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Public Hearing

Capacity Fee Study

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Executive Summary

San Gabriel County Water (District) engaged IB Consulting to update its capacity fees. This Capacity Fee Study Report (Report) describes the approach, methodology, and technical analysis used to derive updated capacity fees per California State Government Code, Section 66013 (GC 66013). GC 66013 allows an agency to charge the estimated reasonable infrastructure cost to serve a new connection for which the charge is imposed.

The existing water capacity fee is $1,105 for a 5/8" water meter, with larger meters paying more for the additional capacity/demand they place on the utility. Based on our analysis, the updated water capacity fee is **$2,665** for a 5/8" meter. The updated fees recover each new connection's proportionate share of facility costs.

Annual Capacity Fee Adjustment

IB Consulting recommends adjusting the capacity fee annually to keep pace with inflation by applying the Engineering News-Record Construction Cost Index for the Los Angeles area (ENR). The District should also review its capacity charges every five years, in conjunction with its master plan updates, to capture any significant changes and ensure capacity fees remain equitable.

Overview

District Background

Located in the eastern portion of Los Angeles County (County), the District is approximately 8 miles east of Los Angeles and is bordered by the cities of San Gabriel, San Marino, Temple City, Rosemead, and Alhambra. The District serves a population of around 45,000 through approximately 9,617 meters as of CY 2024. Water sources include groundwater from the Main San Gabriel Basin and Raymond Basin.

As part of the District's financial plan and rate update, the capacity fees are being reviewed and updated to ensure new system users or existing users requiring increased system capacity pay their fair share of the costs associated with the water facilities required to serve them.

Capacity Fee

A "Capacity Fee" is defined as a charge for public facilities in existence when a charge is imposed or for new facilities to be constructed in the future that benefit the person or property being charged.

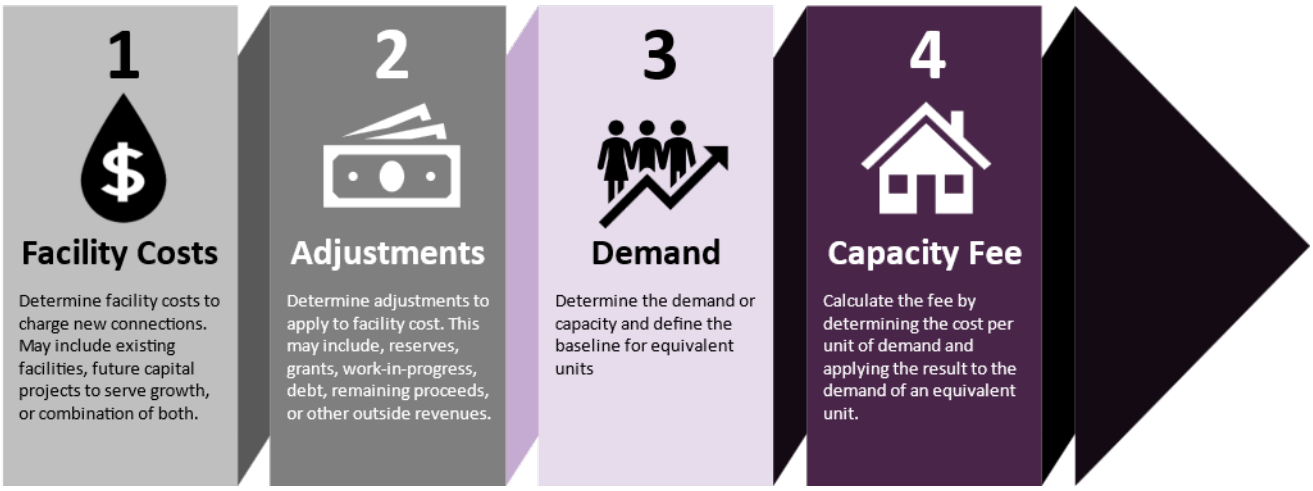
Based on the requirements of GC 66013, capacity fees must be based on the *"reasonable cost"* to accommodate additional demand from new development or the expansion of existing connections. In addition, Proposition 26 amended the State Constitution in 2010, which redefined a "tax" as any levy, charge, or exaction of any kind imposed by a local government. However, there were seven exemptions within Proposition 26, including cost-based charges imposed for providing a service (i.e., capacity fees) so long as such fees do not exceed the cost of providing the service. Therefore, the study summarized in this Report connects the costs of facilities, the capacity taken by each meter, the increased capacity gained from any expansions, and the updated proposed fees in compliance with the Proposition 26 exemption.

