

ELECTRIC, WATER AND WASTEWATER UTILITY REVENUES, REVENUE REQUIREMENTS, COST-OF-SERVICE AND RATES

Prepared for:

New Braunfels Utilities

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EXECUTIVE SUMMARY

In February of 2021, New Braunfels Utilities (“NBU”) engaged Freese and Nichols, Inc. (“FNI”) and subconsultant NewGen Strategies and Solutions, LLC (“NewGen”), to conduct a Cost-of-Service and Rate Design Study (“Study”), including facilitating a Rate Advisory Committee. The purpose of the Rate Advisory Committee was to provide feedback to NBU and its consultants regarding the proposed fiscal year (“FY”) 2024-2025 rate design from the viewpoint of the constituency each member represented. This work was done in preparation of developing a rate plan for FY 2024 and FY 2025.

NBU most recently analyzed rates as part of a three-year rate plan that was approved by the New Braunfels City Council (City Council) in October 2020, with rate design changes in effect from November 2020 to August 2023. The rate plan was in response to essential capital improvements to support the renewal of the existing system and growth in the NBU service territory. As with the last rate plan, the capital program is the main driver behind increased revenue requirements for FY 2024 and FY 2025. The increases are represented in Table ES-1.

Table ES-1: Sources of Increases in Revenue Requirements

Expenditure	Electric	Water	Wastewater
Capital	67%	84%	87%
Personnel	<1%	7%	4%
Other O&M	32%	9%	19%

Table ES-2 summarizes the cost of capital projects for each utility through the next four years. Figures ES-1, ES-2, and ES-3 show the sources of capital funding for the Electric, Water, and Wastewater Utilities, respectively. The figures demonstrate the heavy reliance on new debt funding to meet capital expenditure needs.

Table ES-2: Capital Projects Expenditures⁽¹⁾

Description	FY 2024	FY 2025	FY 2026	FY 2027
Electric	\$43,542,000	\$50,703,000	\$57,017,000	\$40,601,000
Water	87,607,000	53,394,000	61,254,000	81,252,000
Wastewater	80,437,000	129,474,000	109,703,000	34,022,000
Total Capital Projects	\$211,586,000	\$233,571,000	\$227,974,000	\$155,875,000

(1) Totals may differ due to rounding

Figure ES-1 Electric Capital Funding Sources (FY 2024)

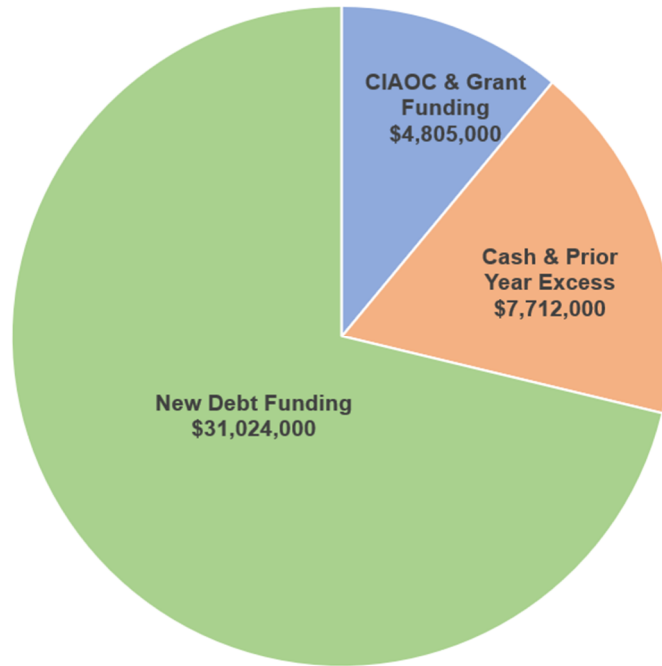
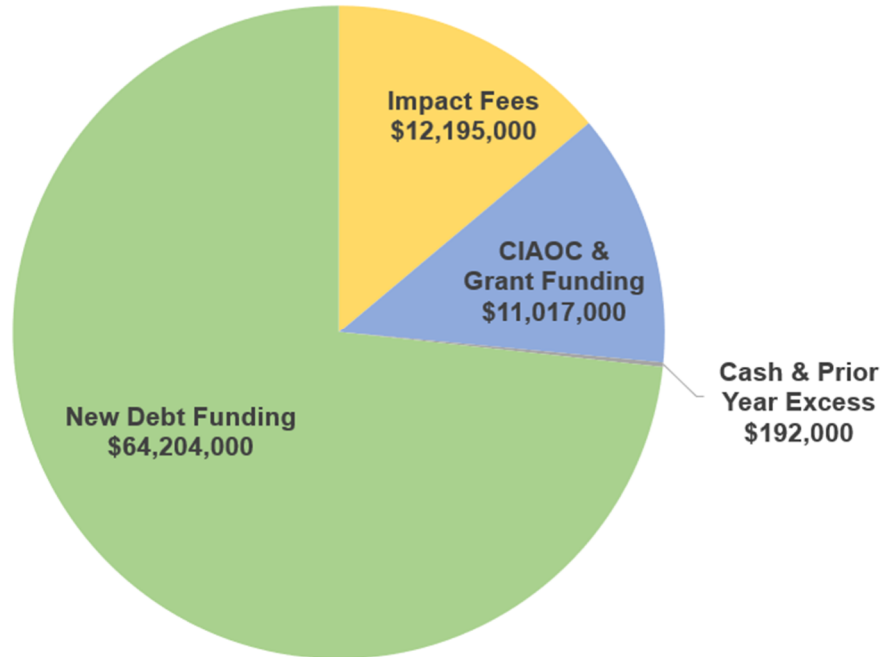
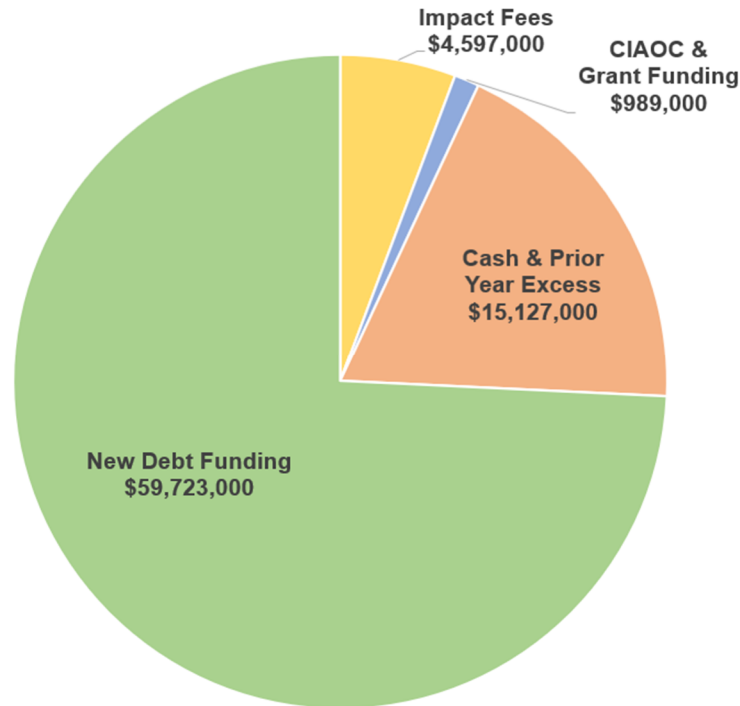


Figure ES-2 Water Capital Funding Sources (FY 2024)



(1) New debt funding consists of both revenue bonds and Texas Water Development Board bonds

Figure ES-3: Wastewater Capital Funding Sources (FY 2024)



Revenue Requirements

FNI first forecasted system revenues by utility. Total Electric Utility sales revenues under existing base rates are forecast to increase from \$169 million in FY 2024 to \$178 million in FY 2027, representing an approximate 1.2% annual growth rate in revenues. Sales revenues from FY 2024 to FY 2027 increase from \$57.4 million to \$90.4 million and \$44.7 million to \$57.4 million for the Water Utility and Wastewater Utility, respectively.

Based on a forecast of revenues under existing rates and revenue requirements for each utility for FY 2024 through FY 2027, FNI recommends a series of rate increases for the utilities. The overall revenue adjustments required to recover the forecasted revenue deficiencies for the utilities are as shown in Table ES-3. The forecasted revenue deficiencies, and subsequent rate adjustments needed, as shown in Table ES-3 are considered the *minimum levels required* to maintain prudent financial operations of NBU, appropriate debt service coverage ratios, and adequate reserve fund levels. The resulting rate adjustments allow the electric utility to transition from entirely debt funding capital projects to an approximate 50/50 debt to cash funding ratio over the next five years that aligns the electric utility with NBU policies and goals and industry best practices.

Table ES-3: Required Revenue Adjustments to Recover Deficits

Utility	FY 2024	FY 2025	FY 2026	FY 2027
Electric	4.8%	5.9%	4.6%	3.8%
Water	9.1%	13.4%	13.6%	11.8%
Wastewater	7.3%	7.3%	7.7%	7.7%

Cost-of-Service

The purpose of a cost-of-service (“COS”) analysis is to allocate revenue requirements to customer classes based upon the costs to serve each class individually. The identification of the proportionate cost responsibility for each class guides the development of fair and equitable rates.

The COS serves to provide a baseline for rate making. However, the COS itself is not the only factor to consider when establishing cost recovery. In addition to COS, alternative factors considered include the following:

- I. Full cost recovery of revenue requirements
- II. Simple and easy to understand rates
- III. Stability of revenue streams
- IV. Appropriate pricing signals
- V. Customer acceptance
- VI. Equitability
- VII. Legally acceptable and defensible

Tables ES-4, ES-5, and ES-6 show the cost-of-service results for the electric, water and wastewater systems, respectively.

Table ES-4: Electric Cost-of-Service Results

Customer Class	Allocated Test Year COS	Test Year Rate Revenues	Revenue Over/(Under)	% Increase of Existing Rate Revenues for Full Cost Recovery
Residential	\$91,775,510	\$78,309,104	(\$13,466,406)	17.2%
Small Business	9,739,917	8,471,099	(1,268,818)	15.0%
Large Business	51,125,637	43,521,515	(7,604,122)	17.5%
Large Power	14,336,047	12,587,396	(1,748,651)	13.9%
Transmission	37,747,765	39,199,588	1,451,823	-3.7%
Lighting ⁽¹⁾	364,728	375,137	10,409	-2.8%
Total	\$205,089,604	\$182,463,839	(\$22,625,765)	12.4%

(1) Includes lighting athletic fields (LAF), area lighting (AL), and highway lighting (HL) classes

Table ES-5: Water Cost-of-Service Results

Customer Class	Allocated Test Year COS	Test Year Rate Revenues	Revenue Over/(Under) Recovery	% Increase of Existing Rate Revenues for Full Cost Recovery
Residential	\$23,664,604	\$16,731,661	(\$6,932,943)	41.4%
Residential Irrigation	7,516,023	8,730,193	1,214,170	-13.9%
Commercial	7,102,474	7,973,137	870,663	-10.9%
Commercial Irrigation	2,372,621	3,428,546	1,055,925	-30.8%
Multi-Unit Residential 2-4	214,798	253,438	38,640	-15.2%
Multi-Unit Residential 5+	1,566,563	2,669,655	1,103,092	-41.3%
Commercial - Re-Use Water	127,980	73,448	(54,532)	74.2%
Other Sales	1,989,754	1,734,996	(254,758)	14.7%
Total	\$44,554,817	\$41,595,075	(\$2,959,742)	7.1%

Table ES-6: Wastewater Cost-of-Service Results

Customer Class	Allocated Test Year COS	Test Year Rate Revenues	Revenue Over/(Under) Recovery	% Increase of Existing Rate Revenues for Full Cost Recovery
Residential	\$23,518,324	\$21,075,553	(\$2,442,771)	11.6%
Commercial	12,162,439	12,497,352	334,913	-2.7%
Multi-Unit Residential 2-4	197,359	196,224	(1,135)	0.6%
Multi-Unit Residential 5+	4,217,293	4,121,666	(95,627)	2.3%
Total	\$40,095,415	\$37,890,795	(\$2,204,620)	5.8%

Recommendations

FNI recommends the following for each Utility to maintain financial strength and stability.

Electric

- Implement two-year rate plan.
 - FY 2024: 4.8% average system rate revenues increase
 - FY 2025: 5.9% average system rate revenues increase
- Move to a balanced 50/50 debt and rate funded capital program to reduce cost of debt and maintain financial strength and stability for NBU.
- Phase in increases over next five years to achieve 50/50 goal ratio (gradualism).
- Implement consistent rate increases across classes (e.g., no customer classes are getting significantly larger rate increases than others).

Water

- Implement two-year rate plan.
 - FY 2024: 9.1% average system rate revenues increase
 - FY 2025: 13.4% average system rate revenues increase
- Remove on-peak/off-peak differential from existing rate structure.
- Split Commercial class into Small General Service (SGS) and Large General Service (LGS)
- Move higher usage customers into the LGS class.
- Modify usage tiers in Residential, SGS, and Irrigation classes to more accurately reflect class usage.
- Create additional tier in Residential class to allow for savings by low-usage customers.

Wastewater

- Implement two-year rate plan.
 - FY 2024: 7.3% average system rate revenues increase
 - FY 2025: 7.3% average system rate revenues increase
- No changes to customer classifications are recommended.

While the proposed rate increases did serve to move the customer classes to more closely align with the results of the COS analysis, FNI did not attempt to match 100% of the COS revenue recovery.

Table ES-7 shows a comparison of bills for an average Residential customer under the proposed rates with those under existing rates. The average monthly bill is for a residential customer using 1,200 kWh of electricity, 6,000 gallons of water and sewer usage of 4,600 gallons.

Table ES-7: Comparison of Average Residential Customer Monthly Water Bill Under Existing and Proposed Rates

	Current	FY 2024	FY 2025
Electric ⁽¹⁾	\$137.12	\$145.63	\$153.93
Year-over-year ("YOY") % Change		6.2%	5.7%
Water	27.56	36.53	38.10
YOY % Change		32.5%	4.3%
Wastewater	57.28	63.30	69.94
YOY % Change		10.5%	10.5%
Total Customer Bill	\$221.96	\$245.46	\$261.97
YOY % Change		10.6%	6.7%

(1) Uses five-year average for PCRA

1.0 INTRODUCTION

In February of 2021, New Braunfels Utilities (“NBU”) engaged Freese and Nichols, Inc. (“FNI”) and subconsultant NewGen Strategies and Solutions, LLC (“NewGen”), to conduct a Cost-of-Service and Rate Design Study (“Study”), including facilitating a Rate Advisory Committee. In total, NBU provides electric, water, and wastewater services to approximately 127,000 customers across those three lines of business. NBU annually reviews its rates as part of its comprehensive budget process; however, on a periodic basis, NBU may request an outside consultant to complete a rate study, including a cost-of-service analysis. NBU most recently analyzed rates as part of a three-year rate plan that was approved by the New Braunfels City Council (“City Council”) in October 2020, with rate design changes in effect from November 2020 to August 2023. The rate plan was in response to essential capital improvements to support the renewal of the existing system and growth in the NBU service territory. NBU’s fiscal year (“FY”) begins each August 1 and ends each July 31 of the following year.

In preparation for the FY 2024 through FY 2025 rate plan, NBU opted to engage a professional to perform a comprehensive cost-of-service analysis and rate design study. Additionally, NBU established a Rate Advisory Committee to provide feedback to NBU and its consultants regarding the proposed FY 2024-2025 rate design.

1.1 SCOPE

The scope of work consists of conducting a comprehensive rate study of the Water, Wastewater, and Electric Utilities (“Utilities”) and includes a financial projection of the utilities for the four-year period from FY 2024 through FY 2027, a cost-of-service analysis, and rate recommendations for each utility. Key components of the study include:

- I. Forecast each utility and total NBU revenues and revenue requirements for FY 2024 – FY 2027 to determine the overall adequacy of existing rates to support each utility’s operating and capital needs while maintaining prudent cash reserves over the four-year period.
- II. Prepare a class cost-of-service analysis for each utility to identify appropriate revenue levels for each class of service.
- III. Recommend revised rates and rate schedules that reflect cost-of-service considerations and practical rate implementation constraints.

- IV. Upon completion of the FY 2024 budgeting process, update the models to determine the revenue requirement needs to support each utility system through the newly budgeted four-year time period.
- V. Provide information and conduct presentations to facilitate discussions about rate design with NBU staff, the Rate Advisory Committee, and NBU Board of Trustees.

1.2 PURPOSE OF STUDY

The purpose of this study is to evaluate the adequacy of NBU's existing rate charges for utility service and to recommend fair and equitable adjustments to the rates, if deemed necessary. A utility rate study is designed to encompass three principal steps, each intended to answer questions typically asked by the utility's Board, City Council, and executive leadership. These steps are as follows:

- I. Revenue Requirements – How much revenue does the utility need to meet forecasted costs?
- II. Cost-of-Service – What is each customer class's equitable share of the utility revenue?
- III. Rate Design – How should rates be adjusted to reflect cost-of-service and remain sensitive to customer rate impacts?

NBU's overarching goal to keep each utility self-supported (i.e., no inter-utility subsidies) and maintain appropriate reserve funds was incorporated into each of these steps.

1.3 REVENUE/REVENUE REQUIREMENTS

FNI uses the cash basis approach of determining revenue requirements for municipal utilities as a guide in recommending overall rate adjustments. The cash basis approach is an accepted industry method for municipal utility rate and bond financing studies and is used by NBU to forecast financial operations. For purposes of this study, FNI used budgeted information and the latest "known and measurable" data to project NBU's future revenues and expenses. FNI utilized FY 2024 as the first year of projections, which is known as the "Test Year". FNI based the rest of its projections from the Test Year, once established.

Operation and Maintenance ("O&M") expenses in the forecast period are based on the FY 2024 budget. O&M expenses are escalated annually for labor and benefit categories and non-labor

related expenses. Specific cost components, including Purchased Power and Purchased Water are calculated separately based on the projection of future needs, and input from NBU staff. The Capital Improvement Plan (“CIP”) is based on the FY 2024 budgets for the utilities and reflects the largest component of the annual revenue requirements. The CIP is funded through various sources, including budgeted cash funding, debt funding, grant funding, impact fees, and developer contributions.

Table 1-1 summarizes the cost of capital projects for each utility through the next four years. Tables 1-2, 1-3, and 1-4 show the sources of capital funding for the Electric, Water, and Wastewater Utilities, respectively. The tables demonstrate the heavy reliance on new debt funding to meet capital expenditure needs.

