will be held at 473 S. Main Street, Suite 106, Camp Verde, Arizona.

A copy of this Notice of Intent will be posted on the Town's website with a copy of the Report and data supporting changes to the Town's rates at least thirty days prior to the public hearing.

IF APPROVED BY COUNCIL, THE RATES WILL BECOME EFFECTIVE ON JULY 1ST, 2024.

A copy of the Report and data supporting changes to the Town's rates, may be reviewed at the office of the Town Clerk of the Town of Camp Verde, at 473 S. Main St. during normal office hours, Monday through Thursday, 7:00 a.m. – 5:00 p.m. and Friday, 7:00 a.m. – 11:00 a.m.

Persons wishing to comment on the proposed changes may do so, in writing, prior to the meeting listed above or may testify in person at the meeting. The Town Council may adopt any of the new /increased rates, fees and charges for town services at its meeting.

Dated this 21st day of February, 2024.

TOWN OF CAMP VERDE

Virginia Jones 3.6.24
Virginia Jones, Acting Town Clerk

DATE POSTED ON TOWN WEBSITE: _____, 2024.

PUBLISHED ON _____ 2024 at _____ NOT LESS THAN TWENTY DAYS BEFORE THE PUBLIC HEARING DATE

Town of Camp Verde

FY25 Proposed Fee Increases Reasoning by Department

Public Works Department Fees

Engineering

- *Site Plan Review:* Increased due to additional admin cost, additional staff, and additional projects being built requiring additional review time.
- *Engineering report reviews (drainage reports, design reports, traffic reports (TIA) soils reports, and others):* Increased due to additional admin cost, additional staff, and additional projects being built requiring additional review time.
- *Construction Plans and Grading Plans (Civil grading and drainage):* Increased due to additional admin cost, additional staff, and additional projects being built requiring additional review time.
- *As Built Plan Review:* Increased due to additional admin cost, additional staff, and additional projects being built requiring additional review time.
- *Plat Review (Preliminary & Final plat reviews):* Increased due to additional admin cost, additional staff, and additional projects being built requiring additional review time.

Right of Way

- *Encroachment permit:* Increased cost to cover staff and travel time.
- *Right of Way Permits (excluding utility companies):* Increased cost to cover staff and travel time.
- *After the Fact Right of Way Permit:* Covers additional administration and field staff time to get an approved permit, which usually causes an inconvenience and delay on other projects.

Miscellaneous Plan Review

- *Engineer's Cost Estimate Residential grading plan review ($100 for entire submittal) Plan revision reviews:* Increased due to additional admin cost, additional staff, and additional projects being built requiring additional review time.

Signs

- *New Private Road Street Signs (per sign, includes installation):* Increase due to overall material increase nationwide.

Wastewater Department Fees

Inspection Fees

- *Single Family Residence:* Increased to cover the cost of administration increase and field hours required to complete the tasks.
- *All Other:* Increased to cover the cost of administration increase and field hours required to complete the tasks.
- *Plan Review:* New fee to cover admin cost.

Other Fees

- *Late Fee:* Standardize the cost of late fees by account not amount past due and increased admin costs.
- *Reclaimed Water (per 1,000 gallons):* New fee to recover a small amount of usage and delivery costs.

Water Department Fees

Inspection Fees

- *Single Family Residence:* Recover admin costs, replicating identical fees from Wastewater.
- *All Other:* Recover admin costs, replicating identical fees from Wastewater.
- *Plan Review:* New fee to cover admin cost.

Capacity Fees

- *See the attached Capacity Fee Report and Supplement 1 from GettingGreatRates.com*.

Service Charges

- *Meter Reread (Waived if original incorrect):* Increased to cover the cost of administration increase and field hours required to complete the tasks.
- *On-site Meter Test (Waived if Faulty):* Changed the Fee title from "*Meter Test (Waived if Faulty)*".
- *Pull & Send Meter Testing (Waived if faulty):* New fee to cover admin cost.
- *Service Call:* Changed the Fee title from "Temporary Turn Off".
- *Service Call (After Hours):* Changed the Fee title from "Temporary Turn Off (After Hours)".

TOWN OF CAMP VERDE

Cash Flow for Proposed Utility Fee Changes

Wastewater Fund

Est'd Cash Flows

	FY24	FY25
Est'd User Fee Revenues	$ 1,529,000	$ 1,819,510
Est'd Other Revenues	$ 539,440	$ 555,623
Est'd Connection Fees	$ 200,000	$ 200,000
Est'd Operational Expenses	$ 1,928,165	$ 2,063,137
Est'd Current Debt service and Capital Costs	$ 453,150	$ 212,150
Est'd New Debt Service	$ -	$ 172,284
Net Cash Flow	$ (112,875)	$ 127,563
Depreciation (not inclued above)	$ 1,100,000	$ 1,200,000

(Debt Funding & Grant Activities are not included)

Note: The proposed miscellaneous fees are not normal monthly usage fees and as such can only be estimated based on the potential for new project development within the Town's wastewater system.

Water Fund

Est'd Cash Flows

	FY24	FY25
Est'd User Fee Revenues	$ 1,662,300	$ 1,910,874
Est'd Other Revenues	$ 58,600	$ 65,358
Est'd Capacity Fees	$ -	$ 252,302
Est'd Operational Expenses	$ 1,120,395	$ 1,198,823
Est'd Current Debt service and Capital Costs	$ 708,650	$ 516,150
Est'd New Debt Service and Capital Costs	$ -	$ 513,279
Net Cash Flow	$ (108,145)	$ 282
Depreciation (not inclued above)	$ 300,000	$ 400,000

(Debt Funding & Grant Activities are not included)

Note: The proposed capacity fees are not normal monthly usage fees and as such can only be estimated based on the potential for new project development within the Town's water system.

Town of Camp Verde

FY25 Proposed Fee Schedule

	2023-24	2024-25
	Approved 8/2/2023, Effective 9/1/23	Department Proposed Changes
Copy/Duplication Fees (All Departments Except Municipal Court)		
Duplication Rates		
Black & White (8.5 x 11 or 11 x 17)	$0.15	
Color (8.5 x 11 or 11 x 17)	$0.65	
Large Format (greater than 11 x 17) per page	$5.00	
Recordings on CD (from Clerk's office only)	$5.00	
Jump Drive (for copying records request or other large files)	$10.00	
Public Records Request (per page)	$1.00	
Public Records Electronic Request	No Charge	
Commercial Public Records Request	$45 per hour - $100 minimum charge	
Clerk's Office		
Notary Fees	No Charge	
Publicity Pamphlet	$200.00	
Business License Fees		
Business License Fee/Inspection/Setup Fee	$50.00	
Peddler/Solicitor's License (in addition to $1,000 Bond & Cost of Background Ck)	25.00 Per day	
Special Event Vendor (Waived for non-profits)	$25.00 Per Event	
Renewal of Existing Current Business License		
Business License Fee (annual)	$25.00	
Name/Address Change in Addition to Annual Fee	No Charge	
Liquor License Permits		
Application/Posting/Inspection Fee	$250.00	
Business License (annually) + the following:		
Series 01 through 14 and Series 16 & 17	$50.00	
One-time Special Event Permit	$50.00	
Temporary Extension of Premise	$25.00	
Permanent Extension of Premise	$50.00	

Public Works		
Site Plan Review	$225.00 per applicable sheet (1st & 2nd Reviews)	$250 per applicable sheet (includes first 2 reviews) $250 per applicable sheet for each subsequent review
Engineering report reviews (drainage reports, design reports, traffic reports (TIA) soils reports, and others)	$250.00 per report (includes first 2 reviews; $150 for each subsequent review)	$250.00 per report (includes first 2 reviews) $250 for each subsequent review
Construction Plans and Grading Plans (Civil grading and drainage)	$225 per applicable sheet (includes first 2 reviews; $250.00 for each subsequent review)	$250 per applicable sheet (includes first 2 reviews) $250 per applicable sheet for each subsequent review
As Built Plan Review	$91.00	$250.00 per applicable sheet
Plat Review (Preliminary & Final plat reviews)	$250 per applicable sheet (includes first 2 reviews; $150 for each subsequent review)	$250 per applicable sheet (includes first 2 reviews) $250 per applicable sheet for each subsequent review
Right of Way:		
Encroachment permit	$291.00	$295.00
Right of Way Permits (excluding utility companies)	$50.00	$70.00
After the Fact Right of Way Permit	$100.00	$150.00
Miscellaneous Plan Review:		
Engineer's Cost Estimate Residential grading plan review ($100 for entire submittal)Plan revision reviews	$100.00 per applicable sheet	$250.00 per applicable sheet
Any Additional inspections	$50.00 per inspection	
Public Improvement Construction Inspection	$225.00	
Signs:		
New Private Road Street Signs (per sign, includes installation)	$120.00	$220.00
Adopt-a-road Street Signs (per sign, includes installation)	$150.00	
Finance Department		
Non Sufficient Funds (NSF) Check Charge	$13.00	
Municipal Court		
ARS §22-404		
Minimum Clerk Fee	$17.00	
Research in Locating a Document	$17.00	
Record Duplication	$17.00	
Per Page Fee	$0.50	
Special Fees		
Injunction Against Harassment	No charge	
Domestic Violence Order of Protection	No charge	
Civil Traffic Default Fee	$50.00	
Warrant Fee	$150.00	
Municipal Court Enhancement	$20.00 per charge	
Court Appointed Counsel Fee	$25.00 per case	

Deferral fee ($1.00 - $500.00)	1.00 - 500.00	
Library		
Card Replacement	$3.00	
Equipment Overdue Fees	$5.00 per day	
Non-CV Library Overdue items (inside county)	Varies by Library	
Non-CV Library Overdue items (outside county) (per- day)	$1.00	
Lost items	Replacement Cost	
Marshal's Office		
Vehicle Impound Administrative Hearing	$150.00	
911 Tape	$15.00	
Photographs	$15.00	
Local Background Checks	$10.00	
Training Room Fee for all private and profit organizations		
4-8 hours (waived for non-profits.)	$25.00	
Less that 4 hours (waived for non-profits)	$15.00	
Animal Shelter		
Impound Fee - where any of the following exist: 1) a current license pursuant to section 11-1008 exists or 2) animal has been sterilaized and implanted with microchip or 3) a veterinarian determines that a medical contraindication exists	$30.00	
Animal Shelter (Cont'd)		
Impound Fee - where any of the following **don't** exist: 1) a current license pursuant to section 11-1008 exists or 2) animal has been sterilaized and implanted with microchip or 3) a veterinarian determines that a medical contraindication exists	$50.00	
Additional Fee per night	$10.00	
Animal License Fees		
Altered Dog	$12.00	
Unaltered Dog	$24.00	
Licensing late fee each month Jan 31 each year	$5.00	
NO LICENSE WILL BE ISSUED WITHOUT PROOF OF RABIES VACCINATION.		
Parks & Recreation		
Heritage Pool Fees		
Adults (18 & over):		
Per Visit	$3.00	
10 Visits	$25.00	

Season Pass	$80.00	
Children:		
Per Visit	$2.00	
10 Visits	$16.00	
Season	$60.00	
Family Pass (Immediate Family Only)		
10 Visits	$40.00	
Season - open swim & Family nights only	$150.00	
Swim Lessons		
Swim Lessons (30 minutes) two week session 4 days a week	$25.00	
Pool Rental Fee		
Private Use- Non-commercial up to 44 Participants (Per Hour) Includes 3 Lifeguards	$90.00	
Private Use - Non-commercial 45-88 Participants (Per Hour) Includes 4 Lifeguards	$110.00	
Private picnic area - when pool is open	$20/hr	
Reservation Fee	$100.00	
Pool Specialty Classes		
Adult - 25% of fees to Town/75% to Instructor. Fees to be determined by instructor.	25% / 75%	
Youth - 20% of fees to Town/80% to Instructor. Fees to be determined by instructor.	20% / 80%	
Parks & Recreation Facility Fees - General		
Class A - Town co-sponsored groups, non-profits, churches, schools, civic groups, government agencies, and organizations or individuals holding an open not-for-profit event. **Class B - Private events for individuals or groups using the facilities in a clearly not-for-profit manner.** **Class C - Profit making individuals, groups or organizations.** **Class D - Groups meeting ARS 9-500.14 definition about election or policy positions**		
Deposits		
Key Deposit (all classes) (per key)	$110.00	
Key Card Deposit (all classes) (per key card)	$40.00	
Banner Pole Fee		
Class A	No Charge	
Class B	$25.00	
Class C & D	Not Allowed	
Gym Tables		
Class A	No Charge	
Class B, C & D first 30 tables	No Charge - Included with Fee	

Class B, C & D over 30 tables	$5.00 per table over 30	
Chairs (if available)		
Class A	No Charge	
Class B, C & D first 100 chairs	No Charge - Included with Fee	
Class B, C & D over 100 chairs	$1.00 per chair over 100	
Meeting Room Fee		
Class A	No Charge	
Class B (per hour-2hr min / per day)	$15 / $60	
Class C (per hour-2hr min / per day)	$25 / $100	
Class D (per hour-2hr Min)	$25.00	
Rooms have tables & chairs on an "as available" basis for no additional charge		
Electrical Use Fee		
Park/Gazebo/Ramada - Class A	No Charge	
Park/Gazebo/Ramada - Class B w/Bounce house or Band	$20.00	
Park/Gazebo/Ramada - Class C	$20.00	
Park/Gazebo/Ramada - Class D - w/Bounce House, band or equipment	$20.00	
Field power connection	$20.00 per power post	
Ball Field Lights (24-hour cancellation notice required)		
Class A	No Charge	
Class B	$10.00 per hour per field	
Class C & D	$20.00 per hour per field	
Specialty Classes		
25% of fees to Town / 75% to Instructor (adult). Fees to be determined by instructor.	25% / 75%	
20% of fees to Town / 80% to Instructor (youth). Fees to be determined by instructor.	20% / 80%	
Outfield Fencing Fee		
Class A	No Charge	
Class B & D	$75.00 per field	
Class C	$75.00 per field	
Sports Fields: Butler Park & Community Center Fees		
Class A	No charge	
Class B (per hour/per day)	$25 / $75	
Class C & D (per hour)	$40.00	
Sports Fields: Sports Complex		
Class A	No Charge	

Class B	$35.00 per hour or $140.00 per day per field	
Class C	$60.00 per hour or $240.00 per day per field	
Class D	$60.00 per hour per field	
Restroom Fee - Class A & B	No Charge - Included w/ field	
Restroom Fee - Class C & D	$50.00 per day	
Damage deposit	$300.00 per field	
Concession Stand - Sports Complex		
Class A up to 4 hours	No Charge	
Class A over 4 hours	$20.00 per day	
Class B	$40 per 4hr block or $80 per day	
Class C	$80 per 4hr block or $160 per day	
Class D	$20/hour w/ min $80	
Damage/Cleaning Deposit	$200.00	
Gym Fees		
Class A - less than 100 attending	No Charge	
Class A (per hour-2hr min/per day) - more than 100 attending	$25 / $150	
Class B (per hour-2hr min/per day)	$50 / $300	
Class C (per hour-2hr min/per day)	$100 / $500	
Class D (per hour-2hr min)	$100/hour	
Cleaning/Damage Deposit - All Classes	$500.00	
Gym Floor Preparation Fee		
All Classes	$75.00	
Park Ramada, Gazebo or Town Ramada Fee		
Class A	No Charge	
Class B	No Charge	
Class C	$75.00	
Class D	$15 per hour w/ min $75	
Kitchen Fee		
Class A	No Charge	
Class B -4 Hour	$25.00	
Class B (per day)	$75.00	
Class C - 4 Hour	$50.00	
Class C (per day)	$100.00	
Class D	$15 per hour w/ min $100	
Kitchen cleaning fee (if dirty after use)	$50.00	

