STATE OF MAINE
PUBLIC UTILITIES COMMISSION

Docket No. 2022-00152

December 5, 2022

CENTRAL MAINE POWER COMPANY
Request for Approval of Distribution Rate Increase and Rate Design Changes
Pursuant to 35-A M.R.S. § 307

BENCH ANALYSIS

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I. INTRODUCTION

On August 11, 2022, Central Maine Power Company (CMP or the Company) filed this distribution rate case, seeking an initial increase in distribution rates by May 10, 2023 followed by increase in each of the two following years. In order to extend the schedule to allow sufficient time for the Commission and parties to process the filing, CMP supplemented the filing on September 9, 2022. This extended the initial rate effective date to August 1, 2023.[1] CMP uses a test year of calendar year 2021.

Following the schedule established for the case in an August 22, 2022 Procedural Order, Commission Staff (Staff) and parties conducted written and oral discovery on CMP. Staff submits this Bench Analysis and accompanying exhibits to provide evidence on certain issues raised by CMP's filing. [2]

II. OVERVIEW OF CMP PROPOSAL

CMP proposes a three-year rate plan with annual increases based on forward-looking estimates of capital spending and other revenue requirement items for three "rate years," which are August 1, 2023 to July 31, 2024 (Rate Year 1), August 1, 2024 to

[1] *See* August 26, 2022 Procedural Order.

[2] This Bench Analysis does not attempt to reflect Staff's view of every potential issue in this case. It is intended to contain the Advisory Staff's technical analysis of certain issues at this stage of the proceeding. Readers should not infer from the lack of discussion, Staff's agreement with any particular aspect of CMP's distribution rate proposal. Moreover, the fact that an issue, either evidentiary or otherwise, may not be addressed in the Bench Analysis does not preclude Staff's ability to raise it in later stages of this proceeding.

July 31, 2025 (Rate Year 2), and August 1, 2025 to July 31, 2026 (Rate Year 3). RRP Test. RRP-2.[3]

The proposed revenue requirement increases by rate year are shown in Figure 1.

Figure 1: Proposed Revenue Requirement Increases

Figure 1

	Rate Year One Ended 7/31/24		Rate Year Two Ended 7/31/25		Rate Year Three Ended 7/31/26	
	Amount ($M)	Delivery %	Amount ($M)	Delivery %	Amount ($M)	Delivery %
Revenue Requirement Increase (As Requested)	$51.2	18%	$27.6	8%	$23.0	6%
Revenue Requirement Increase (including Capital Adjustment Mechanism)	**$59.5**	**21%**	**$39.7**	**12%**	**$42.7**	**11%**

Adapted from RRP Table 1. Revenue Requirement Increase including impact of Capital Adjustment Mechanism from EXM-008-033.

A. Three Year Rate Plan

As discussed in more detail herein, CMP's proposed three-year plan, a form of multi-year rate plan (MRP), would allow the Company to increase rates by set amounts in each rate year based largely on capital spending projections "subject to downward adjustment based on an annual reconciliation of actual distribution plant additions to those used to set base rates." PP Test. PP-15. Any spending that may occur that is greater than the projected totals would not be recoverable during the rate plan. *Id*. at 16.

A large majority of the proposed spending is on maintenance of and capital improvements to CMP's distribution system, which CMP states are "necessary for CMP to meet customer expectations, maintain and enhance the reliability and resiliency of our system, and align with Maine's climate and energy policies and goals." *Id*. at 9. These investments include replacing distribution line components identified in CMP's

[3] On September 9, 2022, CMP filed updated testimony, with accompanying exhibits, for several witness panels. Any references in this Bench Analysis refer to the updated testimony unless otherwise noted.

distribution line inspection (DLI) program, making substation upgrades, expanding the Energy Control Center (ECC), facilitating new customer connections, improving system operations (including costs for the distribution portions of transmission upgrades required by federal rules) and other investments, all as displayed with cost estimates on Exh. CIP-2.

B. Capital Adjustment Mechanism

CMP proposes a Capital Adjustment Mechanism for five areas of investment that "are outside of CMP's base Capital Investment Plan (and driven by unique circumstances outside our basic safe and reliable service mandate)." PP Test. at 16. The five investment areas, each addressed herein, are

1. Replacement of poles owned by Consolidated Communications, Inc. ("CCI");
2. Broadband-related pole replacements and upgrades;
3. Electric vehicle (EV) charger projects;
4. Two energy storage projects; and
5. Upgrades to billing and metering systems to accommodate the Company's time of use (TOU) proposal.

The Capital Adjustment Mechanism, essentially a capital tracker, would allow CMP annually to increase rates based on a flow-through of costs. For each of these areas, CMP proposes a separate funding mechanism, to be reviewed by the Commission on an annual basis along with the capital investment items in the three-year plan. CMP envisions documenting the investments and the revenue requirements associated with the five items at the conclusion of each rate year, and would "defer the associated revenue requirement, inclusive of carrying costs, and incorporate the impact

when distribution rates are next changed as part of the annual compliance filing process." EXM-008-009.

C. Vegetation Management

CMP proposes structural changes to its ongoing vegetation management program, moving from a 5-year to a 6-year cycle trim program and using the savings to increase its ancillary trim program.

D. Customer Service

In the area of customer service, the Company proposes "targeted investment in technology and staffing as we seek to enhance our customers' experience with regard to service reliability, energy affordability, and individualized preferences for account management and communications." CS Test. CS-2.

E. Cost of Capital

CMP proposes a return on equity of 10.2% with a capital structure that is 50% equity and 50% debt. This would produce a weighted average cost of capital of 7.18%.

F. Rate Design

CMP proposes two changes to its rate design. Based upon its marginal cost of service study, CMP seeks to increase the fixed monthly customer charges for most rate classes. It also proposes modifications to its TOU periods to provide enhanced incentives for customers to shift usage away from peak periods.

III. REVENUE REQUIREMENT – BASIC TEST YEAR ISSUES

A. Depreciation

CMP's expert, John J. Spanos, performed a depreciation study and recommends depreciation rates that would result in a depreciation expense of $67,764,000.00 at the end of the first rate year. Exh. RRP-2, Schedule D. The Commission engaged William

Dunkel to provide expert analysis and testimony related to CMP's depreciation study and depreciation expense. Mr. Dunkel's Bench Report is attached as Exhibit 1. Mr. Dunkel disagrees with the methodology used by Mr. Spanos to calculate net salvage values. Mr. Dunkel recommends the Commission reject Mr. Spanos's "ratios to the associated retirements" statistical analyses net salvage method and adopt the depreciation rates for each account as listed in the WDA Proposed columns of Attachment WWD-5. Mr. Dunkel's methodology would not result in a significantly different depreciation expense in this proceeding from that proposed by CMP. It would, however, produce significantly different depreciation expenses in subsequent years. At this time, Staff conducts no further analysis of Mr. Dunkel's Bench Report.

B. Return on Equity and Capital Structure

CMP's expert, Anne Bulkley, proposes a return on equity (ROE) in the range of 9.75% to 11.25% for CMP. Within this range, CMP proposes an ROE of 10.20%. Regarding its capital structure, CMP proposes a hypothetical capital structure and cost of capital for the three rate years (2023–2026). The capitalization ratios are: short-term debt –1.10%, long-term debt – 48.88%, preferred stock – 0.02%, and common equity – 50.0%. The senior capital cost rates are: short-term debt – 2.50%, long-term debt – ranging from 4.09% to 4.33% over the three years, and preferred stock – 6.00%. They are summarized in Figure 2. Thus, CMP proposes a weighted cost rate of 7.18%.

Figure 2: CMP's Proposed Rate of Return

Capital Source	Capitalization Ratio	Cost Rate	Weighted Cost Rate
Short-Term Debt	1.10%	2.50%	0.03%
Long-Term Debt	48.88%	4.19%	2.05%
Preferred Stock	0.02%	6.00%	0.00%
Common Equity	50.00%	10.20%	5.10%
Total	100.00%		7.18%

The Commission engaged J. Randall Woolridge, Ph.D. to provide expert analysis and testimony related to CMP's return on equity and capital structure. Dr. Woolridge's testimony is attached as Exhibit 2. Dr. Wooldridge's analysis indicates a common equity cost rate in the range of 8.90% to 9.10%. Consequently, he employs an equity cost rate of 9.00% for CMP. Dr. Woolridge adopts CMP's proposed capital structure with a common equity ratio of 50.00%. Thus, he recommends a weighted cost rate of 6.58%. Dr. Woolridge's recommendations are summarized in Figure 3.

Figure 3: Dr. Woolridge's Rate of Return Recommendation

Capital Source	Capitalization Ratio	Cost Rate	Weighted Cost Rate
Short-Term Debt	1.10%	2.50%	0.03%
Long-Term Debt	48.88%	4.19%	2.05%
Preferred Stock	0.02%	6.00%	0.00%
Common Equity	50.00%	9.00%	4.50%
Total	100.00%		6.58%

At this time, Staff conducts no further analysis of Dr. Woolridge's testimony.

C. Vegetation Management

1. Program Design Change

CMP proposes to transition from a five-year trim cycle to a six-year cycle. VMP Test. VMP-10. Using the cost savings realized by trimming fewer miles of line per year, CMP seeks to achieve more targeted reliability improvements by adding two new vegetation

management programs. The first is an enhanced clearance or “ground-to-sky” program on the three-phase portion of the distribution grid. The ground-to-sky program is intended for the entire three-phase portion of the system over a period of many years. The other new program is a hazard tree program that will focus on more aggressively removing hazard trees that are located outside of the trim zone. VMP Test. VMP-25-26.

CMP’s outage data indicates the primary cause of vegetation related outages are a result of trees or limbs falling from outside the trim zone. Outages caused by “grow-in” or vegetation contact from within the trim zone are less than 5%. VMP Test. VMP-29, 31. This type of outage causing contact has generally been mitigated by the Company’s adherence to its cycle trim program. The purpose of the overall program change is to target the root cause of most of its vegetation related outages: trees or branches from outside the trim zone.

All things being equal, CMP would continue to perform its cycle trim program on a five-year basis; however, the cost of the program has escalated significantly, and external resources have been limited. As a result, CMP has failed to complete its targeted trim mileage by 2,491 miles over the last cycle. *Id.* at VMP-24. The resources contracted to perform its annual cycle trim targets are further challenged by the amount of other work on the system. CMP assigns its vegetation crews to several other distribution functions such as storm recovery, new connections, capital projects and distributed generation connections. *Id.* at VMP-15. As a result, the cycle trim program is not prioritized nor is it sufficiently staffed to perform the work that is required. Tr. 155 (Nov. 10, 2022). Moving to a six-year cycle should reduce the labor requirements on

this element of vegetation management and allow the Company to direct focus on meeting its goals.

Staff is considering (1) a metric that would track miles scheduled against miles completed, and (2) developing a method of calculating improvements to SAIFI (System Average Interruption Frequency Index) from the vegetation management program and using one or both to measure the program's effectiveness. Staff invites CMP and the parties to provide responses during rebuttal/surrebuttal.

2. Program Cost

CMP includes a request for $34 million in 2023, $39.1 million in 2024, and $40.3 million in 2025 for its vegetation management program. VMP Test. VMP-39. The Company plans to issue a request for proposals (RFP) for its vegetation management services in early 2023. EXM-004-028. CMP states that moving to the six-year cycle while adding the two new ancillary programs will maintain the program cost at the same level as the Company has estimated to simply perform the five-year cycle. VMP Test. VMP-11. Staff has requested the Company to file the RFP in the case management system once it has been issued. As the case moves forward and the estimated costs become known, the Company should include the updated pricing.

3. Program Benefit

In evaluating its move from the five-year to six-year cycle for its maintenance trimming program, the Company performed an analysis forecasting the effect the cycle change would have on its reliability performance. OPA-005-012. As shown in Figure 4, while adding the sixth year would have a negative impact on customer interruptions (36,009 additional customer interruptions), adding the ground-to-sky and the expanded hazard tree programs would have net benefits (129,602 fewer customer interruptions).

Figure 4: Annual Customers Affected (CI) Between a 5-Year versus 6-Year Cycle

Total System Miles:		22,008.05						
5-Year Cycle								
	Age 1 Yr.	Age 2 Yr.	Age 3 Yr.	Age 4 Yr.	Age 5 Yr.		**Annual Estimated**	
Miles Per Age	4,401.61	4,401.61	4,401.61	4,401.61	4,401.61		**22,008.05**	
CI/Mile	22.1388	21.1082	21.6912	23.8878	27.698		**23.30**	
CI Est	97,446	92,910	95,476	105,145	121,916		**512,893**	
6-Year Cycle								
	Age 1 Yr.	Age 2 Yr.	Age 3 Yr.	Age 4 Yr.	Age 5 Yr.	Age 6 Yr.	**Annual Estimated**	
Miles Per Age	3,668.01	3,668.01	3,668.01	3,668.01	3,668.01	3,668.01	**22,008.05**	
CI/Mile	22.1388	21.1082	21.6912	23.8878	27.698	33.1218	**24.94**	
CI Est	81,205	77,425	79,564	87,621	101,596	121,491	**548,902**	
ADDITIONAL CI INCURRED FROM GOING FROM A 5 TO 6 YEAR CYCLE:						**36,009**		
						Total CI	Cost	Cost/CI Saved
					Estimated Annual CI Saving Enhanced Removal Program:	66,017	$1,731,680	$26.23
					Estimated Annual CI Saving Ground-to-Sky Program:	63,585	$3,476,907	$54.68
					Total CI Saved from New Programs:	**129,602**		
					Net CI Savings:	93,593		
					Percent annual Customers Affected Savings:	18.2%		

OPA-005-012, Attachment 1.

Overall, the proposed change to the program results in over 93,000 mitigated interruptions annually. To calculate the estimated SAIFI improvement attributed to the vegetation management program, one would divide the annual avoided interruptions by the total number of customers. Dividing the 93,593 customer interruptions by 648,602 total customers[4] results in an estimated annual SAIFI savings associated with the overall program of 0.144. When discussing performance metrics in Section IV.A, this proposed improvement in reliability should be included.