Table 1-1: Capital Projects Expenditures

Description	FY 2024	FY 2025	FY 2026	FY 2027
Electric	\$43,452,000	\$50,703,000	\$57,017,000	\$40,601,000
Water	87,607,376	53,394,845	61,254,363	81,252,001
Wastewater	80,437,090	129,474,155	109,703,320	34,021,828
Total Capital Projects	\$211,496,466	\$233,572,000	\$227,974,683	\$155,874,829

Note: Totals may differ due to rounding

Table 1-2: Electric Capital Funding Sources

Description	FY 2024	FY 2025	FY 2026	FY 2027
CIAOC & Grant Funding	\$4,805,000	\$6,226,000	\$5,367,000	\$6,900,000
Cash & Prior Year Excess	7,712,000	12,885,000	15,758,000	16,558,000
New Debt Funded	31,024,000	31,593,000	35,892,000	17,144,000
Electric Total Funding Sources	\$43,541,000	\$50,704,000	\$57,017,000	\$40,602,000

Note: Totals may differ due to rounding

Table 1-3: Water Capital Funding Sources

Description	FY 2024	FY 2025	FY 2026	FY 2027
Impact Fees	\$12,195,000	\$16,535,000	\$22,850,000	\$21,925,000
CIAOC & Grant Funding	11,017,000	1,418,000	993,000	2,410,000
Cash & Prior Year Excess	192,000	2,039,000	2,729,000	824,000
New Debt Funded	64,204,000	33,403,000	34,683,000	56,093,000
Water Total Funding Sources	\$87,608,000	\$53,395,000	\$61,255,000	\$81,252,000

Note: Totals may differ due to rounding

Table 1-4: Wastewater Capital Funding Sources

Description	FY 2024	FY 2025	FY 2026	FY 2027
Impact Fees	\$4,597,000	\$6,730,000	\$8,070,000	\$3,692,000
CIAOC & Grant Funding	989,000	37,802,000	22,705,000	4,547,000
Cash & Prior Year Excess	15,127,000	13,827,000	9,752,000	7,306,000
New Debt Funded	59,723,000	71,115,000	69,176,000	18,477,000
Wastewater Total Funding Sources	\$80,436,000	\$129,474,000	\$109,703,000	\$34,022,000

Note: Totals may differ due to rounding

After NBU has paid all O&M expenses and debt service, NBU makes an annual discretionary transfer of revenue to the City. The transfer is based upon a percentage of a rolling three-year average of electric, water, and wastewater operating revenues. The rolling three years is comprised of the previous two fiscal year revenues and an estimated revenue from the current fiscal year.

NBU maintains an operating reserve fund with appropriate reserve levels to maintain liquidity and prepare for system volatility, outside of significant volatility in the Electric Reliability Council of Texas (“ERCOT”) energy market. This volatility includes items such as typical variations in fuel costs, seasonality of revenues, under collection of projected revenues, and unexpected expenses or capital needs. The operating reserve fund is targeted at 120 days of O&M expenses. In addition to the operating reserve fund, NBU has identified a need for and created a Power Stabilization Fund (“PSF”), which is a separate reserve account to address significant volatility in the ERCOT energy market, extreme weather or market events, and the ability to mitigate dramatic increases in generation cost recovery rates. At the present time, NBU projects to fully fund the PSF within a six-year period.

1.4 FORECAST DEFICITS UNDER EXISTING RATES

Annual revenue deficits under the existing rate plan will begin to erode NBU’s reserve fund balances and lessen its ability to complete its CIP, as shown in Table 1-5. Under the currently effective rates, a negative cumulative fund balance is forecasted beginning in FY 2024 and increases to a \$29.4 million deficit in FY 2027 for the electric system, \$47.7 million for the water system, and \$16.8 million for the wastewater system. The main driver behind the negative balances for the NBU utility system is the CIP.

Table 1-5: Annual Revenue Deficits by Utility

Utility	FY 2024	FY 2025	FY 2026	FY 2027
Electric Utility	(\$3,438,573)	(\$6,732,699)	(\$7,925,946)	(\$11,344,141)
Water Utility	(2,959,742)	(10,821,575)	(14,948,313)	(19,000,384)
Wastewater Utility	(\$2,204,620)	(\$3,583,472)	(\$4,262,850)	(\$6,719,513)

1.5 COST-OF-SERVICE AND RATE DESIGN

The purpose of the cost-of-service (“COS”) analysis is to allocate Test Year revenue requirements to customer classes based upon the costs to serve each class individually. This process provides a measure of the proportionate share of cost responsibility for each class and provides a guide for developing fair and equitable rates. The Test Year revenue requirements reflect all costs required to address operations, maintenance, and capital needs of the utilities. The COS and rate design process includes five major steps. The steps are as follows:

- I. **Determination of the Revenue Requirement** – This first step examines the utility’s financial needs and determines the amount of revenue that must be generated from rates. For municipal utilities, the revenue requirement is determined on a “cash basis” approach. A “cash basis” analysis examines the cash obligations of the utility such as O&M expenses, debt service, cash-funded capital projects, and City Transfers. Rates are set such that the utility can pay its bills on an annual basis going forward.
- II. **Functionalization and Sub-Functionalization of Costs** – The revenue requirement is then assigned to the function or sub-function of the utility. These functions will vary depending on the type of utility. Electric utilities like NBU, typically have power supply, transmission, distribution, and customer services functions. The power supply sub-function includes purchased power from contracts or the ERCOT market. Distribution sub-

functions may include billing and collections, customer service, and meter reading. Water utility functions include source of water supply, pump stations, water treatment, transmission and distribution, and fire protection. Wastewater utility functions include lift stations, wastewater treatment, and collection systems. Water and Wastewater utilities often include customer services functions as well.

- III. **Classification of Costs** – Once costs are functionalized, costs are then classified based on their underlying nature. The determination of fixed versus variable costs is of particular importance when classifying costs. Fixed costs remain a financial obligation of the utility regardless of the amount of energy used, water sold, or wastewater treated. Variable costs fluctuate based on system requirements. Further, fixed and variable costs are associated with utility requirements to meet customer demand and customer service needs.
- IV. **Allocation of Costs** – Once costs are classified, costs are allocated to the various customer classes. Allocation factors align with cost classification. Therefore, demand-related costs are allocated on measures of class demand, such as class contribution to the system coincident peak (“CP”), which is when the utility’s system-wide customer demand is the highest. Allocation factors are based on energy or water consumed by customers. Customer allocation factors are based on the number of customers.
- V. **Rate Design** – The final step is rates design, which translates COS results into rates for each customer class.

2.0 RATE ADVISORY COMMITTEE

In October 2021, the NBU Board directed its staff to assemble a Rate Advisory Committee (“RAC”) to review NBU’s rate structure and provide feedback to the Board for the 2022-2023 COS and Rate Design Study.

2.1 PURPOSE, BASIS AND ROLE

Members of the RAC used the 2022-2023 COS and Rate Design Study to understand the utility business, understand and provide insights, perspectives, and feedback to NBU Management and Board of Trustees about the rate design for water, wastewater, and electricity utility services. The RAC worked with NBU staff, FNI, and NewGen to develop the RAC’s feedback regarding the rate design.

The RAC feedback and insights focused on NBU’s rate structures, cost recovery from customers, and integration of community values while considering industry standards and NBU’s financial health and stability. FNI and NewGen presented information to NBU staff and the RAC about the process of rate development, including traditional rate setting issues, methodologies, and rate strategies being used throughout the utility industry.

The role of the RAC was to review, discuss, and analyze rate design alternatives with FNI, NewGen, and NBU staff. Each RAC member represented a constituency and facilitated the flow of ideas and concerns from the community to NBU staff and the Board of Trustees.

2.2 MEMBERSHIP

Members of the RAC reflected a balanced representation of the NBU service area. RAC members were selected from throughout the service territories. The NBU Board of Trustees appointed 18 RAC members. Of the 18 members, City Council nominated seven members and NBU nominated 11 members. The RAC membership included members from the following segments of the community:

- I. City council districts within the NBU service area
- II. Healthcare, recreational/seasonal/tourism, manufacturing, large retail, small business, school district, non-profit/affordable housing, developer/builder, and multifamily residential

To qualify, members were:

- I. Nominated by a member of City Council
- II. A customer, property owner or business owner, and/or representative in one of NBU’s service territories
- III. Representatives of business or civic organizations located within NBU’s service territories

Table 2-1 shows the RAC nominees by City Council and the NBU Board.

Table 2-1: RAC Members

CITY COUNCIL NOMINATIONS	
Mayor Rusty Brockman	District 4 - Lawrence Spradley
Dr. Les Shephard	Dr. Michael Patrick Harrington
District 1 - Shane Hines	District 5 - Jason Hurta
Stuart Blythin	Bobby Avary
District 2 - Justin Meadows	District 6 - James Blakey
Justin Meadows	Stuart Hansmann
District 3 - Harry Bowers	
Mark Hampton	
NBU BOARD NOMINATIONS	
Industrial	School District
Jimmy Rabon Cemex	Dr. Cade Smith New Braunfels Independent School District
Healthcare	Non-Profit
David Glazener Christus Santa Rosa	Jonathan Packer Greater New Braunfels Chamber of Commerce
Recreational/Seasonal/Tourism	Non-Profit
Darren Hill Schlitterbahn	Alice Jewell McKenna Foundation
Manufacturing	Develop/Builder
Alan Luke CGT	Chip Mills SouthStar Communities
Large Retail	Multifamily Residential
Chris Snider Texas Tito’s	Kate Gideon The Augusta at Gruene
Small Business	
Ian Perez Raba Kistner	

2.3 RAC MEETINGS

Since its conception, the RAC has held nine public meetings and a public rates forum. During these meetings, the RAC discussed an overview of NBU's water, wastewater, and electric systems; NBU's revenues, revenue requirements, and projected operating results for the water, wastewater, and electric utilities; NBU capital project funding; the electric energy market and ERCOT; NBU bond ratings and target ratios; cost-of-service results for the water, wastewater, and electric utilities; and recommended rate structures for the water, wastewater, and electric utilities.

2.4 RAC SUBCOMMITTEES

The RAC identified seven key policy areas integral to the rate design process as a basis for making its recommendations to NBU staff and the NBU Board. The RAC formed a subcommittee for each policy area. Each subcommittee was tasked with reaching out to and meeting with specific customer segments in the community to gain public feedback regarding its respective policy area. The seven key policy areas are as follows:

- I. Low/Fixed Income Customers
- II. Equity and Fairness in Rate Making
- III. Conservation and Renewables
- IV. Revenue Sufficiency
- V. Accommodating Growth
- VI. Utility Financial Stability and Strength
- VII. Simple to Understand and Easy to Implement

Each subcommittee provided recommendations to NBU staff, FNI, and NewGen based on the concerns of their representative customers. NBU was able to incorporate many of the recommendations outlined below into the proposed rate designs. Recommendations unable to be incorporated in this rate plan will be evaluated in the future.

2.5 LOW/FIXED INCOME CUSTOMERS

2.5.1 Subcommittee Recommendations

- I. The cost of NBU services should be equitably assessed across customer classes.

- II. Deposits, fees, and penalties should be reflective of the true cost of the activity or service. However, NBU should consider the financial strain on low/fixed income customers, which are disproportionately impacted by deposits/fees/penalties and benchmark to other community-owned utilities.
- III. NBU internal programs and external support of nonprofits should model the value of helping neighbors.
- IV. Levels of NBU financial support of low and fixed-income customers should increase proportionately as rates increase.

2.5.2 Implementation

- I. Costs were assessed by customer class and any revenue requirements needed were allocated appropriately.
- II. New low water tier was created to help customers control costs.
- III. NBU has increased contribution to the Utility Bill Assistance Program for its upcoming five-year operating plan (FY 2024-FY 2028) by approximately 5.3% per year, compared to projected bill increases of approximately 5.3% on average.

2.5.3 Future Consideration

- I. Review of fees as they relate to scaling based on income level
- II. Additional support of nonprofits

2.6 EQUITY AND FAIRNESS IN RATE MAKING

2.6.1 Subcommittee Recommendations

- I. Rates may not always align with cost-of-service results.
- II. Consider sub-classes to recognize unique challenges.
- III. Cross-subsidization between classes should prioritize and encourage sustainable practices and conservation.
- IV. Gradualism should be implemented through a transparent process that includes community perspective.
- V. Consider forming a Community Advisory Board (“CAB”) to enrich community input and vet issues.

2.6.2 Implementation

- I. NBU moved toward establishing rates that would match the customer classes with the results of the cost-of-service through the use of gradualism. However, they were also very cognizant of any undue burdens that might be placed on individual customer classes. This move was discussed openly at the public RAC meetings.
- II. NBU split up the Commercial water customers and moved the larger usage customers to the Large Commercial class. This was done to keep from penalizing those customers using water primarily in the course of their business, and not as discretionary usage (i.e., hospitals).
- III. Per the RAC's recommendation, NBU has strengthened its conservation pricing signals through the water rates and tier structures to encourage sustainable practices.

2.6.3 Future Consideration

- I. NBU's Board will continue to consider forming community advisory boards to vet important issues that directly impact their community through utility practices.

2.7 CONSERVATION AND RENEWABLES

2.7.1 Subcommittee Recommendations

- I. Promote the adoption of Distributed Energy Resources ("DER") by removing barriers to entry and improving communication and customer experience.
- II. Target 50% renewable energy.
- III. Monitor electric vehicle adoption and plan for future rate options.
- IV. Consider variable, tiered and/or time-based rates.
- V. Revise essential use volume and strengthen water conservation pricing signals by increasing irrigation rates and fines.
- VI. Establish a clear position on these issues that align with the customer base and educate the public.

2.7.2 Implementation

- I. NBU has revised the essential use water tier, as well as other tiers, for both residential and irrigation use in order to strengthen conservation pricing signals.
- II. NBU is working with solar installers and incorporating best practices, to improve the customer experience for rooftop solar and other DER installations.
- III. NBU will conduct a study of potential impacts under a variety of electric vehicle adoption scenarios.

2.7.3 Future Consideration

- I. In FY 2024, NBU will update its power supply Integrated Resource Plan, which will utilize community input to evaluate affordability, volatility mitigation, sharing of renewables, time of use rates as a resource, strategies for DER (solar, battery storage, microgrids, electric vehicles, etc.) and related topics and strategies.
- II. In FY 2024, NBU will develop a Distributed Energy Roadmap, which will provide comprehensive program designs that will help NBU achieve their targets and provide best practice programs, pricing signals, incentives, educational materials, and resources to customers.
- III. NBU will be reviewing and providing recommended adjustments to the City of New Braunfels Drought Ordinance to include fines or surcharges for violation of watering restriction rules.

2.8 REVENUE SUFFICIENCY

2.8.1 Subcommittee Recommendations

- I. Consider internal and external economic headwinds and how an increase in rates will impact the community at large.
- II. Pursue operational efficiencies and evaluate the proper level of reserves.
- III. Consider all expenses/fees related to development.

2.8.2 Implementation

- I. The new rate design is within the “mid-range” category of the Fitch affordability benchmark and in the “strongest” category for fixed base charge recovery.

- II. With respect to operating efficiently and controlling revenue requirements, NBU's recent nationwide workforce study showed that NBU is currently operating very lean with a 31% shortfall in full time employees.
- III. NBU is in the process of evaluating all fees across the company to ensure they are covering costs. The Water and Wastewater fee review is complete. Over the next 12 months, the remainder of the fees will be evaluated and placed on a review schedule to be approved by the Board of Trustees annually with the budget.
- IV. Prior to the study, electric capital was being funded 100% with debt. The proposed design incorporates a portion to be funded by cash, which will be in alignment with NBU's Board approved financial policy and rating agency expectations.

2.8.3 Future Consideration

- I. When looking at the policy area of Revenue Sufficiency, no future considerations were identified by the RAC.

2.9 ACCOMMODATING GROWTH

2.9.1 Subcommittee Recommendations

- I. NBU needs to be a partner with the development community.
- II. NBU needs to maintain staffing levels sufficient to keep pace with growth and consistently meet published review timelines, utility availability requests and other items required for developers to complete projects.
- III. Growth costs should be shared between growth customers and existing customers.
- IV. NBU should not subsidize utility rates for economic development.

2.9.2 Implementation

- I. NBU's Board of Trustees and the City Council have voted to assess the maximum allowable water and wastewater impact fee allowed by the Local Government Code Ch. 395, which governs the impact fee process for the state of Texas.
- II. NBU does not have an economic development rate subsidization, but relies on the City Council, through the New Braunfels Economic Development Corporation ("EDC"), to provide incentives.

- III. NBU is an active participant in the Chamber of Commerce, the New Braunfels Economic Development Foundation (“EDCF”) and the Economic Advisory Committee and helped create the community’s current Economic Development Strategic Plan.

2.9.3 Future Consideration

- I. Over the next two months, NBU staff will be working with the Board of Trustees to establish Key Performance Indicators (“KPI”) and corresponding Levels of Service across the organization to include development related processes (review time, etc.) and provide proper resources to meet those KPIs through the budget, which will be incorporated in the final rate design.

2.10 UTILITY FINANCIAL STABILITY & STRENGTH

2.10.1 Subcommittee Recommendations

- I. A significant reserve is necessary, and beneficial to the community, and should be well defined in policy.
- II. Reserve amounts need to consider the balance of the community needs and NBU’s financial stability and should have a well-defined policy surrounding it.
- III. Consider funding reserve amounts in the non-peak energy season when rates should be lower to minimize additional burdens placed on the ratepayers. By funding the reserves in the non-peak energy season, the customer bills will be closer to what their bills would be in the peak energy season, and they would experience less bill variability throughout the year.

2.10.2 Implementation

- I. NBU has reserves in place that are established, used and refilled in accordance with credit rating criteria, NBU Board of Trustees policies and NBU’s Enterprise Risk Management requirements.
- II. NBU’s Power Stabilization Fund is being evaluated, using a risk-based analysis, by a third party to inform the proper target fund balances. The analysis will consider the past performance of the ERCOT market and will also contemplate changes

currently being made by the Public Utility Commission of Texas and the Texas Legislature. This work will be complete in time for the final rate design in April 2023.

2.10.3 Future Consideration

- I. NBU is evaluating the impact of delaying reserve collections during non-peak energy seasons in the development of its FY 2024 budget.

2.11 SIMPLE TO UNDERSTAND AND EASY TO IMPLEMENT

2.11.1 Subcommittee Recommendations

The bill should have the following characteristics:

- I. Detailed and easy to understand, graphically pleasing, concise, and comprehensive
- II. Transparent (definition of rates and terms)
- III. Searchable – by customer, if interested
- IV. Multi-platform (dimensionality)
- V. Proactive (crisis communications)

2.11.2 Implementation

- I. NBU revised its bill design in November 2022 to eliminate confusion that incorporated many of these recommendations.
- II. NBU eliminated the On-Peak/Off-Peak water rate differential with the rate design recommendations. The analysis showed that peak rates were not having an impact on water conservation but were creating unneeded complexity.
- III. NBU now has a Rate Breakdown page on its website and is forecasting and communicating electric rates on a quarterly basis across multiple platforms.
- IV. NBU is in the process of upgrading its customer interface in FY 2024, which will improve its functionality to include searchability and multi-platform, including a mobile app.