Community Development

Board of Adjustment & Appeals		
Appeal (Refundable if decision over-turned)	$540.00	
Variance (Commercial)	$865.00	
Variance (Residential)	$540.00	
Additional Variance/Same Application	$60.00	
General Plan Amendment		
Minor	$1,840.00	
Major	$1,840.00	
Map Change for Zoning (ZMC)		
Base Fee (Traditional Rezone)	$1,840.00	
Each additional acre over 5 acres	$100/acre up to $ 25k max	
Rezone to PAD	$5,000.00	
Each additional acre over 5 acres	$200/acre up to $25k max	
Land Use Applications		
Minor Land Division	$310.00	
Lot Line Adjustment	$310.00	
Accessory Dwelling Unit Rental Permit	$160.00	
Residential Temporary Use or Dwelling Permit	$155 / $55 Renewal	
Commercial Temporary Use or Dwelling Permit	$215 / $55 Renewal	
Development Standards Review - Commercial/Industrial	$2,500 plus $10 sq. ft. over 5000 sq. ft. ($15k max) plus Fire Marshal Review Fee	
Development Standards Review - Multifamily, RV, Lodging	$2,500 plus $10/unit, RV space or room ($15k max) plus Fire Marshal Review Fee	
Zoning Verification (previously Verification Letter)	$260.00	
Text Amendment to Planning & Zoning Ordinance (Citizen Initiated)	$1,840.00	
Subdivision Plats		
Administrative Conceptual Plan Review (Subdivisions)	No Fee - $0	
Preliminary Plat (for 10 lots or less)	$2,165 plus Fire Marshall Review Fee	
Each lot over 10 lots	$13.00	
Preliminary Plat (for 10 lots or less) if with a ZMC Plus Fire Fee	$1,080 plus Fire Marshal Review Fee	
Each lot over 10 lots	$13.00	
Final Plat (for 10 lots or less)	$1,515.00	
Each lot over 10 lots	$13.00	
Amended Plat (for 10 lots or less)	$905.00	
Each additional lot over 10 lots	$13.00	

Time Extensions	$325.00	
Community Facilities District	As determined by the Town Manager	
Planned Area Development (PAD)		
Final Site Plan PAD Review	$1,000 plus Fire Marshal Review Fee	
Major Amendment	50% of Rezone to PAD Fee plus Fire Marshal Review Fee	
Minor Amendment	$500.00	
Use Permits		
Open Space Uses	$1,840 plus Fire Marshall Review Fee	
Residential Uses	$1,840 plus Fire Marshall Review Fee	
Commercial (C1 & C2)	$1,840 plus Fire Marshall Review Fee	
Heavy Commercial/Industrial Uses (C3, PM, M1, M2)	$1,840 plus Fire Marshall Review Fee	
Mobile/Manufactured Home Parks (for 10 spaces or less)	$1,840 plus Fire Marshall Review Fee	
Each additional space up to 100 spaces	Plus $20 / space up to 100 spaces	
Each additional space over 100 spaces	Plus $13 each additional space	
RV Parks	$1,840 plus Fire Marshall Review Fee	
Cost per space up to 100 spaces	$17.00	
Each additional space over 100 spaces	$13.00	
Mining (5 acres or less)	$1,080.00	
Each additional acre up to 50 acres	Plus $60 / acre up to 50 acres	
Each additional acre over 50 acres	Plus $13 / additional acre	
Continuance of Hearing		
Before Advertising (Applicants Request)	$165.00	
After Advertising (Applicants Request)	$325.00	
Sign Permits		
Zoning Clearance	$110.00	
Building Review	$65.00	
Illuminated	$80	
	Note: Each Permit Includes up to (2) Signs, plus $30 for each additional Sign. Includes up to (2) Inspections.	
Flags / Banners	No Fee	
A Frame Sign	No Fee	
Mural	$55.00	
Miscellaneous		
Abandonments and/or Reversion to Acreage	$1,840 plus Fire Marshall Review Fee	
Street Name Change (Citizen Initiated)	$540.00	
Underground Utilities Exemption	$215.00	

Wireless Communication		
Administrative Review	$540.00	
Applications requiring Special UP towers less than 99'	$1,945.00	
Towers 100 to 199'	$2,270.00	
Towers 200' and above	$2,920.00	
Zoning Clearance for Building Permits		
Residential single family dwelling (includes Manufactured and Factory-Built/Modular Buildings)	$190.00	
Residential remodel \ Accessory structure	$90.00 Up to two (2) Accessory Structures plus $30 for each structure thereafer	
Zoning Clearance for Building Permits (Cont'd)		
Commercial Remodel \ Accessory structure	$110.00 Up to two (2) Accessory Structures plus $30 for each structure thereafer	
New Commercial (includes Factory-Built/Modular Buildings)	$325.00	
Investigation Fee (Installing accessory structure, sign, fence, outdoor lighting, or other structures requiring zoning clearance or conducting activities requiring a land use permits without an authorized permit)	Equal to the cost of the Zoning Clearance Fee and/or Land Use Fee	
THE VALUE OR VALUATION OF A BUILDING OR STRUCTURE FOR THE PURPOSE OF DETERMINING PERMIT AND PLAN REVIEW FEES WILL BE ESTABLISHED USING THE BUILDING VALUATION DATA (BVD) CONTAINED IN THE INTERNATIONAL CODE COUNCIL BUILDING SAFETY JOURNAL PUBLISHED ANNUALLY IN FEBRUARY. THIS DOCUMENT IS AVAILABLE FOR PUBLIC INSPECTION IN THE TOWN OF CAMP VERDE OFFICE OF COMMUNITY DEVELOPMENT, AUTHORITY TO DETERMINE VALUE PER PROVISIONS OF ADOPTED CODES.		
GRADING PERMIT FEES		
50 Cubic Yards or Less	$62.00	
51 to 100 Cubic Yards	$83.00	
101 to 1,000 Cubic Yards	$105.00	
1,001 to 10,000 Cubic Yards	$215.00 for the first 1,000 Cubic Yards plus $16.50 for each additional 1,000 Cubic Yards	
10,001 to 100,000 Cubic Yards	$375.00 for the first 10,000 Cubic Yard plus $55.00 for each additional 10,000 Cubic Yards	
100,001 Cubic Yards or More	$990.00 for the first 100,000 Cubic Yards plus $55.00 for each additional 10,000 Cubic Yards	
BUILDING PERMIT FEES		
Total Valuation		

NOTE: Unless otherwise noted, the fees listed below are utilized to establish Valuation (cost of construction including labor and materials) to be used in calculating permit fees and do not reflect the actual cost of the permit.		
$1.00 TO $500.00	$47.00	
$501.00 TO $2,000.00	$47.00 for the first $500.00 plus $4.25 for each additional $100.00 or fraction thereof	
$2001.00 to $25,000.00	$108.00 for the first $2,000.00 plus $16.50 for each additional $1,000.00 or fraction thereof	
$25,001 to $50,000.00	$476.00 for the first $25,000.00 plus $12.50 for each additional $1,000.00 or fracion thereof	
$50,001.00 to $100,000.00	$784.00 for the first $50,000.00 plus $9.25 for each additional $1,000.00 or fracion thereof	
$100,001.00 to $500,000.00	$1,217.00 for the first $100,000.00 plus $7.25 for each additional $1,000.00 or fracion thereof	
$500,001.00 to $1,000,000.00	$3,997.00 for the first $500,000.00 plus $6.25 for each additional $1,000.00 or fracion thereof	
$1,000,001.00 and up	$6,982.00 for the first $1,000,000.00 plus $5.25 for each additional $1,000.00 or fracion thereof	
Other Building Fees		
Investigation Fee (Building without a permit)	Equal to the cost of the Building Permit Fee and Building Plan Review Fee	
Inspection Outside of Normal Business Hrs	$100.00 Per Hour/1 Hour Minimum*	
Re-Inspection Fee (After 2 failed inspections)	$80.00 Per Inspection	
Miscellaneous Inspection Fee (Inspection fee for which no fee is specifically indicated*)	$80.00	
Building Plan Review Fee	65% of Bldg Permit Fee	
Master Building Plan Review Fee (First Floorplan Review)	65% of Bldg Permit Fee	
Master Building Plan Review Fee (Each additional Floorplan Review under same approved plan)	$180.00	
Other Building Fees (Cont'd)		
Additional Plan Review (After Two Failed Plan Reviews OR As Required By Changes, Additions, Alterations Or Revisions To Plans)	$65.00 / Hour - 1 Hour Minimum*	
Plan Review Fee for Prefabricated Sheds Not Exceeding 500 Square Feet	$100.00	
Outside Plan Review Or Inspection (For Use Of Outside Consultants and/or Fire Marshal Plan Reviews, Inspections, Or Both**)	Actual Cost**	
Building Permit Application Extension Fee (One Time Extension)	$25.00	

Building Permit Extension Fee (One Time Extension)	$25.00	
Temporary Issuance Fee (One Time Residential Certificate of Occupancy)	$300.00	
Temporary Issuance Fee (One Time Commercial Certificate of Occupancy)	$500.00	
NOTE: *Or the total hourly cost to the jurisdiction, whichever is greater. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved. **Actual costs include administrative and overhead costs.		
Deposits For Building Permit Applications		
Commercial Projects	Equal To Building Plan Review Fees Plus Engineer Plan Review Fees Plus Fire Plan Review Fees Plus Sanitary Plan Review Fees Plus Zoning Clearance Fees	
New Single/Multi-Family Residence	$250.00	
Residential Projects Less Than $5,000.00	$25.00	
Residential Projects $5,000.01 to $10,000.00	$80.00	
Residential Projects $10,000.01 to $25,000.00	$100.00	
Residential Projects $25,000.00 or More	$250.00	
NOTE: Deposits are due at the time of submittal and are NON REFUNDABLE.		
Refunds		
Building Plan Review Fees (Once Plan Review Has Begun)	No refund	
Project Cancellation/Withdrawl (Before Permit Has Been Issued)	Retain Deposit	
Issued Building Permits (One (1) Year From Permit Issuance, Where No Work Has Started/No Inspections Have Been Called For)	Retain $50.00 or 25%, Whichever is greater	
Issued Over The Counter Building Permits (One (1) Year From Permit Issuance, Where No Work Has Started/No Inspections Have Been Called For)	Retain $25.00 or 25%, whichever is greater.	
Valuation Data		
Residential (New Single and Multi-FamilyResidences, Excludes Moblie/Manufactured Homes)	Applicant's Valuation OR ICC Building Valuation Data Table, Whichever Is Greater	
Detached Residential Accessory Buildings/Structures		
Barn (Pole, Wood, Metal, or Masonry) (per sq ft)**	$24.00	
Shade/Mare Motel (per sq ft)**	$13.00	
Greenhouse (per sq ft)**	$21.00	
Storage Building (Shed) (Over 200 sq ft) (per sq ft)**	$24.00	
Carport (per sq ft)**	$19.00	

Gazebo/Ramada (per sq ft)**	$21.00	
Pre-Fab Canvas/Metal Awning (Engineered) (per sq ft)**	$8.00	
Stairs (per sq ft) (regardless of square footage)	$11.00	
Attached Residential Accessory Buildings/Structures		
Greenhouse (per sq ft)**	$21.00	
Storage Building (Shed) (per sq ft)**	$24.00	
Carport (per sq ft)**	$19.00	
Balcony (per sq ft)**	$21.00	
Covered Patio at Grade Level (per sq ft)**	$21.00	
Covered Deck Elevated (per sq ft)**	$21.00	
Open Deck Elevated (per sq ft)**	$21.00	
Screened Porch Under Existing Roof Cover (per sq ft)**	$10.00	
Pre-Fab Canvas/Metal Awning (Engineered) (per sq ft)**	$8.00	
Stairs (per sq ft)	$11.00	
Residential Alteration/Remodel Of Existing Structure	Applicant's Valuation OR ICC Building Valuation Data Table, Whichever Is Greater	
****PLUS ANY UTILITIES INSTALLED** **NOTE: Where no additional floor area or roof coverage is created, such as the conversion of a patio or garage to habitable space, the valuation shall be determined as the difference in valuation between the two occupancies plus utilities, unless otherwise noted.**		
Commercial (New Building)	Applicant's Valuation OR ICC Building Valuation Data Table, Whichever Is Greater	
Commercial Accessory Buildings/Structures (New)	Applicant's Valuation OR ICC Building Valuation Data Table, Whichever Is Greater	
Commercial Alteration/Remodel Of Existing Structure (Tenant Improvements)	Applicant's Valuation OR ICC Building Valuation Data Table, Whichever Is Greater	
Demolition of Any Existing Structure (Residential or Commercial)		
Up To Two (2) Structures On Same Assessor's Parcel Number	$90.00	
More Than Two (2) Structures On Same Assessor's Parcel Number	$90.00 For the First Two (2) Structures plus $30.00 For Each Structure Thereafter	
Fireplace/Free Standing Stove/Inserts (Other than New Construction)		
Concrete or Masonry	$415.00 (Includes Plan Review)	
Pre-Fabricated Metal (Free standing/Inserts Pellet, Wood, Gas or Electric)	$155.00 (Includes Plan Review)	
Block/Retaining Wall (Measured from bottom of footing to top of wall; Retaining Walls over 4' require engineered plans)	(Length x Height = Sq Footage)	

Retaining Wall: (CMU, Concrete, Brick, Manufactured Unit, Rock/Stone, Etc) (per sq ft)	$20.00	
Block Wall: (Fence Or Free Standing Wall; No Retaining/Surcharge) (per sq ft)	$15.00	
Roof Structure Replacement (includes trusses, rafters, sheeting and roofing material)	Applicant's Valuation OR $16.00 a Sq.Ft. Whichever Is Greater	
Shell Building	Applicant's Valuation OR ICC Building Valuation Data Table, Whichever Is Greater	
Definition of Shell Building: A shell building is defined as a building for which HVAC, lighting, suspended ceilings, plumbing and electrical systems, partition layouts and interior finishes are not shown on the plans and for which NO SPECIFIC USE or TENANT has been noted. A separate permit with plans for tenant improvements will be required at a later date for completion of a shell building. A "Shell Only" building may include a fire extinguishing system as needed for fire protection requirements and minimal electric for lighting (house panel only) and main under slab sewer drain (not to include fixtures) along with slab floor. Warehouses and industrial buildings shall not be considered as a shell building. NO Certificate of Occupancy shall be issued for any building permitted as a SHELL BUILDING under this definition.		
Swimming Pool/Spas		
In Ground Pool (Includes Utilities)	Applicant's Valuation OR $60.00 a Sq.Ft. Whichever Is Greater	
In Ground Spa or Whirlpool (Includes Utilities)	Applicant's Valuation OR $3500.00 Whichever Is Greater	
On/Above Ground Pool (Pre-fabricated, Flat Fee) * Plus Any Utilities Installed	$165.00	
On/Above Ground Spa (Flat Fee, Utilities Included)	$220.00	
Above Ground Water Tank (Over 5,000 Gallons)		
A. Residential	$105.00	
B. Commercial	$540.00	
UTILITIES/EQUIPMENT		
New Construction or Addition		
Plumbing (per sq. ft)	$4.50	
Electrical (per sq. ft)	$3.50	
Mechanical (per sq. ft)	$3.50	
Single Permit, Plans Required (electric, plumbing, mechanical)	Applicant's Valuation OR Cost Per Sq. Ft. Listed Above Whichever Is Greater	
Residential Over the Counter Permits		
Elecrical	$90.00	
Mechanical	$90.00	
Plumbing	$90.00	
Building	$90.00	