4. Reconciliation of Ancillary Vegetation Management Costs

Currently, CMP is allowed to reconcile costs associated with the ancillary vegetation management program during the Annual Compliance Filing (ACF). In Section IV.C, Staff raises concerns about the number of items that would be reconciled

[4] "Total customers" is based on Rate Design testimony filed in Exh. RD-1, RD-5 and RD-6.

and seeks comment from CMP and the parties on possible reduction of the number of items in the ACF. Comments on the reconciliation of ancillary vegetation management costs should be included.

D. Other Test Year Issues

CMP recently executed a lease with the U.S. General Services Administration for approximately 49,598 feet of office space on the second and third floors of CMP's General Office in Augusta, Maine. Ch. 120 Information § 5.C.13; ODR-002-015. In April 2022, the Commission found good cause to waive the requirement of Chapter 820, section 3(A) and did not require CMP to establish or use an affiliate for the purposes of the proposed lease. *Central Maine Power Co.*, *Request for Waiver Re: Ch. 820 for Lease of General Office Space Pertaining to CMP*, Docket No. 2022-00010, Order at 5 (April 7, 2022). However, the Commission deferred until CMP's next general rate case the question of whether to waive the requirement in Section 6(A) that the transaction is treated "below the line." *Id.* The Commission required CMP to "separately track all costs and revenues related to this proposed lease transaction as well as all of its own costs to renovate the General Office for its own uses." *Id.* Staff requests that with its rebuttal testimony, CMP provide a copy of the lease and the most recent accounting of costs and revenues associated with the lease.

E. Customer Service

1. CMP's Proposal

CMP's Customer Service Plan[5] is based on providing excellent customer service through people, process, and technology advancements. CS Test. CS-1:22-23.

[5] The Customer Service Plan is not a written stand-alone document. EXM-005-001.

According to CMP, customers expect and prefer to manage their accounts digitally and through self-service rather than through traditional methods. CMP explains that digital self-service options require targeted investment in technology and staffing and such investment will improve the effectiveness of its credit and collection activities and support the needs of low-income and other disadvantaged customers. *Id.* at CS-2. CMP emphasizes that by implementing its Customer Service Plan it expects to realize improvement in its customer service and general customer satisfaction. Tr. 111:2-12; 112:13-14 (Nov. 1, 2022).

The Company proposes to meet the objectives of its Customer Service Plan by: (1) providing customers with the ability to pay their bills via their preferred method, including in-person payments at authorized agencies and an expanded ability to make payments through the use of debit and credit cards; (2) automatically enrolling customers in Outage Alerts, Energy Manager and Usage Alerts; (3) creating a Customer Experience Platform and a Digital Operations Center (DOC) to allow the Company to monitor and address the digital functions of the customer service platforms; (4) creating a new Quality Assurance (QA) Analyst position to review customer service processes and evaluate customer conversations with the Company; and (5) creating a new Customer Advocate position to work with low-income, disadvantaged or marginalized customer groups to access energy assistance and help them maintain their utility service. CS Test. CS-2-3. With respect to the costs associated with accepting customer payments through a variety of means, CMP proposes to reconcile all costs associated with customer payments in the Annual Compliance Filing.

2. Staff's Position

a. *Reconciliation of Payment Method Costs*

The Company proposes to expand the availability of debit and credit card payment options to customers by allowing the Company to annually reconcile the cost of customer payments. According to CMP, this will remove barriers to using digital payment options, thus making it easier for customers to manage their utility debt. *Id.* at CS-12:4-6. CMP argues that this is necessary because of the significant costs that it would incur if it accepted all credit card payments without reconciliation. The Company states that in 2021, customers made 847,163 payments using a debit or credit card, totaling almost $117 million, and that it CMP $1,572,097 in associated bank fees, of which it was permitted to recover only $443,000 through existing rates. *Id.* at CS-12:14-16.

CMP also proposes to eliminate the $1.00 fee for payments made in person, which is intended to compensate the authorized payment agencies (*e.g.* Walmart) for handling the payment. Instead, CMP proposes that the cost associated with in-person payments be included in its revenue requirement, an estimated annual cost of $82,000, and like the costs of accepting credit card payments, that this cost be reconciled annually through the Annual Compliance Filing. *Id.* at CS-14:6-9.

Staff agrees with CMP's expansion of payment options and that CMP should be able to recover the costs related to these transactions, either directly from the customers using the debit or credit card, through a general "convenience fee" (subject

to relevant legal restrictions),[6] or by including the cost of these transactions in the general revenue requirement. However, Staff disagrees with the proposal to reconcile these costs through the Annual Compliance Filing. Staff views this as a cost incurred in CMP's normal course of business. Thus, it should be included in the revenue requirement through traditional means, *i.e.*, the cost incurred in the test year, adjusted for the known and measurable forecasted changes during the rate year, and not annually reconciled.

Regarding the $1 fee for in-person payments, Staff agrees that the modest cost associated with CMP's proposal ($82,000.00) should be included in the revenue requirement. Staff disagrees, however, that these costs should be reconciled annually for the same reasons discussed above.

b. *Auto-Enrollment in Outage Alerts, Usage Alerts, and Energy Manager.*

CMP estimates the annual cost to auto-enroll all customers in the Outage Alert system to be $226,000.00 in 2023 and proposes an increase in the following years to reflect inflation. *Id.* at CS-16:11-13. CMP estimates the annual cost to auto-enroll all customers in the Energy Manager and Usage Alert systems to be $280,000.00 per year, with an increase in the following years to reflect inflation. *Id.* at CS-17:16-18.

Staff was initially concerned that these may be one-time costs that should not be included in the revenue requirement as an annual cost. However, CMP explained that these are on-going costs that are associated with the cost of sending each text

[6] Versant Power charges a "convenience fee" when customers make payments using a credit card, debit card, ACH (automated clearinghouse) or pre-authorized draft, provided that the customer is informed of the specific amount of the fee prior to making the payment.

message. Tr. 129:5-8 (Nov. 1, 2022). With this understanding, Staff does not object to the inclusion of these costs in the revenue requirement. Staff does, however, have concerns regarding the Company's plan to inflate these costs pursuant to the general inflation mechanism. When asked what the rationale is for including these costs in the general inflation mechanism, the Company stated:

> when you have a large pool of costs that you use the general inflation factor in order to estimate, it's -- there's a recognition that some costs are going to grow at a rate higher than that and some costs will grow at a rate lower than that, not dissimilar to, you know, the GDPPI which is the basis for the general inflation factor in the first place. It's a basket of goods. So will the cost of text messages go up over the next three years at, whatever, three percent per year following GDPPI? Maybe, maybe not. But that's a small piece of an overall pool that has some give and take.

Id. at 130:15-25 (Nov. 1, 2022).

Nothing in the record yet suggests that the costs of sending text messages would increase during the rate effective years. In fact, CMP has not yet contracted for these resources, so CMP does not yet know whether the cost of text messaging will escalate. *Id.* at 131:9-10.

c. *Customer Experience Platform and the Digital Operations Center*

The Company states that the Customer Experience Platform is a tool that will digest data from all customer interactions across digital tools - the Customer Contact Center, billing and offline channels - and that CMP will use the data to segment and develop individual campaigns that create personalized experiences. CS Test. CS-18:3-23. According to CMP, these personalized experiences will enable proactive communication of relevant content to each customer on the customer's next best actions and recommendations. The proposed capital spend for the Customer

Experience Platform is $441,000.00. CMP explains that the DOC creates a platform to allow it to monitor and promptly address the health of the digital platforms used by its customers. The Company also states that the DOC will proactively monitor traffic to and performance of its website and apps and will facilitate quick resolution of any issues. This will ensure that CMP's platforms are stable and provide an optimal digital customer experience. CMP estimates that the incremental annual expense of the DOC will be $78,000.00 in 2023, with increases in the following years tied to inflation. CS Test. CS-19:1-4.

Staff does not have specific concerns at this point regarding the Company's plans to invest in the Customer Service Platform or the DOC. However, Staff does have serious concerns regarding the amount of the overall investment CMP proposes in this case. CMP should prioritize its investments to ensure that ratepayers receive the maximum benefit. CMP has not performed a cost/benefit analysis regarding the Customer Service Platform. ODR-001-008. Staff also questions whether these items are a high priority for the Company.

Further, Staff is concerned that CMP's proposed revenue requirement does not reflect any potential savings associated with the Customer Service Platform, the DOC, and the associated digital self-service functionality proposed in this case, including the goal to transition more customers from paper billing to e-billing. In response to COMES-002-006, the Company estimates that the Customer Service Platform "could help manage around 15 percent more engagements digitally meaning a potential operational cost savings of approximately $700,000.00 over the useful life of the platform from customers self-serving through these personalized engagements." According to CMP,

some of this savings would be realized through fewer phone calls, some would be savings through e-bills, and some savings would be from people making payments on a mobile app instead of calling customer service reps. Tr. 125:11-15 (Nov. 1, 2022). The Company also acknowledged that none of the $700,000.00 in estimated savings was reflected in the proposed revenue requirement because that savings was estimated over the life of the project and the project had not yet been approved, presumably by the Commission. *Id.* at 125:19-25; 126:1-4. Assuming that CMP continues to propose that these investments be made, it should adjust its proposed revenue requirement to reflect all savings associated with these savings with both capital operations and maintenance.

d. *New Quality Analyst and Customer Advocate Positions*

According to CMP, the purpose of the Quality Analyst is to "ensure robust QA processes and high-quality conversations." CS Test. CS-21:1-8. The Quality Analyst would perform quality monitoring in CMP's customer contact center, above and beyond the calls that supervisors currently monitor and would serve as a back-up resource to supervisors in completing their quality monitoring. The purpose of the Customer Advocate is to work with low-income, disadvantaged or other marginalized customer groups to optimize payment assistance and customers' ability to maintain active CMP service. *Id.* The Customer Advocate would undertake community outreach education with organizations serving senior and low-income populations. CMP does not envision that the Customer Advocate would interact directly with customers, a task that would continue to be performed by customer service representatives. Tr. 138-140 (Nov. 1, 2022). CMP stated that if the Commission were to "approve" the inclusion of these

positions in the revenue requirement, it might be able to fill the positions before the first rate year begins. *Id.* 144:11-16.

Staff has two primary concerns with including the costs of these two positions in the proposed revenue requirement. First, CMP has not adequately demonstrated the immediate need for these two new positions. The tasks proposed for each of these positions are currently performed by other staff, and it is not clear that there is currently a problem performing these tasks. When asked to identify its top three spending priorities related to its proposed customer service spending, the Company's first priority was its proposed investment in usage and outage alerts and the associated investment in the digital platforms; the second priority was the proposed credit card reconciliation process; and third priority was the Customer Advocate position. Tr. 145-56 (Nov. 1, 2022).

Second, Staff is concerned that CMP has not advertised or filled these positions and is apparently waiting for Commission approval to include the costs of these positions in the proposed revenue requirement before committing to them. *Id.* at 108:24-110:2 (Nov. 1. 2022). This raises the question of whether these are "known and measurable" costs that can be included in the Company's revenue requirement.

e. *Additional Staff Concerns*

As stated in this Bench Analysis, Staff is concerned about the significant amount of increased spending proposed by the Company in this case. A purpose of this increased spending is to improve customer service, not just maintain current levels of customer service. Staff observes that recently CMP has generally met its customer service-related performance metrics. *See, generally, Request to Remove Management Efficiency Adjustment Pertaining to CMP*, Docket No. 2021-00318. Indeed, Ms. Ball

explained that current customer service staffing levels are sufficient to allow CMP to meet its current service quality indices. Tr. 105:19-21 (Nov. 1, 2022). Thus, for the Commission to approve the significant spending increases proposed by CMP in this case, the Company should commit to a quantifiable improvement in its customer service. This can be achieved through a service quality index (SQI) that contains quantifiable service quality metrics with benchmarks that reflect improved customer service over a pre-determined period of time.

To this end, Staff recommends that the four existing customer service metrics, *i.e.*, (1) percentage of calls answered in 30 seconds, (2) Call Abandonment Rate, (3) Bill Accuracy, and (4) Estimated Bills, continue to be measured, with improving benchmarks over a pre-determined period of time.[7] Staff also recommends that CMP consider adding metrics, such as its customer satisfaction survey (*e.g.*, a "CSat Survey") to measure general customer satisfaction with the Company's service, as well as a metric to measure the increased number of digital interactions the Company expects in relation to its Customer Service Platform and DOC investments. Staff notes that CMP already conducts customer satisfaction surveys and has an internal target of 89% of customers satisfied, a metric that CMP has used for decades. *Id.* at 115:11-116: 4 (Nov. 1, 2022). Finally, CMP should also propose a penalty mechanism for failure to achieve the established benchmarks that increases the penalty commensurate with the level of the performance failure.

[7] Note that Staff views the metrics established in Chapter 320 as minimum service standards, rather than enhanced service standards that should result from enhanced investment.

IV. RATE PLAN/CAPITAL TRACKER/RECONCILIATION ITEMS

A. Three-Year Capital Plan and Associated Performance Metrics

1. CMP's Proposal

a. *Introduction*

In connection with the proposed rate plan, CMP provides estimated costs in a variety of capital investment areas for each of the three years of the plan. These investments fall into five categories: (1) Asset Condition, Reliability, Resiliency, (2) Customer, (3) Capacity, (4) System Operations, and (5) Modernization. CIP Test. CIP-13, Table 1. That table is reproduced here as Figure 5:

Figure 5: CMP Actual and Forecast Investment Plan, 2018-2026

$000	Actual 2018	Actual 2019	Actual 2020	Actual 2021	Forecast 2022	Forecast 2023	Forecast 2024	Forecast 2025	Forecast 2026
Asset Condition, Reliability, Resiliency	$38,190	$57,370	$87,897	$108,423	$98,876	$92,489	$114,313	$116,578	$129,991
Customer	$9,658	$18,147	$20,614	$32,299	$23,647	$19,503	$17,908	$18,436	$18,980
Capacity	$3,857	$4,170	$12,343	$4,099	$4,022	$17,407	$2,335	$0	$0
System Operations	$23,183	$47,688	$33,557	$31,710	$41,326	$34,148	$38,719	$37,309	$51,594
Modernization	$4,492	$1,898	$3,751	$2,155	$10,666	$16,452	$16,752	$27,678	$35,041
Total	$79,381	$129,273	$158,162	$178,686	$178,537	$180,000	$190,000	$200,000	$235,606

Id.