2.11.3 Future Consideration

- I. There are a number of other bill design recommendations that NBU will be working to incorporate.
- II. NBU will continue to evaluate communication effectiveness.

3.0 ELECTRIC UTILITY

In March of 2022, NewGen was retained to perform an Electric COS and Rate Design Study (“Electric Study”) for NBU as a subconsultant to FNI. As part of the Electric Study, NewGen’s Project Team was requested to forecast revenue requirements and rates from FY 2024 through FY 2027 (Study Period). NBU’s fiscal year runs from August 1 through July 31. All data contained in this report represents the NBU fiscal year unless otherwise stated. This report describes the COS analysis performed for the Electric Utility and recommends rates charged to the electric customers.

The analysis performed by NewGen was designed to consider the foreseeable, known, and measurable adjustments during the Study Period. The goal was to construct a financial planning tool for NBU to gain an understanding of the key issues and required rate, debt, and capital decisions facing the Electric Utility over the Study Period. A critical benefit of the financial planning tool is quantifying the impacts of decisions being made today regarding debt issuances and rate changes required in the future. As with any forecast, assumptions were made and NBU should note that the actual expenses and revenues generated each year may differ from the projected expenses and revenues outlined in this report due to unforeseen changes, such as system growth and inflation.

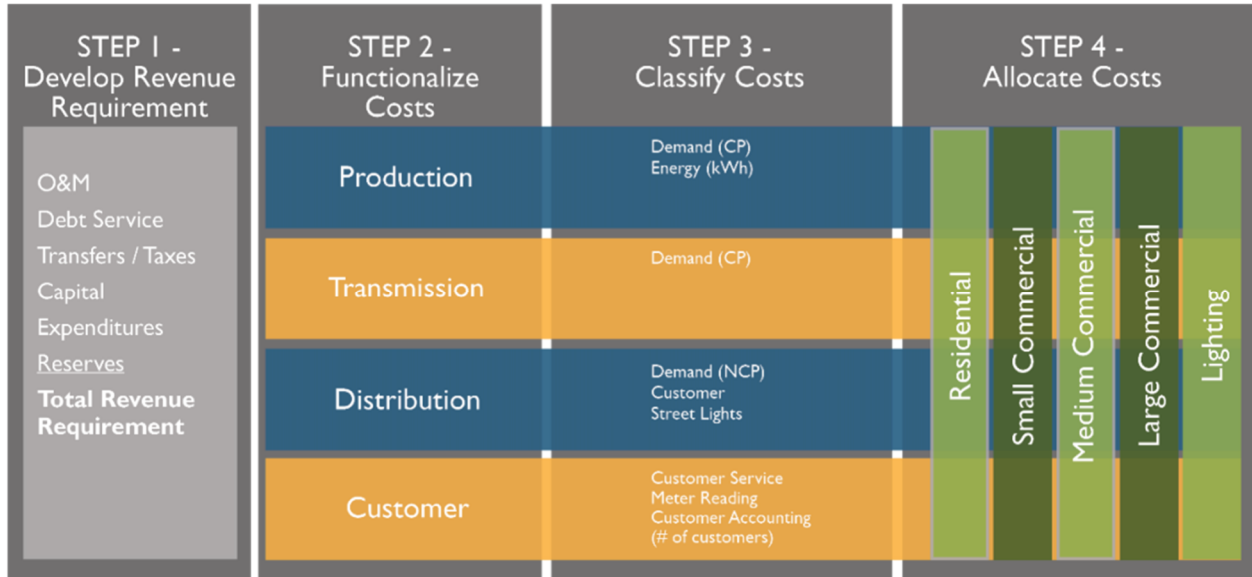
The Electric Utility served an average of 52,000 retail electric customers with a system peak of 336 megawatts (“MW”) in 2022. The service area is approximately 160 square miles with 625 miles of overhead distribution and 406 miles of underground distribution. The transmission system has 11 substations. During FY 2022, NBU purchased approximately 1,825,000 megawatt-hours (“MWh”) of electricity to deliver to retail customers.

NBU is primarily an energy delivery utility purchasing essentially all power supply services from the ERCOT energy and transmission market. NBU then passes these power supply purchases and transmission costs to its customers without any additional costs or margin.

NBU anticipates spending approximately \$225 million for capital improvements over the next five years for the electric system, as detailed in the FY 2024 Electric System Budget. These capital expenditures include additional substations and system extensions for system growth, aging infrastructure replacements, and allocated support services such as the new NBU headquarters building. Capital expenditures will be primarily funded from rate revenues, customer contributions, and long-term debt.

Four key steps were followed during the Electric Utility COS process and are depicted in Figure 3-1. The subsequent sections provide details on each step of the process.

Figure 3-1: Typical Cost-of-Service Process



3.1 REVENUE REQUIREMENTS

Developing the Test Year Revenue Requirement is the first step in the COS and rate design process, as shown in Figure 3-1. The Test Year Revenue Requirement for the Electric Utility was based on the average expenses for the FY 2024 – FY 2027 Study Period with adjustments for unusual or one-time expenses, the CIP, existing debt amortization schedules, projected debt issuances, and forecasted escalation assumptions and factors. NewGen developed a five-year financial forecast for the Study Period. The average revenue requirement for the five-year Study Period was used as the Test Year Revenue Requirement and represented all costs that must be recovered through the Electric Utility’s rates. The Test Year Revenue Requirement serves as a basis for determining the overall level of revenue recovery and provides a foundation for the COS analysis.

3.1.1 Financial Forecast

The financial forecast includes projections of revenues, expenses, capital spending, debt service, and changes in reserves over the four-year Study Period (FY 2024–FY 2027). To develop the financial forecast, NewGen utilized NBU’s five-year forecast, load forecast documents, records of operation, customer billing data, FY 2022 audited financials, and other detailed information and

data compiled and provided by NBU's management and staff. NBU provided the FY 2021 and year to date ("YTD") FY 2022 detailed expenses by their audited chart of accounts which were used to provide a detailed cost center and account level detail based on the NBU summary level financial forecast. NewGen provided this detailed account level forecast for the five-year period which reconciles with the NBU summary forecast. This was then used to develop a Test Year Revenue Requirement which is used throughout the COS.

3.1.2 Projected Energy Requirements

The Electric Utility's forecasted electric consumption is a key driver in projections of expenses and revenues. The load forecast was provided by NBU staff and came from the FY 2024 Master Budget. The forecasted retail electric consumption predicts an average energy growth rate of approximately 4% per year over the Study Period. The projected growth is higher in the first two years of the forecast at 5% to 6.5% per year, then declines to 3% in the later years. The average or Test Year retail sales were 1.9 million MWh.

3.1.3 Operations and Maintenance Expenses

The first step in developing the revenue requirement forecast was the creation of the base year O&M expenses. NBU's historical data provides Electric Utility O&M expenses based on five electric operations and maintenance categories. These categories include purchased power, engineering, distribution, substations, and administrative and general. The FY 2022 and FY 2023 YTD expenses provided further detailed O&M expense accounts within each of the categories. In discussions with NBU staff, NewGen proportionally allocated the detailed accounts within the projected base year in the financial forecast for financial projections. The FY 2022 actual data provided the level of account detail needed to properly allocate O&M expenses. This improves the ability to evaluate specific account impacts and cost drivers for the total operations expense and revenue requirement. Furthermore, allocated detailed accounts used to create the Test Year data align with NBU's electric operations forecast.

Based on the FY 2022 YTD expenses and projected year-end totals from NBU, NewGen forecasted the O&M costs for the Study Period. These forecast O&M expenses in addition to the projected other expenses/revenues (including interest income, capital contributions, miscellaneous revenues, and sales to other utilities), CIP, debt service projections, and City Transfer supported the development of the Test Year Revenue Requirement. The Test Year

Revenue Requirement for the Study Period includes all costs required to operate the utility and ensure financial stability.

3.1.3.1. O&M Forecast Account Detail

Table 3-1 below summarizes the five forecasted electric O&M categories included in the O&M expenses. The average five-year O&M expenses were used in the Test Year Revenue Requirement.

Table 3-1: Forecasted Electric O&M Categories

	FY 2024	FY 2025	FY 2026	FY 2027	Average Five-Year
Purchased Power	\$136,116,216	\$152,408,632	\$149,056,823	\$151,158,285	\$148,757,862
Engineering	1,088,853	1,329,870	1,582,186	1,815,394	1,522,971
Distribution	7,923,254	9,257,628	10,412,588	11,354,208	10,298,493
Substations	1,720,845	2,117,021	2,568,135	454,132	1,473,411
Administrative & General	11,959,611	11,706,000	13,434,000	15,143,000	13,824,122
Total	\$158,808,779	\$176,819,151	\$177,053,732	\$179,925,019	\$175,876,859

3.1.3.2. Power Supply Expenses

Power supply expenses are the largest portion of the total O&M expenses and are associated with market purchases, purchased power agreements, and spot market purchases to balance NBU's need to meet load. Additional power supply expenses include contributions to the power stabilization reserve fund and administration directly associated with purchased power management. Table 3-2 summarizes the total purchased power expenses. Because NBU cannot control those costs outside of its hedging program, it formed a power stabilization fund to prepare for and mitigate volatility and large costs impacts of the ERCOT market. These costs were based on the data available to NewGen and/or projections of historical costs of the contract(s).

Table 3-2: Purchased Power Detailed Costs

	FY 2024	FY 2025	FY 2026	FY 2027	Average Five-Year
Purchased Power					
LCRA Transmission	\$25,674,908	\$28,117,236	\$24,637,445	\$25,341,801	\$24,954,879
GBRA energy	213,599	213,599	250,561	257,725	229,817
ERCOT	1,218,142	1,284,604	1,422,757	1,463,432	1,320,362
Waste Management	1,707,996	1,736,904	2,024,538	2,082,417	1,855,548
Generation	105,581,267	99,856,057	105,232,462	108,240,936	101,723,924
ERCOT Uplift/Misc. Charges	36,000	36,000	37,116	38,267	36,677
QSE Fees	210,000	210,000	214,410	218,913	215,065
Subtotal	134,641,912	131,454,400	133,819,289	137,643,491	130,336,272
Power Supply					
Power Stabilization	15,000,000	15,000,000	15,000,000	15,000,000	16,000,000
Administration	2,766,720	2,602,422	2,338,996	2,405,865	2,421,592
Subtotal	17,766,720	17,602,422	17,338,996	17,405,865	18,421,592
Total	\$152,408,632	\$149,056,822	\$151,158,285	\$155,049,356	\$148,757,864

3.1.3.3. Non-Power Supply Expenses

Non-power supply expense accounts, including engineering, distribution, substations, and administration, were projected according to the electric operations FY 2024 Master Budget.

3.1.3.4. Transfer to the City General Fund (“City Transfer”)

As detailed in the FY 2022 Comprehensive Annual Financial Report, the City Transfer is an intergovernmental expense authorized, and approved annually, by the Board to transfer payments from NBU to the City’s General Fund:

“The calculation is based on a rolling three-year average of electric, water, and sewer operating revenues. The formula percentage is 7.45% for electric, 4.35% for water, and 4.35% for wastewater. The amount is limited to income before extraordinary items less bond principal and any future bond reserve or contingency requirements. These monies can be transferred only if such funds are available after meeting the needs of properly operating and maintaining the system and

*fulfilling all bonded debt requirements.” - FY 2022 NBU Comprehensive Annual
Financial Report*

Note that revenue from purchased power and purchased water is excluded. The City Transfer for the Test Year is \$9,499,107 which is an average of the five-year Study Period.

3.1.3.5. Debt Service

The debt service represents existing and projected debt service. The existing debt service within the Study Period and Test Year Revenue Requirement includes the Series 2004 Capital Appreciation Bond, Series 2015 Revenue Bond, Series 2016 Revenue and Refunding Bond, Series 2018 Revenue Bond, Series 2020 Revenue Refunding Bond, Series 2021 Revenue Refunding Bond, Series 2022 Revenue Refunding Bonds, and Series 2022A Revenue Bonds amortization schedules as provided by NBU.

NewGen revised NBU's originally projected debt service and debt issuances associated with the Electric Utility based on the revised and refined customer contributions to capital. The electric CIP is fully debt funded over the five-year period, and minimal so no CIP is funded from rate revenues or cash. New debt service includes projected bond issuances totaling \$158 million over the five-year Study Period. Table 3-3 summarizes the projected debt service by year for the Electric Utility.

Table 3-3: Electric Debt Service

	FY 2024	FY 2025	FY 2026	FY 2027	Five-Year Average ⁽¹⁾
Existing	\$3,601,854	\$3,559,390	\$3,546,591	\$3,534,307	\$4,288,688
Future	2,113,878	4,266,389	6,711,879	7,879,912	4,194,412
Total	\$5,715,732	\$7,825,779	\$10,258,470	\$11,414,219	\$8,483,100

(1) includes FY 2023 in five-year average (\$7,201,301 existing, \$0 new)

3.1.3.6. Other Income and Expenses

Other income and expenses represent miscellaneous non-operating revenues or expenses and net to provide \$8.0 million (non-rate revenues) in the Test Year. This category includes uncollectible customer accounts, interest income, transmission lease agreements, and miscellaneous revenues (e.g., late fees, connection fees, leased property). These net revenues of \$8.0 million reduce the overall Test Year Revenue Requirement. There is also a need to marginally increase the cash reserves to account for increasing operating costs; thus, there is \$2,872,125 in contribution to reserve expenses in the Test Year Revenue Requirement.

3.1.4 Total Electric Revenue Requirements

There are two primary revenue requirement methodologies employed in the utility industry: the cash basis and the utility basis. The primary differences between the cash basis and the utility basis involve the treatment of depreciation, return on invested capital, and debt service. The cash basis, which is the most common method used by municipalities, includes debt service but excludes depreciation and return on invested capital in the revenue requirement determination. The cash basis focuses on meeting the cash demands of the utility. The utility basis, most commonly used by private or for-profit utilities, includes depreciation and return on invested capital, but excludes debt service from the revenue requirement determination.

In this COS analysis, the Project Team utilized the cash basis as it follows the traditional cash-oriented budgeting practices frequently used by government entities. In addition, the cash basis is generally easier to explain to customers since it attempts to match revenue and expenditures.

NewGen developed the Test Year Revenue Requirement for the five-year Study Period including all costs required to operate the utility and ensure financial stability for the Electric Utility. The revenue requirement for each year of the Study Period is shown below. The Test Year Revenue Requirement of \$205,089,604 is the annual revenue requirement and is shown in Table 3-4. Please note, NewGen made a known and measurable adjustment to increase the capital paid from current earnings or capital funded from cash from \$0 in the NBU financial forecast to an average of \$4.2 million per year in the Test Year Revenue Requirement. This reflects the target of 50% of electric-specific capital projects funded by cash by the end of the five-year Study Period. The current rates do not adequately recover the total operating and capital costs by approximately \$21.6 million per year.

Table 3-4: Test Year Electric Revenue Requirement ⁽¹⁾

	FY 2024	FY 2025	FY 2026	FY 2027	Five-Year Average ⁽¹⁾
O&M Expenses ⁽²⁾	\$176,819,151	\$177,053,732	\$179,925,020	\$186,777,614	\$175,883,697
City Transfer	9,475,184	9,435,080	9,771,214	10,019,624	9,499,107
Debt Service ⁽³⁾	5,715,732	7,825,779	10,258,470	11,414,219	8,483,100
Capital Paid from Current Earnings	14,939,275	14,939,275	14,939,275	14,939,275	14,939,275
Contribution to (from) Reserves ⁽⁴⁾	3,424,000	3,485,000	3,623,000	3,765,000	2,872,125
Other Expenses/(Income) ⁽⁵⁾	(7,473,941)	(8,053,853)	(8,716,672)	-7,816,672	(7,636,303)
Revenue Requirement	\$202,899,400	\$204,685,013	\$209,800,307	\$219,099,059	\$205,089,604
Test Year Projected Revenues ⁽⁶⁾					\$182,463,840
Over (Under) Recovery of Costs					(\$22,625,764)
Over (Under) Recovery of Costs					-12.4%

(1) Note the total amounts shown in the table may not properly add as shown due to rounding

(2) includes FY 2023 in five-year average

(3) O&M Expenses exclude non-cash related items such as depreciation.

(4) Debt service reflects the annual total principal and interest payments associated with current and expected new debt financing.

(5) No contributions from cash reserves were used to reduce the revenue requirement.

(6) Other Expenses (Income) include interest income, capital contributions, miscellaneous revenues, and sales to other utilities.

(7) Test Year Projected Revenues vary each year as kilowatt-hour (kWh) sales vary.

3.2 COST-OF-SERVICE

Developing the Test Year Revenue Requirement is the first step in the Rate Study. After determining the system revenue requirement, a COS for each customer class is developed to determine the specific costs to serve each class. Customer class revenues are compared to class revenue requirements to evaluate the current rate's abilities to fully recover costs. NewGen analyzed the cost to serve each customer class based on the revenue requirement.

Once completed, the COS results indicate the degree to which existing rates recover the costs to serve customers. The COS results are then used to design new electric rates. The COS analyses relied on the following key supporting data and analysis:

- I. Test Year reported revenue requirements and revenues based on current rates
- II. Total System and customer class demand and energy requirements
- III. Actual and assumed customer service characteristics
- IV. Information obtained from customer accounts and records

3.2.1 Functionalization of Revenue Requirement

The second step in the COS and rate design process is to functionalize the revenue requirement. The Electric Utility's rates were unbundled into four functions: power supply, transmission, distribution, and customer service. The assignment of costs by function falls into two general categories: 1) direct assignments and 2) derived allocations. Direct assignments are costs that are readily associated with a specific utility function and are directly assigned to that function. For example, the purchase power contracts are an expense solely related to power supply, so they are directly assigned to that function.

Derived allocators are allocation factors that are based on the sum, average, or weighted effect of different underlying factors. Derived allocators can be complex and should reflect the logical answer to the question of what underlying activities drive the cost of this item. For example, administrative and general expenses are associated with the O&M of all utility functions. Thus, administrative and general expenses are allocated to each utility function using various derived allocators. Each of the four utility functions is described below.

3.2.1.1. Power Supply Function

The power supply function consists of costs associated with power generation, the cost of purchased power, and procuring and administering power supply contracts. For NBU, this cost is almost solely the costs for purchasing power in ERCOT on behalf of its retail customers.

3.2.1.2. Transmission Function

The transmission function consists of costs associated with operating and maintaining the transmission portion of the electric grid and making capital investments, as necessary. The transmission facilities transmit electricity at high voltage from the generation stations to the distribution system.

3.2.1.3. Distribution Function

The distribution function consists of costs associated with operating and maintaining the distribution portion of the electric grid and making capital investments, as necessary. The distribution facilities deliver power to the retail customers after it has been transmitted. This includes low voltage distribution lines, distribution poles, underground lines, customer service connections, meters, and lighting-related assets.