Government Code section 66016.6 requires that, prior to levying a new fee or capacity charge, the District evaluate the amount of the fee or capacity charge. The evaluation shall include evidence to support that the fee or capacity charge does not exceed the estimated reasonable cost of providing service in accordance with Section 66013. This Report meets the requirements of Government Code section 66016.6.

Capacity Fee Methodology

There are four primary steps in calculating capacity fees: (1) determine the cost of facilities and assets recoverable through capacity fees, (2) incorporate any credits or adjustments to apply towards the total infrastructure costs such as grants, existing debt obligations, unspent debt proceeds, and available funding through previously collected capacity fees, (3) identify demand or capacity related to the facilities and define the baseline requirements for a connection or equivalent dwelling unit based on planning documents, and (4) apportion the net infrastructure costs equitably to various types of connections based on the demand placed on the utility system.

Figure 1 – Capacity Fee Analysis



In addition to the four steps above, two primary approaches for calculating capacity fees include: the "Buy-In Method" and "Incremental-Cost Method." Selecting the best method depends on the unique circumstances of the utility, existing facilities funded in advance of development, current and future capacity planned to be built in the system, funding sources, expected future growth, and access to up-to-date planning documents/master plans. Careful consideration may be required to allocate costs between existing and new customers and ensure no duplication of costs.

Buy-In Method

The basis of the Buy-In Method is to pay for existing facilities funded in advance of growth. This approach ensures new development and expanded connections buy into the utility system's existing facilities. The Buy-In method eliminates any potential funding of existing system deficiencies as the District's current asset inventory only reflects improvements to the system today.

Once the system value is determined, dividing the total value by the total demand derives the buy-in cost per Meter Equivalent (ME[1]). Demand is commonly used for system design and planning. It is a primary driver for

[1] Meter Equivalent are derived using the 5/8" meter as the baseline meter. Larger-sized meters are assigned additional MEs based on the gallons per minute (gpm) of flow when compared to that of 5/8" meter equal to 20 gpm.

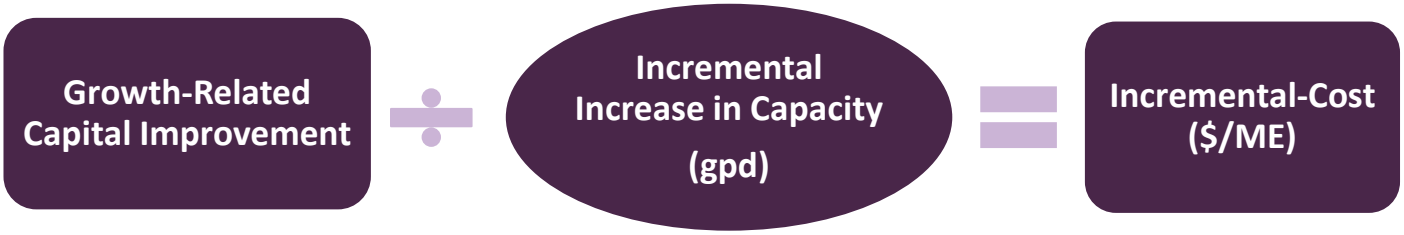
the system's current configuration and how it expands in the future. Figure 2 shows the framework for calculating the amount related to the buy-in component.

Figure 2 – Buy-In Component

Incremental-Cost Method

The Incremental-Cost Method is based on the principle that new development should pay for improvements required to connect them to the system, including the need for any additional capacity and/or expansions. This approach is typically used when specific capital improvements are identified within planning documents and required for growth. Projects associated with routine repair & replacement and Master Plan improvements required to address existing deficiencies are excluded. Also, specific projects within the Master Plan may benefit existing and new development. In these instances, new development only pays its proportionate share based on the demand or capacity taken from these projects. Under the Incremental-Cost Method, growth-related capital improvements are allocated to new development based on their capacity requirements. For the water utility, the cost per gallon is multiplied by the average daily demand of a single-family residence, which is equated to the baseline demand of an ME. Figure 3 shows the framework for calculating capacity fees using the incremental cost component.