Figure 5 shows historic investments, including for the test year, as well as estimated investments for each year of the proposed rate plan. CMP places the most investment dollars, by far, in the first category.

The Capital Investment panel describes the CMP distribution system as aging, containing outmoded equipment and with a significant number of the roadside poles and wires in poor physical condition. CIP Test. CIP-8. CMP asserts that storms are becoming more frequent and severe and that interconnections of distributed energy

resources (DERs) are increasing, both of which can tax the distribution system. CMP also states that customers expect fewer and shorter outages and cites continuing load growth. *Id*. at 9-10; EOP Test. EOP-39.

The Company states that the distribution system needs investment to meet these challenges, including an increased focus on automation, replacement of aging and outmoded assets, replacing manual circuit ties with automatic switching and additional circuit ties, and "the development of a solid platform" to support the DER growth. CIP Test CIP-10. CMP also seeks funding to continue the process of investing in its Energy Control Center (ECC) to create a Distribution Operations function that will allow centralized control to improve reliability and help integrate DER into the system. PP Test. PP-10.

Figure 5 shows dramatically increased capital spending starting in 2019. CMP states that it has been spending beyond the amounts it collects in current rates, and needs the proposed rate increase to continue a high level of spending to meet the stated demands. The Company also states that the funds are needed to maintain existing reliability and will provide for improved reliability over time. Tr. 35-36 (Nov. 9, 2022).

b. *Summary of CMP's CAPEX Spending*

The estimated costs for proposed future investments during the rate plan years are presented in Figure 5 and expanded upon in Exh. CIP-2. The following numerical figures are CMP's capital spending estimates taken from that exhibit for the years 2023 through 2026.

Under Asset Condition, CMP estimates spending almost $150 million on investments such as substation upgrades, betterments, and planning studies. Exh. CIP-

2 at 2. CMP estimates spending a total of nearly $260 million on “Reliability” including $120 million on its DLI program, and tens of millions on distribution line projects, transformer replacements and two specific “reliability improvement” projects.” *Id*.

Under the heading of “Customer” (*see* Figure 5 above) CMP estimates spending nearly $74 million, the bulk of which would go to “new connections.” *Id*. CMP lists only two items under “Capacity.” One is “load relief” and includes two substation items. The other is the estimated costs of the non-wires alternatives (NWA) for CMP line Section 31. *Id*. Many items are included under “Systems Operations” with a total of just under $162 million estimated. This category includes “compliance,” referring to the distribution costs associated with federal reliability standards, “facilities,” “fleet,” “information technology,” and “operational technology” among others. *Id*. at 3. Finally, CMP estimates costs of over $95 million for “Modernization.” Most of this category is composed of a $72 million estimate for “system automation.” *Id*. at 4.

c. *Three-Year Rate Plan*

To recover its costs associated with these investments, CMP proposes a three-year rate plan that would allow for rate increases in Years Two and Three without the need for a general rate case filing. CMP asserts that the plan, with its annual reviews, will provide transparency, reduced costs for customers (in the form of lower debt costs), and a smoothing of the type of rate impacts that would occur from successive cost of service rate cases. PP Test. PP-18.

CMP believes that, with the increased emphasis on reliability, the demands of Maine’s approach to climate change, the resulting increase in beneficial electrification, and expansion of DER on the system, more investment is now needed than has been the case in the past. *Id.* at PP-20. The Company claims that because of these drivers,

traditional ratemaking is inefficient compared to a multi-year rate plan (MRP) like the one in this case. CMP states that an MRP provides needed certainty to the utility that it has the available funding over the life of the plan to make "multi-year programmatic investments." *Id*. at PP-21.

CMP asserts that the compound annual growth rate (CAGR) method used to establish capital spending in rates in the last two CMP rate cases is inadequate to meet present needs. CIP Test. CIP-11-12. The Company states that "[w]ithout consistent and increasing capital investment, the aging condition of the system will make it increasingly difficult to provide safe, reliable and resilient service to customers in the future." *Id*. at CIP-12. CMP states that if the Commission continues to use a CAGR approach, it should not be based on five years of data, as it has in the past, but instead should use the years 2019 through 2022 since "this period better captures the Company's actual, recent Capital Investment Plan and practices." *Id.* at CIP-33. The base year would be 2019. EXM-009-051.

2. Staff's Analysis

CMP's three-year investment plan appears to be ambitious and would result in significant increases in distribution rates over the three-year period. While most of the investments appear designed to contribute to safe and reliable service, Staff has various concerns with aspects of the plan, including the magnitude of the costs, affordability, and the lack of metrics or other means of measuring improvements resulting from the plan.

At this time, except as noted herein, Staff does not question any particular item or group of items in the Capital Investment Plan. The Commission will not, in this case, determine the prudence of the investment in any item in the forward-looking plan.

a. *Supply Chain Issues*

During the COVID pandemic, issues developed and continue to persist worldwide in various equipment supply chains. CMP states that it has procured materials for all 2023 substation projects and the risks are mitigated. CMP explains it has taken steps to work with vendors to secure framework agreements to minimize the risk of delays. For later years, CMP explains that it has incorporated timelines to ensure that future years are also at low risk from supply chain issues. EXM-017-016. However, CMP admits that wait times for plant containing steel, particularly transformers, is long. Tr. 81 (Nov. 9, 2022).

Lead time for substation transformers, along with smaller transformers, continues to grow due to supply chain bottlenecks, reliance on imported transformers, commodity availability, labor scarcity, and storm impacts. Staff, with its engineering consultants Electrical Power Engineers (EPE), consulted a variety of publicly available resources, which quoted lead times from as low as twelve months to as high as five years.[8]

Given the lengthening lead times, Staff is not confident that CMP will be able to complete the investments involving transformers within the timeframes contained in the

[8] *See generally* Jeff Postelwait, *Transformative Times: Update on the U.S. Transformer Supply Chain*, T&D World (July 12, 2022), https://www.tdworld.com/utility-business/article/21243198/transformative-times-update-on-the-us-transformer-supply-chain.; Andy Uhler, *A shortage of electrical transformers holds back utilities, businesses*, Marketplace (Nov. 14, 2022), https://www.marketplace.org/2022/11/14/a-shortage-of-electrical-transformers-holds-back-utilities-businesses/amp/; Joy Ditto, *We Must Keep Expressing Urgency About the Transformer Crisis*, American Public Power Association (Oct. 14, 2022), https://www.publicpower.org/blog/we-must-keep-expressing-urgency-about-transformer-crisis; Paul Ciampoli, *APPA Survey of Members Shows Distribution Transformer Production Not Meeting Demand*, American Public Power Association (Oct. 12, 2022), https://www.publicpower.org/periodical/article/appa-survey-members-shows-distribution-transformer-production-not-meeting-demand.

three-year rate plan. Staff requests that in rebuttal CMP address in more detail how it has mitigated the risks of supply chain challenges and potentially adjust the cost or time estimates for these investments accordingly.

b. *Metrics*

CMP's proposed three-year rate plan includes an annual review of base capital investments in which a downward adjustment could be made if CMP does not spend the amounts authorized for that given year. CMP also proposes a Capital Adjustment Mechanism or a "Capital Tracker" for five specific capital programs. To inform the Commission's consideration of CMP's proposal, London Economics International LLC (LEI) reviewed CMP's proposal and provided a survey that (i) identifies multi-year rate plan (MRP) features used in other jurisdictions; (ii) reviews approaches used to assess utility expenditures and make prudence determinations; (iii) provides examples of capital trackers in other jurisdictions; and (iv) provides examples of performance incentive mechanisms ("PIMs") related to distributed energy resources ("DERs") and distributed generation ("DG"), utility responsiveness to field requests, and storm response. The LEI Report is attached to the Bench Analysis as Exhibit 3.

While Staff does not provide a comprehensive set of recommendations for a Rate Plan at this point in the proceeding, Staff notes concerns about the lack of any performance-related parameters to accompany the Three-Year Rate Plan and the Capital Adjustment Mechanism proposed by CMP. In particular, during the technical conferences, Commissioners raised concerns that CMP was not committing to any performance improvements resulting from its spending plan. Tr. 46 (Nov. 9, 2022). In response, CMP noted that its reliability performance has been flat over the past 10 to15 years and that the intent of this plan is to maintain that performance with the

understanding that improvement should occur several years in the future. *Id.* at 37. CMP indicated that it understands the Commission's concern and is willing to consider presenting methods to measure the effectiveness of its investments over time in a later filing. *Id*. at 42. Staff shares the concern that the plan, with its significant level of investments (and associated rate increases) intended to improve and modernize the distribution system, will require a higher degree of performance-related transparency and accountability than what the Company has offered to date. While Staff does not, at this time, make recommendations regarding rate plan mechanisms identified in the LEI Report, it does believe that establishing performance metrics that reflect the results of the reliability/resiliency/modernization improvements that ratepayers would be paying for, *i.e.*, SQI metrics that reflect improvement over those required in Chapter 320, is necessary. Inclusion of performance metrics as one facet of an MRP would be consistent with past rate plans in Maine.

Given these concerns, Staff provides the following discussion of potential performance metrics for a rate plan.

As CMP has indicated, some of its proposed investments are designed to maintain reliability, while others are designed to improve reliability and customer service. If these investments are made, and the associated costs are recovered from ratepayers pursuant to CMP's proposal, it would be reasonable to expect systemwide improvements in reliability, as well as in customer service. Although some of these improvements may not be realized immediately, certain investments such as the automation program are aimed at improving system performance and will therefore

contribute to reliability improvements in the near term. Staff can envision two approaches for creating accountable metrics based on the Company's plan.

The first approach is to develop an SQI that includes reliability and customer service metrics and appurtenant targets that account for the programmatic investments across the system. These metrics may extend well beyond the life of any three-year rate plan that may be approved since the proposed investments may not yield immediate measurable improvements. The metrics should be accompanied by a financial penalty or some other type of performance adjustment.

To establish reasonable targets, it is important to understand the expected contributions toward improving reliability and customer service each program would be expected to achieve. It is Staff's understanding that consideration of such improvements is an important aspect of CMP's capital spending and decision-making. *See, generally, Central Maine Power Co.*, *Invest. of CMP Management Issues and Related Ratemaking and Performance Incentive Mechanisms*, Docket No. 2022-00038. However, for the projects proposed in this proceeding, Staff notes that the only reliability program the Company has evaluated using its Reliability Calculator is the automation program. CMP's response to EXM-016-003 provides the analysis for the automation program as well as estimated improvements resulting from the resiliency program. With respect to non-capital spending, CMP has also provided its estimated SAIFI improvements resulting from its proposed vegetation management changes. OPA-005-012. These provide helpful information but are not complete or comprehensive enough to form the basis for SQI targets that could be included in a rate plan. Thus, Staff requests that

CMP perform additional analysis of its other programs and present it in its rebuttal testimony.

Another approach that could be an alternative to, or used in conjunction with an SQI, is a scorecard for each major capital program, including specific targets for each program. For example, for automation, the Company expects 41% SAIFI improvements on circuits with automation. EXM-016-003. The scorecard could have a target with bands indicating above or below target. For programs that are not specifically designed to improve reliability but are important and represent significant investments, such as the DLI program, the scorecard could report a metric such as percentage of targeted poles replaced. A performance band could be created in a similar manner as SAIFI improvements.

As stated above, because some investments will likely not have a meaningful effect on service reliability or customer service while other investments will, it may make sense to establish a process for measuring the effectiveness of the Company's investments using a combination of these suggested approaches.

Given the concerns described above, Staff undertook a review of the rate levels and reliability performance (as measured by SAIFI) of utilities in New England. Specifically, Staff examined the relationship between reliability and rates for New England utilities using publicly available data from the Energy Information Administration Form 861. Figure 6 displays the relationship between residential delivery

effective rates (revenues divided by sales) and post-storm-exclusion SAIFI for all major distribution utilities.[9]

Figure 6: New England. Residential Delivery Effective Rates and Post-Exclusion SAIFI of New England Utilities (2021)