3.2.1.4. Customer Service Function

The customer service function consists of costs associated with operating and maintaining the customer-related facilities to meet customer support needs. This includes, but is not limited to, customer service, billing and collection, and meter reading.

3.2.1.5. Unbundling of Revenue Requirement

The revenue requirement determined for the Test Year was “unbundled” into the four functional areas of the system—power supply, transmission, distribution, and customer service. The results of the functional unbundling are summarized in Table 3-5.

Table 3-5: Test Year Electric Revenue Requirement by Function

Function	Revenue Requirement	\$/kWh ⁽¹⁾	% of Total
Power Supply	\$125,318,014	\$0.074	61.1%
Transmission	27,067,077	0.016	13.2%
Distribution	38,743,282	0.023	18.9%
Customer	4,462,124	0.003	2.2%
City Transfer	9,499,107	0.006	4.6%
Total	\$205,089,064	\$0.121	100%

(1) Based on Test Year retail energy sales of 1,691,971 MWh.

The power supply function represents 61% of the Test Year Revenue Requirement. The distribution function is the second largest cost center, representing 19% of the Test Year Revenue Requirement. The transmission function represents 13% of the Test Year Revenue Requirement. The customer function represents 2% of the Test Year Revenue Requirement. The remaining 5% of the revenue requirement is associated with the transfer to the City.

3.2.2 Classification of Electric Revenue Requirement

The third step in the COS and rate design process is to classify the functionalized revenue requirement. System costs can be classified into four generally accepted rate-making cost classifications: (i) demand or fixed costs, (ii) energy or variable costs, (iii) customer-related costs, and (iv) directly assignable costs. To provide a reasonable basis for the assignment of total revenue requirements (costs) to each customer class, costs for each function have been analyzed and classified into four categories as described below.

- I. Demand Costs – Capacity (fixed- or demand-related) costs are those costs incurred to maintain a utility system in a state of readiness to serve, enabling it to meet the total combined demands of its customers. Capacity costs include the fixed portion of O&M expenses, debt service, capital expenditures, and other costs that are generally fixed and do not vary materially with the quantity of usage or that cannot be designated specifically as a customer or variable cost.
- II. Energy Costs – Energy, or variable costs, are costs that vary directly with energy usage, including such items as energy-related purchased power and a portion of O&M expenses.
- III. Customer Costs – Customer costs are those costs directly related to the number and type of customers, such as accounting, customer service, billing, and meter related expenses.
- IV. Direct Assignment Costs – Direct assignment costs are those costs that are readily identifiable and applicable to a particular customer or customer class, such as street lighting.

Once the costs within each function are assigned to each service category, the demand, energy, customer, and direct assignment component of each service is calculated. As seen in Table 3-6, three major cost categories (demand, energy, and customer) cover most functional costs. This breakdown of demand, energy, customer, and direct assignment costs is later applied to each customer class to facilitate rate design, as provided later in this section.

Table 3-6: Test Year Electric Revenue Requirements by Classification

Classification	Revenue Requirement	\$/kWh ^{(1) (2)}	% of Total
Power Supply			
Demand	\$2,973,079	\$0.002	1.4%
Energy	122,344,935	0.072	59.7%
Subtotal	125,318,014	0.074	61.1%
Transmission			
Demand	27,067,077	\$0.016	13.2%
Subtotal	27,067,077	\$0.016	13.2%
Distribution			
Demand	33,676,645	\$0.020	16.4%
Customer	4,726,166	0.003	2.3%
Direct Assignment – Lighting	340,471	0.000	0.2%
Subtotal	38,743,282	\$0.048	18.9%
Customer			
Customer	4,462,124	\$0.003	2.2%
Subtotal	4,462,124	\$0.009	2.2%
Transfers	9,499,107	\$0.006	4.6%
Total by Classification			
Demand	63,716,801	0.037	31.1%
Energy	122,344,935	0.072	59.7%
Customer	9,188,290	0.005	4.5%
Direct Assignment – Lighting	340,471	0.000	0.2%
Transfers	9,499,107	0.005	4.6%
Total Costs	\$205,089,604	\$0.121	100%

(1) Based on Test Year retail energy sales of 1,691,971 MWh.

(2) Note the total amounts shown in the table may not properly add as shown due to rounding.

Excluding the transfer to the City, 63% of the Electric Utility's total revenue requirement is energy-related or variable costs. The remaining 37% of the revenue requirement is fixed in nature and

classified as demand or customer, or directly assigned to customer classes. The City transfer is proportionally classified by the percent values of the revenue requirement classifications.

3.2.3 Allocation of Electric Revenue Requirement

The fourth step in the COS and rate design process is to allocate the functionalized, classified revenue requirement to the various customer classes. Customer classes represent aggregations of customers with similar customer usage characteristics and use the system infrastructure in a similar manner. These groups of customers have similar COS results, which justify similar rates.

3.2.3.1. Class Allocation Factors

Based upon actual and assumed customer service and consumption characteristics, NewGen developed various factors for use in allocating the revenue requirement to individual customer classes. These allocation factors reflect accepted ratemaking principles and were based upon embedded cost allocation procedures. Embedded costs are the total system costs assuming utility resources are spread across all customers. Embedded costs are generally based on historical or known costs such as audited financial statements and budgets. NewGen developed demand-related, energy-related, customer-related, and direct assignment allocation factors as described below.

3.2.3.2. Demand Allocations

Demand allocators are derived based on the demand requirements of individual customers and classes of customers. Costs are allocated to classes based on the class contribution to the system peak, or coincident peak allocators. This is a measure of each class's cost responsibility associated with the infrastructure required to meet the system peak demand. As you move from the generator to the meter, the measure of peak demand responsibility changes from a system perspective ("coincident peak"), to a class perspective ("non-coincident peak"), to a customer perspective ("demand at meter"). Demand contributions at these various points in the system are determined based on advanced metering infrastructure ("AMI") and billing data available to NBU and NewGen.

For customer class allocation purposes, the four-month coincident peak ("4CP") and four-month non-coincident peak ("4NCP") were used to allocate demand-related power supply, transmission, and distribution-related costs. The 4CP was used to allocate the small amount of demand-related power supply costs for NBU recognizing that capacity needs are based on the four summer peaking months. Transmission costs for the Electric Utility were also allocated using the 4CP

method, which aligns with the ERCOT transmission cost allocation procedures and recognizes that the transmission system is constructed to deliver power at the times of the maximum system peak or the four summer months.

Similarly, distribution costs are designed to meet the maximum demands of the localized system or customers, so the 4NCP allocation factor was used. Distribution demand-related costs were allocated to customer classes based on the 4NCP. An NCP allocator is typically used to allocate distribution costs, as these facilities are sized to meet localized peak demands rather than the system peak demand. The 4NCP method was used to allocate the distribution system demand-related costs associated with substations, poles, and conductors. Distribution transformers are typically sized for very localized or neighborhood level impacts, thus a sum of maximum demands at the retail meters was used to allocate these costs.

3.2.3.3. Energy Allocations

Energy allocation factors are the basis for allocating costs or expenses classified as variable or energy related and are assumed to vary directly with kilowatt-hour (“kWh”) sales. Energy-related costs classified as variable are energy costs from renewable contracts and spot market purchases. Typically, net energy for load (“NEFL”), or the energy necessary to supply each customer class, is used to allocate these types of costs to individual customer classes. NEFL is also sometimes called adjusted metered load or energy at generation, as it takes into consideration energy losses that occur on the transmission and distribution systems between the power supplier delivery point and the customer’s meter. Table 3-7 lists the energy allocation factors utilized in the Study.

Table 3-7: Energy Allocation Factors by Customer Class

Customer Class	Net Energy for Load
Residential	38.5%
Small Business	4.3%
Large Business	23.7%
Large Power	7.6%
Transmission	25.8%
Lighting ⁽¹⁾	0.1%
Total	100%

(1) Includes lighting athletic fields (LAF), area lighting (AL), and highway lighting (HL) classes

3.2.3.4. Customer Allocations

Customer costs are defined as those costs related to the number of customers and the type of service required. Included in the customer-related costs are the costs associated with meter reading, customer service, sales, billing, collection, and other customer-related activities. The customer allocation factors were largely based on the number of customers in each class.

In allocating certain customer-related costs to the various customer classifications, weighted customer allocation factors were utilized. Weighting reflects that servicing certain types of customers requires more effort and expense than other types of customers. Weighting factors were developed based on discussions with NBU staff, as well as the application of industry knowledge and practices. Weighting factors reflect the relationships between the customer classes, the types of equipment or services needed to serve the class, and the relative costs of those items. For example, utilities typically have “key account” customer service representatives dedicated to serving large business customers, which results in higher customer service costs for these customers on a per customer basis.

3.2.4 Electric Cost-of-Service Results

The unbundled COS results by customer class are shown in Table 3-8.

Table 3-8: Unbundled Revenue Requirement by Class⁽¹⁾

	Residential (RE)	Small Business (SGS)	Large Business (LGS)	Large Power (VLP)	Transmission (TSR)	Lighting (AF, AL, HL)	Total
Functionalized by Class							
Power Supply	\$48,625,417	\$5,410,166	\$29,808,257	\$9,445,228	\$31,952,034	\$76,911	\$125,318,014
Transmission	13,534,954	1,252,479	7,108,806	1,833,542	3,336,343	952	27,067,076
Distribution	24,411,157	2,063,870	9,023,360	2,361,076	652,591	231,226	38,743,280
Customer	953,228	562,279	2,817,235	32,199	58,438	38,746	4,462,125
Total COS	87,524,756	9,288,794	48,757,658	13,672,045	35,999,406	347,835	195,590,494
Classified by Class							
Demand Related	35,194,988	3,058,279	16,722,794	4,371,314	4,292,665	76,761	63,716,801
Energy Related	47,138,722	5,272,593	29,027,417	9,243,830	31,585,566	76,807	122,344,935
Customer Related	5,191,046	957,923	3,007,446	56,902	121,176	194,268	9,528,761
City Transfer	4,250,753	451,122	2,367,979	664,001	1,748,358	16,893	9,499,106
Total COS	\$91,775,509	\$9,739,917	\$51,125,636	\$14,336,047	\$37,747,765	\$364,729	\$205,089,603

(1) Note the total amounts shown in the table may not properly add as shown due to rounding.

3.2.5 Cost-of-Service Results Compared to Current Revenue

Estimated operating revenues were developed by the NewGen Project Team to compare the revenue generated under current rates to the current operating costs of the Electric Utility. Table 3-9 summarizes the variance between the Test Year Revenue Requirement or COS over the five-year Study Period and the annual revenue generated from current rates by customer class. The results of comparing the projected revenues to the customer class revenue requirements indicate the degree to which existing rates recover revenues from each customer class on a COS basis and are considered in designing new electric rates.

Table 3-9: Electric Cost-of-Service Results

Customer Class	Allocated Test Year COS	Test Year Rate Revenues	Revenue Over/(Under)	% Increase of Existing Rate Revenues for Full Cost Recovery
Residential	\$91,775,510	\$78,309,104	(\$13,466,406)	17.2%
Small Business	9,739,917	8,471,099	(1,268,818)	15.0%
Large Business	51,125,637	43,521,515	(7,604,122)	17.5%
Large Power	14,336,047	12,587,396	(1,748,651)	13.9%
Transmission	37,747,765	39,199,588	1,451,824	-3.7%
Lighting ⁽¹⁾	364,728	375,137	10,408	-2.8%
Total	\$205,089,604	\$182,463,839	(\$22,625,765)	12.4%

(1) Includes lighting athletic fields (LAF), area lighting (AL), and highway lighting (HL) classes

As shown in Table 3-9, overall COS analysis forecasts the need for a rate increase to meet the Electric Utility's operating expenses. The Residential, Small Business, Large Business, and Large Power classes are collecting revenues below their COS requirements. The Transmission and Lighting classes are collecting revenues above their COS requirements. It is important to note that the COS results show relative consistency across the customer classes with the major retail classes all aligned with the average system-wide increase of 11.83%. NewGen discusses proposed changes to the current electric rates later in this report.

3.3 ELECTRIC RATE STRUCTURE

In general, proposed and recommended rate structures should meet the objectives and best practices identified by NBU and discussed in this report. The proposed electric rates include the following:

- availability charge
- delivery charge
- demand charge (if applicable)
- the power cost recovery adjustment ("PCRA")

The availability, delivery, and demand charges are commonly referred to as "base rates", while the PCRA is referred to as the pass-through adjustment rate.

3.3.1 Base Rate Charges

The availability charge should be designed to recover customer-related costs. The expenses to the utility for providing customer-related functions do not change with the energy the customer consumes and should therefore be on a \$/month or \$/day basis. The delivery charge, calculated in \$/kilowatt-hour (“kWh”), should be designed to recover all variable costs including O&M and applicable power supply costs. The demand charge should be designed to recover demand-related costs and should be on a \$/kilowatt (“kW”) month or \$/kW day basis.

Availability and demand charges should collect revenues to fund NBU’s fixed costs; however, depending on rate design, delivery charges may collect revenues to recover both fixed and variable costs. For customer classes that do not have demand charges, a large portion of fixed costs are collected through the delivery charge.

All customer classes have seasonal rates that reflect the higher demand periods (i.e., summer) and lower demand periods (i.e., winter) for the Electric Utility system. The summer period (“high season”) is June through September, and the non-summer period (“low season”) is October through May. These seasonal charges provide price signals to customers that reflect the higher costs associated with system peaking periods. The COS results also indicate availability and demand charges are too low for some classes and thus should be increased. This is a common result for many utilities throughout the industry.

3.3.2 Power Cost Recovery Adjustment Charges

Utilities often have adjustment charges that pass through variable costs, allowing the utility to fully recover these costs as the costs are not controlled by the utility. The utility uses the pass-through cost adjustment rates to recover costs when they vary from the projected basis. The PCRA includes the total cost of generation cost recovery factor (“GCRF”), transmission cost recovery factor (“TCRF”), and power stabilization reserve contributions. The PCRA charges were reviewed and forecasted for the Study Period. The PCRA charge, calculated in \$/kWh, should be designed to recover all variable costs including O&M and applicable power supply costs. The PCRA charge may collect revenues to recover both fixed and variable costs.

The GCRF includes the variable cost of power above or below the base rate and is dictated by power market price fluctuations. The GCRF pass-through charges (or credits) account for differences in the projected purchased power-related costs to the customers without the need for a formal rate change. As shown in the COS study, the generation charges are approximately 62%

of the revenue requirement. The TCRF includes the cost of transmission above or below the base rate and changes annually, as dictated by the Public Utility Commission of Texas. As shown in the COS study, the transmission charges are approximately 12% of the revenue requirement. The GCRF and TCRF charges are a combined rate and are estimated at the average power and transmission costs for the Study Period.

The upcoming ERCOT Market Redesign will require NBU to demonstrate sufficient capacity to meet peak demands. NBU would need to proactively purchase performance credits from generation entities to meet the calculated peak demands. This additional capacity liability will need to be considered and incorporated in the price structure in the future.

3.4 PROPOSED ELECTRIC RATE DESIGN

Rate design is the culmination of a COS study where the rates and charges for each customer classification are established in such a manner that the total revenue requirement of the utility will be recovered in the most equitable and consistent manner, to the extent reasonable and practical. During rate design, consideration was given to the recovery of fixed costs in the customer and demand charges, and power cost recovery under ERCOT, as well as phasing in the proposed rates over time.

Based on the COS results, NBU decided to support the revenue requirement needs with a combination of rate increases over a four-year period. NBU set the average annual retail revenue increases at 4.8% for FY 2024, 5.9% for FY 2025, 4.6% for FY 2026, and 3.8% for FY 2027. The rate increases are driven by system capital improvements and infrastructure needs. The rate plan positions NBU to fund capital improvements with rate revenue (cash) rather than issuing debt for all capital improvements, which also aligns with NBU's financial policies. The rate increases are not a response to ERCOT market prices or pass-through power supply and transmission costs.

The Rate Design section of this report includes proposed rates to accomplish revenue goals and appropriate allocation among customer classes. The NBU rate increases were not applied equally to each customer class, as the COS results indicate that some classes require rate increases and others show an opportunity for a decrease. NBU's desired rate implementation plan excluded any rate decreases for customer classes and implemented rate increases aligned with the COS results for the remaining customer classes. The rate change, and resulting billing increase, for each customer class is provided in Table 3-10.

Table 3-10: Proposed Electric Rate Increases by Customer Class

Customer Class	FY 2024	FY 2025	FY 2026	FY 2027
Residential	6.3%	6.5%	4.9%	4.0%
Small Business	6.7%	6.7%	4.3%	3.4%
Large Business	7.3%	8.6%	5.9%	4.9%
Large Power	5.7%	7.3%	5.3%	4.3%
Transmission	0.0%	0.0%	0.0%	0.0%
Lighting	1.6%	1.6%	1.0%	0.7%
System Average	4.8%	5.9%	4.6%	3.8%

(1) Includes lighting athletic fields (LAF), area lighting (AL), and highway lighting (HL) classes

The proposed Electric Utility rates include an availability charge (\$/month), a delivery charge (\$/kWh for residential and \$/kW for commercial), a generation cost charge (\$/kWh), a transmission charge (power supply demand charge) (\$/kW), and a GCRF/TCRF charge (\$/kWh). Seasonal (summer and non-summer) rates are also included in the proposed rates. For all customer classes, the proposed GCRF/TCRF rate is \$0.0299 per kWh.

Based on the forecast cost to operate the Electric Utility from FY 2024 through FY 2027, NewGen recommends rate adjustments over four phases. The Electric Utility Rate revenue under the proposed rates for each customer class is shown in Table 3-11. Please note that these total changes in revenue amounts differ slightly from the financial forecast system average increases due to rounding and small adjustments in designing the specific NBU rates.

Table 3-11: Electric Utility Rate Revenue by Customer/Class at Proposed Rates

Customer Class	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Residential	\$68,343,056	\$80,285,018	\$87,473,153	\$95,934,238	\$104,709,870
Small Business	8,128,611	9,167,808	9,573,772	10,030,602	10,462,366
Large Business	39,787,808	46,323,398	50,269,583	54,475,701	58,675,541
Large Power	12,661,322	13,899,797	14,190,276	14,666,221	15,110,619
Transmission	41,427,417	43,226,318	40,756,928	39,799,459	39,270,621
Lighting ⁽¹⁾	301,182	307,792	310,198	312,345	313,977
Total	\$170,649,396	\$193,210,131	\$202,573,910	\$215,218,566	\$228,542,994

(1) Current effective rate

For each customer class, excluding lighting, the proposed rates and example monthly customer bills are presented in the subsections below.

3.4.1 Residential Service

The Residential (“RE”) class is composed of residential customers who have single-phase service and are served on a retail basis. The COS results showed the Test Year revenues were 8.9% less than the COS for the class. Table 3-12 shows the proposed rates over the five-year rate increase.