Figure 3 – Formula for Incremental-Cost Approach



Hybrid Method

When there is a buy-in component and incremental-cost component used to update capacity fees, the approach is commonly referred to as the Hybrid Method. The Hybrid Approach is utilized when the existing system has available capacity and/or is substantially built while specific capital improvements within planning documents are clearly identified and solely needed to serve new development. ***For this study, the updated***

water capacity fees are based on the Buy-In Method given that the District's system is substantially built-out.

Capacity Fee Analysis

Step 1 – Asset Valuation (RCLD Asset Value)

The first step in determining the capacity fee using the Buy-In Approach is to determine the value of the existing system. System assets may be valued in a few different ways. Options include using: (1) the original cost of the improvements (OC), (2) original cost less depreciation of system assets to account for the time improvements are in service (OCLD), (3) replacement cost of the improvements by bringing the original cost into today's dollars (RC), (4) replacement cost less depreciation which brings both the original cost and the accumulated depreciation value into today's dollars (RCLD), and (5) a physical inventory and appraisal of the system and plant components in terms of their replacement cost valuation. The most accurate valuation would be a physical inventory and appraisal; however, this approach is often very difficult and cost-prohibitive since a significant portion of the assets are located underground.

This study utilizes the RCLD method of valuing the system. RCLD valuation is the most equitable and reasonable approach since it considers the time value of money and factors in the remaining useful life of each asset. To accomplish this, the District provided fixed asset records containing the original cost of each asset. Replacement costs were estimated by bringing the original costs to today's dollars to reflect the estimated cost if a similar asset were constructed today.

The original cost of each asset was indexed by the annual percentage change of the Los Angeles CCI, published by the Engineering News-Record. For 2024, the CCI value through the month of October is 15,302. Accumulated depreciation was also indexed to maintain consistency with 2024 dollars. Subtracting the accumulated depreciation from the replacement cost yields the updated RCLD and reflects service standards in 2024 dollars. Table 1 summarizes the water assets by category and shows the original cost, accumulated depreciation, replacement cost in 2024 dollars, accumulated depreciation in 2024 dollars, and assets adjusted for the 2024 depreciation (RCLD). Land values were not depreciated, and the replacement value is estimated by increasing the original acquisition costs by a 2% inflation limit in line with Proposition 13 constraints on assessed values. Water Rights were also not depreciated because the water rights are owned in perpetuity by the District. Water Rights were indexed based on ENR, similar to any other asset. A detailed listing of water assets can be found in Appendix A.

Table 1 – Asset Summary

Water Asset Summary					
Asset Category	Original Cost [A]	Accumulated Depreciation [B]	Replacement Cost (2024 $) [C]	Accumulated Depreciation (2024 $) [D]	RCLD (2024 $) [E] = C-D
Land	$2,633,397	$0	$2,887,725	$0	$2,887,725
Water Rights	$3,963,873	$0	$9,405,207	$0	$9,405,207
Wells	$6,502,545	$3,134,867	$10,788,849	$6,205,222	$4,583,628
Supply	$24,351	$24,351	$68,780	$68,780	$0
Pumping	$2,215,337	$1,939,290	$5,360,307	$4,765,753	$594,554
Transmission & Distribution	$22,105,943	$7,488,618	$39,796,475	$17,483,745	$22,312,731
Treatment	$155,257	$129,368	$257,909	$228,351	$29,557
Reservoirs	$10,490,117	$4,389,678	$22,034,563	$9,340,973	$12,693,590
Meters	$3,373,843	$276,725	$4,037,560	$339,832	$3,697,728
Hydrants	$499,567	$306,141	$1,303,657	$1,062,640	$241,017
General	$2,638,232	$1,523,107	$5,011,464	$3,682,919	$1,328,545
Equipment	$1,702,320	$1,281,899	$2,374,990	$1,914,222	$460,768
Total Assets	**$56,304,783**	**$20,494,044**	**$103,327,486**	**$45,092,437**	**$58,235,049**

Step 2 – System Demand/Capacity

Existing demand is reflected by total Meter Equivalents (MEs), where 1 ME represents the capacity of a 5/8" meter. Total MEs were determined by multiplying the number of existing meters in the water system by the Capacity Ratio assigned to each meter size. The Capacity Ratio represents the potential flow through each meter size compared to the flow through a 5/8" meter (20 gpm) to establish parity between meter sizes. Table 2 summarizes the total MEs in the water system.