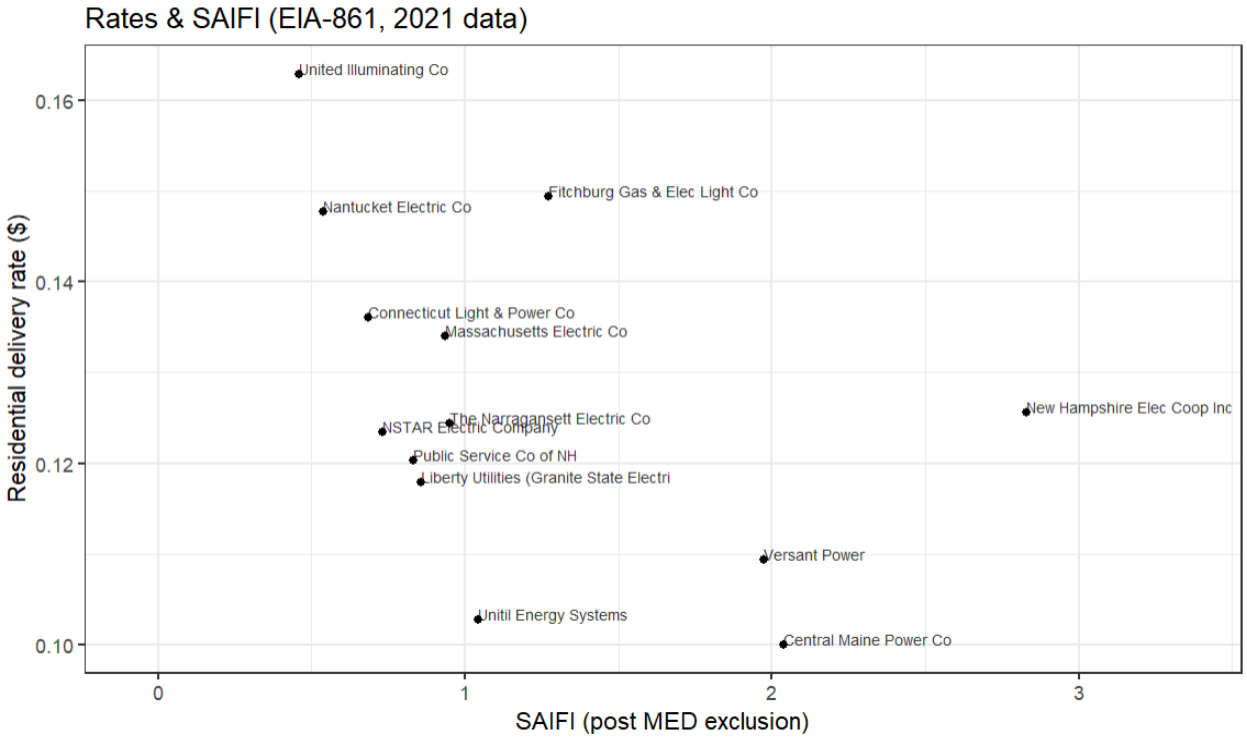
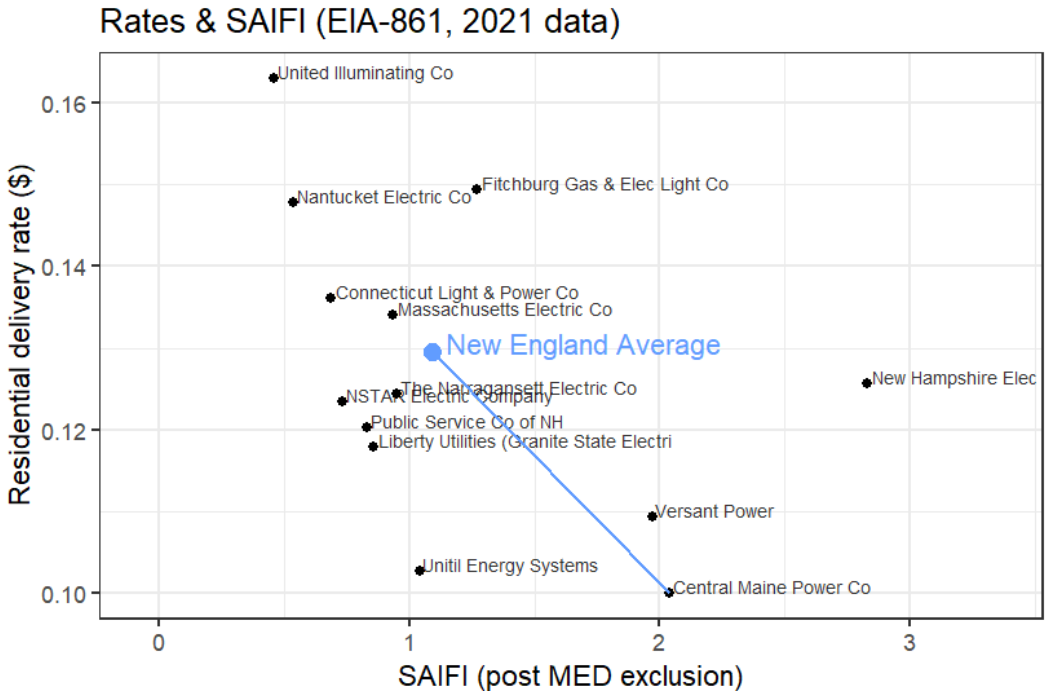


Figure 6 indicates that while CMP has the lowest residential delivery rate among all of its New England peers, it ranks below-average with respect to reliability performance, as measured by post-exclusion SAIFI. A line between CMP's current position on this chart and the New England average can suggest a potential "pathway" for CMP's incremental distribution rate increases to improve system reliability performance. This pathway is shown in Figure 7.

[9] Staff has not fully analyzed the rates depicted to determine whether they are precisely comparable, for example, whether they are all distribution rates, excluding stranded costs or whether some may include other components.

Figure 7: New England Average Cost of Reliability and CMP Pathway



In the absence of the specific program performance expectations described above, a target could be established comparing CMP to its peers. As CMP's rates increase because of its proposed plan, one could expect that the SAIFI performance would move along the line toward the New England average. While this is a simplified analysis, it illustrates the expectation for reliability improvement achieved by additional expenditure on the distribution system. If CMP reached the New England average point in this visualization, an increase of 30 percent in effective residential rates would correlate with an improvement of 50 percent in post-exclusion SAIFI. This approach would not be as precise as the other options, but it could be used to set SAIFI expectations relative to investment.

In addition to the reliability metrics of SAIFI and Customer Average Interruption Duration Index (CAIDI) any SQI proposal should also include the customer service

metrics discussed in the Customer Service section of this Bench Analysis, as well as a metric(s) to evaluate the Company's responsiveness to field services requests. Further, as discussed above, the proposal should include, in addition to the SQI, a mechanism for evaluating investments that will not likely have a meaningful effect on service reliability or customer service. Lastly, the proposal should include a mechanism for establishing a financial penalty for failures to achieve the established targets and possible financial rewards for exceeding the targets. Staff requests that CMP propose metrics consistent with these points.

c. *Affordability*

The need to balance the cost of system investments with the ability of CMP's customers to afford those investments is central to this case. This is demonstrated by the fact that, to date, the Commission has received approximately 60 public comments, the vast majority of which oppose CMP's proposal to varying degrees.

CMP estimates that the proposed revenue increases (including the proposed revenues from the Capital Adjustment Mechanism) would be approximately $59.5 million in the first year of the rate plan; $39.7 million in the second year; and $42.7 million in the third year. EXM-008-033, Attachment 1. For a typical residential customer, this would translate into a total monthly bill increase of $6.17 in the first year; an additional $3.67 in the second year; and an additional $3.58 in the third year. *Id*. Over the three-year period, this would add approximately $13.42 to a typical residential customer's total monthly bill. *Id.*

Although CMP currently has the lowest distribution rates of comparable New England utilities, the median income for Maine residents is significantly lower than that of the other New England states. The U.S. Census reports that the median household

income for Maine from 2016-2020 (in 2020 dollars) was $59,486.00, while it was $63,477.00 in Vermont, $70,305.00 in Rhode Island; $77,983.00 in New Hampshire, $84,365.00 in Massachusetts, and $79,855.00 in Connecticut.[10]

Moreover, although not the subject of this proceeding, CMP customers have recently and will again experience significant rate increases in other aspects of their electricity bill, most notably increases in energy supply.[11]

Finally, Staff recognizes that at some point CMP's customers' total electricity bills could reach a point where they frustrate Maine's beneficial electrification policies. Rates that become too high could thwart Maine's efforts to convert the heating sector from fossil fuel-based systems to heat pumps, and to convert the transportation sector from fossil fuel powered vehicles to electric vehicles.[12] It is difficult to determine when that tipping point might be reached, and Staff has not attempted to do so here.

[10] United States Census Bureau, https://www.census.gov/quickfacts/fact/table/VT,RI,NH,ME,MA,CT (last visited December 1, 2022).

[11] In some contexts, energy affordability is measured by a household's total "energy burden." Resources for the Future, an independent, non-profit research institution explains that "[e]nergy burden is represented as the percent of a household's income that is spent on energy. While this measure includes other energy uses (such as gas to heat homes and operate cooking appliances), it can still tell us about how affordable electricity is for different income groups. Including other energy spending also helps control for when households switch between fuel types for home energy needs." Resources for the Future, https://www.rff.org/publications/explainers/electricity-affordability-101/ (last visited December 1, 2022). Staff does not propose an affordability metric at this time.

[12] *See* Maine Climate Council, *Maine Won't Wait* at 10-12 (Dec. 2020).

d. *Staff Does Not Support the Full Amount Requested for the Rate Plan*

CMP proposes, as part of the annual reconciliation, a downward adjustment reflecting any difference between the forecast capital plan for the given year and what it actually completes and places in service. This downward adjustment would be reflected in rates the following year. Staff believes, however, that there is low likelihood of any downward adjustments since CMP is very likely to spend up to the maximum amount. Mr. Purington stated in the technical conference,

> So if we knew, let's say, at the beginning of rate year two a project was coming in $10 million lower than anticipated on a $20 million -- well, these are just hypotheticals, right? We would probably look to fill that gap to execute additional projects that would not have been able to be executed otherwise. So depending on the time of the year, it can make a difference on the outcome of where we end up.

Tr. 188 (Nov. 9, 2022).

As this testimony makes clear, in each of the rate years, CMP proposes to spend up to the forecasted amounts, retaining the flexibility to manage its investments based on the Company's priorities. The Company states that it uses a robust prioritization to make sure its customers get the most value for its dollar. CIP Test. CIP 44-45; Tr. 180-181 (Nov. 9, 2022). In a situation in which the cost estimates presented in this case are lower than actuals, the plan works well for the Company. The Commission is being asked to approve spending *amounts*, not specific *projects*. Tr. 86-87 (Nov. 8, 2022). CMP would have rate certainty to spend up to the full amount of each year's estimated total even if the actual costs of items presented in Ex. CIP-2, for example, end up being less.

Staff understands and appreciates the need for flexibility because estimates and forecasts are by their nature subject to many potential changes. However, a process

wherein CMP moves capital projects to the front of the priority line when more important projects are stalled or not even commenced because of supply chain, labor or other problems, is not one that necessarily provides ratepayers the best value for what they pay in rates. Moreover, even though CMP would not be able to immediately recover for any amounts spent *above* the maximum, it would nevertheless be able to place such items in rate base (assuming prudence) at a later time. Therefore, the customers do not benefit from the protection of a hard cap for each project, nor a prioritization of competing projects.

Staff has identified several risks associated with the Company's ability to meet its proposed capital forecast schedule and therefore believes at this time that a reduced amount of spending, especially in the first and most at-risk year of the proposed plan, should be considered by the Commission. Where the Company retains the ability to backfill other perhaps lower prioritized projects to meet the annual cap, this suggests there is good reason to implement metrics to tie spending priorities to the Company's performance.

B. Capital Adjustment Mechanism

1. CCI Poles

a. *CMP's Proposal*

In CMP's service territory, ownership of the poles, which carry both electricity and communications, is divided between CMP and Consolidated Communications Inc. (CCI) In some areas, CMP and CCI each have exclusive ownership; in other areas CMP and CCI have joint ownership of individual poles. In general, maintenance of these poles and the relationship to other entities that seek to attach to the poles is governed by an oft-amended agreement that has been in place since at least 1976. EXM-006-009, Att. 1

(the Joint Pole and Underground Agreement, herein referred to as the "Full Agreement.").

In 2019, CMP and CCI amended this agreement so that CMP could replace CCI-owned or joint-owned poles that were found to be defective through CMP's DLI inspection process, at which point CMP becomes the sole-owner of the replaced pole. *Id*. at 83. (This amendment is referred to herein as the "Amended Agreement.")[13] Since 2019, CMP has included CCI poles in its DLI program. *Id*.; EXM-006-024.

CMP states that the 2019-2021 CCI pole-related costs stemming from its DLI program, incremental to replacing CMP-owned poles, is $16.2 million and that these replaced poles will be placed in rate base in this proceeding. CIP Test. CIP-50-51.

CMP proposes that during the term of the proposed rate plan, its costs to replace CCI poles identified in its DLI program be recovered through the Capital Adjustment Mechanism since these costs are "motivated by factors outside of CMP's control." PP Test. PP-16. CMP claims that replacement of CCI poles "is a distinct and incremental investment need separate and apart from CMP's base programs." EOP Test. EOP-26.

b. *Staff's Analysis*

Under its current DLI program, CMP annually inspects 20% of its distribution overhead facilities. Thus, each year an average of 131,000 poles are inspected with between 6,000 and 10,000 poles marked for replacement. EOP Test. EOP-18,19. As such, the DLI program serves to identify and replace poles before they fail and impact customers' electric service. All poles, whether owned by CMP or CCI individually or

[13] The Amended Agreement was the result of CCI failing to invest in its own poles, requiring CMP to repair them in storm restoration situations and then as a general maintenance matter.

jointly owned, are inspected under the DLI Inspection program using the same methods. CMP does not distinguish between CCI or CMP poles during the annual inspection process. It bases each pole's condition on the results of the inspection and assigns one of three deficiency priorities as necessary. EXM 08-017Historically, it has been the responsibility of the pole owner in the maintenance area to replace deficient poles.

In late 2019, "a dedicated project management team was established to manage and execute the DLI program for CMP, and formal completion targets were developed for each following year based on the total budget for that year." EXM-006-023, Att. 1. CMP cites aging equipment and increased failure rate as the primary drivers for the increased need to replace pole plant. Tr. 31 (Nov. 9, 2022). As the system ages and failure rates increase, there is a need to replace more poles. Currently, the Company estimates it will need to replace between 5,000 to 5,500 CMP-owned poles annually. *Id*. at 33.

The number of CCI poles CMP has replaced since 2019 is shown in Technical Conference Exh. 3, which is an updated version of Table 9 in the Capital Investment Testimony. CIP Test. CIP-51.[14] In each of the two full years when CCI poles were inspected, 2020 and 2021, CMP replaced roughly 6,500 CCI poles. This makes up a significant portion of the 6,000-10,000 poles replaced annually. When CMP replaces a CCI-owned pole under the Amended Agreement, CMP notifies CCI through the normal notification process between CMP and CCI. EXM 009-005. As CMP has allocated more funds towards replacing CCI-owned poles, those funds have offset other pole

[14] Technical Conference Exh. 3 is filed in the Commission's Case Management System as index item # 75.

replacements that the Company could have done. This deferral of pole replacements has contributed to a growing backlog of necessary pole replacements. EOP Test. EOP-25; Tr. 33 (Nov. 9, 2022).

From 2023 through 2026, with the amount of funding it has requested, CMP proposes to replace 10,000 CCI poles. Technical Conference Exh. 3. CMP indicated that this number is lower than that shown in Figure 8 because the cost per replacement has increased. Tr. 110 (Nov. 8, 2022).

The following figure illustrates the increased pole replacement investments the Company has made over the past several years. As shown, the increase in spending coincided with the execution of the Amended Agreement. Cost figures for the 2019-2022 period include both CCI- and CMP-owned pole replacements.

Figure 8: DLI Replacement Costs

Actual				Forecast
2018	2019	2020	2021	2022
6,226	6,928	14,491	31,588	47,481

Exh. CIP-2 at 1.

CMP's proposal in this case seeks to move the cost of replacing CCI poles into the Capital Adjustment Mechanism and account for them separately from CMP's replacement of its own poles. Staff notes that all the DLI program poles in the base capital projection are CMP-owned poles. The separation of the costs for CCI poles and CMP poles in order to use the capital tracker would happen during work order creation. EXM-08-017.