Table 3-12: Proposed Electric Rates: Residential Service

Item	Unit	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge	\$/month	\$17.06	\$20.00	\$20.00	\$20.00	\$20.00
Delivery Charge	\$/kWh	0.0149	0.0195	0.0265	0.0313	0.0348
Generation Cost of Power						
Summer ⁽²⁾	\$/kWh	0.0500	0.0500	0.0500	0.0500	0.0500
Non-Summer ⁽³⁾	\$/kWh	0.0400	0.0400	0.0400	0.0400	0.0400
Transmission Cost of Power	\$/kWh	0.0052	0.0052	0.0052	0.0052	0.0052
GCRF and TCRF	\$/kWh	\$0.0299	\$0.0299	\$0.0299	\$0.0299	\$0.0299

⁽¹⁾ Current effective rates

⁽²⁾ Summer are months June, July, August, and September

⁽³⁾ Non-Summer are months October through May

The COS analysis indicates that the current revenues collected for the Residential service class are below COS levels, and the proposed rates are designed to move this customer class closer to COS levels. The electric availability charge is low and is proposed to increase in each phase. The proposed increases will help offset the differences between the current revenues and the COS, as well as increase fixed cost recovery. The delivery charges are also proposed to increase in each phase to assist this customer class to move closer to COS levels. The demand-related costs are collected in the delivery charge.

Assuming that a residential customer uses approximately 1,200 kWh per month for their average energy consumption, the proposed rate adjustment would equate to a billing increase of approximately 4%. Table 3-13 calculates the approximate average monthly billing impact that a typical Residential account will experience from FY 2024 to FY 2025. At this level of energy consumption, the majority of Residential customers will experience a billing increase of less than \$9.00 per month for each year of the two-year rate increase.

Table 3-13: Average Residential Electric Bill - Usage at 1,200 kWh

Charge	Unit	FY 2023 ⁽¹⁾	Bill ⁽²⁾	FY 2024	Bill ⁽²⁾	FY 2025	Bill
Availability	\$/month	\$17.06	\$17.06	\$20.00	\$20.00	\$20.00	\$20.00
Delivery	\$/kWh	0.0149	17.88	0.020	23.45	0.026	31.75
Pass Through (PCRA)							
Generation Cost (Summer)	\$/kWh	0.0500	60.00	0.050	60.00	0.050	60.00
Transmission Cost	\$/kWh	0.0052	6.24	0.005	6.24	0.005	6.24
GCRF and TCRF ⁽³⁾	\$/kWh	0.0299	35.94	0.030	35.94	0.030	35.94
Bill Total			\$137.12		\$145.63		\$153.93
% Change					6.5%		4.9%
Difference					\$8.94		\$7.20

(1) Current effective rate

(2) Assumes 1,200 kWh per month average consumption

(3) GCRF/TCRF estimated at the average power and transmission cost for 5 yr. period

3.4.2 Small General Service

Small General Service (“SGS”) customers are commercial electric customers that have single-phase and three-phase service with a total connected load that exceeds 25 kW of demand in motors or other inductive-type equipment and/or monthly energy consumption that exceeds 3,000 kWh. The COS results showed the Test Year revenues were 9.9% less than the COS for the class. Table 3-14 shows the proposed rates over the five-year rate increase.

Table 3-14: Proposed Electric Rates: Small General Service

Item	Unit	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge	\$/month	\$23.10	\$29.05	\$35.46	\$39.78	\$42.89
Delivery Charge	\$/kWh	0.0096	0.0128	0.0156	0.0174	0.0186
Generation Cost of Power						
Summer ⁽²⁾	\$/kWh	0.0500	0.0500	0.0500	0.0500	0.0500
Non-Summer ⁽³⁾	\$/kWh	0.0400	0.0400	0.0400	0.0400	0.0400
Transmission Cost of Power	\$/kWh	0.0052	0.0052	0.0052	0.0052	0.0052
GCRF and TCRF	\$/kWh	\$0.0299	\$0.0299	\$0.0299	\$0.0299	\$0.0299

(1) Current effective rates

(2) Summer are months June, July, August, and September

(3) Non-Summer are months October through May

The COS analysis indicates that the current revenues collected for the SGS class are below COS levels, and the proposed rates are designed to move this customer class closer to COS levels. The electric availability charge is low and is proposed to increase in each phase. The proposed increases will help offset the differences between the current revenues and the COS, as well as increase fixed cost recovery. The delivery charges are also proposed to increase in each phase to assist this customer class to move closer to COS levels. The demand-related costs are collected in the delivery charge.

If an SGS customer uses approximately 1,400 kWh per month for their average energy consumption, the proposed rate adjustment would equate to a billing increase of approximately 4.6%. Table 3-15 calculates the approximate average monthly billing impact that a typical SGS account will experience from FY 2024 to FY 2025. At this level of energy consumption, most SGS customers will experience a billing increase of approximately \$10.00 for each year of the two-year rate increase.

Table 3-15: Average Small General Service Electric Bill - Usage at 1,400 kWh

Charge	Unit	FY 2023	Bill ⁽¹⁾	FY 2024	Bill ⁽¹⁾	FY 2025	Bill
Availability	\$/month	\$23.10	\$23.10	\$29.05	\$29.050	\$35.460	\$35.46
Delivery	\$/kWh	0.0096	13.45	0.0128	17.892	0.0156	\$21.84
Pass Through (PCRA)							
Generation Cost (Summer)	\$/kWh	0.0500	70.00	0.0500	70.00	0.0500	\$70.00
Transmission Cost	\$/kWh	0.0052	7.28	0.0052	7.28	0.0052	\$7.28
GCRF and TCRF ⁽²⁾	\$/kWh	0.0299	41.93	0.0299	41.93	0.0299	\$41.93
Bill Total			\$155.68		\$166.11		\$176.44
% Change					6.7%		6.2%
Difference					\$10.43		\$10.33

(1) Assumes 1,400 kWh per month average consumption

(2) GCRF/TCRF estimated at the average power and transmission cost for 5 yr. period

3.4.3 Large General Service

Large General Service customers (“LGS”) customers are commercial three-phase service electric customers that have maximum kilovolt-ampere (“kVA”) capacities ranging up to 12,999 kVA per month. The COS results showed the Test Year revenues were 14.0% less than the COS for the class. Table 3-16 shows the proposed rates over the four-year rate increase.

Table 3-16: Proposed Electric Rates: Large General Service

Item	Unit	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge	kVA / month					
Greater than 12,999	\$/month	\$4,134.38	\$5,728.27	\$7,621.16	\$9,011.52	\$10,066.17
Less than 13,000 and greater than 7,999	\$/month	3,638.25	5,040.87	6,706.61	7,930.13	8,858.22
Less than 8,000 and greater than 3,999	\$/month	2,728.69	3,780.66	5,029.97	5,947.61	6,643.68
Less than 4,000 and greater than 2,999	\$/month	1,819.13	2,520.44	3,353.31	3,965.07	4,429.12
Less than 3,000 and greater than 1,999	\$/month	1,212.75	1,680.29	2,235.54	2,643.38	2,952.74
Less than 2,000 and greater than 1,499	\$/month	606.38	840.15	1,117.78	1,321.70	1,476.38
Less than 1,500 and greater than 750	\$/month	363.83	504.09	670.67	793.02	885.83
Less than 751 and greater than 500	\$/month	272.87	378.07	503.00	594.76	664.37
Less than 501 greater than 300	\$/month	212.23	294.05	391.22	462.59	516.73
Less than 301 and greater than 150	\$/month	121.28	168.04	223.57	264.36	295.30
Less than 151	\$/month	36.38	50.41	67.07	79.31	88.59
Delivery Charge	\$/kW	5.34	7.50	9.98	11.61	12.83
Generation Cost of Power						
Summer ⁽²⁾	\$/kWh	0.0500	0.0500	0.0500	0.0500	0.0500
Non-Summer ⁽³⁾	\$/kWh	0.0400	0.0400	0.0400	0.0400	0.0400
Transmission Cost of Power	\$/kW	1.15	1.15	1.15	1.15	1.15
GCRF and TCRF	\$/kWh	\$0.0299	\$0.0299	\$0.0299	\$0.0299	\$0.0299

(1) Current effective rates

(2) Summer are months June, July, August, and September

(3) Non-Summer are months October through May

The COS analysis indicates that the current revenues collected for the LGS class are below COS levels, and the proposed rates are designed to move this customer class closer to COS levels. The electric availability charge is low and is proposed to increase in each phase. The proposed increases will help offset the differences between the current revenues and the COS, as well as increase fixed cost recovery. The delivery and demand charges are also proposed to increase in each phase to assist this customer class to move closer to COS levels.

If an LGS customer uses approximately 29,000 kWh for their average energy consumption and 83.72 kW per month for their average demand, the proposed rate adjustment would equate to a

billing increase of approximately 6.7%. Table 3-17 calculates the approximate average monthly billing impact that a typical LGS account will experience from FY 2024 to FY 2025. At this level of energy consumption, an average LGS customer will experience a billing increase of less than \$225 for each year of the two-year rate increase.

Table 3-17: Average Large General Service Electric Bill - Usage at 29,000 kWh

Charge	Unit	FY 2023 ⁽¹⁾	Bill ⁽²⁾	FY 2024	Bill ⁽²⁾	FY 2025	Bill ⁽²⁾
Availability	\$/month	\$36.38	\$36.38	\$50.41	\$50.41	\$67.07	\$67.07
Delivery	\$/kW	5.34	447.06	7.50	627.93	9.98	835.53
Pass Through (PCRA)							
Generation Cost (Summer)	\$/kWh	0.0500	1,450.00	0.0500	1,450.00	0.0500	1,450.00
Transmission Cost	\$/kW	1.15	96.28	1.15	96.28	1.15	96.28
GCRF and TCRF ²	\$/kWh	0.0299	868.50	0.0299	868.50	0.0299	868.50
Bill Total			\$2,896.82		\$3,091.69		\$3,317.38
% Change					6.7%		7.3%
Difference					\$194.87		\$224.29

(1) Assumes 29,000 kWh and 83.72 kW per month average consumption

(2) GCRF/TCRF estimated at the average power and transmission cost for five-year period

3.4.4 Very Large Power

Very Large Power (“VLP”) customers are commercial three-phase service electric customers that have maximum kVA capacities ranging up to 12,999 kVA per month. The COS results showed the Test Year revenues were 9.8% less than the COS for the class. Table 3-18 shows the proposed rates over the four-year rate increase.

Table 3-18: Proposed Electric Rates: Very Large Power

Item	Unit	FY 2023 (1)	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge	kVA / month					
Greater than 12,999	\$ / month	\$4,472.02	\$6,888.70	\$10,079.55	\$12,657.14	\$14,733.54
Less than 13,000 and greater than 7,999	\$ / month	3,577.61	5,510.95	8,063.62	10,125.69	11,786.81
Less than 8,000 and greater than 3,999	\$ / month	2,683.22	4,133.22	6,047.73	7,594.29	8,840.13
Less than 4,000 and greater than 2,999	\$ / month	1,788.81	2,755.48	4,031.82	5,062.86	5,893.42
Less than 3,000 and greater than 1,999	\$ / month	1,192.54	1,836.98	2,687.87	3,375.23	3,928.94
Less than 2,000 and greater than 1,499	\$ / month	596.27	918.49	1,343.93	1,687.61	1,964.46
Less than 1,500 and greater than 750	\$ / month	357.76	551.10	806.37	1,012.58	1,178.69
Less than 751 and greater than 500	\$ / month	268.32	413.32	604.77	759.42	884.00
Less than 501 greater than 300	\$ / month	208.70	321.48	470.39	590.68	687.58
Less than 301 and greater than 150	\$ / month	119.25	183.70	268.79	337.53	392.90
Less than 151	\$ / month	35.78	55.12	80.65	101.27	117.88
Delivery Charge	\$/kW	3.22	5.01	7.33	9.07	10.46
Generation Cost of Power						
Summer (2)	\$/kWh	0.0500	0.050	0.050	0.050	0.050
Non-Summer (3)	\$/kWh	0.0400	0.040	0.040	0.040	0.040
Transmission Cost of Power	\$/kW	1.15	1.15	1.15	1.15	1.15
GCRF and TCRF	\$/kWh	\$0.0299	\$0.030	\$0.030	\$0.030	\$0.030

(1) Current effective rates

(2) Summer are months June, July, August, and September

(3) Non-Summer are months October through May

If a VLP customer uses approximately 1,078,000 kWh for their average energy consumption and 2,460 kW per month for their average demand, the proposed rate adjustment would equate to a billing increase of approximately 3.8%. Table 3-19 calculates the approximate average monthly billing impact that a typical Large Commercial account will experience from FY 2024 to FY 2025. At this level of energy consumption, most VLP customers will experience a billing increase of approximately \$5,000 per month in FY 2024 and \$6,500 per month in FY 2025.

Table 3-19: Average Very Large Power Electric Bill - Usage at 1,078,000 kWh

Charge	Unit	FY 2023 ⁽¹⁾	Bill ⁽²⁾	FY 2024	Bill ⁽²⁾	FY 2025	Bill ⁽²⁾
NBU Delivery							
Availability	\$/month	\$1,192.54	\$1,192.54	\$1,836.98	\$1,836.98	\$2,687.87	\$2,687.87
Delivery	\$/kW	3.22	7,921.20	5.01	12,324.85	7.33	18,031.80
Pass Through (PCRA)							
Generation Cost (Summer)	\$/kWh	0.0500	53,900.00	0.0500	53,900.00	0.0500	53,900.00
Transmission Cost	\$/kW	1.1500	2,829.00	1.1500	2,829.00	1.1500	2,829.00
GCRF and TCRF ⁽³⁾	\$/kWh	0.0299	32,284.43	0.0299	32,284.43	0.0299	32,284.43
Bill Total			\$98,127.16		\$103,175.25		\$109,733.10
% Change					5.1%		6.4%
Difference					\$5,047.84		\$6,558.09

(1) Current effective rates

(2) Assumes 1,078,000 kWh and 2,460 kW per month average consumption

(3) GCRF/TCRF estimated at the average power and transmission cost for 5 yr. period

3.4.5 Transmission

The Transmission customer class did not receive any rate adjustments or changes. The Transmission charges will remain the same as their current rates.

3.4.6 Experimental Electric Rate

The Experimental Electric Rate (“EER”) customer class did not receive any rate adjustments or changes. The EER charges will remain the same as their current rates.

3.4.7 Second Feeder Service

The Second Feeder Service (“SFS”) customer class did show a modest rate adjustment to align with changes in the LGS and VLP classes distribution feeder costs. However, the rate increases for the secondary feeder service were capped at the COS results for feeder costs in the LGS class after 2024. Table 3-20 shows the proposed rates for SFS over the four-year rate increase.

Table 3-20: Proposed Electric Rates: Second Feeder Service

Item	Unit	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Capacity Reservation	\$/kW	3.18	5.10	6.69	6.69	6.69

(1) Current effective rates

3.4.8 Net Metering

The Net Metering (“NM”) customer class includes a proposed rate adjustment. Table 3-21 shows the proposed rates for NM over the four-year rate increase. The minimum monthly bill includes the Availability Charge plus the Delivery Charge, along with any special charges or adjustments.

Table 3-21: Proposed Electric Rates: Net Metering

Item	Unit	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge						
Residential	\$/month	\$17.06	\$20.00	\$20.00	\$20.00	\$20.00
Small General Service	\$/month	23.10	29.05	35.46	39.78	42.89
Delivery Charge	Specified in the appropriate RE or SGS rate, plus a fixed cost per type of installed kW					
RE Solar	\$/kW	1.58	1.58	1.58	1.58	1.58
RE Wind	\$/kW	0.74	0.74	0.74	0.74	0.74
SGS Solar	\$/kW	0.87	0.87	0.87	0.87	0.87
SGS Wind	\$/kW	\$0.41	\$0.41	\$0.41	\$0.41	\$0.41
Generation Cost of Power						
Summer ⁽²⁾	\$/kWh	Specified in the appropriate RE or SGS rate				
Non-Summer ⁽³⁾	\$/kWh	Specified in the appropriate RE or SGS rate				

(1) Current effective rates

3.4.9 Lighting

The Lighting customer class includes Lighting Athletic Fields (“LAF”), Area Lighting (“AL”), and Interstate Highway Lighting (“HL”). The COS results showed the Test Year revenues for AL and HL classes were adequately recovering costs; however, it did show a modest rate adjustment for LAF. Table 3-22 shows the proposed rates for LAF lighting over the four-year rate increase.

Table 3-22: Proposed Electric Rates: Athletic Field Lighting

Item	Unit	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge	\$ / month					
Greater than 12,999	\$ / month	\$4,331.25	\$5,107.50	\$5,892.08	\$6,391.80	\$6,739.43
Less than 13,000 and greater than 7,999	\$ / month	3,465.00	4,086.00	4,713.66	5,113.44	5,391.54
Less than 8,000 and greater than 3,999	\$ / month	2,598.75	3,064.50	3,535.25	3,835.08	4,043.66
Less than 4,000 and greater than 2,999	\$ / month	1,732.50	2,043.00	2,356.83	2,556.72	2,695.77
Less than 3,000 and greater than 1,999	\$ / month	1,155.00	1,362.00	1,571.22	1,704.48	1,797.18
Less than 2,000 and greater than 1,499	\$ / month	577.50	681.00	785.61	852.24	898.59
Less than 1,500 and greater than 750	\$ / month	346.50	408.60	471.37	511.34	539.15
Less than 751 and greater than 500	\$ / month	259.88	306.45	353.52	383.51	404.37
Less than 501 and greater than 300	\$ / month	202.13	238.35	274.96	298.28	314.51
Less than 301 and greater than 150	\$ / month	115.50	136.20	157.12	170.45	179.72
Less than 151	\$ / month	34.65	40.86	47.14	51.13	53.92
Delivery Charge	\$/kWh	0.048	0.056	0.065	0.071	0.075
Generation Cost of Power						
Summer ⁽²⁾	\$/kWh	0.0500	0.0500	0.0500	0.0500	0.0500
Non-Summer ⁽³⁾	\$/kWh	0.0400	0.0400	0.0400	0.0400	0.0400
Transmission Cost of Power	\$/kWh	0.0052	0.0052	0.0052	0.0052	0.0052
GCRF and TCRF	\$/kWh	\$0.0299	\$0.0299	\$0.0299	\$0.0299	\$0.0299

(1) Current effective rates

(2) Summer are months June, July, August, and September

(3) Non-Summer are months October through May

4.0 WATER UTILITY

The Water Utility serves approximately 54,000 customers with a projected use of 4.7 billion gallons of water during FY 2024. The proportion of customer accounts and projected water sales volume by customer class is shown in Table 4-1. Revenues for NBU, required to meet the costs of providing water service to customers, are derived principally from metered and unmetered water sales and private fire flow charges. NBU also receives other revenue from various miscellaneous sources, such as leases, impact fees, penalties/violations, allocated income and services, to name a few. Water revenues, under existing rates, are estimated to be approximately \$41.6 million in FY 2024 and increase due to customer growth to approximately \$44.9 million by FY 2027.