Residential Over the Counter Permits (Cont'd)		
Combo (Any Combination Of The Above)	$90.00 Flat Fee Plus $30.00 For Each Added Over The Counter Permit (Includes Two (2) Inspections)	
Solar Installation, Wind Turbines, Generators		
Residential	$206.00 Flat Fee for all Systems up to 15kwh AC/DC; Systems Over 15kwh will be Calculated Using 20% of Applicant Valuation or $2.75/watt, Whichever is Greater. Plus Building, Zoning & Fire Marshal Plan Review Fees.	
Commercial	$206.00 Flat Fee for All Systems up to 15kwh AC/DC; Systems Over 15kwh will be Calculated Using 20% of Applicant Valuation or $2.75/watt, Whichever is Greater, Plus Building, Zoning & Fire Marshal Plan Review Fees.	
MISCELLANEOUS EQUIPMENT		
Fire Alarm		
Commercial	Applicants valuation or $3.50 a sq.ft. whichever is greater plus Fire Marshal Fees.	
Residential	Applicants valuation or $1.50 a sq.ft. whichever is greater plus Fire Marshal Fees.	
Kitchen Type I or II Hood System	Applicant's Valuation OR $6000.00, Whichever Is Greater, Plus Fire Marshal Fees	
Fire Suppression		
Commercial	Applicants valuation or $2.50 a sq. ft., Whichever is greater plus Fire Marshal Fees.	
Residential	Applicants valuation or $2.00 a sq. ft. Whichever is greater plus Fire Marshal Fees.	
Commercial/Residential Retrofit	Applicants valuation or $2.50 a sq. ft., Whichever is greater, plus Fire Marshal Fees.	
Tower New Installation		
Up to $6,000	$206.00, Plus Applicable Plan Review Fees	
$6,001 or More	Applicant's Valuation OR $205.00 + $8.25 per Every Thousand over $6,000, Whichever Is Greater, Plus Applicable Plan Review Fees	
Co-Locate Existing Tower		
Up to $6,000	$180.00, Plus Applicable Plan Review Fees	
$6,001 or More	Applicant's Valuation OR $180.00 + $8.25 per Every Thousand over $6,000, Whichever Is Greater, Plus Applicable Plan Review Fees	
Mobile / Manufactured Housing		

Manufactured Housing Skirting (No Retaining/Surcharge)(per linear foot)	$10.00 per every 10 linear feet.	
NOTE: Designated Fees below (*) are established by the Arizona Department of Fire, Building and Life Safety Office of Manufactured Housing and adopted by the Town of Camp Verde through intergovermental agreement pursant to Arizona Administrative Code (A.A.C.) §R4-34-501 and §R4-34-801.		
*Residential Manufactured Home Set	See OMH Fee Schedule (Includes Three (3) Inspections)	
Residential Manufactured Home - Plan Review	$180.00	
*Residential Factory Built/Modular Building	See OMH Fee Schedule (Includes Three (3) Inspections)	
Residential Factory Built/modular - Plan Review	$180.00	
*Commercial Factory Built/Modular Building	See OMH Fee Schedule (Includes Three (3) Inspections)	
Commercial Factory Built/Modular Building - Plan Review	$180.00	

Wastewater Fees

Monthly User Fees		
Single family residence, Apartments	As of 1/1/24: $3.45 per UPC discharge fixture unit As of 1/1/25: $4.10 per UPC discharge fixture unit	
Commercial	As of 1/1/24: $5.35 per UPC discharge fixture unit As of 1/1/25: $6.35 per UPC discharge fixture unit	
All other	As of 1/1/24: $3.45 per UPC discharge fixture unit As of 1/1/25: $4.10 per UPC discharge fixture unit	
Residential Connection Fees		
Single family residence	$1,750.00	
Multiple family residence	$1,750.00 per residential unit	
New Residential Subdivisions	$1,750.00 per lot	
Commercial Connection Fees		
Hotels, motels, resorts, lodges, hospitals, nursing homes & supervisory care facilities	$350.00 per room	
(Rooms equipped with kitchen facilities shall be treated as single-family residential units)	$1,750.00 per room	
Retail	$.25 per square foot, $1,750.00 minimum	
Office	$.50 per square foot, $1,750.00 minimum	
Restaurant, Bar	$30.00 per seat	
Warehouse, Manufacturing	$.25 per square foot, $1,750.00 minimum	
Inspection Fees		
Single family residence	$80.00	$150.00
All other	$100.00 per hour; 2 hour minimum	$150.00 per hour (2 hour minimum)
Plan Review	New	$78.00 per hour (1 hour minimum)
Other Fees		
Late Fee	$5.00 or 1 1/2% of balance, whichever is greater	$10.00
Account Transfer Fee	$35.00	
Availability Fee	$50 per month	
Return Check Fee	$13.00	
Reconnection Fee	$1,750.00 plus actual costs incurred by Town	
Annexation Fees	Actual cost incurred by Town	
Plan Review Fees	Actual cost incurred by Town	
Septage Fees	$0.14 per gallon	
Broken Hauler Station Card	Free if broken card returned, otherwise $25.00	
Lost Hauler Station Card	$25.00	
Reclaimed Water (per 1,000 gallons)	New	$2.25

Septic Tank and Vault contents for users within the current District (This vault fee will only apply until the user is connected to the sewer system).	$0.01 per gallon	

Water Fees

Monthly Usage Charge		
5/8" x 3/4" Meter	As of 1/1/24: $27.55 As of 1/1/25: $31.95	
1" Meter	As of 1/1/24: $58.00 As of 1/1/25: $67.30	
1 1/2" Meter	$75.00	
2" Meter	As of 1/1/24: $203.00 As of 1/1/25: $235.50	
3" Meter	As of 1/1/24: $214.60 As of 1/1/25: $248.95	
4" Meter	As of 1/1/24: $261.00 As of 1/1/25: $302.75	
6" Meter	As of 1/1/24: $406.00 As of 1/1/25: $470.95	
8" Meter	As of 1/1/24: $696.00 As of 1/1/25: $807.35	
Gallonage Charge Per 1000 gallons		
up to 5,000 gallons	As of 1/1/24: $3.35	As of 1/1/25: $3.90
5,001 to 10,000 gallons	As of 1/1/24: $4.00	As of 1/1/25: $4.65
10,000 to 50,000 gallons	As of 1/1/24: $5.50	As of 1/1/25: $6.40
50,001 gallons and above	As of 1/1/24: $7.00	As of 1/1/25: $8.10
standpipe		Remove
Service Line and Meter Installation Charges		
5/8" Meter	$600.00	
1" Meter	$700.00	
1 1/2" Meter	$850.00	
2"Meter	$1,305.00	
3" Meter	Cost	
4" Meter	Cost	
6" Meter	Cost	
8" Meter	Cost	
Hydrants (Non-Refundable)	Cost	
Use of hydrants and/or hydrant meters for residential, commercial or construction customers	$200.00 plus a $1,500.00 refundable deposit	

Relocation of hydrant meter	$100.00	
Inspection Fees		
Single family residence	New	$150.00
All other	New	$150.00 per hour (2 hour minimum)
Plan Review	New	$78.00 per hour (1 hour minimum)
Capacity Fees		
In-Town		
5/8" Meter	New	$4,000.00
3/4" Meter	New	$4,000.00
1" Meter	New	$8,277.00
1 1/2" Meter	New	$15,405.00
2"Meter	New	$23,958.00
2 1/2" Meter	New	$36,788.00
3" Meter	New	$46,767.00
4" Meter	New	$72,427.00
6" Meter	New	$143,706.00
8" or Greater (Compound, Class I)	New	$229,240.00
8" or Greater (Turbine, Class I)	New	$400,308.00
Out-of-Town		
All above meter sizes	New	150% of In-Town Capacity Fees
Service Charges		
Establishment	$50.00	
Establishment - After Hours	$70.00	
Reconnection Fee	$50.00	
Reconnection (After Hours)	$70.00	
NSF Check	$13.00	
Meter Reread (Waived if original incorrect)	$10.00	$40.00
On-site Meter Test (Waived if faulty)	$100.00	
Pull & Send Meter Testing (Waived if faulty)	New	Cost of Testing
Reestablishment (within 12 months)	Minimum Tariff of non- usage months	
Deffered Payment (per month)	1.50%	
Late Payment Penalty (per month)	1.50%	
Moving Customer Meter (At customers request)	Cost	
Service Call (changed from "Temporary Turn Off")	$50.00	
Service Call (After Hours) (changed from "Temporary Turn Off (After Hours)"	$70.00	
Civil Penalties - Unauthorized Turn-on / Turn-off / Tampering	$100.00 per offense plus any part damages	

Water System

Capacity Fee Analysis Report

Town of Camp Verde, Arizona

Prepared January 15, 2024

Carl Brown, President
GettingGreatRates.com, LLC

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Executive Summary

This analysis calculates system capacity fees for the Town of Camp Verde that will assess system capacity fees (SCFs) to new water connections that are close to the average system capacity fee or new connection fee of other water systems in the region for the smallest meter. Fees for larger meter sizes were then calculated to rise by a combination of the averages of nearby systems and the peak flow capacity cost of each meter size.

Introduction

The Town of Camp Verde, Arizona, later just called the "Town," or "you," hired GettingGreatRates.com, later called "me," or "I," to perform system capacity fee (SCF) analysis of its water utility; to produce a report of my findings and recommendations; and to provide guidance on fee setting.

The water utility recently had its water rates studied and subsequently adopted new user charge rates. However, the previous study did not include calculation of SCFs. Hence, this analysis completes the rate and fees calculations. This narrative report is short because it only covers SCFs, not all rates and related things.

Terminology

In the practice of setting rates and fees, many terms are used to denote the price of things and services. The terminology the Town of Camp Verde uses is up to the Town.

In rate analysis practice, the terms "system development fee" and "system capacity fee" are interchangeable.

This narrative report uses the term "system capacity fee" to be consistent with the Town's terminology. However, the template I use for calculating rates and fees uses the term "system development fee." Rather than attempt to "find and replace" all instances of that term, likely missing some, I have left the system development fee term in the model.

Just remember, the two terms are interchangeable.

As you view the model tables that accompany this narrative report, you will notice that table numbering does not start at "1" and rise from there. That is because SCF calculation is embedded in my overall rate and fee analyses. I do that because oftentimes, system capacity fees can generate enough revenue to reduce the need for regular user charge fee revenue. Do not get your hopes up from that statement. If your growth rate does not increase dramatically, SCFs will not generate much extra revenue, so you need not be concerned about collecting too much revenue.

Back to my modeling template, SCF-related tables are sprinkled through my normal modeling. Rather than tear that template apart, renumber tables and making other changes, I have hidden the tables that are not needed for this analysis. The tables relevant to your analysis are listed in the Index of Model Tables and Charts that appeared earlier.

As for me, your analyst, I have analyzed rates and fees as a consultant since 2005, completing 366 analyses since then. Before that, from 1991 to 2005, I did similar work, as well as grant and loan coordination work, for the Missouri Department of Natural Resources. My experience is deep. I calculated your fees with due diligence using the best methodologies and reasoning I can. I trust my expertise and the results I get. You should, too. You can adopt the fees recommended in this report and all should turn out well for you.

But it is reasonable for you to be curious about my methodologies and why and how I employ them. "Trust but verify" is a reasonable attitude for you to have because rate and fee setting is one of your most critical and criticized tasks. You need to get it right. Just summarizing my methodologies requires a lot of discussion, therefore, I left that discussion out of the main part of the report. I placed those discussions in Appendix A, starting on page 9. However, since this analysis is narrowly focused on SCFs, I will go into more detail about that subject and your situation in the report.

If you have a basic working knowledge of rate and fee setting, and if you consider the logic of what follows, you should be able to read on and learn what you need to know to set fees appropriately and confidently. If, however, you read something that you do not understand and you want to understand it, go to Appendix A. I likely covered the issue there. If I did not and if the issue is important to you, just call and I will talk you through it.

Appendix A summarizes my rate analysis methodologies, theories, and general issues.

Now, to the specifics of your fee situation and my analysis and recommendations.

This report is the culmination of a process where I submitted information and data requests to my primary Town contact, Jeff Low, Director of Utilities. I am sure others behind the scenes assisted but I coordinated all communications through Mr. Low. And I must say, Mr. Low was an excellent and enjoyable person to work with. He really knows how to do things right and accurately.

We went through this communicating back and forth step several times because fee analysis takes a large amount of data, and it is common to "home in" on the optimal set of conditions and fees as the analysis reveals the system's circumstances and needs. As I received information and data, I modeled the utility's fees and submitted drafts for review and feedback. My contact reviewed those drafts to assure accuracy, and when needed, he corrected data.

I prepared and submitted a draft final report. Again, Mr. Low reviewed and gave me feedback. And we went through this process for a couple of iterations. I revised the report accordingly to be this, the final report.

As you read this report, please keep this in mind. The report does not *direct* the Town to do anything. Actions you take or do not take are strictly up to you. The report is meant to inform and educate so you can make well-informed decisions about actions to take. And the report and models are not legal recommendations. For legal issues consult your attorney.

Modeling Discussion

To give you a sense of how I calculated the SCF structures, I will introduce it like this.

Based on American Water Works Association (AWWA) meter peak flow capacity research, the flow capacity of a five-eighths inch meter is assigned a flow capacity of 1.0. Larger meters can pass more peak flow, so each size and type is assigned a proportionately higher peak flow capacity factor or "share." These results are shown in Table 11, page 31, in the "Meter Equivalent Ratio (Capacity Shares)" column. In simple terms, a five eighths inch meter would be charged one share of peak flow capacity costs. A two-inch meter would be charged eight shares of peak flow capacity cost because it has eight times more peak flow capacity than a five-eighths inch meter.

The report is in two parts. The first part is this narrative that tells readers what should or could be done to the utility's fees and why and interprets much of the mathematical modeling. The second part is a printout of the modeling. There is one model, named and described as follows:

- "Town of Camp Verde, AZ, Water Cost-based System Capacity Fees Model 2024-1," later simply called "the Cost-based Model," or just "the Model." This model assumes the Town will adopt a SCF for a five-eighths or three-quarter inch meter, and also for a two-inch meter that are close to the average SCF or new connection fee assessed by several other cities in the region. Fees for all other meter sizes would rise, proportionately, and be on the trend line created by the two "anchor" fee amounts.
- Another model was created to enable you to set SCFs at the average of the fees of several cities in the region. In short, set rates that are competitive with your neighboring cities. However, the SCFs from that method were so close to SCFs from the method above that I discarded the second method.

Another way to recover system capacity costs, but not investigated in this analysis, is to add a system capacity surcharge to a base minimum charge. In essence, with this structure customers pay for system capacity costs over time with the "easy payment plan." This structure knowingly and purposely recovers such costs. And because system capacity costs are quite expensive and not fully recoverable with "up-front" SCFs, some system capacity costs will end up being passed through to user charge fees and be recovered that way.

However, minimum charges are beyond the scope of this analysis. Sometime in the future minimum charges should be set so they will recover part of system capacity costs over time. That is important because system capacity and redevelopment is a never-ending process. It is also important to structure rates to recover these costs fairly.

Now I will take you through the calculation process.

Cost-based Model Discussion

The results of calculations in this section of the report directly apply to calculation of SCFs in the Cost-based Model.