According to Exh. CIP-2, page 5, CMP's projected spending on CCI pole replacements[15] for 2023-2026 is:

Figure 9: Projected CCI Pole Spending

2023	$10,630,422.00
2024	$10,744,410.00
2025	$10,861,787.00
2026	$10,982,684.00
Total	$43,219,333.00

Exh. CIP-2 at 5.

The projected spending for CMP's DLI program (not including the CCI poles) during the same period is $30 million per year. Exh. CIP-2 at 1.

Staff recognizes that the 2019 Amended Agreement resulted from the fact that CCI was not devoting enough resources to pole replacement and that this resulted in a threat to CMP's ability to provide reliable service. Including the CCI poles in the DLI program created a workload increase. EXM-006-011. Prior to 2019, CMP had already incurred a backlog of DLI poles needing replacement and adding the CCI poles to the workload increased this backlog. However, the increase from $6 million in 2018 to $30 million in 2023 for CMP-owned poles is not solely due to the deferral of CMP poles to accommodate the Amended Agreement. Staff observes that CMP has had a long-standing issue with replacing its deficient poles. *Maine Public Utilities Commission*, *Investigation into Rates and Revenue Requirements of CMP*, Docket No. 2018-00194, Bench Analysis at 103-106 (Feb. 22, 2019).

[15] In the CCI maintenance areas within CMP's overall service territory, there are a total of 139,601 CCI owned or joint owned poles. EXM-009-066. The cost to replace a pole depends on multiple factors. DARIE-001-016. Based on historical data, the average cost to replace a pole is $7,000.00 per pole. The total cost for CMP to replace the poles in the CCI maintenance areas would be 139,601X$7,000 = $977,200,000.00. EXM-009-066.

CMP stated that the Capital Adjustment Mechanism was created for investments that are outside of its "core capital budget." EXM-009-004. By entering into the Amended Agreement, CMP became obligated to replace CCI-owned poles that fail the DLI inspection. CIP Test. CIP-50. If CMP does not replace a defective CCI-owned pole, the pole represents a threat to its statutory obligation to provide reliable service to its customers. Staff believes this fact alone should require that costs to replace CCI-owned poles be in CMP's capital budget, although Staff does not opine on the amount of that budget item.

CMP has for several years included CCI poles in the DLI program and since 2019 has been replacing them with its own poles. It seeks to place those poles into rate base as a part of this proceeding. CMP states that one of the reasons for moving CCI pole replacements into the Capital Adjustment Mechanism is to be able to demonstrate to the Commission the impact of replacing the CCI poles. Tr. 23 (Nov. 8, 2022). The ability to demonstrate this does not depend on how the investment funds are recovered. CMP was easily able to identify those CCI poles it replaced from 2019 through the present without a capital tracker.

2. Broadband

a. *CMP's Proposal*

The second category of spending in its Capital Adjustment Mechanism concerns Maine's initiative to increase the availability of broadband. The Company contends that it must expend capital investment funds to upgrade its poles to accommodate the new pole attachments that will result from this initiative. EOP Test. EOP-36-37. CMP cites 35-A M.R.S. § 2524, a 2019 statute that requires pole owners to fund the replacement of poles when doing so is necessary for municipalities to bring broadband services to

unserved or underserved areas of the state. EXM-006-047. CMP indicated that it consulted ConnectMaine Authority (ConnectME) materials to identify those areas of the state that are unserved or underserved. Tr. 16-17 (Nov. 10, 2022).

CMP acknowledges the possibility of acquiring governmental funding for this work, EOP Test. EOP-37, and states that it will continue to seek such funds. Tr. 89, 112 (Nov. 8, 2022).

b. *Staff's Analysis*

i. *Maine Broadband Initiative*

As stated above, CMP and CCI have a long-standing pole ownership agreement dating back to at least 1976. EXM-006-009, Att. 1. This agreement, and subsequent amendments, outlines the basic transactional duties CMP and CCI should undertake to maintain support for utility poles in the right of way for their respective services and for attachers (like cable and broadband providers) that may also need to utilize the utility poles owned or jointly owned by the utilities.

Page 2 of the Full Agreement contains a section that provides municipalities dedicated space to place facilities for police, fire and other municipally owned attachments. *Id.* This provision is often referred to as police power of the municipality. When used for police power purposes, municipalities have been exempt from paying most make-ready costs, such as replacing utility poles and expenses if other attachers needed to be moved to accommodate the municipal attachments. *See* MPUC rules, Chapter 880.

In 2019, the 129th Maine Legislature approved, and the Governor signed into law L.D. 1192, An Act To Establish Municipal Access to Utility Poles Located in Municipal Rights-Of-Way, which codified municipal access to utility poles for police power

purposes as well as for broadband purposes in areas that are unserved or underserved. 35-A M.R.S. § 2524. This statute extended the police powers obligation of the pole owners beyond the obligations in the Full Agreement (and as found in Chapter 880 of the Commission's rules) to include municipal-owned and operated broadband networks. Some parties raised concerns about this bill and the potential it could have to shift costs from municipal broadband attachers to utility pole owners and other commercial attachers. In fact, CMP, Emera Maine (now Versant Power), and CCI all testified in opposition to L.D. 1192.[16] CMP argued that the bill "would permit a single municipality to impose significant costs on all ratepayers as the municipality could order the rearrangement or transfer of existing facilities, replacement of a pole, or any other changes required to accommodate a municipality attaching its property to a pole, for any purpose." The Commission testified that the bill "would allow a municipality to, for example, invoke the exemption to install a commercial, retail broadband network without paying make-ready costs."[17]

The definition of "an unserved and underserved area" in the statute refers to the ConnectME enabling statute, 35-A M.R.S. § 9202(5), in which the Authority is given the responsibility of designating criteria for such areas. At the time of L.D. 1192's passage, the ConnectME's January 2020 Broadband Action Plan defined unserved area as those locations where the available service is less than 25 mbps (for downloads) and 3 mbps

[16] *An Act to Establish Municipal Access to Utility Poles Located in Municipal Rights-of-way*, *L.D. 1192 Before the Standing Committee on Energy, Utilities and Technology*, 129th Legis. (2019) (testimony of Jim Cohen on behalf of Emera Maine; Mary Ann Lynch, Central Maine Power Co., Sarah Davis, Consolidated Communications).

[17] *An Act to Establish Municipal Access to Utility Poles Located in Municipal Rights-of-way L.D. 1192 Before the Standing Committee on Energy, Utilities and Technology*, 129th Legis. (2019) (testimony of Paulina Collins, Maine Public Utilities Commission).

(for uploads) and underserved potential subscribers as subscribers in those locations where less than 20% of the households within a geographic area have access to adequate broadband service. With 95% of the state meeting ConnectME's 2020 definition of broadband (25/3 mbps), the threat to pole owners needing to replace large numbers of poles at their expense to meet the municipal exemption was quite low.

The ConnectMaine Authority's Broadband Service Triennial Strategic Plan, published in January 2022, stated that as of 2021, 95% of Maine had access to broadband at speeds of 25/3 mbps. In the same report, however, ConnectME stated that it had moved to re-designate broadband service as 100/100 mbps. Unserved areas are now defined as having broadband availability with speeds at or below 50/10 mbps[18]. This is reflected in ConnectME's rule, Chapter 101, § 5(D).

ii. *Unintended Policy Implications of ConnectME Authority Rule Change*

At the time of L.D. 1192's passage, it is likely that the Legislature and Governor intended to help bring broadband to rim communities in rural areas suffering from zero or limited broadband availability when the known standard of broadband was 25/3 mbps. However, when ConnectME shifted its definition of broadband to 100/100 mbps and 50/10 for underserved, 90% of Maine, and the municipalities within this unserved or underserved area, became eligible for ConnectME grants.[19] While the goals of ConnectME to extend high-end advanced broadband services ubiquitously throughout

[18] ConnectME Authority's Broadband Service Triennial Strategic Plan 8 (2022). (ConnectME Plan).

[19] *Id.*

Maine should be lauded, the implications of the definition of underserved areas appear to have created unintended consequences for CMP's ratepayers.

This expansion of the definition of "underserved area" by ConnectME appears to create serious financial implications for utility ratepayers and commercial attachers. While CMP and CCI may have to pay for the cost of pole replacements when space is not available, other attachers could be required to pay for the cost of moving attachments to accommodate a municipal broadband project.

Staff offers no opinion on the current definitions adopted by ConnectME. However, other attachers or pole owners may voice objections and seek changes from either ConnectME or the Legislature.

A review of federal definitions of broadband, using the same criteria as ConnectME's Rule Ch. 101, shows that Maine's definition of broadband is expansive when compared to current and proposed federal standards. *See* Figure 10.

Figure 10: Broadband Requirements

Governmental Agency	Current Broadband Speed Requirements	Proposed
ConnectME[20]	100/100mbps	
NTIA[21]	100/20mbps	
FCC[22]	25/3mbps	100/20mbps[23]

[20] *See* ConnectME Plan.

[21] Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429, div. F, tit. I, § 60102(h)(4)(A)(i) (2021).

[22] *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 20-269, Fourteenth Broadband Deployment Report, 36 FCC Rcd 836 (2021).

[23] Press Release, Federal Communications Commission, Chairwoman Rosenworcel Proposes to Increase Minimum Broadband Speeds and Set Gigabit Future Goal (July 15, 2022), https://docs.fcc.gov/public/attachments/DOC-385322A1.pdf.

If attachers or pole owners were to seek an amendment to ConnectME's definitions, either by petitioning ConnectME or the Legislature, they could argue that adopting the definitions of the Federal Communications Commission (FCC) definition, for example, would allow Maine to continue to meet its key policy objectives but not necessarily at the expense of electric utility ratepayers, pole owners, and other commercial attachers. They could also argue that such a change would have the benefit of allowing Maine's limited broadband funds to be more efficiently deployed in areas of the state where there is the greatest deficiency in service. The FCC has demonstrated through recent initiatives such as the Rural Digital Opportunity Fund (RDOF) that limited federal funds can be leveraged to achieve shared policy goals through a competitive bidding process. For example, the minimum speed tier to apply for RDOF is 25/3mbps, but the highest performance tier was greater than or equal to 1 gigabits per second (Gbps) down and 500 mbps up. Other RDOF eligibility factors included latency and data allowances. Essentially, a provider has a greater chance at winning federal broadband funds if it plans to offer better broadband services. According to the Universal Service Administrative Company (USAC), nearly all RDOF locations are expected to receive access to broadband speeds at 100 mbps downstream and 20 mbps upstream (100/20 Mbps), and more than 85 percent are in areas where the winning bidder has committed to provide gigabit-speed service.[24]

In addition, according to the FCC's National Broadband Map, broadband at speeds of 100/20 is available to 98.55 percent of Maine households and 96.4 percent

[24] Universal Service Administrative Co., https://www.usac.org/high-cost/funds/rural-digital-opportunity-fund/ (last visited Dec. 1, 2022).

can receive speeds at 250/25. The data also shows that 12.05 percent of Maine can receive broadband at speeds of 1000/100.[25]

Although the Legislature may have been well-intentioned with its support for municipal broadband when it amended Title 35-A, it may not have foreseen that ConnectME might have the need to amend its definition of broadband in the future to achieve larger broadband policy goals that could one day have an impact on utility rate payers. According to federal broadband mapping data cited above, Maine is meeting broadband goals that the federal government either currently supports or plans to support.

iii. *Broadband Pole Replacement Forecast Low*

CMP's proposal rests on the argument that the cost to utility ratepayers and other attachers to support the replacement of utility poles for municipal broadband could be potentially high under ConnectME's new definition of broadband. CMP suggests that it may have to replace 10,000 distributions poles through 2026 as part of Maine's broadband expansion effort. EOP Test. EOP-3.

Current data suggests that the number of municipal broadband requests may not be as high as CMP estimates. Over the past five years, there have been no poles replaced due to police powers invoked by municipalities and only two instances cited by the CMP due to the municipal exemption. In CCI's maintenance service area, the town

[25] FCC National Broadband Map, https://broadbandmap.fcc.gov/area-summary/ (choose Maine from State menu) (last visited Dec. 1, 2022) (All providers must report data as of June 30 and December 31 each year. Users of the map can enter an address and challenge the result if they don't feel the information provided by the provider is accurate.).

of Arrowsic invoked the municipal exemption requiring CCI to replace eight poles. In CMP's maintenance service area, the town of Georgetown invoked the municipal exemption to replace 11 poles in 2022. ODR-002-025. CMP reports that it is aware of only two municipalities that intend to invoke the municipal exemption: Leeds and Somerville. ODR-002-010. In Mount Vernon, a community in CMP's maintenance service area, a November 9, 2022 *Kennebec Journal* article reports that residents voted 507-502 against moving forward with a $5.1 million plan to develop a broadband network in their town.[26]

At the same time, the likelihood of municipalities seeking to expand broadband may be overstated. Staff notes that ConnectME estimates that it will cost $600 million to meet its broadband vision with $200 million in public funds already committed to this goal. ConnectMaine Authority's Broadband Service Triennial Strategic Plan, 11 (2022). A combination of both public and private broadband investment brings this goal closer to fruition. According to a September 26, 2022 *Sun Journal* article, CCI is on track to offer gigabyte speeds to 150,000 Maine households by the end of the year.[27] Based on 2020 Census Data, this would indicate that 26% of Maine would have access to gigabyte upload and download speeds.[28] This massive deployment of fiber broadband

[26] Election roundup: Municipal races, local ballot questions in central Maine, Kennebec Journal (Nov. 9, 2022), https://www.centralmaine.com/2022/11/09/election-roundup-municipal-races-in-the-greater-augusta-area/.

[27] Christopher Wheelock, Fidium Fiber expansion in Maine includes Lewiston, Auburn in 2023, Sun-Journal (Sept. 26, 2022), https://www.sunjournal.com/2022/09/26/fidium-fiber-expansion-in-maine-includes-lewiston-auburn-in-2023/.

[28] According to 2020 Census Reports, Maine has 569,551 households. United States Census Bureau, https://www.census.gov/quickfacts/ME (last visited Dec. 1, 2022).

to the home in a short period of time also suggests that broadband maps used to determine coverage may need to be reviewed.