Table 4-1: Projected Number of Customer Accounts, Volumes and Revenue Under Existing Rates – FY 2024 Test Year

Customer Class	Water Customers		Water Volumes		Water Revenue	
	Accounts	Percent	Gallons	Percent	Amount	Percent
Residential	36,709	67.9%	2,472,924,054	52.31%	\$16,731,661	40.2%
Residential Irrigation	13,197	24.4%	649,760,543	13.74%	8,730,193	21.0%
Small General Service	2,542	4.7%	938,047,330	19.84%	7,973,137	19.2%
Commercial Irrigation	892	1.7%	265,688,130	5.62%	3,428,546	8.2%
Multi-Unit Residential 2-4	229	0.4%	24,962,372	0.53%	253,438	0.6%
Multi-Unit Residential 5+	265	0.5%	257,504,322	5.45%	2,669,655	6.4%
Commercial – Reuse Water	1	0.0%	21,513,634	0.46%	73,448	0.2%
Other Sales	200	0.4%	97,294,972	2.06%	1,734,996	4.2%
Total	54,035	100%	4,727,695,357	100.00%	\$41,595,074	100%

4.1 REVENUE REQUIREMENTS

The revenue required to provide for the continued operation of the Water Utility must be sufficient to meet the annual cash obligations of the utility. The utility's annual revenue requirements consist of Purchased Water expenses, O&M expense, Debt Service requirements, funds for O&M reserves, expenses for Support Services, transfers to the City, and cash-funded capital expenditures. A summary of the Water Utility's estimated total annual requirements for FY 2024 is in Table 4-2.

Table 4-2: Projected FY 2024 Water Utility Revenue Requirements

Description	Amount	Percentage
Purchased Water	\$12,385,036	25.7%
Operating Expenses	10,242,396	21.3%
Non-Operating Expenses	12,484,076	25.9%
Debt Service	11,107,432	23.1%
City Transfer	1,079,906	2.2%
Contingency Reserves ⁽¹⁾	670,220	1.4%
Capital Expenditures (Cash Funded from Rates)	191,820	0.4%
Total Projected Revenue Requirements	\$48,160,886	100%

(1) Contingency reserves are funded annually to maintain a reserve fund balance equal to 90 - 120 days of O&M expenses.

Based on the cash flow analysis of the Water Utility's revenue and revenue requirements, a revenue increase of 7.1% is required for FY 2024. Thereafter, a 13.4%, 13.6%, and 11.8% revenue increase is forecasted for FY 2025, FY 2026, and FY 2027, respectively. The Water Utility should be self-supporting with sufficient funds generated each year to assist in funding water related programs, improvements, and other activities.

4.2 COST-OF-SERVICE

The total COS is defined as the total revenue requirements to be derived from charges for water service. NBU's estimated annual Water Utility cost-of-service is approximately \$44.6 million for the FY 2024 Test Year as shown in Table 4-3.

Table 4-3: Net Revenue Requirement to be Recovered from Rates

Description	Operating Expense	Capital Cost	Total Cost
Revenue Requirements			
O&M Expenses	\$35,111,509	\$-	\$35,111,509
Debt Service	-	11,107,432	11,107,432
Other Expenditures & Transfers:			
Contingency Reserves	670,220	-	670,220
City Transfer	1,079,906	-	1,079,906
Capital Expenditures (Cash Funded from Rates)	-	191,820	191,820
Subtotal	36,861,635	11,299,252	48,160,887
Less Revenue Requirements Met from Other Sources			
Other Operating Revenue	516,635	158,365	675,000
Non-Operating Revenue (Exclusive of Impact Fees)	2,243,398	687,672	2,931,070
Subtotal	2,760,033	846,037	3,606,070
Net Revenue Requirements to be Recovered by Rates	\$34,101,602	\$10,453,216	\$44,554,817

Utilizing standard rate-making practices, FNI allocated the costs of providing water service to individual customer classes served for FY 2024 Test Year. This process involved conducting an analysis of costs, by system function, including those related to average rates of use, extra capacity in excess of average use, customer billing, and meter services, direct fire protection, and raw water costs. A summary of the Water Utility's allocated cost-of-service by these functional classifications is shown in Table 4-4.

Table 4-4: Water Utility Cost-of-Service - FY 2024 Test Year

Description	Total	Percent of Total
Common to All		
Base	\$20,378,334	45.7%
Maximum Day Demand	13,656,941	30.7%
Maximum Hour Demand	1,906,075	4.3%
Customer Related		
Meters	2,902,279	6.5%
Billing	3,993,363	9.0%
Fire Protection	1,717,825	3.9%
Total Cost of Service to be Allocated	\$44,554,817	100%

A comparison of the resultant total cost-of-service allocated to customer classes based upon their respective service requirements is shown in Table 4-5. Also shown is the indicated percentage revenue adjustment (increase/decrease) required in the level of water rates to meet each class's allocated cost-of-service.

Table 4-5: Water Cost-of-Service Results

Customer Class	Allocated Test Year COS	Test Year Rate Revenues	Revenue Over/(Under) Recovery	% Increase of Existing Rate Revenues for Full Cost Recovery
Residential	\$23,664,604	\$16,731,661	(\$6,932,943)	41.4%
Residential Irrigation	7,516,023	8,730,193	1,214,170	-13.9%
Commercial	7,102,474	7,973,137	870,663	-10.9%
Commercial Irrigation	2,372,621	3,428,546	1,055,925	-30.8%
Multi-Unit Residential 2-4	214,798	253,438	38,641	-15.2%
Multi-Unit Residential 5+	1,566,563	2,669,655	1,103,091	-41.3%
Commercial - Re-Use Water	127,980	73,448	(54,531)	74.2%
Other Sales	1,989,754	1,734,996	(254,758)	14.7%
Total	\$44,554,817	\$41,595,074	(\$2,959,742)	7.1%

The last column in Table 4-5 shows that an overall 7.1% revenue increase is needed to meet FY 2024 Test Year revenue requirements; however, the proportion of this revenue adjustment varies among the classes. The results in Table 4-5 show each customer class's contribution to the total revenue requirement, and therefore, what each class would recover in revenues if rates were set up purely on a cost-of-service basis; however, it is also important to note that individual policies and goals can contradict each other. The COS results are used as a benchmark that is balanced with managing affordability, conservation signals, and gradualism.

4.3 PROPOSED WATER RATE STRUCTURE

FNI designed the proposed water rates to implement rate changes that establish the appropriate allocation of costs among customer classes. The proposed rates consist of availability charges and usage charges. The availability charge is designed to recover a portion of customer billing and collection costs, customer meter and service-related costs, and provision for a readiness-to-serve component. Availability charges are intended to provide funds for covering a portion of the water system's fixed cost without depending on water sales. FNI recommends a limited increase in availability charges. The recommended usage charges are designed to recover costs related to supplying customers with water to meet the average and peak rates of water use.

All NBU water customers are also charged a Water Supply Fee ("WSF"). This fee consists of the cost of certain water supplies. With the exception of the Residential class, this charge applies to all water usage. The WSF for the Residential class applies after 6,000 gallons of usage.

4.3.1 Residential Class Recommendations

The water rate structure for the Residential customer class is designed to incentivize single-family residential customers to conserve water. The residential rate structure has four consumption blocks in increasing tiers, based on water usage. The second, third, and fourth tiers are priced greater than the first tier, and each preceding tier, with a goal to reduce outdoor discretionary water consumption used primarily for lawn irrigation purposes. To illustrate the proportion of billed water usage that is affected by the proposed four-step conservation rates, Table 4-6 summarizes the percentage of water usage billed in each block based upon the average customer usage over a 12-month period. The summary shows that approximately 91% of all customers use less than 12,000 gallons per month. Approximately 9% of all water usage is billed at more than 12,000 gallons per month.

Table 4-6: Evaluation of Residential Tier Consumption

Monthly Consumption Average Over 12 Months	Usage Billed in Block	Cumulative Usage Billed in Block
First 3,000 gallons	37.4%	37.4%
Next 3,000 gallons	33.5%	70.9%
Next 6,000 gallons	20.0%	90.9%
Over 12,000 gallons	9.1%	100%
Total	100%	

For the purpose of simplifying the rates, FNI recommends removing the rate differential of on-peak and off-peak rates. The purpose of the rate differential is to (i) address any differences in the cost of providing water service over different times of the year (i.e., summer vs. winter), and (ii) send pricing signals to encourage specific usage characteristics from customers. After analysis of NBU's current structure, FNI found no differences in expenses throughout the year, related to on-peak and off-peak rates, other than the different levels of water usage tied to seasonality. This difference is driven by irrigation. Additionally, the conservation structured tiers currently in place allow NBU to be more specific in its pricing signals than on-peak and off-peak rates. To remove the on-peak and off-peak rate differential, the rates were designed such that the resulting revenue would be the same with and without the on-peak and off-peak rate differential. In other words, the process of removing the rate differential produced a neutral effect on revenue.

There are levels of water usage that account for basic needs, and there is discretionary usage, which includes all water usage that is not required to support basic living or business needs. The largest discretionary water usage is for irrigation. Except in certain circumstances, such as agriculture, irrigation is most often driven by the desire to maintain healthy landscaping and vegetated ground cover. Conservation tiers provide the ability to price the different levels of usage to encourage/discourage usage at those levels, or at the very least, make it more expensive to continue to use at higher levels of water consumption.

Currently, for Residential class customers, the first tier covers from 0 – 7,500 gallons per month. Since the time when these tiers were put into place, the average usage per Residential customer has decreased from 7,000 to 5,330 gallons per month. Driven by concerns of affordability, FNI recommends that existing first tier be split into two tiers and changed to 0 – 3,000 gallons per month (Tier 1) and 3,001 – 6,000 gallons per month (Tier 2), respectively. Tier 1 captures

approximately 37.4% of Residential customers and Tier 2 includes approximately 33.5%, for almost 71% of the Residential customer base. FNI recommends lowering the usage threshold for Tier 1 to minimize the financial impact for those customers who are able and willing to control water consumption. Currently, the highest tier encompasses usage of more than 25,000 gallons per month. FNI recommends lowering the tier threshold to usage of more than 12,000 gallons per month. This reflects the idea that usage greater than 12,000 gallons per month for Residential customers represents irrigation usage. These changes are shown in Table 4-7.

Table 4-7: Residential Service Tiers

Class	Current (gallons)	Proposed (gallons)
Tier 1	0 – 7,500 Gallons	0 – 3,000 Gallons
Tier 2	7,501 – 15,000 Gallons	3,001 – 6,000 Gallons
Tier 3	15,001 – 25,000 Gallons	6,001 – 12,000 Gallons
Tier 4	>25,000 Gallons	>12,000

4.3.2 General Service Class Recommendations

Currently, NBU groups all of its commercial customers into the Small General Service (“SGS”) customer class. Like the Residential class, the SGS class rate is designed with conservation tiers in place. As mentioned above, the purpose of conservation tiers is to delineate between usage required for daily living or for the purposes of conducting business and that of discretionary usage. However, in the case of the SGS class, with a customer base that can range in usage from 2,000 gallons to 2,000,000 gallons per month, it’s impossible to have a rate structure that provides the appropriate pricing signals, without penalizing customers for the water usage it takes to operate their business.

FNI recommends splitting the current SGS class into two classes: Large General Service (“LGS”) and SGS. Commercial customers consistently using over 100,000 gallons per month would be moved into the LGS class, which already exists in NBU’s rate schedules but is currently unused. The LGS class has a flat rate for usage, with the assumption being that the majority of the customer usage at this level is for the purposes of conducting activities critical to that business. This provides the ability to adjust the tier levels in the General Service classes, as seen in Table 4-8, to more closely match the usage levels of the customers in the LGS and SGS classes, which will provide better pricing signals on their usage.

Table 4-8: Tier Levels in the General Service Classes

Class	Current (gallons)	Proposed (gallons)
SGS Tier 1	0 – 5,000	0 – 5,000
SGS Tier 2	5,001 – 50,000	5,001 – 35,000
SGS Tier 3	50,001 – 200,000	35,001 – 75,000
SGS Tier 4	>200,000	>75,000
LGS	Not current standard for use. Currently unused	Consistent usage over 100,000 gallons per month

4.3.3 Irrigation Service Class Recommendations

The Irrigation Service class is applicable to those residential or general service rate classification customers who have a sprinkler or irrigation system on a separate water meter. As shown in Table 4-9, the current structure includes three usage tiers, with thresholds at 5,000 and 25,000 gallons. To provide better use of pricing signals, FNI proposes to adjust the tier thresholds to 6,000 and 20,000 gallons.

Table 4-9: Tier Levels in the Irrigation Service Classes

Class	Current (gallons)	Proposed (gallons)
Irrigation Tier 1	0 – 5,000	0 – 6,000
Irrigation Tier 2	5,001 – 25,000	6,001 – 20,000
Irrigation Tier 3	>25,000	>20,000

4.3.4 Fire Hydrant Service Class Recommendations

The Fire Hydrant Service Class is for water service delivered through a fire hydrant, whether metered or estimated. Service under this rate must be arranged through NBU prior to the needed service date. This service is charged with a flat availability charge and a flat usage charge. FNI does not recommend a change to the structure of the Fire Hydrant Service Class.

4.4 PROPOSED WATER RATE DESIGN

The proposed rates and average monthly customer bills are presented for each rate class in the following subsections.

4.4.1 Residential Service

The Residential class is solely for residential purposes and related activities consisting of service to single-family dwellings, or permanent residential multifamily dwellings where each dwelling unit is individual metered. The Residential class makes up the largest number of water customer class accounts for NBU. Table 4-10 shows the proposed Residential rates for FY 2024 – FY 2027.

The current effective rates are shown for FY 2023. Note that the Usage Charges for FY 2023 reflect the current use of off-peak and on-peak rates, which are proposed to be eliminated in the FY 2024 rate structure. Because the table shows the proposed FY 2024 water rate structure with modified tier thresholds, the FY 2023 the Usage Charge rates shown in the table are not an exact comparison but are nevertheless provided for reference. Refer back to Table 4-7 for the existing Residential rate structure.

Table 4-10: Proposed Water Rates: Residential Service

Description	Units	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge						
5/8" Meter	\$/Month	\$15.98	\$15.98	\$16.05	\$16.30	\$16.65
1" Meter	\$/Month	27.17	28.00	29.10	31.00	32.15
1 1/2" Meter	\$/Month	31.59	32.00	33.00	34.25	35.00
2" Meter	\$/Month	38.56	40.00	40.00	40.50	41.25
3" Meter	\$/Month	56.27	57.50	58.10	59.00	59.65
> 4" Meter	\$/Month	66.34	68.00	68.50	69.50	71.00
Usage Charge ⁽²⁾						
0 - 3,000 Gallons	\$/1,000 Gallons	1.93 / 2.02 ⁽³⁾	1.95	2.15	2.50	2.85
3,001 - 6,000 Gallons	\$/1,000 Gallons	1.93 / 2.02	4.90	5.20	5.85	6.15
6,001 - 12,000 Gallons	\$/1,000 Gallons	4.87 / 5.25	7.65	8.00	8.70	9.25
> 12,000 Gallons	\$/1,000 Gallons	6.65 / 7.98	11.50	12.25	12.95	13.45
Water Supply Fee						
0 - 3,000 Gallons	\$/1,000 Gallons	-	-	-	-	-
3,001 - 6,000 Gallons	\$/1,000 Gallons	-	-	-	-	-
6,001 - 12,000 Gallons	\$/1,000 Gallons	2.79	1.84	1.84	1.84	1.84
> 12,000 Gallons	\$/1,000 Gallons	\$2.79	\$1.84	\$1.84	\$1.84	\$1.84

(1) Current effective rate

(2) FY 2023 rates shown are from the current rate structure, which differs from the proposed rate structure shown here.

(3) FY 2023 usage rates show off-peak and on-peak rates, which are proposed to be eliminated in FY 2024.

(4) FY 2023 includes a Usage Charge tier of >25,000 gallons, with off-peak / on-peak rates of \$9.15 / \$11.90 not reflected in the table

Table 4-10 shows that both the availability and usage charges have been increased to bring the Residential class closer to COS. The availability charge is a fixed monthly fee that is dependent on the size of the customer's meter. The usage charge is based upon the amount of water used monthly. The usage charge is tiered to promote the conservation of water. As more water is used, each tier is priced higher than the previous tier. Tables 4-11 and 4-12 show a Residential customer bill at 3,000 gallons and 6,000 gallons of water usage, respectively.

Table 4-11: Average Residential Water Bill - Water Usage at 3,000 Gallons

Description	Units	FY 2023 ⁽¹⁾		FY 2024		FY 2025	
		Rate	Bill	Rate	Bill	Rate	Bill
Availability ⁽²⁾	\$/month	\$15.98	\$15.98	\$15.98	\$15.98	\$16.05	\$16.05
Usage							
0 - 3,000 Gallons	\$/1,000 gallons	1.93	5.79	1.95	5.85	2.15	6.45
Water Supply Fee	\$/1,000 gallons	-		-		-	
Customer Bill			\$21.77		\$21.83		\$22.50
YOY % Change					0.3%		3.1%

(1) Off-peak rates shown

(2) Assumes 5/8" meter

(3) Water usage of 3,000 gallons

Table 4-12: Average Residential Water Bill - Water Usage at 6,000 Gallons

Description	Units	FY 2023 ⁽¹⁾		FY 2024		FY 2025	
		Rate	Bill	Rate	Bill	Rate	Bill
Availability ⁽²⁾	\$/month	\$15.98	\$15.98	\$15.98	\$15.98	\$16.05	\$16.05
Usage							
0 - 3,000 Gallons	\$/1,000 gallons	1.93	5.79	1.95	5.85	2.15	6.45
3,001 - 6,000 Gallons	\$/1,000 gallons	1.93	5.79	4.90	14.7	5.20	15.6
Water Supply Fee	\$/1,000 gallons	-		-		-	
Customer Bill			\$27.56		\$36.53		\$38.10
YOY % Change					32.5%		4.3%

(1) Off-peak rates shown

(2) Assumes 5/8" meter

(3) Water usage of 6,000 gallons

4.4.2 Multi-Unit Service

The Multi-Unit class is made up of NBU's apartment and multi-family community. This class is used for permanent residential multi-unit development, such as duplexes, triplexes, quadruplexes, apartment buildings or an individual residence with separate apartment type unit(s) where each dwelling unit is not individually metered. Table 4-13 shows the proposed rate increases for FY 2024 – FY 2025.