SCF Cost Basis

To set SCFs, one should start with calculation of the amount of cost to recover through SCFs. That is done in Table 5, page 29. This table includes peak and base costs. Oftentimes, SCFs only cover peak flow costs. That is a reasonable methodology because whatever system capacity costs are not recovered with SCFs or surcharges to a basic minimum charge will be recovered through the regular user charge rates by default.

Other city's SCFs in your region obviously include base costs, too, or at least they include some "fudge factor" that amounts to a base flow cost. Because others are, anecdotally, including peak and base flow costs in their bases, it is possible and makes sense to include a blend of both calculation methods in your SCFs. To do that I developed your basis like this.

Starting with Table 5, page , I included projects you listed in your CIP from 2024 through the year 2030 because those projects are likely the best known and most likely to actually occur soon. That period of time also best coincides with my modeling window of ten years. Costs in your CIP already include inflation, so I then summed the Peak Capacity Construction Costs, as well as the Base Capacity Construction Costs at the bottom of Table 5 and calculated the percentages of peak and base costs. The sums of each of those cost types and the percentage splits between the two are used in Table 12 as the basis for peak and base capacity costs.

In Table 5, I classified costs as peak flow-related or base flow-related. The overall averages worked out to 63 percent peak flow and 37 percent base flow. I classified by interpreting the description of each project. For example, "Upsizing existing 4"… with 8" diameter pipe" became a peak capacity cost. Likewise, "New storage tanks…" are peak capacity costs. Those descriptions do not appear in Table 5 because some are quite long. But you can refer to your CIP for that language.

When I adjusted the balance of peak and base flow costs in Section 2 of Table 12, page , to mirror your "competitor's" cost breakdown for five-eighth and two-inch meters, peak flow accounted for 68 percent of costs and base flow for 32 percent. That is close to how I classified costs, so your neighboring water utilities, on average, either have a cost breakdown close to what I calculated, or they otherwise arrived at approximately the same breakdown.

Arriving at the "correct" cost differential (peak versus base cost) is difficult, if not impossible in most situations. Fortunately, in your case, the differentials have been made clearer because the Town has a capital improvements plan (CIP) that includes discussion of the function of each improvement. (I applaud you for that and encourage you to keep it up.) The key parts of the Town's CIP appear in Table 5. I just added four more columns to classify costs.

Meter Equivalent Ratio (Capacity Share)

Table 11, page 31, calculates the "Meter Equivalent Ratio (Capacity Shares)" of each meter size and type that is a result of AWWA meter flow capacity research. As you can see in the table, as meter size goes up, the Capacity Share value goes up. Shares are used for divvying costs to different meter sizes.

Capacity Share Dollar Value

The dollar value of one Capacity Share is calculated in Table 12, page 32. In this case, capacity comes in two flavors, peak and base. Those splits were determined in Table 5, page 29. Table 12, Subsection 1, determines the annual amount of the cost basis for peak and base costs.

Subsection 2 calculates the dollar value of peak and base capacity costs per Capacity Share. To do that, one must determine what part of that annual cost to recover each year. You can target recovering little of it, all of it or even more than all of it. I usually can only recover a small percentage of the annual cost basis and keep the resulting SCF competitive with neighboring systems. (Nearly every system in the U.S. is recovering too little of its past or future expected system capacity costs. To a degree that is reasonable, because a high percentage of system capacity costs are initially paid for with loans and loan payments get added to user charge fees, so some capacity costs are being passed on to customers. But many systems simply have rates and fees that are too low to fully pay their system capacity costs.) In competing for development, which is a reasonable goal, systems often must keep their system capacity fees lower than full cost. When that happens, costs are shifted to the user charge rates of existing customers, or to future customers.

To arrive at a competitive SCF, I could only recover 1.54 percent of the estimated annual cost basis. That is on the low side of what I normally see, but I do see low single digits occasionally. My interpretation is this. Your neighboring cities are charging far below the full cost of building system capacity. But again, that is normal practice.

SCF for Each Meter Size

Once the cost basis has been established, the SCF for each meter size and type can be calculated. That step is done in Table 13, page 33. It is quite easy: multiply the "Peak Capacity Cost per Capacity Share" by the number of shares for each meter size, then add the "Base Capacity Cost per New Connection…" amount.

If you want to adopt this set of fees, find them in Table 13 in the yellow highlighted column called, "System Capacity Fee."

SCF Total Expected Revenue

Finally, using all prior data and calculations, and the assumed number of connections of each meter size and type, the revenues those SCFs will generate can be calculated. That is done in Table 14, page 34. In your case, you had four new connections with five-eighths inch meters made last year. Management expects growth to be about like that for many more years, too.

If you adopt these SCFs and if, in the future, you connect more or fewer new customers or their meter sizes are different than modeled here, you can adjust the expected SCF revenue by going back to Table 13, page 33, counting the number of new connections of each meter size and type (or estimating them when budgeting for the next fiscal year) and multiplying those counts by the system capacity fees in that table. Likewise, if in the future you adjust (increase) SCFs, likely by an across-the-board percentage rate, go back to Table 13, increase each system capacity fee by that percentage, and calculate SCF revenue based on those new fees.

To summarize data and calculation flows through the tables:

- Table 5, page 29, develops the peak and base cost bases,
- Table 11, page 31, develops the share of costs that each meter size should pay,
- Table 12, page 32, calculates the dollar values of a peak capacity share and a base capacity share,
- Table 13, page 33, calculates the SCF for each meter size and type, and
- Table 14, page 34, calculates the SCF revenue to be generated by connecting, in this case, four new connections served by five-eighths inch meters.

At a projected four new five-eighths inch meters connected per year going into the future (which is a slow growth rate), SCFs will generate little revenue. But billing for those costs in this way makes the fee structure fairer and supportable.

Regional Cities' Fees

You may want to keep it simple and adopt SCFs to match those of a neighboring city, or perhaps to match the averages of those cities. The SCFs of several neighboring cities for smaller meters are close to those I calculated. They diverge more as size rises. That approach is somewhat reasonable but unfortunately, some of those cities do not set SCFs for meters larger than four inches, or at least, they do not publish those fees. They also did not include out-of-city fees in their on-line postings. Adopting their fees would leave out larger meter fees and out-of-city fees. But if you do want to adopt those fees, they appear in Table 13 of the Model, page of the report.

Closing

I recommend you adopt the system capacity fees that appear in the middle column of Table 13, page , highlighted yellow.

Appendix A: Rate Analysis Methodology and Related Issues

This appendix covers many issues related to rate analysis and rate setting generally, and specifically to how I do rate analysis. But first, I thank governing bodies for the valuable service they give to us.

The Governing Body's Job is Broad and Critical

The report covered my findings. Based on those findings, I made rate and fee setting recommendations. I may have offered some options, too. However, and this is important, my job is only to advise. The governing body's job is to set rates, among many other things.

Utility management requires the governing body to consider rates-related issues:

- How would the recommended rate structure and overall level of the rates affect ratepayers and funding of system needs?
- How different is the recommended structure compared to the current rate structure, meaning, how much "rate shock" would the recommended rates create for some customers?
- How might the governing body prudently reduce system costs, delay capital improvements, obtain grant or other outside funding for improvements and do many other things to reduce the need for additional revenue?
- And even if rate increases are not a problem, how might the utility be managed differently to reduce costs and be more efficient?

Those are just a few issues related to rate setting the governing body must consider. The job of the governing body is a big one, covering much more than rate setting. The members of the governing body have intimate knowledge of "conditions on the ground," community needs and ratepayer feelings. I only got a glimpse of such things. As the governing body considers those, and many other things, it will decide how to set rates and fees. My analyses and recommendations should be helpful as they do that, but my charge is only to advise, not direct.

All ratepayers and utility customers should be thankful that people from the community stepped forward and joined the governing body to do that critical work. Without such civic-minded people making utility services function well, quite literally, community-based living would not be possible. It is common for some citizens these days to not believe officials and even work against "government" at all levels. That is unfortunate because local government officials make it possible for the rest of us to live and work where we do.

To the governing body members, I say a heartfelt, "thank you." I feel privileged to advise you and I trust you to seek the best overall outcome for your citizens and utility customers.

Now, on to issues that related more narrowly to rate analysis and rate setting.

Rate Setting Resources Beyond This Report

Over the years, I have found that several topics are common to many utilities. Others can be important to a utility at certain times in their development. Rather than cover such issues here, I cover them in separate guides and a rate setting book, all available for FREE download at https://gettinggreatrates.com/Freebies. Following is a listing and descriptions of a few those guides and resources:

1. How to Get Great Rates© (e-book) – The book focuses on basic rate setting issues. It is most applicable to smaller, simpler systems.
2. Rate Setting Best Practices Guide© – This guide expands upon the book to cover affordability, sustainability, bill assistance programs, meter size-based system capacity fees and minimum charges, how to acquire rate analysis services, and more.
3. Rate Setting Issues Guide© is just that.
4. Replacement Scheduler© is a spreadsheet application that enables users to build their own equipment repair and replacement schedule, which calculates the annuity (savings amount) needed to fund all items in the schedule.
5. CIP Planner© is a similar spreadsheet application for capital improvements planning.

The two spreadsheets were extracted from my rate analysis model template and made a bit more user-friendly for do-it-yourselfers. I encourage my rate analysis clients to use these two sheets so they can make repair and replacement and capital improvement plans more formal, more forward looking and less reactive. Plus, the sheets make data gathering easy for clients and me.

There are other guides and resources on this site. All are FREE, so check them out.

Recommendations for Policy and General Issues

Many of the following things you probably are already aware of or are already doing, but they are worth repeating. A comprehensive list of rate setting best practices is presented in the "Rate Setting Best Practices Guide," cited above.

Whether your entity is a city, town, district, or utility authority, you can use the following as a checklist of "to-do" tasks for rate setting and rate analysis. If a reference you see in the following does not quite fit your situation, consider how you can apply the information to your special situation:

1. It is easy to export data from a robust, user-friendly billing program. Your staff gathered volume usage data from that program for my analysis work. For you to examine payment history and problems, usage trends, new connection trends, the effects of usage allowances and other rate structures on revenue generation, and many other issues, you must have a billing program that is user-friendly and robust. If your current billing

program is not as usable as you would like, I recommend you acquire a program that is. A good first contact to research billing programs is your state rural water association.

2. You should charge for the various services staff perform for customers and others. These include various services you provide in the field, such as after-hours service, meter disconnects and reconnects, special meter readings, etc. Just driving to a customer's site takes a minimum amount of time. That is time the staff person cannot perform other duties. To assess appropriate fees:

    a. You should periodically determine how long it takes to drive to and back from the average site and to perform each service.

    b. Determine how much it costs the utility per hour, on average, to have staff perform these services. Include staff wages, benefits, taxes, use of utility vehicles, tools, and minor equipment, etc.

    c. Include a fair amount to cover the time that office staff devotes to working on these services to track them, bill for them, etc.

    In almost all cases, these estimated costs should be recovered with fees for the various services. In addition, set a minimum that you will charge for showing up. In that minimum fee, grant a certain amount of time spent on-site, such as 10 minutes for a special meter reading or 30 minutes for a meter change-out.

    In essence, set your fees in the same way plumbers and similar technicians do – a set fee for showing up, which buys the customer a set amount of time, and an hourly rate if the job takes longer than the show up charge will cover.

    While accounting for time and other investments in the various services staff perform is important, do not make the costing tracking process burdensome. For many services you likely can just estimate staff time occasionally and charge fees based upon those estimates.

3. Retain required funds in interest bearing debt service and debt reserve accounts when required by your lender(s).

4. Have me or another rate analyst of your choosing conduct a full rate analysis again when the ***actual*** financial performance and my ***projection of future*** performance diverge enough to make a new analysis worthwhile. Conditions should dictate rate analysis timing. Most utilities benefit from rate analysis on about a five-year cycle or when total costs have risen by 20 percent. But if you are planning to do significant capital improvements that were not previously included in the rate modeling, or when actual improvement costs or funding plans have changed significantly compared to those that were modeled, those factors call for a new rate analysis as soon as you can get it done.

5. Fully adopt management strategies that are included in what is commonly called, "advanced asset management." These strategies can yield better service and reduced costs for a utility, especially those looking to build new facilities or replace existing facilities soon. At a basic level, you can use my free spreadsheet tools called, "CIP Planner©" and "ReplacementScheduler©" to do capital improvement and equipment repair and replacement scheduling, costing, and annuity calculations. These functions are at the core of asset management and may be all, or nearly all the "asset management" a small, simple system needs to do. Download these tools and others from https://gettinggreatrates.com/Freebies.
6. As a reminder, check with your attorney for language and legality of all issues discussed in this report.

Cost-based Rate Calculations

To give you a synopsis of rate analysis, as I do it, and to make it easier for you to read and understand my findings and recommendations, a tutorial on my methodology is in order. Most situations are simple enough that I do not need to use all these methods, but it will serve you well to know the breadth of my methodology.

When I analyze rates for a government-owned water-based utility, and other utilities that are empowered to assess cost-of-service rates, I use the cost-needs approach. The approach is exhaustively described in the American Water Works Association's "M1 Manual, Principles of Water Rates, Fees and Charges," Seventh Edition. This manual, in use since the 1960s and periodically updated, is considered by many to be the "Bible" of water rate setting best practices.

While the manual focuses on water rate setting and uses terms, units of measure and other things specific to water, the principles and approaches work just as well for electric, sewer, stormwater, trash collection and other utilities and services that are paid for with rates and fees. One just needs to use the appropriate units of measure and a few conventions common to the other types of utilities and services when applying these principles to them.

The cost-needs approach is a static (one year) rate calculation. One could do a new rate study every year to arrive at the rates to assess each year, spread over many years. But that is a lot of work or expense with very little practical benefit to be gained.

Important Terms

The cost-needs approach results in rates that are called, "cost-to-serve" or "cost-of-service" rates. Simply stated, the costs for a targeted budgeting period, usually a year during the next five years, are classified as "fixed," "variable," "capacity-to-serve," or some combination of the three.

- Fixed costs are converted to a base minimum charge.
- Variable costs are converted to a unit charge.
- Capacity costs are converted to some combination of system capacity fees and surcharges to the base minimum charge.

A typical rate study considers the rates needed to fund one year, usually the coming fiscal year. Utilities need to plan farther into the future than that, so I calculate rates for ten years into the future, hence, the more accurate term of rate "analysis" rather than a rate "study."

Most utilities are better served by getting a rate analysis when rate restructuring may be in order or when rates will need to go up markedly. During the years in between rate analyses, it is simple and convenient to just raise all significant rates and fees by an across-the-board percentage, which should have been specified by the analyst. Such increases may be aimed at keeping up with inflation. Or they may be designed to achieve other goals. In whatever way these increases are to be done, they were planned for in the analysis and described in the foregoing report.

To guide utilities to do future increases well, I expand the cost-needs approach by projecting costs, revenues, rates, and other criteria ten years into the future. That gives each utility a "road map" of what they can expect in the future, so they can reset rates appropriately.

Because I intend for utilities to reset rates on their own for some years into the future, and I want those rates to be "fair enough" to serve them well, I calculate the initially restructured rates so that they take future across-the-board increases into account. This is how it works.

Based on my calculations, the initially adjusted rates will be closer to a "cost-to-serve" structure than the current rates. And as across-the-board increases are applied, rates will move even closer to a cost-to-serve structure until the year used for cost classification has arrived, which normally is four to five years in the future. After that, additional across-the-board increases will move the rate structure further away from cost-to-serve. Eventually, a new rate analysis should be done to make the structure fair again. For most moderate sized utilities, that is about five years into the future. For most smaller utilities, that may be eight or more years away.