With only two municipalities known to be seeking to invoke the municipal exemption in the near future and with significant private sector projects underway, the volume of pole replacements due to municipal broadband seems much lower than CMP suggests in its filing. In fact, CMP admits that its future costs regarding the broadband initiative are entirely unclear. Mr. Purington stated, “Broadband, we don't have any idea yet of what the magnitude of that will be.” Tr. 89 (Nov. 8, 2022).

iv. *Potential Policy Changes*

Ultimately, the Maine Broadband Initiative or the Municipal Broadband Exemption as it is also referred to in this case, is a creation of the Maine Legislature[29] and the determination of broadband availability is within ConnectME’s discretion through its rulemaking process. Based on the evidence provided by CMP, the immediate concern about pole replacement costs that could impact CMP, its ratepayers, and other commercial attachers appears low. Furthermore, the idea that municipalities would want and seek to own a broadband network is far from certain. Finally, Staff believes that federal funds will continue to be available to entities in Maine. However, the situation with funding is far from clear.

Given this situation, with limited funding resources available, it would not be surprising if the Legislature or ConnectME were to amend the definition of broadband to put it more closely in line with current or proposed federal standards. This could allow

[29] 26 M.R.S. Sec. 2524.

ConnectME to stretch its funds further while also removing the unfunded mandate on pole owners to fully fund pole replacement costs. The point, in general, is that too little is currently known with sufficient certainty about how this will impact CMP's need to replace poles for broadband.

3. Electric Vehicle Incentives

a. *CMP's Proposal*

CMP proposes an incentive program for Electric Vehicle (EV) chargers which would cover make-ready costs for utility-side electrical infrastructure upgrades for charger installation. GM Test. GM-8. Make-ready costs are defined to include any utility-owned infrastructure cost required to provide service to an EV charger installation, including line extension, service transformer, and service drop. EXM-010-005. In CMP's proposal, the program would cover up to 100% of make-ready costs for low-income areas and up to 80% of make-ready costs for other areas.[30] Both public light-duty EV chargers and private medium- and heavy-duty EV chargers (such as for electric school buses and transit buses) are contemplated by CMP's proposal.[31]

CMP proposes to recover the costs of this program through its proposed Capital Tracker. CMP proposes a capital investment of $9.2 million over three years for the EV programs. GM Test. GM-12. This capital investment, *i.e.* the customer incentive, would be effectively rate-based and earn a return for the Company, not treated (as would

[30] Low-income areas would be defined as the bottom 50% of areas in terms of median or average income. GM Test. GM-9.

[31] The CMP would own the utility-side make-ready electrical infrastructure constructed through the program but would not own the chargers themselves.

otherwise be the case) as a Contribution in Aid of Construction (CIAC) that would off-set rate base for ratemaking purposes.

b. *Lessons Learned from EV Pilots*

The EV make-ready programs proposed by CMP are substantially similar to CMP's EV make-ready pilot program authorized by the Commission in Docket 2019-00217. This program was initiated by statute in An Act to Support Electrification of Certain Technologies for the Benefit of Maine Consumers and Utility Systems and the Environment, P.L. 2019, ch. 365, § 5. In Docket 2019-00217, the Commission authorized two EV charger incentive programs, one by CMP and one by Efficiency Maine Trust (EMT). *Maine Public Utilities Commission*, *Commission Initiated Request for Proposals for Pilot Programs to Support Beneficial Electrification of the Transportation Sector*, Docket 2019-00217, Order (Feb. 25, 2020). CMP's program provided grants of up to $4,000.00 per plug to cover make-ready electrical infrastructure upgrades, and these grants received rate-of-return cost recovery similar to other utility capital investments. EMT's program provided grants of up to $4,000.00 per plug for potential developers of EV charging stations, subject to selection by EMT after a Request for Proposals (RFP).

The results of the two pilot programs are compared in Figure 11 below.

Figure 11: Comparison of EV Charger Pilot Programs.[32]

Comparison of EV Charger Pilot Programs (2019-00217)		
	Central Maine Power	Efficiency Maine Trust
Number of Projects	13	16
Total Number of Plugs	60	78
Total Amount Disbursed	$208,000	$272,030[6]
Average Project Cost	$43,104	$33,091
Average Total Cost Per Plug	$9,178	$7,071
Average Grant Per Plug	$3,795	$3,503
Average Customer Cost Per Plug	$5,074	$3,568
Average % Cost Offset by Grant	46%	54%

As Figure 11 shows, the average project cost for the CMP pilot is about $10,000.00 higher than the EMT pilot. Similarly, the average cost per plug of the CMP pilot is about $2,100.00 higher than the EMT pilot. While comparing summary statistics may be complicated by the diverse nature of the CMP and EMT projects, the costliness of CMP's pilot may have been exacerbated by the design of the make-ready incentive program. Because CMP's make-ready incentives only pay for electrical infrastructure connection costs, CMP's program may select projects that need a large amount of electrical infrastructure expenditure (adverse selection). Therefore, CMP's make-ready program design may effectively exclude and relatively disincentivize potential EV charging projects that already have the necessary electrical infrastructure in place. In fact, the EMT pilot seems to have selected projects that did not require substantial make-ready infrastructure spending: "10 of the [EMT] projects were able to accommodate the chargers with the existing electrical service" *Maine Public Utilities*

[32] EMT used federal funds from Volkswagen settlement to pay one grant, so the total amount disbursed exceeds $240,000.00 authorization. *Cmm'n Initiated Request for RFPs for Pilot Programs to Support Beneficial Elec. of the Transportation Sector (P.L. 2019 CH. 365, § 5)*, Docket No. 2019-00217, EMT Final Report at 2; MPUC Review of Implemented Electrification Pilot Programs at FN 6 (Nov. 22, 2022).

Commission, *Commission Initiated Request for RFPs for Pilot Programs to Support Beneficial Elec. of the Transportation Sector (P.L. 2019 CH. 365, § 5)*, Docket No. 2019-00217, EMT Final Report at 3 (Sept. 29, 2022). While EMT's final report statistics do not specify make-ready costs, the make-ready costs per plug in CMP's pilot program ($5,200 per plug) were considerably higher than the non-charging-equipment costs per plug in the EMT's pilot program ($4,400.00 per plug).

Insofar as EV incentives seek to install the greatest number of chargers at the least cost, EMT's program design may be more cost-efficient by funding more projects at locations with adequate existing electrical infrastructure; thereby minimizing "make-ready" expense. Limiting EV subsidies to make-ready infrastructure, as proposed here by CMP, may distort the incentives for EV charger deployment and raise the effective cost of transportation electrification in Maine.

c. *Alternative EV Incentive Mechanisms*

If the Commission were to determine that additional EV incentive mechanisms should be funded by CMP ratepayers, mechanisms that could eliminate some of the potential incentive issues with CMP's utility-side make-ready infrastructure incentive proposal would be preferable. For example, if additional funding for EV charging infrastructure is needed beyond that currently authorized for EMT, an additional special assessment could be assessed to CMP ratepayers that would flow these funds to EMT. These funds could be treated as an expense for ratemaking purposes (analogous to CIAC), which would eliminate possible issues surrounding the additional expense of selecting EV charging projects that require utility-side make-ready expenditure.

4. Battery Storage

a. *CMP's Proposal*

CMP proposes two pilot Battery Energy Storage Systems (BESS), the costs of which would be reconciled annually through CMP's proposed Capital Tracker. The first is the Trap Corner BESS Microgrid Pilot project. CMP contends that the Trap Corner BESS is needed to reduce the load on the 34.5–12 kV, 3.45 MVA transformer and provide back-up supply for the 1,700 customers who would be without power should the transformer go out of service in an N-1 contingency. The transformer is only loaded to 90% nameplate capacity at average summer peak. The equipment to be installed would be a 3 MW, 18 MWh BES, upgrades to the existing voltage regulator, and associated microgrid equipment. GM Test. GM-16; 4-18. The total project capital cost is estimated to be $10,434,376.00. Exh. CIP-2 at 5.

The second project is the Woolwich Peak-Shaving BESS Pilot project, which CMP contends is needed to reduce load of a 34.5–12 kV, 5.25 MVA transformer that serves 3,082 customers. At average summer peak, the load is 94% of nameplate capacity. CMP proposes a 0.4MW, 1.1MWh BESS and upgrades to existing voltage regulators. GM Test. GM-17; 12-23. The total estimated capital project cost would be $1,071094.00. Exh. CIP-2 at 5.

CMP proposes the BESS projects so that it can gain direct hands-on experience with battery storage to "understand how energy storage is going to impact and help address the transformation of the system." Tr. 73 (Nov. 10, 2022).

b. *Staff's Position*

The reliability need for the battery system at Trap Corner has been overstated. CMP stated that due to the remote nature of the Trap Corner substation, adding

redundancy to the circuit would be costly, so the battery provides an alternative solution. Tr. 106 (Nov. 10, 2022). However, under the Company's local system planning criteria, an N-1 violation on a radial line would only need to be remedied if it resulted in a loss of load greater than 25 megawatts. While CMP describes this as a secondary benefit, the N-1 planning criteria is not a sufficient reason to support the inclusion of this Trap Corner BESS project in the capital forecast.

Also, the need to reduce a transformer's peak load is not justified at 90% of nameplate capacity. Indeed, during the technical conferences, Mr. Desrosiers of CMP was specifically asked whether the two transformers at Trap Corner and Woolwich substations would otherwise be changed out in the three-year rate effective period. Tr. 106-07 (Nov. 10, 2022). Mr. Desrosiers replied that there were no plans to replace the transformers during the three-year rate period and explained that "at this point, those transformers are not overloaded. They're at 90 percent of nameplate."[33] *Id.* at 106:10-12. He indicated that the transformers would only be replaced during that time period if they became overloaded, and that CMP does not project that they will become overloaded during the three rate effective years. *Id.* at 106:24.

This Bench Analysis does not address the legal issues associated with CMP's proposed ownership and operation of the two BESS projects. However, to the extent that the Commission ultimately addresses the legal issues, certain facts related to the ownership and operation of these resources may be relevant. Those include the following:

[33] Mr. Desroisers did not address the fact that CMP had initially described the Woolwich load as 94% of the transformer's nameplate capacity.

- Scenario 1. CMP BESS charging from grid (ISO-NE): CMP battery becomes a load taker; CMP would need to have a supplier and would pay the supplier for the energy used.
- Scenario 2. CMP charging from local distributed energy resources (DERs).
- Scenario 3. CMP actively discharging the battery to the grid: CMP battery must be a registered generation asset with ISO-NE.
- Scenario 4. CMP actively discharging the battery to local customers: CMP would essentially act as load serving entity (supplier).

Finally, the supply chain issues discussed in this Bench Analysis would also have to be considered if the BESS projects move forward.

5. Active Network Management

CMP proposes to pilot an Active Network Management (ANM) system, and to recover the associated costs on a flowthrough basis in retail distribution rates. According to CMP's description, the ANM is a "platform" that consists of a "head-end system and grid edge devices." CMP notes that the ANM system would allow real-time system conditions to be monitored, and through use of the grid edge device, would send curtailment commands to DERs to maintain electric system parameters within defined operational limits. CMP notes, further, that it anticipates the potential that the ANM pilot could be "scaled up" and, if so, it would expect to defer all of the associated costs for recovery in its next base rate case. *See* Tr. 65 (Nov. 10, 2022).

CMP proposes to pilot the ANM in one of its DER "cluster study" areas. CMP further notes that it is actively engaging with the DER developers that are part of this "cluster" to encourage their participation in the AMN pilot. *See* Tr. 47-49 (Nov. 10,

2022). Finally, the ANM would allow these DERs to interconnect to CMP's system without incurring costs associated with Network Upgrades that would otherwise be required pursuant to applicable Commission and ISO-NE rules and requirements. Tr. 59-60 (Nov. 10, 2022); MPUC Rules, ch. 324, § 3.

Staff notes that the current policy and practice in Maine is that DERs seeking to interconnect to the distribution system of a T&D utility bear the costs of the facilities necessary to enable their interconnection. MPUC Rules, ch. 324, § 3. Historically, these costs have typically been in the categories of "Interconnection Facilities" and "Distribution Upgrades," collectively "Network Upgrades," that are identified by the utility and allocated to DERs pursuant to the provisions of Chapter 324. *Id.* If the need for such Network Upgrades can be mitigated by ANM, Staff is supportive of CMP's deployment of it. However, given what appears to be a key reason for (or outcome resulting from) the system, consideration should be given to allocating ANM-related costs to the affected DERs, particularly when the ANM system is a substitute for more costly Network Upgrades that would otherwise be required and paid for by the DERs. As noted by CMP, this appears to be the case for the pilot, *i.e.*, the ANM system would allow DERs to avoid costly Network Upgrades that would otherwise be required and, as such, appears to be a preferred solution from their perspective even if they were to bear the associated cost of the ANM system. Tr. 60-61 (Nov. 10, 2022).

Finally, Staff notes that if ANM-related costs are to be recovered from DERs, the costs could be charged/allocated directly to the affected, interconnecting DERs (such as would appear to be appropriate in the case of the proposed pilot where the ANM system would eliminate the need for Network Upgrades), or, alternatively, ANM-related costs

could be recovered from DERs through a system-wide, tariff-based charge.[34] *See* Tr. 63 (Nov. 10, 2022).

6. Meters

a. *CMP's Proposal*

CMP seeks to upgrade its billing and metering system in conjunction with a proposed change to its peak, shoulder and off-peak periods for its TOU rate classes. PP. Test PP-17.[35] The upgrade would be necessary to allow interval-based billing while not requiring any changes directly to the meters themselves. *Id*.; RD Test. RD-30. If the Commission approves CMP's proposed TOU changes, the estimated cost for this work is $2.35 million and the estimated time to complete the project would be 15 months from when it receives approval. RD Test. RD-33, 34. Dr. Rauch testified that this upgrade would "allow [CMP] to update the time-of-use periods in the future more readily without a significant investment." Tr. 90 (Nov. 4, 2022). Mr. Smith testified that the upgrade costs would not change significantly even if the proposed TOU periods were simplified. *Id*. at 104:10-18.