The current effective rates are shown for FY 2023. Note that the Usage Charges for FY 2023 reflect the current use of off-peak and on-peak rates, which are proposed to be eliminated in the FY 2024 rate structure.

Table 4-13: Proposed Water Rates: Multi-Unit Service

Description	Units	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge						
5/8" Meter	\$/Month	\$15.98	\$15.98	\$16.05	\$16.30	\$16.65
1" Meter	\$/Month	20.84	28.00	29.10	31.00	32.15
1 1/2" Meter	\$/Month	24.21	32.00	33.00	34.25	35.00
2" Meter	\$/Month	29.57	40.00	40.00	40.50	41.25
3" Meter	\$/Month	43.14	57.50	58.10	59.00	59.65
> 4" Meter	\$/Month	50.87	68.00	68.50	69.50	71.00
Usage Charge						
All Usage	\$/1,000 Gallons	2.71 / 3.12	3.55	4.50	5.40	5.75
Water Supply Fee						
All Usage	\$/1,000 Gallons	2.79	1.84	1.84	1.84	1.84
Unit Charge						
All Units Over One	\$/Unit	\$12.48	\$12.48	\$12.48	\$12.48	\$12.48

(1) Current effective rate

Table 4-14 provides an average Multi-Unit customer bill based on an assumed water usage of 5,000 gallons and a 5/8" Meter. The table shows the customer bill decreasing from FY 2023 to FY 2024. The WSF decrease from \$2.79/1,000 gallons in FY 2023 to \$1.84/1,000 gallons in FY 2024 is driving the decrease in the customer bill for FY 2024.

Table 4-14: Average Multi-Unit Water Bill - Water Usage at 5,000 Gallons

Description	Units	FY 2023 ⁽¹⁾		FY 2024		FY 2025	
		Rate	Bill	Rate	Bill	Rate	Bill
Availability ⁽²⁾	\$/month	\$15.98	\$15.98	\$15.98	\$15.98	\$16.05	\$16.05
Usage							
All Usage	\$/1,000 gallons	2.71	13.55	3.55	17.75	4.50	22.50
Water Supply Fee	\$/1,000 gallons	2.79	13.95	1.84	9.20	1.84	9.20
Customer Bill			\$43.48		\$42.93		\$47.75
YOY % Change					-1.3%		11.2%

(1) Off-peak rates shown

(2) Assumes 5/8" meter

(3) Water usage of 5,000 gallons

(4) Bill shown is per residential unit, so one Availability charge is applied

4.4.3 Small General Service ("SGS")

The General Service rate is applicable to water service for any customer that is not residential or multi-family, most of which being commercial businesses and non-profits. NBU has a SGS and LGS class. Currently, all General Service customers are under the SGS rate class, however, as mentioned above, FNI recommends moving the higher usage customers to the LGS rate. Table 4-15 provides the proposed SGS class rates for FY 2024 – FY 2027 and Table 4-16 shows an average SGS customer comparison.

The current effective rates are shown for FY 2023. Note that the Usage Charges for FY 2023 reflect the current use of off-peak and on-peak rates, which are proposed to be eliminated in the FY 2024 rate structure. Because the table shows the proposed FY 2024 water rate structure with modified tier thresholds, the FY 2023 the Usage Charge rates shown in the table are not an exact comparison but are nevertheless provided for reference. Refer back to Table 4-8 for the existing General Service Class rate structure.

Table 4-15: Proposed Water Rates: Small General Service

Description	Units	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge						
5/8" Meter	\$/Month	\$20.06	\$21.50	\$22.00	\$23.50	\$24.15
1" Meter	\$/Month	22.59	23.50	24.25	25.75	26.15
1 1/2" Meter	\$/Month	29.34	30.50	31.25	32.50	33.00
2" Meter	\$/Month	37.29	39.00	40.00	41.25	41.85
3" Meter	\$/Month	56.46	58.50	60.00	61.25	61.75
4" Meter	\$/Month	85.86	87.00	91.00	92.15	92.85
6" Meter	\$/Month	149.07	153.00	157.91	159.15	160.00
8" Meter	\$/Month	149.07	175.00	185.00	187.00	188.50
> 10" Meter	\$/Month	155.04	200.00	225.00	230.00	232.00
Usage Charge ⁽²⁾						
0 - 5,000 Gallons	\$/1,000 Gallons	2.98 / 3.27 ⁽³⁾	\$3.75	\$3.75	\$4.70	\$5.25
5,001 - 35,000 Gallons	\$/1,000 Gallons	3.24 / 3.74	5.00	5.75	6.50	6.75
35,001 - 75,000 Gallons	\$/1,000 Gallons	3.78 / 4.92	6.75	8.00	8.65	8.90
> 75,000 Gallons ⁽⁴⁾	\$/1,000 Gallons	3.78 / 4.92	8.00	12.00	12.80	12.95
Water Supply Fee						
All Usage	\$/1,000 Gallons	2.79	1.84	1.84	1.84	1.84
Unit Charge						
All Units Over One	\$/Unit	\$12.48	\$12.48	\$12.48	\$12.48	\$12.48

(1) Current effective rate

(2) FY 2023 rates shown are from the current rate structure, which differs from the proposed rate structure shown here.

(3) FY 2023 usage rates show off-peak and on-peak rates, which are proposed to be eliminated in FY 2024.

(4) FY 2023 includes a Usage Charge tier of >200,000 gallons, with off-peak / on-peak rates of \$4.67 / \$6.53 not reflected in the table

Table 4-16: Average Small General Service Water Bill - Water Usage at 12,300 Gallons

Description	Units	FY 2023 ⁽¹⁾		FY 2024		FY 2025	
		Rate	Bill	Rate	Bill	Rate	Bill
Availability ⁽²⁾	\$/month	\$20.06	\$20.06	\$21.50	\$21.50	\$22.00	\$22.00
Usage							
0 - 5,000 Gallons	\$/1,000 gallons	2.98	14.90	3.75	18.75	3.75	18.75
5,001 - 35,000 Gallons	\$/1,000 gallons	3.24	23.65	5.00	36.50	5.75	41.98
Water Supply Fee							
All Usage	\$/1,000 gallons	2.79	34.32	1.84	22.63	1.84	22.63
Customer Bill			\$92.93		\$99.38		\$105.36
YOY % Change					6.9%		6.0%

(1) Off-peak rates shown

(2) Assumes 5/8" meter

(3) Water usage of 12,300 gallons

4.4.4 Large General Service ("LGS")

The LGS class currently has no customers under this rate. However, because of the large discrepancy between usage levels in the SGS class, it's proposed that General Service users that consistently use equal to or over 100,000 gallons of water per month move into the LGS class. Because of the large amounts of water used by these customers for business purposes, this allows more appropriate pricing signals to be given. Table 4-17 provides the proposed water rates for the Large General Service class alongside the current effective FY 2023 rates, and Table 4-18 shows the average bill comparison for an LGS customer.

Table 4-17: Proposed Water Rates: Large General Service

Description	Units	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge						
Flat Meter Charge	\$/Month	\$1,794.11	\$350.00	\$400.00	\$425.00	\$450.00
Usage Charge						
All Usage	\$/1,000 Gallons	2.40	3.25	3.75	4.55	4.90
Water Supply Fee						
All Usage	\$/1,000 Gallons	\$2.79	\$1.84	\$1.84	\$1.84	\$1.84

(1) Current effective rate

Table 4-18: Average Large General Service Water Bill - Water Usage at 300,000 Gallons

Description	Units	FY 2023 ⁽¹⁾		FY 2024		FY 2025	
		Rate	Bill	Rate	Bill	Rate	Bill
Availability	\$/month	\$1,794.11	\$1,794.11	\$350.00	\$350.00	\$400.00	\$400.00
Usage ⁽²⁾							
All Usage	\$/1,000 gallons	2.40	720.00	3.25	975.00	3.75	1125.00
Water Supply Fee							
All Usage	\$/1,000 gallons	2.79	837.00	1.84	552.00	1.84	552.00
Customer Bill			\$3,351.11		\$1,877.00		\$2,077.00
YOY % Change					-44.0%		10.7%

(1) off-peak rates shown

(2) Water usage of 300,000 gallons

4.4.5 Irrigation Service

Table 4-19 provides the proposed water rates for the Irrigation class alongside the current effective FY 2023 rates. Note that the Usage Charges for FY 2023 reflect the current use of off-peak and on-peak rates, which are proposed to be eliminated in the FY 2024 rate structure. Because the table shows the proposed FY 2024 water rate structure with modified tier thresholds, the FY 2023 Usage Charge rates shown in the table are not an exact comparison but are nevertheless provided for reference. Refer back to Table 4-9 for the existing Irrigation Service Class rate structure.

Starting in 2007, NBU requires a separate irrigation meter for all small commercial buildings with a site plan of 10,000 sq. feet or less and all single-family dwellings. This allows irrigation water to be metered separately from regular, domestic water usage and billed at the irrigation rate. If a customer does not have an irrigation meter, all water usage is billed according to the customer class of the existing meter.

Table 4-19: Proposed Water Rates: Irrigation Service

Description	Units	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge						
5/8" Meter	\$/Month	\$11.80	\$15.98	\$16.05	\$16.30	\$16.65
1" Meter	\$/Month	14.32	28.00	29.10	31.00	32.15
1 1/2" Meter	\$/Month	18.72	32.00	33.00	34.25	35.00
2" Meter	\$/Month	19.97	40.00	40.00	40.50	41.25
3" Meter	\$/Month	31.20	57.50	58.10	59.00	59.65
> 4" Meter	\$/Month	37.44	68.00	68.50	69.50	71.00
Usage Charge ⁽²⁾						
0 - 6,000 Gallons	\$/1,000 Gallons	5.23 / 6.54 ⁽³⁾	6.50	7.75	8.75	10.00
6,001 - 20,000 Gallons	\$/1,000 Gallons	6.39 / 7.99	7.75	9.00	10.00	11.00
> 20,000 Gallons	\$/1,000 Gallons	6.39 / 7.99 8.80 / 11.02	10.35	13.30	13.90	14.40
Water Supply Fee						
All Usage	\$/1,000 Gallons	\$2.79	\$1.84	\$1.84	\$1.84	\$1.84

(1) Current effective rate

(2) FY 2023 rates shown are from the current rate structure, which differs from the proposed rate structure shown here.

(3) FY 2023 usage rates show off-peak and on-peak rates, which are proposed to be eliminated in FY 2024.

As a point of comparison, Table 4-20 shows the financial effect for a residential customer with a Residential service compared to a customer with both a Residential service and an Irrigation service for FY 2024 and FY 2025. The example assumes total monthly usage of 15,000 gallons. The winter season Residential water usage average of 6,000 gallons is used as the assumed usage for household purposes, and the remaining 9,000 gallons is assumed to be for irrigation purposes. Table 4-21 provides a detailed breakdown of the comparison for FY 2024.

Table 4-20: Average Residential Customer with and without an Irrigation Meter

Description	FY 2023 ⁽¹⁾	FY 2024	FY 2025
Residential Customer without Irrigation Meter ⁽²⁾			
Customer Water Bill	\$87.91	\$133.49	\$139.41
YOY % Change		52%	4%
Total Customer Bill	87.91	133.49	139.41
YOY % Change		52%	4%
Residential Customer with Irrigation Meter ⁽³⁾			
Customer Water Bill	27.56	36.53	38.10
YOY % Change		0%	4%
Customer Irrigation Bill	85.72	94.79	106.11
YOY % Change		11%	12%
Total Customer Bill	\$113.28	\$131.32	\$144.21
YOY % Change		16%	10%

(1) Current effective rate, off-peak

(2) Without irrigation meter assumes Water - 15,000 gallons.

(3) With irrigation meter assumes Water - 6,000 gallons, Irrigation - 9,000 gallons

Table 4-21: FY 2024 Effect of Irrigation with Residential vs. Irrigation Service

Description		Units	Rate	Residential Service Only		Residential and Irrigation Service		
				Usage	Bill	Usage	Bill	
Residential Service								
Availability Charge	5/8" meter	\$/month	\$15.98	1	\$15.98	1	\$15.98	
Usage Charge	0 - 3,000 Gallons	\$/1,000 Gallons	1.95	3,000	5.85	3,000	5.85	
	3,001 - 6,000 Gallons	\$/1,000 Gallons	4.90	3,000	14.70	3,000	14.70	
	6,001 - 12,000 Gallons	\$/1,000 Gallons	7.65	6,000	45.90			
	> 12,000 Gallons	\$/1,000 Gallons	11.50	3,000	34.50			
Residential Usage Charge Subtotal					15,000	100.95	6,000	20.55
Water Supply Fee	0 - 3,000 Gallons	\$/1,000 Gallons		3,000	0.00	3,000		
	3,001 - 6,000 Gallons	\$/1,000 Gallons		3,000	0.00	3,000		
	6,001 - 12,000 Gallons	\$/1,000 Gallons	1.84	6,000	11.04			
	> 12,000 Gallons	\$/1,000 Gallons	1.84	3,000	5.52			
Residential Water Supply Fee Subtotal					15,000	16.56	6,000	
Residential Service Total					15,000	133.49	6,000	36.53
Irrigation Service								
Availability Charge	5/8" meter	\$/month	15.98			1	\$15.98	
Usage Charge	0 - 6,000 Gallons	\$/1,000 Gallons	6.50			6,000	39.00	
	6,001 - 20,000 Gallons	\$/1,000 Gallons	7.75			3,000	23.25	
Irrigation Usage Charge Subtotal						9,000	62.25	
Water Supply Fee	0 - 6,000 Gallons	\$/1,000 Gallons	1.84			6,000	11.04	
	6,001 - 20,000 Gallons	\$/1,000 Gallons	1.84			3,000	5.52	
Irrigation Water Supply Fee Subtotal						9,000	16.56	
Irrigation Service Total					--	--	9,000	94.79
Total per Residential Property					15,000	\$133.49	15,000	\$131.32

4.4.6 Fire Hydrant Service

Table 4-21 provides the proposed water rates for the Fire Hydrant Service class alongside the current effective FY 2023 rates.

Table 4-22: Proposed Water Service: Fire Hydrant Service

Description	Units	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge						
Flat Meter Charge	\$/Month	\$207.31	\$300.00	\$350.00	\$375.00	\$400.00
Usage Charge						
All Usage	\$/1,000 Gallons	6.87 / 8.74	7.90	8.50	9.35	10.00
Water Supply Fee						
All Usage	\$/1,000 Gallons	\$2.79	\$1.84	\$1.84	\$1.84	\$1.84

(1) Current effective rate

5.0 WASTEWATER UTILITY

The Wastewater Utility serves approximately 34,000 customers, with a projected usage of 2.53 billion gallons of billable wastewater during FY 2024. The proportion of customer accounts and projected billable wastewater sales volume by customer class is shown in Table 5-1. Revenues that NBU requires to meet the costs of providing wastewater service to customers is derived principally from wastewater collections. NBU also receives other revenue from various miscellaneous sources, such as impact fees, penalties, allocated income, GBRA participation fees and services. Wastewater revenues from existing rates are estimated to be approximately \$37.9 million in FY 2024 and increase due to customer growth to approximately \$41.3 million by FY 2027.

Table 5-1: Projected Number of Wastewater Customer Accounts, Volumes and Revenue Under Existing Rates – FY 2024 Test Year

Customer Class	Wastewater Customers		Wastewater Volumes		Wastewater Revenue	
	Accounts	Percent	Gallons	Percent	Amount	Percent
Residential	29,135	91.1%	1,357,259,686	53.6%	\$21,075,553	55.6%
Commercial	2,432	7.6%	875,155,368	34.6%	12,497,352	33.0%
Multi-Unit Res 2-4	166	0.5%	10,938,509	0.4%	196,224	0.5%
Multi-Unit Res 5+	239	0.7%	282,108,876	11.2%	4,121,666	10.9%
Schertz	1	~0%	5,125,431	0.2%	15,479	~0%
Total⁽¹⁾	31,972	100%	2,530,587,870	100%	\$37,906,274	100%

(1): Excludes Springs Hill and Guadalupe-Blanco River Authority (GBRA).

5.1 REVENUE REQUIREMENTS

The revenue required to adequately provide for the continued operation of the Wastewater Utility must be sufficient to meet the annual cash obligations of the utility. The utility's annual revenue requirements consist of O&M expenses, Debt Service requirements, funds for O&M Reserves, expenses for Support Services, transfers to the City, and cash funded capital expenditures. A summary of these estimated annual requirements for FY 2024, which have been developed by others and provided by NBU staff, are in Table 5-2.

Table 5-2: Projected FY 2024 Wastewater Utility Revenue Requirements

Description	Amount	Percentage
Operating Expenses	\$8,783,725	20.1%
Non-Operating Expenses	8,546,902	19.6%
Debt Service	9,599,068	22.0%
City Transfer	1,194,338	2.7%
Reserves ⁽¹⁾	456,080	1.0%
Capital Expenditures (Cash Funded from Rates)	15,127,442	34.6%
Total Projected Revenue Requirements	\$43,707,555	100%

(1) Contingency reserves are funded annually to maintain a reserve fund balance equal to 90 - 120 days of O&M expenses.

Based on the cash flow analysis of the revenue and revenue requirements for the Wastewater Utility, an annual revenue increase of 5.8% is projected to be needed for FY 2024. Thereafter, 11.0%, 7.7%, and 6.4% revenue increases are forecasted to be needed for FY 2025, FY 2026, and FY 2027, respectively. To prevent rate fluctuation on the end user customers, levelized rate increases of 7.3%, 7.3%, 7.7%, and 7.7% for FY 2024, FY 2025, FY 2026, and FY 2027, respectively, are proposed. The Wastewater Utility should be self-supporting with sufficient funds generated each year to fund wastewater related programs, improvements, and other activities.

5.2 COST-OF-SERVICE

The COS defines the total revenue requirements to be derived from charges for wastewater. NBU's estimated annual cost-of-service to be met from wastewater rates, is approximately \$40.1 million for the FY 2024 Test Year, consisting of the elements to be assigned to customer classes as shown in Table 5-3.

Table 5-3: Net Revenue Requirement to be Recovered from Rates - FY 2024 Test Year

Description	Operating Expense	Capital Cost	Total Cost
Revenue Requirements			
O&M Expenses	\$17,330,627		\$17,330,627
Debt Service		9,599,068	9,599,068
Other Expenditures & Transfers:			
City Transfer	1,194,338		1,194,338
Contingency Reserves	456,080		456,080
Cash Funded Capital Projects		15,127,442	15,127,442
Subtotal	18,981,046	24,726,509	43,707,555
Less Revenue Requirements Met from Other Sources			
Wastewater Penalties	91,197	118,803	210,000
Wastewater Services	0	0	0
GBRA Capital Participation Fee	345,593	450,202	795,795
Commercial Contract - Schertz	6,722	8,757	15,479
Springs Hill Revenue from Sales	273,563	356,369	629,932
GBRA Revenue from Sales	113,337	147,643	260,980
Allocated Income	738,246	961,709	1,699,955
Subtotal	1,568,658	2,043,483	3,612,141
Net Revenue Requirements to be Recovered by Rates	\$17,412,388	\$22,683,027	\$40,095,415

Utilizing standard rate-making practices, FNI allocated the costs of providing wastewater service to individual customer classes served for the FY 2024 Test Year. This process involved conducting an analysis of costs by system function including those related to the volume and strength of wastewater and customer billing and service-related costs. A summary of the Wastewater Utility's allocated cost-of-service by these functional classifications is shown in Table 5-4.