To arrive at cost-to-serve rates in a future year, I must choose an appropriate year for cost classification.

- The best year may be the first year after a big capital improvement is planned to be finished because the debt service for that improvement probably will have already started.
- Or, if costs are expected to inflate uniformly, the best year may simply be five years in the future, the year in which most utilities should consider having a new rate analysis done anyway.

Rate Analysis, in a Nutshell

At its simplest, rate analysis helps a utility arrive at rates and fees that are adequate – they will pay all the utility's costs. The next level of complexity is to arrive at rates that, on an average cost basis, will enable the utility to recover fixed and variable costs "fairly." Most small water and sewer utilities need analysis only to this level of complexity – doing more than that results in rates that are impractical for small systems.

Another level of complexity includes calculation of meter size-based minimum surcharges and system capacity (connection) fees. Another includes calculation of rates on a "marginal" cost basis, for special groups of customers. Yet another level is marginal cost basis calculation of rates for individual customers, such as a wholesale customer. These facets of analysis result in accurate but complex rate structures; appropriate for the larger utility with diverse customers.

Analysis can and should provide a sound basis for advising the utility to "go or don't go" concerning various actions it might take. Some of these actions are purely financial. Some, like the decision to enter into, or not enter into, a wholesale supply agreement, for example, include "hassle factor" and other non-financial issues. And because such are agreements are made for nearly forever, a mistake made in the beginning can hamstring a utility for years or decades to come. Regardless of system size, thorough analysis should always be done before entering into such agreements.

There are some basic steps to arrive at cost-to-serve rates. Calling these "steps" implies that I do one and then move on to the next. In practice, most steps are affected by, and affect, what happens in other steps. Therefore, they are all done in concert with the others.

That said, here are the basic steps:

1. Cost Classification: Operating costs are placed into different categories – fixed, variable, peak flow capacity, and sometimes others. I classify costs projected for a year in the future, usually within five years of the present. And I use a year that appears to be typical of what the utility can expect in the future.

   For all utility types, operating cost classification is done in Table 8 of the model(s) that will follow in this report. The core notion of cost-to-serve rates is this: The basic minimum charge assessed to all customers should recover the sum of all fixed costs; and the average unit charge should recover the sum of all variable costs.

   System capacity costs can, and usually should be recovered on a cost basis, too. That is a bit complicated and will be covered shortly.

   Back to recovery of operating costs, near the bottom of Table 8 in the foregoing report, you will see the "Average Fixed Cost/User/Month" and the "Average Variable Cost to Produce/1,000 gallons (or other units)." These are the basic minimum charge and the average unit charge based on the costs expected in that future year. The same model template is used for calculating rates for the various utility types. The main difference for those analyses is the measurement method for unit charges.

An aside, but an important one in my mind, is this. The M1 Manual describes how to calculate cost-to-serve rates down to the customer class level. If a rate analyst classifies costs to that level and the utility sets rates that achieve that result, it can correctly be said that the utility has cost-to-serve rates. Those rates will be fairly structured, but only at the customer class level.

I classify costs to the customer level. Thus, rates that I calculate are cost-to-serve to the customer level. My reasoning for doing this is, rate structure fairness if felt at the customer level, not at the customer class level. Customers pay utility bills. Classes do not.

2. Capacity costs: In the ideal, capacity costs should be assessed on a cost-to-be-able-to-serve basis, but these costs are a long-term proposition. No one knows at present what the cost of capacity is because those costs unfold over decades. Thus, the dollar cost of capacity can only be estimated, but that is not a problem. The key is, whatever one estimates capacity will cost, or whatever portion of capacity a utility desires to recover with capacity charges, that cost should be divvied out to new connections and current customers on a fair basis. The following goes to that goal.

   - The American Water Works Association has done excellent research on the sustainable peak flow capacity of different water meter sizes and types, so I generally use the flow capacity of each meter size and type as the basis for divvying water and sewer peak flow capacity costs. That math is lengthy, so

it is spread out over Tables 11 through 16 of the model(s) in the report. The notion of capacity applies to all utility services, so:

- When I calculate water and sewer rates where meters are used, I use meter flow capacity as the capacity share criterion.
- When I calculate electric rates, I use what is commonly called the "demand" exerted on the wholesale power supplier. If the client produces its own power, I use the demand measured by the client's metering system.
- When I calculate sanitation (trash collection) rates, I use the cubic foot capacity of the various bin and dumpster sizes times the number of pickups per month of each as the capacity criterion. Thus, for trash collection services except for the rare ones that actually weigh trash as it is collected, the capacity of bins times the pickup frequency becomes a component of the unit charge for each customer.
- Stormwater capacity is like trash collection in that impervious surface area is the usual capacity, and unit charge criterion. Square footage or the equivalent of impervious surface area appears in the rates as the unit charge analogue.

3. Future cost projections: I project costs ten years into the future. Generally, this is done by applying an expected inflationary factor to each cost. But it is also common that some costs, like the cost of debt service needed to build a new treatment plant in two years, will change future costs markedly. Such cost changes are estimated, then entered into the model in the year in which they are expected to occur. Some expenses, like postage, treatment chemicals and electricity for production, treatment, and distribution, rise with inflation plus growth in the customer base and use. Those are increased in future years by inflation and growth.
4. Reserves: Reserve goals are set through the tenth year. Those goals will only be met if (primarily) rates are set high enough and/or (secondarily) grants and subsidized loans are large enough to enable the utility to generate net revenues over the modeling period. The amount or percentages and types of reserves are dependent upon each utility's needs, so that is discussed in the foregoing report.

For the techie reader, the analysis model we use – a Microsoft Excel spreadsheet application we call, "CBGreatRates" – is usually 3.8 mega-bites in size. Each rate analysis includes one of these sheets.

For a 1,000-connection utility, for example, we use another spreadsheet, 12.1 mega-bites in size, to sort and calculate customer volume use. We use one of these sheets for each rate class. There are usually five or so for the simplest rates. Each of these sheets is linked to the client's usage data file, usually a few mega-bites in size, for importing usage data. Thus, an analysis for a 1,000 connection utility totals 65 or so mega-bites in size.

For some of our larger client utilities with more rate classes and more customers, total size of all the linked spreadsheets runs over 250 mega-bites. We run computers with lots of RAM and memory but some of the calculations for a larger utility can take around 60 minutes to run. When usage data sheet runtimes get long, we usually switch to a database format application to speed up the heavy number crunching.

5. Calculate rates: The full suite of rates needed to fully fund the utility and do it fairly is a dynamic set of calculations, too complex to completely explain here. And each situation requires variations on this theme. I will leave out some details, so this is the "Cliff's Notes" version of rate calculation:
    - Capacity cost recovery is calculated first. Likewise, penalties collected, and other non-user charge fee incomes are calculated. These revenues are deducted from the total revenue needed to arrive at the revenues needed from user charge fees.
    - Next, the across-the-board future rate increase rate (a percentage) is set. In the future, starting about one year after the initial rate adjustments have been done, rates will increase annually by this percentage. The revenue needed from the initial rate adjustments, here called the "net revenue need," will come from the revenues generated by the initial rate adjustments. (In truth, future inflationary revenue increases, plus interest earnings on balances accrued are dependent upon the rates that are initially set, so most "pre-calculated" revenue streams are adjusted dynamically as initial rate revenues rise or fall.)
    - The calculated bases for fixed costs and variable costs (Table 8) establish a ratio of the revenues that each rate component would generate in a cost-to-serve structure.
    - To increase (or very rarely decrease) overall revenues to satisfy the net revenue need, each revenue stream is increased or decreased by the same percentage. Thus, the revenue streams remain in the same ratio to each other. That means they retain their cost-to-serve proportions.
    - Once the overall revenue increase (or decrease) is established:
        - The base minimum charge is "back calculated" from the adjusted minimum charge revenue amount. (Every customer, regardless of their meter size, pays the base minimum charge.) The meter size-based surcharge, for water and sewer systems, is added to the base minimum charge to arrive at the full minimum charge for each meter size. (Similar math is done for other utility types.)
        - The average unit charge is calculated from the unit charge revenue amount. If inclining or declining rates are to be assessed, or if there is to be a usage allowance, unit charge revenues are calculated dynamically based on those variations.

        - The resulting rates are the starting user charge rates – the initial adjusted rates – what you will (hopefully) adopt initially. In later years, you will increase these starter rates and fees across-the-board by the inflationary factor, generally to keep them tracking with rising costs.
    - After examining balances projected for future years, the future inflationary increase rate may be raised or lowered to enable the utility to accrue appropriate balances either sooner or later. That, of course, will result in initial rate adjustments that would need to be either lower or higher, respectively, to offset the change to the future adjustments rate.
    - Finally, it is common for managers and decision-makers of utilities to want to "tweak" rates into a different structure, timing of adjustment or in other ways. Having built the model to handle "on-the-fly" adjustments, I model their preferences to arrive at the rates needed to fund the utility as they desire.

6. Reporting out: The culmination of all this data gathering, calculations and more ends up in a rate analysis report like the report this appendix is attached to. The report covers everything that seems to be important and gives the client my recommendations and guidance on how to adjust rates now, and in the future.

   If desired by the client, I present the report, my findings and recommendations, and answer questions, usually at a Board or Council meeting. Before COVID-19 that was always done in person or rarely by phone call into their Board or Council meeting. During COVID-19, that was almost always done by remote video. After COVID-19, these meetings are being done either way, as the client desires. Many of my client systems are small and their management had not yet adopted on-line meetings. COVID has changed that. Many of my "meetings" now are done on-line, even with very small utilities. Cutting out my travel saves them a lot.

Cost-to-serve rates are considered by many, including me, to be the most mathematically fair and defensible rate structure. While I previously described how I do such calculations, I will now tell you what I consider to be "fixed" costs, "variable" costs and "capacity-to-serve" costs:

- ***Fixed operating costs are those that are related to the fact that you have customers.*** For every customer, the utility incurs one increment of this type of cost. Billing is the simplest, purest example of a fixed cost. Whether a customer uses a lot of the commodity or none, it (almost always) takes the same work, equipment, software and more to calculate their bill, "send it out" and collect the money.
    - Another part of the minimum charge will likely be a surcharge intended to recover all or part of peak flow or unusual capacity costs. These are almost always based upon water meter size because the larger a meter is, the greater

is its capacity to sustainably pass peak flows. This peak flow capacity relates well to the cost of building infrastructure "big enough" to handle peak flows. Thus, ***capacity costs are related to the fact that a particular customer has a certain capacity to demand flow or service, regardless of how much flow or service they actually use.*** These surcharges are added to the base minimum charge to arrive at the full minimum charge for each meter size.

- Larger systems invariably have more large meter customers and that makes surcharging the larger meters worthwhile and fair.
- However, small systems with few "unusual" customers and few meters larger than one inch often find it expedient to consider even peak flow capacity cost to be a fixed cost, equally sharable by all customers. At some point, there is more to be gained from administration simplicity than exact rate structure fairness.

- ***Unit charges are related to the volume of service received.*** While unit charges can be structured in various ways, the revenues they generate should be adequate to pay those costs that are related to the flow that customers use.

There are three unit charge structures that I commonly recommend, depending on the situation:

- Some systems need "conservation rates," or, their administrations simply like the notion of encouraging customers to use less of the utility's services. In this rate structure, the unit charge goes up as volume used goes up. Most of us respond to, or at least we think twice about it, when we are assessed a higher price to buy more of something. Conservation rates are most appropriate in areas with limited water supplies or in a utility that is bumping up against its capacity to produce water.

If you are going to err either on the side of complex rates that precisely assess costs to each customer or simpler rates that round off some of the accuracy corners but are easier to administer, choose simple rates.

- Most systems use, and should use, level unit charges – a unit charge that is the same regardless of how much volume a customer uses. With level unit charges, customers are assessed unit charges on an average unit cost basis. Such rates are the easiest to calculate, they are the easiest for a clerk to explain to a complaining customer on the phone and the revenues such rates will produce next year are the easiest to accurately predict. Most water utilities, and almost all sewer utilities assess level unit charges.

- The last major unit charge structure is called, "declining" rates. These are the reverse of conservation rates. I often call them, "use encouragement" rates. It is popular these days for many to belittle those who do not conserve resources at every opportunity. Declining rates are often scorned for that reason. However, if a system has an ample water supply and ample infrastructure to produce and distribute it, doing so will not cause unintended bad (mostly environmental) consequences; and if the governing body wants to encourage high use (which often entails such users hiring more or better paid workers), declining rates can make good sense. Declining rates are most appropriate in areas that have many high-volume industrial users or folks in that area want to attract such users. Declining rates seem to be most common in the industrial east, but they seem to be less popular everywhere these days. However, keep this in mind. One can accurately calculate the average unit charge and "prove up" that rate case. One cannot do the same with inclining or declining rates.

To complicate the aforesaid just a bit, rate setting is first about recovering costs. Job one of utility rates is to pay the utility's costs. But usually, proper rate setting is also about building adequate reserves; funding a capital improvements program (CIP); catching up on needed equipment repair and replacement (R&R); and covering similar needs. Thus, these soon-to-be-experienced costs or likely-to-be-experienced costs need to be factored into rates and fees, as well. Because time marches on and costs usually inflate over time, rate setting should account for the need for future incremental increases to cover inflation. And you cannot just assume that because the utility needs more revenue that your ratepayers will be glad to pay higher rates. Rate affordability, and the public's perception of affordability, must be addressed, too.

Even the simplest rates situation requires some complex and integrated calculations to account for these factors. For that reason, I build a spreadsheet for each analysis that depicts, in virtual reality, the utility's real-life financial and rates situation.

These models are dynamic. When the initial rate increase is set higher, future inflationary increases can be lower. When minimum charges are set lower, unit or other charges need to be set higher to make up the shortfall. When future expenses need to be higher, or lower, or of a different nature, the Model adjusts rates and fees accordingly. Such modeling enables me to do dynamic "what-if" scenario calculations. That enables me to arrive quickly at the "best fit" rates for each utility. Usually but not always, the client goes with what I recommended.

Coincidentally, such a dynamic model makes it easy to calculate rate and other changes over the next two or three years, too. If a change does not affect the cost structure drastically, I can do the same for almost any cost or rate change. If one, two or three years from now, you discover your costs or incomes will be different from what you and I had assumed, you can call me up, tell me what is different, I will enter the changes into the model(s) and re-run the rates. If the change is small and quick to model, I do that for no charge. If it is more complex and will take some time and usually a written report, I do those projects on an hourly basis. Fees for those usually come in at $500 – $1,000. Some clients find that to be a very accurate and cost-effective way to maintain good rates.

Truth be told, I have been building my template model since 2005. It is the starting place for all my analyses. The template is so robust that I can set a few "switches" here and there, build in a few things that are unique to a new client's situation and soon, I am modeling rates tailored to their needs.

Temptation Happens

I could build a static model that arrived at what I thought was the best rates outcome for a client. If the client asked for something different, I would be tempted to tell the client that, "In my experience, blah blah, blah, that would not be a good thing to do." Based on my experience, I probably would be right, but that tack would be self-serving – it would save me work.

- Half the reason I build dynamic models is to be able to show the client the outcome of what they asked for and that usually proves up the case for what I originally recommended.
- The other half reason is, when I model what the client asked for, I sometimes find that indeed, it is doable and may even be superior to the solution I assumed was best.

Assumptions based upon deep experience are useful. But facts and good math are a great training experience for a rate analyst.