Table 2 – Existing Water System

Water System Information				
Meter Size	Meter Capacity (gpm) [A]	Capacity Ratio [B] = A ÷ 20	Existing Meters [C]	Meter Equivalent (ME) [D] = B x C
Meter Size				
5/8"	20	1.00	6,013	6,013
3/4"	30	1.50	-	-
1"	50	2.50	2,914	7,285
1 1/2"	100	5.00	358	1,790
2"	250	12.50	292	3,650
3"	500	25.00	15	375
4"	1,000	50.00	21	1,050
6"	1,500	75.00	4	300
8"	2,000	100.00	-	-
Units of Service			9,617	20,463

Step 3 – Buy-In Component Calculations

The buy-in component can be determined by deriving the cost per ME of the water assets. The net RCLD asset value (Total System Value) of the water system is divided by the total MEs to derive the asset unit rate, as shown in Table 3. The asset category of "Meters" was not included in the valuation since new meters are paid for by developers when they connect to the water system.

Table 3 – Asset Unit Rate ($ per ME)

Buy-In Asset Unit Rate					
Asset Category	Include Assets in Valuation?	RCLD (2024 $) [A]	Allocation Basis	Units of Service [B]	$ per ME [C] = A÷B
Land	Yes	$2,887,725	Meter Equivalent (ME)	20,463	$141
Water Rights	Yes	$9,405,207	Meter Equivalent (ME)	20,463	$460
Wells	Yes	$4,583,628	Meter Equivalent (ME)	20,463	$224
Supply	Yes	$0	Meter Equivalent (ME)	20,463	$0
Pumping	Yes	$594,554	Meter Equivalent (ME)	20,463	$29
Transmission & Distribution	Yes	$22,312,731	Meter Equivalent (ME)	20,463	$1,090
Treatment	Yes	$29,557	Meter Equivalent (ME)	20,463	$1
Reservoirs	Yes	$12,693,590	Meter Equivalent (ME)	20,463	$620
Meters	No	$0	Meter Equivalent (ME)	20,463	$0
Hydrants	Yes	$241,017	Meter Equivalent (ME)	20,463	$12
General	Yes	$1,328,545	Meter Equivalent (ME)	20,463	$65
Equipment	Yes	$460,768	Meter Equivalent (ME)	20,463	$23
		$54,537,321			$2,665

Table 4 summarizes the total buy-in amount per ME rounded to the nearest dollar.

Table 4 – Buy-In Calculation ($ per ME)

System Buy-In Components	
System Buy-In	$ / ME
Water Infrastructure	$2,665

Updated Water Capacity Fees

Table 5 summarizes the updated water capacity fee by meter size, with the 5/8" meter set as the base ME. Capacity fees for new connections increase as the size of the meter increases based on the additional capacity taken of the system.

Table 5 – Proposed Water Capacity Fee

Proposed Water Capacity Fee by Meter Size			
Meter Size	Capacity (gpm) [A]	Capacity Ratio [B] = A÷20	Proposed Capacity Fee [C] = $2,665xB
5/8"	20	1.00	$2,665
3/4"	30	1.50	$3,998
1"	50	2.50	$6,663
1 1/2"	100	5.00	$13,325
2"	250	12.50	$33,313
3"	500	25.00	$66,625
4"	1000	50.00	$133,250
6"	1500	75.00	$199,875
8"	2000	100.00	$266,500

Annual Capacity Fee Adjustment

In conjunction with adopting the updated water capacity fees, IB Consulting recommends adjusting the capacity fee annually to keep pace with inflation by applying the ENR. The District should also review its capacity charges every five years, in conjunction with its master plan updates, to capture any significant changes and ensure capacity fees remain equitable.

Appendix A – Water Asset Listing

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