CMP proposes to recover this amount through the Capital Adjustment Mechanism based on a showing of actual prudent expenditures in the year after they are placed into service.

b. *Staff's Analysis*

CMP stated that the Capital Adjustment Mechanism was created for investments that are outside of its "core capital budget." EXM-009-004. Metering and billing

[34] Either approach would appear to require changes to Chapter 324.

[35] *See* Section IV.H herein for a discussion of the TOU proposal.

functions, as well as tariffs that state the terms and conditions of service, are part of an electric utility's obligation to provide safe, reasonable, and adequate service to captive customers. Necessary upgrades to the billing and metering system to accommodate any change to a rate design tariff is part of that core obligation. If the funds for the proposed metering and billing upgrade are needed then they should be included in the Company's capital budget. CMP states that it did not want to proceed with the metering and billing upgrade before knowing if the Commission would support the changes to the TOU time periods. This is not a reason for the upgrades to be part of a capital tracker.

C. Expansion of Items Subject to Reconciliation

Since the end of its Alternative Rate Plan in 2014, CMP has continued to have an annual distribution rate adjustment mechanism. Pursuant to that mechanism, CMP makes an "Annual Compliance Filing" (ACF) that includes support for its proposed distribution rate adjustments pursuant to the items included. Historically, the items have included amounts in categories that range from what could be considered "assessments," *e.g.*, for low-income programs, as well as amounts associated with the operation of Commission-approved mechanisms, *e.g.*, Storm Cost Mechanism and Revenue Decoupling Mechanism (RDM).

In this proceeding, CMP proposes to continue the ACF and, in fact, expand it significantly. In addition to the Base Capital Plan Adjustment Mechanism and the Capital Tracker (*see* Section IV.B), CMP proposes three new items be included on a reconciled/flowthrough basis. A complete list of CMP's proposed ACF items is provided in Figure 12 below:

Figure 12: Summary of CMP of Proposed Flowthrough

Summary of CMP Proposed Flowthrough/Reconcilable Items
From CMP Reponse to EXM-008-0028

	Item/Category	
1	Revenue Decoupling Mechanism Adjustment	Continuation
2	Storm Costs (per Storm Cost Mechanism)	Continuation
3	Plant in Service Reconciliation (Base Capital Plan)	New
4	Capital Investment Plan Adjustment Mechanisms (Capital Tracker)	New
5	Ancillary Vegetation Management Over/(Under) Spend	Continuation
6	O'Connor Site Remediation Costs	Continuation
7	Electricity Lifeline Program (ELP)	Continuation
8	OPA Expenses (Transmission/Regional Assistance)	Continuation
9	Arrears Management Program Incremental Costs	Continuation
10	Opt Out Costs (AMI Opt Out)	Continuation
11	OPA Assessment for Nonwires Alternative Coordinator	Continuation
12	Inflation Reconciliation	New
13	Tax Basis Repair Deduction Flow-Through	New
14	Customer Payment Costs	New

Notwithstanding the fact that CMP has had the ACF mechanism for several years, it may be time for the Commission to reassess whether it should continue and, if so, whether it should be re-calibrated. Staff notes that neither Versant Power nor any of the Maine gas utilities have similar mechanisms by which distribution rates are adjusted without a rate case or rate plan. Staff notes, further, that CMP's ACF mechanism is an ongoing exception to the general proscription against "single issue" rate adjustments. Moreover, there are concerns that should be considered regarding the incentives (or lack thereof) provided by this type of mechanism. Finally, for several of the items proposed for inclusion in the ACF, including, notably, all of the new categories (Items 3, 4 and 12-14 in Figure 12), there may be a need to examine the prudence of CMP's expenditures each year, which examination may not be reasonably conducted within the compressed time period for the annual review.

Staff will provide its recommendation in the Examiners' Report but now seeks comments from CMP and the parties on this issue. Attached to this Bench Analysis as Exhibit 3 is a report prepared by London Economics International, LLC (LEI) looking at how various jurisdictions treat such things as multi-year rate plans and reconciliation of cost items, which may provide insight for comments. Reconciliation of particular items is addressed separately in other sections of this Bench Analysis.

D. Other Items Subject to Reconciliation

1. Storm Costs

a. *Current Recovery Mechanism*

Under CMP's existing storm cost mechanism, storms are categorized into three different tiers based on severity, with different cost recovery/ratemaking treatment for each Tier. Tier 1 is designed to account for "normal"[36] storms that occur throughout the year. Currently, CMP recovers $8.1 million per year in distribution rates for storm recovery costs for these types of storms. The $8.1 million Tier 1 amount was determined based on a historical average of costs associated with "normal" storms. Amounts in excess of or below a deadband of 25% of the $8.1 per year are shared on a 50/50 basis between CMP and ratepayers. Tier 2 applies to storms in which CMP's recovery efforts exceed $3.5 million on a per storm basis. CMP currently recovers $6 million per year in rates for this class of storms. Unlike the Tier 1 storms, the $6 million is credited to a Reserve Account each year against which storm costs are debited. Amounts in the Reserve Account in excess of $10 million at the end of each calendar year are deferred and recovered from ratepayers. Tier 3 storms are extraordinary in

[36] Any storm costing less than $3.5 million.

nature and are reserved for storms that exceed $15 million in restoration costs. The first $15 million of Tier 3 storm costs are charged to the Reserve Account and treated as Tier 2. Anything over the $15 million level is subject to Accounting Order treatment. As depicted in the Figure 13 below, each Tier has some level of cost sharing between CMP shareholders and its customers.

Figure 13: Storm Cost Mechanism

Category	Cost Recovery Mechanism
Tier 1 (costs are less than $3.5 million per event)	$8.1 million per year embedded in rates with a +/- 25% deadband on the $8.1 million, such that amounts over or under the deadband annually are shared 50-50 between CMP and customers.
Tier 2 (costs are $3.5 million to $15.0 million per event)	$6 million per year embedded in rates and placed into a reserve storm account. If the reserve balance for Tier 2 storm costs exceeds $10 million at the end of the calendar year, CMP and customers share any overage 50-50 with CMP's share of any negative balance capped at $3 million. CMP annually reconciles its prudently incurred costs against the reserve balance.
Tier 3 – (costs are > $15 million per event)	The first $15 million of incremental storm costs are subject to Tier 2 treatment. CMP's exposure for sharing under the Tier 2 storm provisions for any single Tier 3 storm event is capped at $2 million, and Tier 3 storm costs above $15 million are deferred for future recovery.

PP Test. PP-27.

b. *CMP's Proposed Changes*

While CMP proposes to maintain the funding for storms at its existing levels, the Company is requesting three changes to the way the mechanism operates:

1. For Tier 1 storms, keep the amount embedded in rates at $8.1 million but change the deadband from +/- 25% to +/- 10%;
2. For Tier 2 and 3 storms, increase the pre-sharing Reserve Account amount from $10 million to $20 million and (i) reduce the cap on the Company's share of a

negative balance from $3 million to $1.5 million and (ii) reduce the Company's exposure for any Tier 3 storm costs from $2 million to $1 million; and

3. For all storms forecast to be "major" (i.e., those forecast to reach the High Confidence EEI level 3 classification), charge all pre-staging costs to the Tier 2 storm reserve regardless of the eventual outcome of the storm. PP Test. PP-29.

In its testimony, CMP cites the increasing number and severity of storms, the challenges of securing storm restoration crews and a growing customer expectation that service will be restored in a timely manner as drivers for the proposed changes. CMP argues that the current mechanism shifts too much of the storm cost risk to CMP shareholders and its proposal is an attempt to rebalance the risk profile.

c. *Discussion*

The purpose of a well-designed storm cost recovery mechanism is to provide meaningful incentives for a utility to restore service promptly and in an efficient manner. Although this is a clear and obvious goal, designing a mechanism that is consistent with that goal is much less straightforward. Stated another way, a well-designed mechanism should balance two fundamental (and often opposing) considerations: (i) reliable service and (ii) rate levels.

With this in mind, Staff provides the following observations and comments on CMP's proposal.

i. *Tier 1 Storms*

The proposed change to the Tier 1 storm deadband from +/- 25% to +/- 10% reduces CMP's cost exposure for ordinary storms. Although, in theory, this change would be symmetrical, over the past five years, actual Tier 1 storm costs incurred by CMP have exceeded levels recovered in rates every year. OPA-007-002. Although the

amount included in rates was recently increased to $8.1 million per year,[37] that amount appears to be less than the costs incurred by CMP over the last few years.

Figure 14 below summarizes Tier 1 amounts recovered in rates and actual costs incurred over the last several years.

Figure 14: Tier 1 Storms

Tier 1 Storms

Year	Value In Rates ($M)	Actual Expense	Rate Recovery Above (Below) Actuals	Recovered from Customers	CMP Favorable (Unfavorable) Impact
2014 (July-Dec Only)	$2.0	$0.9	$1.1		$1.1
2015	4.0	0.8	3.2		3.2
2016	4.0	3.2	0.8		0.8
2017	4.0	11.0	(7.0)		(7.0)
2018	4.0	20.7	(16.7)		(16.7)
2019	4.0	13.0	(9.0)		(9.0)
2020	7.4	14.8	(7.3)	2.7	(4.6)
2021 (preliminary)	8.1	10.9	(2.8)	0.4	(2.4)

Using that same approach today, taking a five-year average for 2018-2022 year-to-date, the amount to be included in rates would be $14.8 million as shown in Figure 15 below. But in this case, CMP is not seeking to increase the amount in rates for Tier 1 storms. Instead, it is recommending that $8.1 million continue to be put into rates for ordinary storms and any amount above or below the deadband be reconciled in the next Annual Compliance filing. Figure 15 below illustrates the effect of transitioning to the 10% deadband.

With respect to the desired goals of a storm cost mechanism, the proposed change would appear to have the effect of reducing the incentives for cost efficiency by reducing the amounts to which CMP shareholders would be exposed. The net effect is that there is a transfer of $600,000.00 from CMP shareholders to its customers. Figure

[37] Beginning March 1, 2020, Tier 1 recovery has increased to $8.1 million annually. *See* footnote 38.

15 also includes removing pre-staging costs for "major storms," which is primarily depicted in the Actual Expense and CMP Favorable Impact columns. Staff notes that CMP's actions did not seem to be hampered by the 25% deadband and that the Company continued to spend above the deadband year after year. As such, the proposed change does not benefit customers but is another part of this rate plan intended to reduce risk for the Company. One possible solution would be to include a cap on the Tier 1 sharing that would serve to limit customer's exposure.

Figure 15: Tier 1 Storm Mechanism with 10% Bandwidth (EXM 08-25, Att 1)

Year	Value in Rates	Actual Expense	Rate Recovery Above (Below) Actuals	Recovered from Customers	CMP Favorable (Unfavorable) Impact
2018	$ -	$ (0.8)	$ 0.8	$ -	$ 0.8
2019	-	(0.6)	0.6	-	0.6
2020	-	(0.6)	0.6	0.3	0.9
2021 (final)	-	(0.6)	0.6	0.3	1.0
Total	**$ -**	**$ (2.7)**	**$ 2.7**	**$ 0.6**	**$ 3.3**

ii. *Tier 2 and 3 storms*

CMP is proposing to increase the Reserve Account amount from $10 million to $20 million and (i) reduce the Company's share of a negative balance from $3 million to $1.5 million and (ii) reduce the Company's exposure for any Tier 3 storm costs from $2 million to $1 million. Currently, when the reserve account exceeds +/- $10 million the amount above or below that threshold is reconciled during the Annual Compliance filing process.

Figure 16: Tier 2&3 Storm Costs

Tier 2/3 Storms

Year	Reserve Credit In Rates ($M)	Actual Expense	Company Impact	Customer Impact	Ending Reserve Debit (Credit)
2014 (July-Dec Only)	$3.0	$14.8	($0.9)	($0.9)	$10.0
2015	6.0	-	-	-	4.0
2016	6.0	7.9	-	-	5.9
2017	6.0	15.0	(2.0)	(2.9)	10.0
2018	6.0	4.2	-	-	8.0
2019	6.0	25.1	(2.9)	(14.2)	10.0
2020	6.0	33.9	(3.0)	(14.9)	10.0
2021 (preliminary)	6.0	9.4	(1.7)	(1.7)	10.0

PP Test. PP-28.

As illustrated in Figure 16, the Company has shared in Tier 2 and 3 storm costs in four of the past five years. By increasing the threshold to $20 million, it is likely that the storm reserve reconciliation process would be triggered less frequently. Additionally, by reducing the maximum amount of sharing that CMP is exposed to would further reduce the Company's financial risk. The following table shows the effects of the proposed change to the Tier 2/3 mechanism. For the Tier 2/3 reserve calculation, CMP includes the Tier 1 storm pre-staging costs, increases the reserve amount from $10 million to $20 million, reduces the sharing cap from $3 million to $1.5 million and limits exposure of Tier 3 storm costs from $2 million to $1 million. Again, the resulting proposed change saves CMP $3.8 million over the four-year period while moving responsibility for an additional $6.3 million to its customers.

Figure 17: Proposed Tier 2 / 3 Storm Recovery

Tier 2 / 3 Storms Difference					
Year	Reserve Credit in Rates	Actual Expense	Company Impact	Customer Impact	Ending Reserve Debit/Credit
2018	$ -	$ 1.1	$ -	$ -	$ 1.0
2019	-	0.6	1.9	6.6	10.0
2020	-	0.6	1.5	(12.1)	10.0
2021 (preliminary)	-	0.4	0.4	(0.8)	10.0
Total	**$ -**	**$ 2.6**	**$ 3.8**	**$ (6.3)**	

2. Prestaging Costs

CMP is seeking to account for costs resulting from pre-staging for events predicted to be "major storms"[38] into the Tier 2 reserve account whether or not the event ends up qualifying for Tier 2 treatment. CMP has expressed concern about its ability to procure resources for storm recovery when other utilities in New England are also preparing for an event. In other jurisdictions, pre-staging is a requirement and utilities are reserving crews several days ahead of the storm. EOP Test. EOP-46-47. According to CMP, it must make informed decisions to engage crews early to adequately prepare for a storm response or risk missing out on scarce resources. *Id.* at EOP-45. In the past five years, CMP has incurred $3.5 million in pre-staging costs for Tier 1 storms. EXM 08-26, Attachment 1.[39]

[38] Storms forecasted to reach the High Confidence EEI level 3 classification from DTN, CMP's contracted weather provider.