Two final thoughts on the rate modeling and adjustment topic:

- Almost always, rate adjustments include bill increases. Thus, time is money, often big money, to the utility. A rate increase delayed is a rate increase that must be even higher to reach the same reserve target. Get to know this report well but do not spend months mulling it over. Time will not make your rate setting task easier. Proceed deliberately but quickly and make the needed changes. If you cannot make all the needed changes at the same time, make those that you can as soon as you can. Then, get around to the rest as soon as you can.
- You will get complaints about customers' bills going up. I do not want to be dismissive, but in my experience, most of the time, when the math is laid out for all to see, most people are understanding. Cost-to-serve rate analysis does not arrive at unfair rates. It arrives at fair rates. Who doesn't want fair rates? Well, those who are paying cheaper than fair rates. If they can convince those who are subsidizing them to keep subsidizing them, even those the analysis shows that is not fair, more power to them. But generally, cost-to-serve rates win the day.
    - These statements do not mean "do-it-yourself" rate adjustments are always unfair or insufficient, or that "rate analyst" calculated rate adjustments always are fair and sufficient. I always try to calculate and advocate for rates that are fairly structured. But over time, costs and other conditions change, so even cost-to-serve rates I have calculated will become unfair after some years.
        - A good blend of fair rates and a low cost to achieve them is this. You get a rate analysis done occasionally and adjust accordingly. For a few years after that, do-it-yourself across-the-board increases will keep revenues tracking with inflation. Eventually, you analyze again.

Please keep the above summary of cost-based rate calculations in mind as you read on.

Principles

I use several guiding principles when I help systems set their utility rates, fees, and policies. I considered these principles as I prepared the foregoing rate analysis report and the model(s) that follow:

1. Water, sewer, and all other utilities are businesses, regardless of who owns them. The first order of business is, stay in business. Your customers want you to do that. They do not want their investments in homes and businesses to be left high and dry without utility services to support them.

2. The second order of business is, perform in a business-like manner. First, be effective. If you do nothing else, be effective. Next, be as efficient as is reasonably possible. Efficiency tends to foster lower rates, which ratepayers like. Effectiveness and efficiency fight against each other. In most utility services and situations, effectiveness trumps efficiency. It does not benefit water customers if you pump lots of water cheaply if that water will make them sick, or if too much of it leaks out of holes in the pipe. Customers also gain more benefit from water rates that are a bit higher than they would like, but those extra funds enable the utility to be sustainable.

3. If a service costs the utility money, the utility should recover that cost from the most logical "person" if that makes good business and community administration sense. For example, generally "growth should pay for growth." Developers should fairly pay for their consumption of utility capacity obligated to what they build by paying commensurate system capacity fees. Likewise, service users should pay for what they use. Each class of users should pay their fair share of service costs. Ideally, each individual user should do that, too.

4. It sometimes contradicts point number 3 above, but if adjusting a rate, fee or policy will turn currently "good" customers into "bad" customers, or discourage development that the community desires, you should consider the necessity of making the change carefully before doing it. For example, while it may be warranted, raising the minimum charge markedly to your residential customers may make it very difficult for fixed, low-income customers to pay their utility bill. That may cause more of them to pay late or not pay at all. That may trigger the utility's attorney to write collection letters to those customers and eventually require shutoff of service. Thus, in the attempt to generate more net revenue by raising rates, net revenues may go down due to non-payment and payment collection costs. Likewise, stifling development with uncompetitive system capacity fees costs a utility in the form of additional paying customers that choose to "build down the road." That forces existing customers to pay all the costs of the utility rather than sharing them with new customers.

> As you consider rate adjustments, always keep this customer in mind:
>
> The "little old lady, widowed, retired, living alone on Social Security." Treat her badly, or just be seen as treating her badly, and you lose the goodwill contest. Lose goodwill and you may never get it back.

5. While cost-based rates are the most demonstrably fair rate structure, purely cost-to-serve rates can be impractical for some utilities. Consider this:
    a. A large city has thousands of customers served by a wide range of meter sizes and those customers have a wide range of service use. That city needs rates that are cost-based and, necessarily, those rates will be complicated. Such rate complexity is worthwhile because the utility's situation is complicated.
    b. In contrast, a small town serves few customer. Those customers usually have only a few meter sizes and few of them use high volumes of service. That town would not be well-served by complicated rates. Simpler rates are better for them.

However, both should still get a cost-to-serve rate analysis at least occasionally, so even if they adopt something else, they will know what you are giving up.

That is probably more than you care to know about rate analysis but if I did not answer all your questions, just give me a call, or drop me an e-mail.

Town of Camp Verde, AZ, Water Cost-based System Capacity Fees Model 2024-1

This model calculated system development fees (system capacity fees) that are cost-based but tailored to be in line with fees of nearby communities.

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Note: This document is a print out of the spreadsheet model used to calculate new user charge and other rates and fees for the next 10 years. These calculations are complex and are based upon many conditions and assumptions. These issues, and others, are described in a narrative report that accompanies this model.

Definitions

Affordability Index	The monthly charge for (typically) 5,000 gallons of residential service divided by the median monthly household income for the area served by the system. An index of 1.0, meaning a household pays one percent of its income to pay its bill for 5,000 gallons of service, is generally considered affordable. Affordability index is often a factor in determining grant and loan eligibility and grant amount.
Analysis Year	The year following the "test year." Generally, rate analysis is done during the year following the "test year" and intial rate adjustments are done later still during the analysis year or sometime during the following year once the analysis shows how rates should be adjusted. See related "test year."
Capacity Cost (also see System Development Charge or Fee)	The cost incurred to design and build the infrastructure needed to provide a utility service. As the infrastructure ages and wears out from use, it must be refurbished and replaced, which is a continual capacity cost. Capacity costs are recovered in various ways - connection fees, system development fees, regular user charges and others. The cost of that capacity and the nature of the costs - base flow capacity versus peak flow capacity - should determine the way these costs are recovered.
Capital Improvement Plan or Program (CIP)	A schedule of anticipated capital improvements. These are the more expensive items such as treatment plants, lines and other expensive infrastructure that generally requires bond or grant funding.
Capital Improvement Reserves	Cash reserves dedicated to funding the CIP
Comprehensive Rate Analysis	A thorough examination of a system's operating, capital improvement, equipment replacement and other costs, revenues, current rates, number of users and their use of the system, growth rates and all other key issues surrounding the system. This examination will determine how rates and fees should be set in the future to cash-flow the system properly, to build appropriate reserves and to be fair to ratepayers. It also will determine how policies should be adjusted to enable the system to operate well now, operate well in the medium-range future (about 10 years) and prepare for expected and expectable events such as capital improvements and equipment replacement.
Connection Charge	See system development fee
Conservation (Inclining) Rates	Unit charges that go up as the volume used goes up
Cost-to-produce	There are several ways to define and calculate cost-to-produce. Each is acceptable for different purposes. Generally, cost-to-produce is the total of all variable costs required to get service to a utility's customers during one year divided by the total units of service delivered during that year. This calculation will yield the average cost-to-produce. In a proportional to use rate structure, this is the unit charge. See "Cost Calculations" at the bottom of Table 19.
Cost-to-serve, or Cost-of-service Rates	Rates where, at the customer class level, fixed and variable costs caused by each customer class are paid by that class primarily with minimum and unit charges, respectively. However, this analysis model takes it one step further and calculates cost-to-serve rates at the individual customer level.
Cost Types; Fixed and Variable	The two main types of costs are fixed - those that are related to the fact that someone is a customer; and variable - those that are related to the volume of the commodity delivered to customers. Generally, fixed costs should be recovered with minimum charges and variable costs with unit charges.
Coverage Ratio (CR)	Incomes available to pay debt divided by the amount of the debt for that year. A CR of 1.0 is "break-even." Most systems should have a CR greater than 1.25.
Current Position	For purposes of this report, for one year, the sum of all incomes and undedicated reserves minus all current financial obligations for that year. Future obligations (next year's loan payments) and depreciation are not included. Current position, often called "cash and cash equivalents," is a good measure of liquidity.
Declining Rates	Rates where unit charges go down as the volume used goes up
Fire Sprinkler Systems and Related Costs	Generally, fire suppression in businesses is provided by a built-in system of fire sprinklers. "Service" to such systems is primarily in the form of peak flow capacity availability to fight a fire. Capacity costs money, so larger, more sophisticated water systems should assess at least part of such costs to fire suppression systems. Small water systems usually do not charge separately for these costs, and that is reasonable.
Fixed Cost	Accounting considers a cost that does not change to be a fixed cost. That definition does not work fairly for rate setting purposes. For rate setting, a fixed cost is one that is related to the fact that you have customers. The simplest example is billing, because the utility incurs billing costs not in relation to the volume of service a customer consumes. Rather, those costs are equal for all customers, or they are so close to being equal for all customers that one likely could not justify such a cost being different for one customer compared to other customers.

Definitions

Flat Rates	Rates where all users pay exactly the same fee regardless of the volume of service they use
Equivalent Dwelling Unit (EDU) or Equivalent Residential Unit (ERU)	This definition is for water and sewer service. Based upon number of water using fixtures, average flow, potential flow or similar criteria; the consumption rate of the average single family home is rated at one ERU. All other types of customers are then compared on this basis and multiples or parts of an ERU are assigned to each for billing purposes.
Equivalent Residential Unit (ERU) for Stormwater	This definition is for stormwater. As compared to water and sewer, that are concerned with water flow, one ERU of stormwater service is the average square footage of impervious surface of a single family home. Then, larger and non-residential properties are rated by their multiples or parts of an ERU of impervious surface area for the purpose of billing for stormwater impact costs. When there is a large variation in single family home size and impervious surface area, some cities and similar places use the smaller size range of homes as their ERU standard and assess larger homes at multiples of that ERU basis, as well.
Incremental Rate Increases (Inflationary Increases)	Rate increases done, generally annually, following the initial rate adjustment. The usual goal of such increases is to keep the system's incomes on track with inflation. Such increases are usually small, in the two to five percent per year range.
Initial Rate Adjustments	Rate adjustments done in response to the comprehensive rate analysis. Generally, the goal of such adjustments is to establish rates that cover the system's short-term expected costs and do it with a structure that is fair to ratepayers. Initial adjustments should be followed in subsequent years with incremental rate increases.
Inflow & Infiltration (I&I)	In a sewer system, water that gets into the collection system by way of illicit connections (inflow) such as gutter downspouts, plus leaks in manholes and sewer lines (infiltration)
Infrastructure	Most commonly thought of as the hard assets, such as buildings, treatment plants and lines needed to provide service to customers connected to the system. In reality, staff, software and other "soft" assets should be thought of as infrastructure, as well because the hard assets cannot run well or run for long without staff.
Life-cycle Cost	The total cost to design, build, operate, maintain and eventually dispose of, or decommission, an asset. One asset may cost less to build but it may be more expensive to operate and maintain, yielding a higher total life-cycle cost. Life-cycle cost is an important consideration of asset management.
Marginal Costs	The parts of a utility's costs that are unavoidable in the course of serving a particular customer, a group of customers, more volume to all customers or some other marginal use of the system. Such customer(s) or extra use could be added at a discounted but still profitable fee, if desired. Generally marginal costs are less than the average costs but when extra use requires a system upsizing, they can be greater. These costs are especially useful when considering selling service at wholesale or charging "snow birds" while they are away, for example.
Minimum Charge	This rate, charge or fee goes by other names. "Base charge" and "availability charge" are common. This is the periodic fee paid for having water, sewer or other commodity service made available to the customer to use. Most common is a monthly or quarterly minimum charge. Generally, this charge should recover fixed costs.
Mixed Costs	Fixed and variable costs are defined elsewhere. Costs that are mixed are those that are a blend of fixed and variable. For example, a utility hires staff and provides them benefits partly just to have staff on hand to deal with line breaks, equipment breakdowns and other problems. But most staff time and related costs are incurred because the utility is doing what it was designed to do - provide water or other commodity services to customers. Two gross examples illustrate the extremes of staff costs. In one small water system with one operator, the operator sits around in the shop all day, every day with nothing to do. The cost of that operator is fixed and should be shared by all customers equally in a minimum charge. Another water system has one operator, but that operator works all day, every day operating and maintaining the system. That operator is enabling the system to do what it was designed to do - provide a commodity - so that operator's time and related costs should be considered variable and recoverable through unit charges. In reality, staffing and many other costs are a blend of fixed and variable costs, so they should be consider partly a fixed cost and partly a variable cost.
Operating Costs	Definitions and calculations vary. For rate setting purposes operating costs are costs incurred because a system is operated. Such costs are usually recovered primarily through unit charges.
Operating Reserves or Working Capital	Analogous to current position, this is the net revenues generated during "profitable" years and retained to fund operating costs during times when costs exceed incomes.
Operating Revenues	Revenues collected in the form of user fees and similar operating cost-related fees
Operating Ratio (OR)	Current incomes divided by current expenses, not including debt. An OR of 1.0 is "break even." Most systems should have an OR of 1.25 or higher.
Payback Period	In this case, time required for the investment made to get this analysis done to return that investment through increased user and other fees.

Definitions

Peak Flow Capacity or Demand	The volume of service that a user could demand for a short period of time at full volume use. In water systems, and generally in sewer systems, too, the peak flow capacity limiting factor is usually the size of the customer's meter or service line. In electric systems, demand for each commercial and industrial customer (and sometimes others) is usually calculated annually based upon the peak energy usage during a defined short period.
Proportional to Use Rates	Rates where the minimum charge recovers all fixed costs, the unit charge recovers all variable costs, the unit charge is the same for all volume sold, and there is no usage allowance in the minimum charge. This rate structure is similar to and often the same as cost-to-serve rates.
Replacement Schedule	A timetable that describes equipment replacement and important repairs that are too infrequent and/or too expensive to cover as annual operating costs but not so expensive that they need to be covered as capital improvements.
Replacement Reserves	Cash reserves used to fund the Replacement Schedule
Return on Investment	In this case, the dollar amount or percentage of revenue gain enabled by this rate analysis. Related to payback period.
Snow Bird	A customer, usually residential, that goes away during part of the year. Most commonly, these are people of "means" who live in the north who "fly south" for the winter. But, this category includes everyone who is absent for a significant part of the year but returns to their permanent residence.
Stormwater	Precipitation that falls on and then leaves a site, flows elsewhere, potentially causing or adding to flooding and often carries with it sediment and pollutants.
Stormwater Management	The practice of reducing and mitigating off-site stormwater flows and impacts.
System Development Charge, or Fee, or System Capacity Fee	Fee assessed to pay for at least part of the cost to build system capacity. For purposes of this model, all charges related to connecting new customers will be "rolled together" into a system development charge, usually including a charge that buys a new customer system capacity. This combined charge may be a few hundred dollars for a residential customer, if little or no capacity costs are included. If capacity costs are included, it could be many thousands of dollars for a large industrial customer. Similar terms in common use include "tap-on fee," "connection fee or charge," "hook-up fee," "impact fee," "availability charge," and "capacity charge."
Test Year	The one year period from which data was gathered to be the basis of the rate analysis, the starting place, which is usually the last completed fiscal year. See related "analysis year."
Unit Charge	This rate, charge or fee goes by other names, too. It is the rate paid for water, sewer or other commodity per unit of measurement, like per 1,000 gallons or per 100 cubic feet. Generally, this charge should recover variable costs.
Usage Allowance	The volume, if any, that is "given away" with the minimum charge. Most systems give away no volume. Those that give away an unlimited volume have what are called "flat rates" - a minimum charge only.
User Fee, User Charge, User Rates	Fees assessed to customers for use of the system. This does not include system development charges, late payment penalties or other types of charges.
Variable Cost	Accounting and rate setting agree on this definition. For rate setting, a variable cost is one that rises and falls as the customer uses the commodity. The simplest example is electricity used to treat and move water around. While the power company assesses a minimum charge and demand charges to the water or other utility that is "signed up" for electric service, the majority of the electric bill rises and falls with the volume of water produced by that utility. Therefore, variable costs should be recovered with unit charges.
Water Loss and Unbilled-for Water	Measured by volume or percent, the part of a water system's net water production that does not reach customers or is not billed to customers. This loss also includes billable volume lost due to under-registering customer meters. "Unbilled-for water" includes water loss, but it also includes water actually given away at no charge.
Working Capital, Net Income	The amount left in the operating fund after paying all costs due during that month, year or other time period.
Working Capital Goal or Operating Reserves Goal	The desired operating fund reserve, in dollars or percent, at a stated point in time. Small systems (1,000 connections) generally should target 35 percent or greater. Larger systems can target a lower percentage. The goal for each system should be based upon the needs of that system and the risk the customers are willing to take.