Table 5-4: Wastewater Utility Cost-of-Service - FY 2024 Test Year

Description	Total	Percent of Total
Common to All		
Volume	\$25,061,235	62.5%
BOD	6,427,265	16.0%
TSS	4,533,960	11.3%
Customer Related		
Billing	\$4,073,067	10.2%
Total Cost of Service to be Allocated	\$40,095,527	100%

A comparison of the resultant total cost-of-service allocated to customer classes based upon their respective service requirements is shown in Table 5-5. Also shown is the indicated percentage revenue adjustment (increase/decrease) required in the level of wastewater rates to meet each class's allocated cost-of-service. Table 5-5 shows that an overall 5.8% revenue increase is needed to meet the FY 2024 Test Year revenue requirement, or an additional \$2,204,620 in revenue. It is the goal of the COS study to recover sufficient revenues to continue operating the system in a fair and equitable manner, while keeping in mind the policies and concerns of the utility and the community.

Table 5-5: Wastewater Cost-of-Service Results

Customer Class	Allocated Test Year COS	Test Year Rate Revenues	Revenue Over/(Under) Recovery	% Increase of Existing Rate Revenues for Full Cost Recovery
Residential	\$23,518,324	\$21,075,553	(\$2,442,771)	11.6%
Commercial	12,162,439	12,497,352	334,913	-2.7%
Multi-Unit Residential 2-4	197,359	196,224	(1,135)	0.6%
Multi-Unit Residential 5+	4,217,293	4,121,666	(95,627)	2.3%
Total	\$40,095,415	\$37,890,795	(\$2,204,620)	5.8%

5.3 PROPOSED WASTEWATER RATE STRUCTURE

Unlike for water, the volumetric rates for wastewater service apply to all usage for all customer classes. This is because billable wastewater volumes are based upon water usage. Therefore, there is no direct way for the Wastewater Utility to control customers' wastewater usage and no way to signal water conservation through wastewater tiered rates, as is done through NBU's water rates design. Because wastewater usage is dependent on water usage, FNI is proposing no change to the wastewater rate structures.

5.4 PROPOSED WASTEWATER RATE DESIGN

Based upon the results of the COS analysis, rate adjustments for FY 2024 have only been made to the Residential class rates. While it is not the primary goal, the proposed wastewater rates have been designed toward implementing rate adjustments that move in the direction of establishing full cost-of-service-based rates. As shown in the cost-of-service results from Table 4-5, any adjustments to the other classes of service will move NBU further away from a cost-of-service revenue recovery. Generally, the proposed rates have been designed to limit the increase in the current service charge levels and increase the volume charges for all billable wastewater volume used. Wastewater is billed based upon the average of the lowest three months in the preceding 12-month period. Therefore, this will provide the Residential customer with more flexibility and control over their monthly bill by controlling their water usage.

The proposed rates are designed following the same general form of rate structure as the existing wastewater rates, which consist of a schedule of service charges and volume charges. The proposed service charge is designed to recover customer billing and collection costs, customer meter and service-related costs, and provision for a readiness-to-serve component. FNI proposes that the service charges have limited increases to maintain revenue levels, not dependent upon water sales, to provide funds to cover the system's fixed costs.

5.4.1 Residential Service

This service rate is applicable to sewer service used solely for residential purposes and related activities consisting of service to single-family dwellings. Table 5-6 provides the proposed Residential Service wastewater rates for FY 2024 – FY 2027 and includes the current effective FY 2023 rates for reference.

Table 5-6: Proposed Wastewater Rates: Residential Service

Description	Units	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge						
Flat Customer Charge	\$/Month	\$27.52	\$30.41	\$33.60	\$36.62	\$39.18
Usage Charge						
All Usage	\$/1,000 Gallons	6.47	7.15	7.90	8.61	9.21
Residential WW Only	Flat \$	78.34	86.57	95.66	104.27	111.57
Maximum Charge	\$	\$147.86	\$163.40	\$180.54	\$196.79	\$210.57

(1) Current effective rate

A comparison of typical bills for various Residential customer class levels of billable usage under the proposed schedule of wastewater rates with those under existing rates is shown in Table 5-7. For Residential single-family customers, a representative monthly bill for Residential service is about 4,600 gallons and would be increased by \$6.02, or 11% under the proposed rates for FY 2024. Generally, Residential single-family customers using less than 4,600 gallons per month will experience increases of less than this amount while customers that use over this amount will experience a larger increase.

Table 5-7: Average Residential Wastewater Bill - Wastewater Volume at 4,600 Gallons

Description	Units	FY 2023 ⁽¹⁾		FY 2024		FY 2025	
		Rate	Bill	Rate	Bill	Rate	Bill
Availability	\$/month	\$27.52	\$27.52	\$30.41	\$30.41	\$33.6	\$33.60
Usage							
All Usage ⁽²⁾	\$/1,000 gallons	6.47	29.76	7.15	32.89	7.90	36.34
Customer Bill			\$57.28		\$63.30		\$69.94
YOY % Change					10.5%		10.5%

(1) Current Effective Rate

(2) Water usage of 4,600 gallons

For Residential Sewer Only customers, a representative monthly bill would be increased by \$8.23, or 10.5% under the proposed rates for FY 2024. This is specifically for those residential customers who do not receive water service through NBU. The monthly bill for sewer service only is a flat monthly rate and is shown in Table 5-8.

Table 5-8: Average Residential Wastewater Bill – Sewer Only Service

Description	Units	FY 2023 ⁽¹⁾		FY 2024		FY 2025	
		Rate	Bill	Rate	Bill	Rate	Bill
Availability	\$/month	\$78.34	\$78.34	\$86.57	\$86.57	\$95.66	\$95.66
Usage							
All Usage ⁽²⁾	\$/1,000 gallons	0.00	0.00	0.00	0.00	0.00	0.00
Customer Bill			\$78.34		\$86.57		\$95.66
YOY % Change					10.5%		10.5%

(1) Current Effective Rate

(2) Residential Sewer Only based upon a flat rate monthly charge.

5.4.2 Multi-Unit 2-4 Service

This service rate is applicable to sewer service used solely for residential purposes and related activities consisting of service to permanent residential multifamily dwellings with not more than four separate and identifiable permanent residential dwelling areas, such as duplexes, triplexes, or quadruplexes, and where water service is provided by NBU to all units through one water meter. Table 5-9 provides the proposed Multi-Unit 2-4 Service wastewater rates for FY 2024 – FY 2027 and includes the current effective FY 2023 rates for reference.

Table 5-9: Proposed Wastewater Rates: Multi-Unit 2-4 Service

Description	Units	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge						
Flat Customer Charge	\$/Month	\$27.52	\$30.41	\$33.60	\$36.62	\$39.18
Usage Charge						
All Usage	\$/1,000 Gallons	6.47	7.15	7.90	8.61	9.21
Unit Charge						
All Units Over One	\$/Unit	\$16.37	\$16.37	\$16.37	\$16.37	\$16.37

(1) Current effective rate

A comparison of typical bills for a multiple unit property with two units under the proposed schedule of wastewater rates with those under existing rates is shown in Table 5-10. For Multi-Unit 2-4 customers, a representative monthly bill for service is about 4,600 gallons and would be increased by \$6.02, or 8% under the proposed rates for FY 2024. Generally, Multi-Unit 2-4

customers using less than 4,600 gallons per month will experience increases of less than this amount while customers that use over this amount will experience a larger increase.

Table 5-10: Average Multi-Unit 2-4 Wastewater Bill – Wastewater Volume at 4,600 Gallons⁽²⁾

Description	Units	FY 2023 ⁽¹⁾		FY 2024		FY 2025	
		Rate	Bill	Rate	Bill	Rate	Bill
Availability	\$/month	\$27.52	\$27.52	\$30.41	\$30.41	33.6	\$33.60
Usage							
All Usage ⁽²⁾	\$/1,000 gallons	6.47	29.76	7.15	32.89	7.90	36.34
Units Over One		16.37	16.37	16.37	16.37	16.37	16.37
Customer Bill			\$73.65		\$79.67		\$86.31
YOY % Change					8.2%		8.3%

5.4.3 Multi-Unit 5+ Service

This service rate is applicable to sewer service used solely for residential purposes and related activities consisting of service to permanent residential multifamily dwellings with more than four separate and identifiable permanent residential dwelling areas where water service is provided by NBU to all units through one water meter. Table 5-11 provides the proposed Multi-Unit 5+ Service wastewater rates for FY 2024 – FY 2027 and includes the current effective FY 2023 rates for reference. No rate changes are proposed for FY 2024 and FY 2025.

Table 5-11: Proposed Wastewater Rates: Multi-Unit 5+

Description	Units	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge						
5/8" Meter	\$/Month	\$39.12	\$39.12	\$39.12	\$41.76	\$45.62
1" Meter	\$/Month	42.45	42.45	42.45	45.32	49.51
1 1/2" Meter	\$/Month	59.21	59.21	59.21	63.21	69.06
2" Meter	\$/Month	75.31	75.31	75.31	80.39	87.83
3" Meter	\$/Month	116.22	116.22	116.22	124.06	135.54
4" Meter	\$/Month	167.40	167.40	167.40	178.70	195.23
6" Meter	\$/Month	301.70	301.70	301.70	322.06	351.85
10" Meter	\$/Month	520.66	520.66	520.66	555.80	607.21
Usage Charge						
0 - 7,000 Gallons	\$/1,000 Gallons	8.18	8.18	8.18	8.73	9.54
7,001 - 25,000 Gallons	\$/1,000 Gallons	8.18	8.18	8.18	8.73	9.54
25,001 - 300,000 Gallons	\$/1,000 Gallons	8.18	8.18	8.18	8.73	9.54
> 300,000 Gallons	\$/1,000 Gallons	8.18	8.18	8.18	8.73	9.54
Unit Charge						
All Units Over One	\$/Unit	\$16.37	\$16.37	\$16.37	\$17.47	\$19.09

(1) Current effective rate

A comparison of typical bills for a 20-unit property with a 2" master meter under the proposed schedule of wastewater rates with those under existing rates is shown in Table 5-12. For Multi-Unit 5+ customers, a representative monthly bill for service is about 4,600 gallons per residential unit and would remain the same under the proposed rates for FY 2024.

Table 5-12: Average Multi-Unit 5+ Wastewater Bill – Wastewater Volume at 4,600 Gallons⁽¹⁾

Description	Units	FY 2023 ⁽¹⁾		FY 2024		FY 2025	
		Rate	Bill	Rate	Bill	Rate	Bill
Availability	\$/month	\$75.31	\$75.31	\$75.31	\$75.31	\$75.31	\$75.31
Usage							
0 - 7,000 gallons	\$/1,000 gallons	8.18	57.26	8.18	57.26	8.18	57.26
7,001 – 25,000 gallons	\$/1,000 gallons	8.18	147.24	8.18	147.24	8.18	147.24
25,001 - 300,000 gallons	\$/1,000 gallons	8.18	548.06	8.18	548.06	8.18	548.06
Units Over One	\$/Unit	16.37	311.03	16.37	311.03	16.37	311.03
Customer Bill			\$1,138.90		\$1,138.90		\$1,138.90
YOY % Change					0.0%		0.0%

(1) Water usage of 4600 gallons

(2) Example assumes 20 residential units per bill

(3) Master meter is 2" meter

5.4.4 Small General Service

The Small General Service rate applies to any customer who does not qualify for the Residential, Multi-Unit 2-4, or the Multi-Unit 5+ service rates, and where water service is provided by NBU. Table 5-13 provides the proposed rate increases for FY 2024 – FY 2027 for the SGS class and includes the current effective FY 2023 rates for reference. No rate changes are proposed for FY 2024 and FY 2025.

Table 5-13: Proposed Wastewater Rates: Small General Service

Description	Units	FY 2023 ⁽¹⁾	FY 2024	FY 2025	FY 2026	FY 2027
Availability Charge						
5/8" Meter	\$/Month	\$39.12	\$39.12	\$39.12	\$41.76	\$45.62
1" Meter	\$/Month	42.45	42.45	42.45	45.32	49.51
1 1/2" Meter	\$/Month	59.21	59.21	59.21	63.21	69.06
2" Meter	\$/Month	75.31	75.31	75.31	80.39	87.83
3" Meter	\$/Month	116.22	116.22	116.22	124.06	135.54
4" Meter	\$/Month	167.40	167.40	167.40	178.70	195.23
6" Meter	\$/Month	301.70	301.70	301.70	322.06	351.85
10" Meter	\$/Month	520.66	520.66	520.66	555.80	607.21
Usage Charge						
0 - 7,000 Gallons	\$/1,000 Gallons	8.18	8.18	8.18	8.73	9.54
7,001 - 25,000 Gallons	\$/1,000 Gallons	8.18	8.18	8.18	8.73	9.54
25,001 - 300,000 Gallons	\$/1,000 Gallons	8.18	8.18	8.18	8.73	9.54
> 300,000 Gallons	\$/1,000 Gallons	8.18	8.18	8.18	8.73	9.54
Unit Charge						
All Units Over One	\$/Unit	16.37	16.37	16.37	17.47	19.09
Commercial WW Only						
All Units	\$/Unit	88.07	88.07	88.07	94.01	102.71
Private Well Service						
All Units	\$/Unit	\$35.82	\$35.82	\$35.82	\$38.24	\$41.78

(1) Current effective rate

A comparison of typical bills for a SGS property with a 2" master meter under the proposed schedule of wastewater rates with those under existing rates is shown in Table 5-14. For SGS customers, a representative monthly bill for service is about 10,000 gallons and would remain the same under the proposed rates for FY 2024.

Table 5-14: Average Small General Service Wastewater Bill – Wastewater Volume at 10,000 Gallons⁽¹⁾

Description	Units	FY 2023		FY 2024		FY 2025	
		Rate	Bill	Rate	Bill	Rate	Bill
Availability	\$/month	\$75.31	\$75.31	\$75.31	\$75.31	\$75.31	\$75.31
Usage							
0 - 7,000 gallons	\$/1,000 gallons	8.18	57.26	8.18	57.26	8.18	57.26
7,001 - 25,000 gallons	\$/1,000 gallons	8.18	24.54	8.18	24.54	8.18	24.54
Units Over One	\$/Unit	16.37	0.00	16.37	0.00	16.37	0.00
Customer Bill			\$157.11		\$157.11		\$157.11
YOY % Change					0.0%		0.0%

(1) Water usage of 10,000 gallons.

(2) Example assumes one unit.

(3) Master meter is 2" meter.

6.0 SUMMARY AND RECOMMENDATIONS

Based on a forecast of revenues under existing rates and revenue requirements for each utility for FY 2024 through FY 2027, FNI recommends a series of rate increases for the utilities. The overall revenue adjustments required to recover the forecasted revenue deficiencies for the utilities are shown in Table 6-1. The forecasted revenue deficiencies, and subsequent rate adjustments needed, as shown in Table 6-1 are considered the *minimum levels required* to maintain prudent financial operations of NBU, appropriate debt service coverage ratios, and adequate reserve fund levels.

The resulting rate adjustments allow water and wastewater utilities to continue to maintain a debt to cash funding ratio consistent with NBU policies and goals. The proposed rate adjustments will allow the electric utility to transition from entirely debt funding capital projects to an approximate 50/50 debt to cash funding ratio that aligns the electric utility with NBU policies and goals and industry best practices.

Table 6-1: Required Revenue Adjustments to Recover Deficits

Utility	FY 2024	FY 2025	FY 2026	FY 2027
Electric	4.8%	5.9%	4.6%	3.8%
Water	9.1%	13.4%	13.6%	11.8%
Wastewater	7.3%	7.3%	7.7%	7.7%

While the proposed rate increases did serve to move the customer classes to more closely align with the results of the COS analysis, FNI did not attempt to match 100% of the COS revenue recovery.

A comparison of typical bills for an average Residential customer under the proposed schedule of water rates with those under existing rates is shown in Table 6-2. The average monthly bill is for a residential customer using 1,200 kWh of electricity, 6,000 gallons of water and 4,600 gallons of sewer usage.

Table 6-2: Comparison of Average Residential Customer Monthly Utility Bill Under Existing and Proposed Rates

	Current	FY 2024	FY 2025
Electric ⁽¹⁾	\$137.12	\$145.63	\$153.93
YOY % Change		6.2%	5.7%
Water	27.56	36.53	38.1
YOY % Change		32.5%	4.3%
Wastewater	57.28	63.3	69.94
YOY % Change		10.5%	10.5%
Total Customer Bill	\$221.96	\$245.46	\$261.97
YOY % Change		10.6%	6.7%

(1) Uses five-year average for PCRA

6.1 RECOMMENDATIONS

Regular reviews of the performance of a utility's rates are an integral part of any utility's management, and failure to monitor the utility's rates can result in the need for significant rate actions. FNI/NewGen recommends that, going forward, NBU continue to regularly monitor and review the performance of its adopted rates and perform rate adjustments in a timely manner to preserve the financial integrity of NBU. In summary, FNI provides the following specific recommendations for each Utility to maintain financial strength and stability into the future.

6.1.1 Electric

- I. Implement two-year rate plan.
 - FY 2024: 4.8% average system rate/revenue increase
 - FY 2025: 5.9% average system rate/revenue increase
- II. Move to a balanced 50/50 debt and rate funded capital program to reduce cost of debt and maintain financial strength and stability for NBU.
- III. Phase in increases over next five years to achieve 50/50 goal ratio (gradualism).
- IV. Implement consistent rate increases across classes (e.g., no customer classes are getting significantly larger rate increases than others).

6.1.2 Water

- I. Implement two-year rate plan.

New Braunfels Utilities

- FY 2024: 9.1% average system rate revenues increase
- FY 2025: 13.4% average system rate revenues increase
- II. Remove on-peak/off-peak differential from existing rate structure.
- III. Split Commercial class into Small General Service (SGS) and Large General Service (LGS)
- IV. Move higher usage customers into the LGS class.
- V. Modify usage tiers in Residential, SGS, and Irrigation classes to more accurately reflect class usage.
- VI. Create additional tier in Residential class to allow for savings by low-usage customers.

6.1.3 Wastewater

- I. Implement two-year rate plan.
 - FY 2024: 7.3% average system rate revenues increase
 - FY 2025: 7.3% average system rate revenues increase
- II. No changes to customer classifications are recommended.