Table and Chart Descriptions

The tables and charts of this model tell a story about the rates and finances of the utility.

The tables you first see in this model depict utility data, like the rates that were being assessed to customers during the test year, the volume of service those customers used, how much income the utility collected, what its costs were, and more. This data came from utility records. In addition, the tables in this model go beyond the utility's historical data and include projections of incomes that will be generated by the new rates, future expenses as they grow with inflation and other forward-looking features.

Tables in the middle part of the model primarily calculate new rates and fees that will generate enough revenue to pay the utility's costs over time.

The tables in the last part of the model show the results of new rates and fees. Those include the rates themselves, surcharges to rates, if appropriate, the affordability of the new rates, and reserves generated by the new rates. Many of these results as shown graphically in charts at the end of the model.

As you progress through the model, keep this story in mind. You probably understand much the math performed by the model. There is some you likely do not recognize, and that is OK. Just know that new, adequate rates were calculated based upon the utility's historical data, projected into the future.

A final note: When a numbered table or chart listed below is not in the package, that was not a mistake. It simply means that table or chart from our master program was not needed in this situation, so it was bypassed and left out.

Now, here are descriptions of the tables and charts.

Name	What Each is or Does
Definitions (List)	The meaning of terms used in this report and in rate setting generally
Return on Investment (Calculation)	A summary of financial outcomes enabled by the proposed rates
Table 1 - Rates	User rates in effect at the end of the test year. Unless rates were recently changed, these are the current rates.
Table 2 - Test Year Usage	Compilation of actual volume of service used by customers during the test year
Table 3 - Basic User Data and Operating Incomes	Basic user statistics and operating revenues, projected for 10 years, based on the assumption the modeled rates and future inflationary increases will ber adopted
Table 4 - Operating Costs and Net Income	Operating costs projected for 10 years
Table 5 - Capital Improvements Program (CIP)	Capital improvements and how they will be paid over next 10 years, including debt service
Table 6 - Equipment Replacement Schedule - Detailed	If applicable, detailed schedule of equipment replacements for next 20 years
Table 7 - Equipment Replacement Annuity Calculation	If applicable, calculation of the annual annuity (yearly savings amount) needed to pay for all equipment replacements as they come due and ending with the desired balance
Table 8 - Average Cost Classification	Sumation of a target year's costs and calculation of the "cost-of-service" rate structure basis for recovery of fixed costs and variable costs. Unless directed to do otherwise, this analysis developed cost-to-serve rates based on cost classification in this table.
Table 9 - Marginal Cost Classification	If applicable, calculation of costs incurred to serve a specified type of customer
Table 10 - Initial Rate Adjustments and Resulting Revenues	These are the modeled user rates and the resulting "blended" revenues they, and the current rates, will generate during the rate adjustment year
Table 11 - AWWA Safe Operating Flow by Meter Size	If applicable, this table calculates the meter equivalent ratio, which is used for calculating peak flow capacity-based system development fees, surcharges and revenues in Tables 13 through 16 for water meters, and when applicable, capacity costs for fire sprinklers.
Table 11B - Fire Sprinkler Peak Flow Capacity Factor	If applicable, this table shows peak flow capacity shares of various size fire sprinkler systems.

Table 12 - Flow Capacity Costs	If applicable, calculation of the various costs to build base and peak flow capacity to serve customers, when such fees will be based on water meter size
Table 12B - Capacity Costs Attributable to Fire Sprinkler Systems	If applicable, nearly the same as Table 12, except it applies to fire suppression systems.
Table 13 - System Capacity Fees	If applicable, calculation of meter size-based system development fees needed to recover costs calculated in Table 11, when such fees will be based on water meter size.
Table 13B - System Development Fees for Fire Sprinkler Systems	If applicable, nearly the same as Table 13, except it applies to fire suppression systems
Table 14 - Revenues From System Capacity Fees	If applicable, calculation of total fee revenues that would be generated during one full year at the fees in Table 13.
Table 14B - Revenues From System Development Fees for Fire Sprinkler Systems	If applicable, nearly the same as Table 14, except it applies to fire suppression systems
Table 15 - Minimum Charge Fees, Including Capacity Surcharges	If applicable, calculation of meter size-based capacity surcharges and minimum charges to recover costs calculated in Table 11, when such fees will be based on water meter size
Table 15B - Sprinkler System Capacity Charges	Nearly the same as Table 15, except it applies to fire suppression systems.
Table 16 - Revenues From Minimum Charge Surcharges	If applicable, calculation of total fee revenues that would be generated during one full year at the fees in Table 15.
Table 16B - Revenues From Sprinkler System Charges	Nearly the same as Table 16, except it applies to fire suppression systems
Table 17 - Financial Capacity Indicators and Reserves	Shows the financial effects of the modeled rates, costs, etc. on the utility and on the benchmark 5,000 gallon per month residential water or sewer customer, as appropriate
Table 18 - Bills Before and After Rate Adjustments	Bills at the modeled rates are compared to those under the current rates. Note: the modeled bills do not include capacity surcharges to the minimum charges unless they are included in the minimum charges column of Table 10.
Table 19 - User Statistics	If included, this table shows volumes and percentages of use, revenue generated and other statistics
Chart 1 - Operating Ratio	*Graph of operating ratio for 10 years as a result of the modeled rates and the current rates*
Chart 2 - Coverage Ratio	*Graph of coverage ratios for 10 years of the modeled rates and the current rates*
Chart 3 - 5,000 Gallon Residential User's Bill	*Graph of the bill for the benchmark 5,000 gallon per month residential user, with smallest available meter size (used in grant and loan eligibility determinations) as a result of the modeled rates, and the current rates*
Chart 4 - Affordability Index	*Graph of the affordability index for 10 years of the benchmark residential user's bill (used in grant and loan eligibility determinations)*
Chart 5 - Working Capital vs Goal	*Graph for 10 years of total (unobligated) cash assets at modeled rates compared to the goal for total cash assets*
Chart 6 - Value of Cash Assets Before Inflation	*Graph for 10 years of unobligated cash assets NOT adjusted for inflation at modeled rates and current rates*
Chart 7 - Value of Cash Assets After Inflation	*Graph for 10 years of unobligated cash assets adjusted for inflation at modeled rates and current rates. This is the real buying power of cash reserves.*
Chart 8 - Sum of All Reserves	*Graph of all reserves of all kinds at the modeled rates and at the current rates*

Table 5 - Town of Camp Verde Capital Improvements Program (CIP)

Town of Camp Verde, AZ, Water Cost-based System Capacity Fees Model 2024-1

This is a copy of the Camp Verde Capital Improvements Plan, with descriptions hidden to save space and with costs assigned to peak flow and base flow cost categories. That enables calculation of system development fees in later tables.

ID	Year	Construction Cost (With Inflation)	Percentage Peak Cap-related	Percentage Base Cap-related	Peak Capacity Construction Cost	Base Capacity Construction Cost
*1	2024	$5,000,000		100%	$0	$5,000,000
2	2024	$300,000	100%	0%	$300,000	$0
*3	2024	$2,860,000	100%	0%	$2,860,000	$0
4	2024	$840,000	100%	0%	$840,000	$0
5	2024	$585,000		100%	$0	$585,000
6	2024	$360,000	100%	0%	$360,000	$0
7	2024	$2,300,000		100%	$0	$2,300,000
8	2024	$655,000		100%	$0	$655,000
8	2025	$115,000		100%	$0	$115,000
9	2025	$485,000	100%	0%	$485,000	$0
10	2025	$1,050,000	100%	0%	$1,050,000	$0
*11	2025	$5,150,000	100%	0%	$5,150,000	$0
*12	2025	$478,950	100%	0%	$478,950	$0
13	2025	$206,000		100%	$0	$206,000
14	2025	$432,600		100%	$0	$432,600
15	2026	$265,225		100%	$0	$265,225
16	2026	$509,232		100%	$0	$509,232
*17	2026	$493,319	100%	0%	$493,319	$0

Table 5 - Camp Verde Capital Improvements Program (CIP)

ID	Year	Construction Cost (With Inflation)	Percentage Peak Cap-related	Percentage Base Cap-related	Peak Capacity Construction Cost	Base Capacity Construction Cost
*18	2026	$5,304,500	100%	0%	$5,304,500	$0
*19	2027	$508,118	100%	0%	$508,118	$0
20	2027	$590,073		100%	$0	$590,073
21	2027	$327,818		100%	$0	$327,818
22	2027	$327,818	100%	0%	$327,818	$0
22	2027	$87,418		100%	$0	$87,418
22	2027	$87,418		100%	$0	$87,418
23	2028	$675,305		100%	$0	$675,305
24	2028	$393,928		100%	$0	$393,928
*25	2028	$523,362	100%	0%	$523,362	$0
26	2028	$168,826		100%	$0	$168,826
27	2029	$765,121		100%	$0	$765,121
*28	2029	$539,062	100%	0%	$539,062	$0
29	2029	$463,710		100%	$0	$463,710
22	2029	$463,710	100%	0%	$463,710	$0
*34	2030	$5,970,261	100%	0%	$5,970,261	$0
30	2030	$597,026		100%	$0	$597,026
31	2030	$859,718		100%	$0	$859,718
32	2030	$537,324		100%	$0	$537,324
*33	2030	$555,234	100%	0%	$555,234	$0
These percentages and amounts carry forward to Table 12			63%	37%	$26,209,334	$15,621,742
				Sum of CIP	$41,831,076	

Table 11 - AWWA Safe Operating Flow by Meter Size

Water meter data source: Table VII.2-5, page 338, American Water Works Association Manual M1, Principles of Water Rates, Fees and Charges, Seventh Edition

Fire sprinkler data source: National Fire Protection Association

This table calculates the meter equivalent ratio, which is used for calculating peak flow capacity-based system development fees, surcharges and revenues in Tables 12 through 16 for water meters, and when applicable, capacity costs for fire sprinklers.

Meter Size, in Inches	Meter Type	Maximum-Rated Safe Operating Flow, in gallons per minute	Meter Equivalent Ratio (Capacity Shares)	Equivalent Fire Sprinkler Square Footage*
Five Eighths	Displacement	20	1.0	100
Three Quarters	Displacement	30	1.5	150
One Inch	Displacement	50	2.5	250
One & a Half Inch	Displacement	100	5.0	500
Two Inch	Displacement	160	8.0	800
Three	Singlet	320	16.0	1,600
Three	Compound, Class I	320	16.0	1,600
Three	Turbine, Class I	350	17.5	1,750
Four	Singlet	500	25.0	2,500
Four	Compound, Class I	500	25.0	2,500
Four	Turbine, Class I	630	31.0	3,150
Six	Singlet	1,000	50.0	5,000
Six	Compound, Class I	1,000	50.0	5,000
Six	Turbine, Class I	1,300	65.0	6,500
Eight	Compound, Class I	1,600	80.0	8,000
Eight	Turbine, Class I	2,800	140.0	14,000
Ten	Turbine, Class II	4,200	210.0	21,000
Twelve	Turbine, Class II	5,300	265.0	26,500

* If applicable, see Table 12B for sprinkler calculations and explanations.

Table 12 - Flow Capacity Costs

Town of Camp Verde, AZ, Water Cost-based System Capacity Fees Model 2024-1

Building system capacity and connecting new customers to the system costs money. Those costs must be recovered. That can be done on the "front end" with system development fees and connection fees. It can be done later with system development surcharges to the minimum charge. It is usually most practical to use a blend of both. This table shows capacity costs. From these costs, system development fees and surcharges were developed in Tables 13 through 16.

1. Peak and Base Flow Capacity Costs

	Costs Related to Water Service					
Expected Capital Improvements, 2024 - 2030 (Capacity Cost)	% Attributable to Water Peak Capacity (Table 5)	Peak Water Capacity Cost	Annual Water Peak Capacity Cost (40-year Depreciation)*	% of Value Attributable to Water Base Flow Capacity (Table 5)	Base Flow Capacity Cost for Water Service	Annual Water Base Capacity Cost (40-year Depreciation)*
$41,831,076	62.7%	$26,209,334	$1,133,878	37.3%	$15,621,742	$675,834

*** It is assumed full system replacement costs will escalate each year by: 3.0%**

2. How Water System Capacity Costs Will Be Recovered

These costs are modeled to be recovered from system development fees in Tables 13 and 14

Part of Peak Flow Capacity Costs to be Recovered by System Capacity Fees		Part of Base Flow Capacity Costs to be Recovered by System Capacity Fees, if Any	
0.860%	Target Percentage of Annualized Costs to Recover	0.680%	Target Percentage of Annualized Costs to Recover
$9,751.35	Target Portion of Annualized Costs to Recover	$4,595.67	Target Portion of Annualized Costs to Recover
$2,437.84	Peak Capacity Cost per Capacity Share	$1,148.92	Base Capacity Cost per New Connection, Regardless of Size

In addition to peak and base flow system development fee components caculated above, each new connection should reimburse the utility for all "out-of-pocket" connection costs it incurs. Such costs were not included in these calculations.

Note: Costs in Section 1 above are the result of classifying capital improvement plan (CIP) costs for the City from 2024 through 2030 as either peak flow-related costs or base-flow related capacity costs. However, in Section 2 of the calculations, cost recovery was calculated to closely match the average fee of the "competitors" for 3/4 inch and 2 inch meter connections.

Table 13 - System Development Fees
Town of Camp Verde, AZ, Water Cost-based System Capacity Fees Model 2024-1

This table calculates system development fees to assess to each each new connection based on meter size

Note: Larger meter sizes are available in two or more types, some having different flow capacities. To be conservative when projecting revenues, it was assumed all meters in use are of the lowest capacity types. However, when setting fees, they should be based upon the type of meter in use at each location.

						For Comparison Purposes, SDFs of Other Cities in the Region						
Meter Size	Meter Type	Peak Capacity Cost per Capacity Share From Table 11	Peak Capacity Cost per Meter This Class (Table 12)	Base Capacity Cost per New Customer (Table 12)	**System Capacity Fee**	**Averages for Following Cities**	Cave Creek	Flagstaff	Prescott	Cottonwood	Clarkdale	Prescott Valley
In-Town												
Five Eighths	Displacement	$2,438	$2,438	$1,149	**$3,587**	**$3,593**	$7,183	$5,728	$1,441	$3,393	$2,322	$1,491
Three Quarters	Displacement	$2,438	$2,438	$1,149	**$3,587**	**$3,335**	$7,183	$5,728	$1,441	$3,393	$0	$2,266
One Inch	Displacement	$2,438	$6,095	$1,149	**$7,244**	**$7,002**	$11,996	$9,566	$2,406	$8,483	$5,806	$3,757
One & a Half Inch	Displacement	$2,438	$12,189	$1,149	**$13,338**	**$13,971**	$23,920	$19,074	$4,798	$16,966	$11,612	$7,455
Two Inch	Displacement	$2,438	$19,503	$1,149	**$20,652**	**$20,723**	$38,286		$7,679	$27,145	$18,579	$11,928
Two & a Half Inch	Displacement	$2,438	$30,473	$1,149	**$31,622**							
Three Inch	Singlet	$2,438	$39,005	$1,149	**$40,154**	**$37,304**				$50,897	$37,158	$23,856
Four Inch	Singlet	$2,438	$60,946	$1,149	**$62,095**	**$56,165**	$76,644		$24,017	$84,828	$58,059	$37,275
Six Inch	Singlet	$2,438	$121,892	$1,149	**$123,041**							
Eight Inch	Compound, Class I	$2,438	$195,027	$1,149	**$196,176**							
Eight Inch	Turbine, Class I	$2,438	$341,297	$1,149	**$342,446**							
Out-of-Town	150% Premium for Out-of-Town Service											
Five Eighths	Displacement	$2,438	$3,657	$1,149	**$4,806**							
Three Quarters	Displacement	$2,438	$3,657	$1,149	**$4,806**							
One Inch	Displacement	$2,438	$9,142	$1,149	**$10,291**							
One & a Half Inch	Displacement	$2,438	$18,284	$1,149	**$19,433**							
Two Inch	Displacement	$2,438	$29,254	$1,149	**$30,403**							
Two & a Half Inch	Displacement	$2,438	$45,709	$1,149	**$46,858**							
Three Inch	Singlet	$2,438	$58,508	$1,149	**$59,657**							
Four Inch	Singlet	$2,438	$91,419	$1,149	**$92,568**							
Six Inch	Singlet	$2,438	$182,838	$1,149	**$183,987**							
Eight Inch	Compound, Class I	$2,438	$292,541	$1,149	**$293,689**							
Eight Inch	Turbine, Class I	$2,438	$511,946	$1,149	**$513,095**							

Foot Notes, which apply to Tables 14, 15 and 16, as well:

[1] The Three-Quarter-Inch meter capacity share factor is 1.5. However, it was set equal to the Five-eighths-Inch meter because most such meters are used for residential connections. This enables a uniform system development fee for almost all residential customers.

Table 14 - Revenues From System Development Fees
Town of Camp Verde, AZ, Water Cost-based System Capacity Fees
Model 2024-1

This table calculates total fee revenues that would be generated during one full year at the fees in Table 13.

Meter Size	Meter Type	New Taps (Customer Growth) in a Typical Year	System Capacity Fee	**Total Annual System Capacity Fees**
In-Town				
Five Eighths	Displacement	4.0	$3,587	**$14,347**
Three Quarters	Displacement	0.0	$3,587	**$0**
One Inch	Displacement	0.0	$7,244	**$0**
One & a Half Inch	Displacement	0.0	$13,338	**$0**
Two Inch	Displacement	0.0	$20,652	**$0**
Two & a Half Inch	Displacement	0.0	$31,622	**$0**
Three Inch	Singlet	0.0	$40,154	**$0**
Four Inch	Singlet	0.0	$62,095	**$0**
Six Inch	Singlet	0.0	$123,041	**$0**
Eight Inch	Compound, Class I	0.0	$196,176	**$0**
Eight Inch	Turbine, Class I	0.0	$342,446	**$0**
	Subtotal:	4.0		**$14,347**
Out-of-Town				
Five Eighths	Displacement	0.0	$4,806	**$0**
Three Quarters	Displacement	0.0	$4,806	**$0**
One Inch	Displacement	0.0	$10,291	**$0**
One & a Half Inch	Displacement	0.0	$19,433	**$0**
Two Inch	Displacement	0.0	$30,403	**$0**
Two & a Half Inch	Displacement	0.0	$46,858	**$0**
Three Inch	Singlet	0.0	$59,657	**$0**
Four Inch	Singlet	0.0	$92,568	**$0**
Six Inch	Singlet	0.0	$183,987	**$0**
Eight Inch	Compound, Class I	0.0	$293,689	**$0**
Eight Inch	Turbine, Class I	0.0	$513,095	**$0**
	Subtotal:	0.0		**$0**
	Total:	4.0		**$14,347**

This is the amount used to calculate the "Meter Size-based System Capacity Fees" income in Table 3.

Supplement 1 to the

Water System Capacity Fee Analysis Report

Town of Camp Verde, Arizona

Prepared February 10, 2024

Carl Brown, President
GettingGreatRates.com, LLC

Purpose of This Supplemental Report

I presented the original system capacity fee (SCF) report in the Council meeting on February 7, 2024. In that meeting there was some discussion about how to go about adjusting SCFs in future years. I also learned later the Council would prefer to recover more system capacity costs from SCFs than what I had modeled. This report and new modeling cover both issues. Only those issues and parts of the Model that are different from the original are discussed and presented here. Refer to the original report for all other issues and resources.

Annual SCF Increases

First, my usual recommendation for user charges, including system capacity fees, is to have rates analyzed about every 5 years. I recommend that for the Town, too. Then, during the in-between years, consider how much the next year's budget needs to go up and raise rates and fees across the board by that percentage.

That works well for operating budgets, but not as well for capital costs. Operating costs do not vary much. Capital costs can vary widely. Thus, you might want to calculate a capital costs rolling average over five years to maybe 10 years, probably half from the past (because those are known, historical figures), and half from the future (to reflect cost increases) to track cost increase trends. Apply that increase rate to SCFs each year. Thus, rather than using a one-year inflation factor, you would use a five year or 10-year average inflation factor.

Set Higher SCFs Initially

In the original report, I recommended you come close to matching the SCFs of other "competitor" communities. At that time, it seemed the Town wanted to be like its competitors, and with SCFs, that is a reasonable strategy – be average. Do not "scare away" development.

More recently, I understand the Council would prefer to recover a higher percentage of its system capacity costs than "average" fees would allow. For one thing, most of the other communities' SCFs have been in place for several to many years, so they are likely due for increases. And those fees are likely too low to pay the full cost of system capacity development.

To model higher but still reasonable SCFs, I did this. I chose a premium over the average small meter fee to target. For the average small meter SCF of competitors, the original fee was $3,593. To exceed that a bit, I recommend rounding to the next higher $1,000, or a SCF of $4,000 for a five eighths or three quarter-inch meter. The base capacity cost recovery rate would be kept the same as the original model, so the peak capacity component of the fee would be increased. All SCFs would be higher, calculated on the same basis as originally used.

The resulting SCFs can be seen in Table 13, page , the center yellow highlighted column. This fee structure recovers slightly more from small meter new connections and proportionately more from larger meter new connections. And revenues projected to be earned from these fees at the projected four new connections per year would recover 67 percent of system capacity costs over 40 years. That is a reasonable rate of recovery. It is still not full cost recovery, but it is close. As you know, if the system grows faster or connects more meters larger than the common residential sizes, revenues will be higher.

Closing

I recommend you adopt the system capacity fees that appear in the middle column of Table 13, page , highlighted yellow. These fees would increase revenues a bit and still be competitive with most other comparable communities in your region.

Town of Camp Verde, AZ, Water Cost-based System Capacity Fees Model 2024-4

This model is the same as Model 1 except system development fees (system capacity fees) for the smallest meter size were "sized" to be $4,000 and all larger meter capacity fees rise proportionate to that.

February 10, 2024

This rate analysis model was produced by
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Note: This document is a print out of the spreadsheet model used to calculate new user charge and other rates and fees for the next 10 years. These calculations are complex and are based upon many conditions and assumptions. These issues, and others, are described in a narrative report that accompanies this model.

Table 12 - Flow Capacity Costs

Town of Camp Verde, AZ, Water Cost-based System Capacity Fees Model 2024-4

Building system capacity and connecting new customers to the system costs money. Those costs must be recovered. That can be done on the "front end" with system development fees and connection fees. It can be done later with system development surcharges to the minimum charge. It is usually most practical to use a blend of both. This table shows capacity costs. From these costs, system development fees and surcharges were developed in Tables 13 through 16.

1. Peak and Base Flow Capacity Costs

	Costs Related to Water Service					
Expected Capital Improvements, 2024 - 2030 (Capacity Cost)	% Attributable to Water Peak Capacity (Table 5)	Peak Water Capacity Cost	Annual Water Peak Capacity Cost (40-year Depreciation)*	% of Value Attributable to Water Base Flow Capacity (Table 5)	Base Flow Capacity Cost for Water Service	Annual Water Base Capacity Cost (40-year Depreciation)*
$41,831,076	62.7%	$26,209,334	$1,133,878	37.3%	$15,621,742	$675,834

* It is assumed full system replacement costs will escalate each year by: 3.0%

2. How Water System Capacity Costs Will Be Recovered

These costs are modeled to be recovered from system development fees in Tables 13 and 14

Part of Peak Flow Capacity Costs to be Recovered by System Capacity Fees		Part of Base Flow Capacity Costs to be Recovered by System Capacity Fees, if Any	
1.006%	Target Percentage of Annualized Costs to Recover	0.680%	Target Percentage of Annualized Costs to Recover
$11,404.55	Target Portion of Annualized Costs to Recover	$4,595.67	Target Portion of Annualized Costs to Recover
$2,851.14	Peak Capacity Cost per Capacity Share	$1,148.92	Base Capacity Cost per New Connection, Regardless of Size

In addition to peak and base flow system development fee components caculated above, each new connection should reimburse the utility for all "out-of-pocket" connection costs it incurs. Such costs were not included in these calculations.

Note: Costs in Section 1 above are the result of classifying capital improvement plan (CIP) costs for the City from 2024 through 2030 as either peak flow-related costs or base-flow related capacity costs. However, in Section 2 of the calculations, cost recovery was calculated to be slightly higher than the average fee of the "competitors" for a 3/4 inch meter.

Final Note: This level of capacity fees at the projected growth rates is projected to recover this percentage of capacity costs over 40 years: 67.432%

Table 13 - System Development Fees
Town of Camp Verde, AZ, Water Cost-based System Capacity Fees Model 2024-4

This table calculates system development fees to assess to each each new connection based on meter size.

Note: Larger meter sizes are available in two or more types, some having different flow capacities. To be conservative when projecting revenues, it was assumed all meters in use are of the lowest capacity types. However, when setting fees, they should be based upon the type of meter in use at each location.

						For Comparison Purposes, SDFs of Other Cities in the Region						
Meter Size	Meter Type	Peak Capacity Cost per Capacity Share From Table 11	Peak Capacity Cost per Meter This Class (Table 12)	Base Capacity Cost per New Customer (Table 12)	**System Capacity Fee**	**Averages for Following Cities**	Cave Creek	Flagstaff	Prescott	Cottonwood	Clarkdale	Prescott Valley
In-Town												
Five Eighths	Displacement	$2,851	$2,851	$1,149	**$4,000**	**$3,593**	$7,183	$5,728	$1,441	$3,393	$2,322	$1,491
Three Quarters	Displacement	$2,851	$2,851	$1,149	**$4,000**	**$3,335**	$7,183	$5,728	$1,441	$3,393	$0	$2,266
One Inch	Displacement	$2,851	$7,128	$1,149	**$8,277**	**$7,002**	$11,996	$9,566	$2,406	$8,483	$5,806	$3,757
One & a Half Inch	Displacement	$2,851	$14,256	$1,149	**$15,405**	**$13,971**	$23,920	$19,074	$4,798	$16,966	$11,612	$7,455
Two Inch	Displacement	$2,851	$22,809	$1,149	**$23,958**	**$20,723**	$38,286		$7,679	$27,145	$18,579	$11,928
Two & a Half Inch	Displacement	$2,851	$35,639	$1,149	**$36,788**							
Three Inch	Singlet	$2,851	$45,618	$1,149	**$46,767**	**$37,304**				$50,897	$37,158	$23,856
Four Inch	Singlet	$2,851	$71,278	$1,149	**$72,427**	**$56,165**	$76,644		$24,017	$84,828	$58,059	$37,275
Six Inch	Singlet	$2,851	$142,557	$1,149	**$143,706**							
Eight Inch	Compound, Class I	$2,851	$228,091	$1,149	**$229,240**							
Eight Inch	Turbine, Class I	$2,851	$399,159	$1,149	**$400,308**							
Out-of-Town	150% Premium for Out-of-Town Service											
Five Eighths	Displacement	$2,851	$4,277	$1,149	**$5,426**							
Three Quarters	Displacement	$2,851	$4,277	$1,149	**$5,426**							
One Inch	Displacement	$2,851	$10,692	$1,149	**$11,841**							
One & a Half Inch	Displacement	$2,851	$21,384	$1,149	**$22,532**							
Two Inch	Displacement	$2,851	$34,214	$1,149	**$35,363**							
Two & a Half Inch	Displacement	$2,851	$53,459	$1,149	**$54,608**							
Three Inch	Singlet	$2,851	$68,427	$1,149	**$69,576**							
Four Inch	Singlet	$2,851	$106,918	$1,149	**$108,067**							
Six Inch	Singlet	$2,851	$213,835	$1,149	**$214,984**							
Eight Inch	Compound, Class I	$2,851	$342,136	$1,149	**$343,285**							
Eight Inch	Turbine, Class I	$2,851	$598,739	$1,149	**$599,888**							

Foot Notes, which apply to Tables 14, 15 and 16, as well:

[1] The Three-Quarter-Inch meter capacity share factor is 1.5. However, it was set equal to the Five-eighths-Inch meter because most such meters are used for residential connections. This enables a uniform system development fee for almost all residential customers.

Table 14 - Revenues From System Development Fees
Town of Camp Verde, AZ, Water Cost-based System Capacity Fees
Model 2024-4

This table calculates total fee revenues that would be generated during one full year at the fees in Table 13.

Meter Size	Meter Type	New Taps (Customer Growth) in a Typical Year	System Capacity Fee	**Total Annual System Capacity Fees**
In-Town				
Five Eighths	Displacement	4.0	$4,000	**$16,000**
Three Quarters	Displacement	0.0	$4,000	**$0**
One Inch	Displacement	0.0	$8,277	**$0**
One & a Half Inch	Displacement	0.0	$15,405	**$0**
Two Inch	Displacement	0.0	$23,958	**$0**
Two & a Half Inch	Displacement	0.0	$36,788	**$0**
Three Inch	Singlet	0.0	$46,767	**$0**
Four Inch	Singlet	0.0	$72,427	**$0**
Six Inch	Singlet	0.0	$143,706	**$0**
Eight Inch	Compound, Class I	0.0	$229,240	**$0**
Eight Inch	Turbine, Class I	0.0	$400,308	**$0**
	Subtotal:	4.0		**$16,000**
Out-of-Town				
Five Eighths	Displacement	0.0	$5,426	**$0**
Three Quarters	Displacement	0.0	$5,426	**$0**
One Inch	Displacement	0.0	$11,841	**$0**
One & a Half Inch	Displacement	0.0	$22,532	**$0**
Two Inch	Displacement	0.0	$35,363	**$0**
Two & a Half Inch	Displacement	0.0	$54,608	**$0**
Three Inch	Singlet	0.0	$69,576	**$0**
Four Inch	Singlet	0.0	$108,067	**$0**
Six Inch	Singlet	0.0	$214,984	**$0**
Eight Inch	Compound, Class I	0.0	$343,285	**$0**
Eight Inch	Turbine, Class I	0.0	$599,888	**$0**
	Subtotal:	0.0		**$0**
	Total:	4.0		**$16,000**

This is the amount used to calculate the "Meter Size-based System Capacity Fees" income in Table 3.