[39] It is not clear from the data response whether all Tier 1 pre-staging costs are included or just those attributed to storms that were or would have been forecasted as an EE3 category event. It would be helpful for CMP to clarify the data response.

3. Alternative Mechanisms

As noted above, CMP's three proposed changes are intended to shift storm cost risk away from the Company while maintaining the structure of the storm recovery mechanism. Three main concerns in establishing the initial storm mechanism were to contain escalating costs, share in the risk, and to smooth the rate impact of storms. Changes to the Tier 1 storm costs recovery in the 2018 rate case allowed cost sharing for the increasing number of smaller storms CMP was experiencing. *Maine Public Utilities Commission, Investigation into Rates and Revenue Requirements of CMP*, Docket No. 2018-00194, Order at 24 (Feb. 19, 2020). Prior to that change, CMP was responsible for all costs resulting from Tier 1 storms that exceeded the amount in rates.

The guiding principles of the existing storm cost mechanism established via stipulation in CMP's rate proceeding from 2013 were to eliminate perverse incentives, to resolve the binary nature of the previous storm adjustment and to increase rate stability. *Central Maine Power Co.*, *Request for New Alternative Rate Plan ("Arp 2014")*, Docket 2013-00168, Order Approving Stipulation at 12-13 (Aug. 25, 2014). CMP's proposal attempts to address the risk and the smoothing concerns but does not offer to contain costs and may introduce a perverse incentive by removing pre-staging costs from Tier 1 category storms. There are several other ways to achieve rebalancing the risk due to storm costs.

Alternative mechanism/approaches that should be considered include:

i. Include an amount for storm costs in base rates and allow for an accounting order to be requested for "extraordinary" events:

This approach is consistent with how CMP recovered such costs prior to adoption of the storm mechanism and is also consistent with how Versant recovers

storm-related costs. For example, one possible approach would be to include a historic average for the Tier 1 and Tier 2 storm costs in base rates, eliminating any need to reconcile storm costs. Based on historical results, the amount to be included in base rates would be $27.2 million,[40] which is an increase of $13.1 million over the $14.1 million currently in rates. ODR-002-041.

Figure 18: Actual Tier 1 and Tier 2 Storm Costs and Five-Year Average

Year	Tier 1	Tier 2	Total
2018	20,712,541	4,165,414	24,877,955
2019	12,976,734	9,758,832	22,735,566
2020	14,760,050	18,919,019	33,679,070
2021	10,981,091	9,776,015	20,757,106
2022	13,700,108	18,159,270	31,859,378
Average	14,874,005	12,361,739	27,235,744

Although the amount included would be intended to cover all storm related costs, the Company would not be precluded from requesting an accounting order for a truly rare, catastrophic storm, such as the 2017 windstorm. This approach would provide the appropriate incentives for CMP to manage storm costs in the most efficient manner possible. With the service quality metrics discussed in Section IV.A.2.b above, CMP would continue to have appropriate incentives to minimize the number and duration of outages. Finally, if the Company fails to take prudent and reasonable steps to restore customers the Commission could initiate an investigation.

ii. Include storm costs in a reserve account:

[40] Average Cost to include in the calculation was based on data in ODR 02-041. Staff notes that the total for 2022 in the ODR response appears to be incorrect. Staff calculated and included the correct value in its average. Additionally, all Tier 3 costs were removed from the average.

This option would be to combine the Tier 1 and Tier 2 storm categories into a single tier and have all costs flow through a reserve account. In this scenario, the current amounts ($14.1 million) for Tier 1 and Tier 2 would be deposited into a storm reserve account. Unlike the current process, all Tier 3 costs would be subject to accounting order treatment in a separate proceeding. The use of the reserve account would perhaps lessen the incentives for the Company to manage its costs to restore service following a storm event but would have the benefit of reducing the amount that is placed into rates each year. Accepting the Company's proposal to increase the storm reserve threshold to +/- $20 million may reduce the frequency of times needed to reconcile the costs outside the reserve account band. In removing the risk associated with Tier 1 company sharing that currently exists, it would be reasonable to calculate a sharing cap that accounts for the level of exposure that the Company currently has for Tier 1 storms. Staff notes that with the +/- $20 million threshold, carrying costs in the Reserve balance will be greater than the current mechanism.

If the Commission elected to approve either of the options for changing the storm cost recovery treatment, there would be no need to address CMP's proposed change to include pre-staging costs in the Tier 2 reserve account. In either case, CMP's decision-making process would not affect how pre-staging costs were treated. Unfortunately, the competitive nature of procuring restoration crews is unlikely to abate soon. It is ultimately CMP's responsibility to manage its storm restoration planning and execution prudently, and in accordance with its Emergency Response Plan. Staff does not dispute the fact that, as CMP has noted, storm restoration costs present a significant risk to the Company and that over the past several years it has absorbed millions of

dollars that were not included in rates. As noted above, any storm cost recovery mechanism provides incentives for CMP to prudently manage storm recovery efforts and deploy reasonable resources and amounts of money to do so. If the Commission elects not to pursue one of these other options, and maintains the existing structure, including pre-staging costs for expected “major” storms in the Tier 2 reserve account appears reasonable.

Finally, Staff is proposing consideration of new metrics to capture the effectiveness of and provide incentives for CMP’s storm response. With any metric, there are risks and rewards. In this case, the risk is that it will incent the Company to be more aggressive in its planning and approach to storm recovery. This can lead to increased costs. The benefit for customers is that a metric, whether a penalty is associated with it or not, makes the Company’s efforts more visible and transparent. As CMP witnesses testified, there are neighboring jurisdictions that have storm metrics. Tr. 135, (Nov. 8, 2022); ODR-002-012.

Two Options are summarized below:

Option 1: introduce a scorecard similar to the New York utilities. The scorecard would measure CMP’s performance against elements of their emergency response plan. Categories under consideration would include planning, restoration time, communications with counties and emergency response agencies, customer communications.

Option 2: introduce a SAIFI metric that is calculated pre-exclusions. The pre-exclusion SAIFI will be measured against the five-year average and scored according to Figure 19.

Figure 19: SAIFI

SAIFI	
Average SAIFI value	Average annual SAIFI for a Regulated Distribution System for the Regulatory Term
Standard deviation	Standard deviation of the annual SAIFI values for the Distribution System for the 10 calendar years leading up to the regulatory tern
Performance greatly below target	Annual SAIFI more than 2 standard deviations above the SAIFI average
Target not achieved	Annual SAIFI more than or equal to 1 standard deviation, but less than 2 standard deviations, above the SAIFI average
Performance as per expectation	Annual SAIFI between or equal to 1 standard deviation above and 1 standard deviation below the average value
Target exceeded	Annual SAIFI more than 1 standard deviation, but less than or equal to 2 standard deviations, below the SAIFI average
Target greatly exceeded	Annual SAIFI more than 2 standard deviations below the SAIFI average

Bench Analysis Exh. 3 at 54.

An example of this metric is discussed further under Metrics (Section IV.A.2.c).

4. Inflation

CMP requests an inflation reconciliation mechanism for the purpose of mitigating uncertainty in inflation forecasting. The mechanism is described as a limited symmetrical inflation reconciliation mechanism. RRP Test. RRP-17. It seeks to reconcile the difference between the Gross Domestic Product Chained Price Index ("GDP-PI") forecast, as captured in the Company's initial filing (RRP Table 6), and actual average GDP-PI values on an annual basis. The difference between values would be multiplied by all revenue requirement amounts subject to the general inflator. *Id.* This proposed reconciliation mechanism is limited in that it only applies to revenue requirement items subject to the general inflator and does not apply to revenue requirement items with specific forecasts. EXM-011-017. The reconciliation is symmetrical in that both positive and negative adjustments are possible. Regulatory assets or liabilities resulting from the reconciliation would be deferred for recovery at the Company's next annual price

change. In response to EXM-011-024 and EXM-011-025, CMP clarified that the reconciliation would be calculated at the conclusion of each rate year and both positive and negative deferred amounts would accrue carrying costs at the pre-tax weighted average cost of capital approved in this case. The adjustment would be reflected in rates at the next annual compliance filing. EXM-011-025.

CMP states that inflation levels have risen significantly and there is greater uncertainty in forecasts. As a result, CMP concludes there is high likelihood forecast and actual inflation rates will differ and argues an inflation reconciliation mechanism is reasonable. EXM-011-021; RR Test. RRP-17. The mechanism would mitigate the risk of over or under projecting inflation levels during the rate years for the benefit of both the Company and customers. RR Test. RRP-17. That is, if the actual inflation rate is higher than the forecast in this case CMP will have the opportunity to recover costs and if the actual inflation rate is lower than customers will have the opportunity to recover the amount overpaid. EXM-011-021.

a. *Staff's Position*

Staff questions if an inflation reconciliation mechanism is reasonable. CMP's prevailing argument for the mechanism is the uncertainty in projected inflation rates during the rate years. However, Staff's ROE expert, in discussing inflation concerns, indicates that recently high rates of inflation are transitory and expected to return to the 2.5% range. *See* Bench Analysis Exh. 2 at 12-17. Additionally, reconciliation mechanisms are generally reserved for costs that are outside of a utility's normal course of business and have a material impact. Inflation, while outside of a utility's control, is a cost experienced by the utility in its normal course of business, and the differences

between forecast and actual inflation levels are unlikely to have a substantial impact on the Company's finances.

5. Repair Tax Allowance

a. *CMP's Proposal*

CMP requests "full tracking of the difference between provided and actual repairs flow through benefits." Tax Test. TAX-4. In support of this, CMP notes that federal tax rules permit immediate tax expensing of certain property replacements (repairs) that are capitalized and depreciated for book purposes. However, the amount of the repair tax deduction can vary greatly from year to year. CMP states that predicting the amount of repairs tax benefit is difficult because (1) it is an estimate of the level of deduction that will be available for work yet to be performed, and (2) the determination of the appropriate tax treatment (deduction or capitalization) requires an analysis of property replacements and the operational reason for replacement. *Id.* at TAX-3. CMP further states that it "remains mindful that actual qualifying deductions will depend largely on sampling outcomes it cannot predict." *Id.* at TAX-4.

CMP clarified that the tracker would reconcile the difference between the repair tax flow through benefit reflected in rates and the actual repair tax deduction taken on its tax return. Tr. 8 (Nov. 1, 2022). CMP proposes to recover/return the difference through the annual compliance filing.

b. *Staff's Position*

Staff agrees that the repair tax benefit can vary a great deal from year to year. However, Staff does not believe that it is sufficient reason to reconcile any difference annually. The estimation of the repair tax benefit to determine the amount to be

recorded on the utility's books and to be taken as a deduction on its tax return is part of utility's ordinary course of business. Additionally, the level and type of capital expenditures as well as when they are made are within the utility's control. These decisions impact the level of repair tax benefit. The ability to reconcile costs is a mechanism generally reserved for costs that are outside of a utility's control, not for costs that are simply variable.

The complexities of calculating the repair tax benefit (statistical sampling, initial estimates for books, adjusted tax deductions with potential for audit adjustments) make it less suitable for recovery through a tracker mechanism. The only easily identifiable amount to reconcile would be the amount of repair tax benefit that was included in the revenue requirement to calculate the distribution rates. However, as CMP stated at the technical conference, the date when the actual repair tax deduction amount is known does not coincide with the periods used for CMP's annual compliance filing. Tr. 18 (Nov. 1, 2022). Tax returns, while covering a calendar year, are not filed until the fall that follows the calendar year. In contrast, the annual compliance filing is filed in the spring and is not for a calendar year, creating difficulty in following the reconciliations.

Thus, Staff sees no reason that CMP should not calculate the repair tax benefit to be included in the revenue requirement by normalizing the benefit that has been allowed for the last three to five years on CMP's tax returns. Staff requests that in its rebuttal testimony CMP provide a normalized repair tax benefit based on the past three to five years of CMP's tax returns.

6. Proactive Tax Normalization Request

CMP requests that the Commission authorize it to modify its respective accounting for accumulated deferred income taxes (ADIT) and protected Excess ADIT amortization as needed but only to the extent necessary to ensure compliance with IRS tax normalization principles. CMP contends that this will allow it to remain eligible to use accelerated depreciation without interruption. Tax Test. TAX-9. CMP states that "[t]he impact of the Commission granting such authority is that the required accounting to ensure compliance is immediately put into effect whereas any rate impact of such accounting would subsequently take place only after such accounting was considered and approved or otherwise modified in the next rate case." EXM-014-012.

CMP explains that while it is looking for "preliminary authorization" of its proposed approach, to the extent that this issue presents itself in the future, CMP will seek a separate accounting order with an opportunity for a full review of the request. Tr. 23-24 (Nov. 1, 2022).

Staff's understanding of the tax normalization rules is that utilities do not have to immediately correct a situation that might cause a tax normalization violation. Rather, utilities have until the next opportunity to do so in the normal course of business. Given this, along with the fact that CMP has stated that any issues raised by proposed tax normalization modifications would be resolved in the next base rate case and that CMP would file separately for an accounting order to address this subject, CMP should clarify in its rebuttal testimony specifically what action, if any, it requests from the Commission in this docket.

E. Sales Forecast; Billing Units

CMP presents its sales forecast in the testimony of its Deliveries and Revenues Panel. CMP predicts an increase in MWh sales in 2023 of 1.46% over the test year (2021), and an increase year-over-year of 0.29%, 0.63% and 2.15% in 2024, 2025 and 2026 respectively. Dar Test. DAR-7 at 13. To derive its forecast, CMP combines an econometric model and its estimates of additional (i) load reductions resulting from Net Energy Billing and Efficiency Maine Trust programs and (ii) load increases resulting from electrification. *Id.* at DAR-22 at 23 to DAR-23 at 5. This forecast is then used by CMP for the Billing Units used to calculate distribution rates.

Pursuant to certain existing Net Energy Billing (NEB) programs, the Billing Units of participating CMP customers are reduced by so-called "kWh Credits."[41] These kWh Credits are applicable both to customer-owned, *e.g.*, "rooftop", NEB facilities (for "banked" credits), as well as to larger, so-called "Community" facilities that participate in the NEB "kWh Credit" Program pursuant to Chapter 313 of the Commission's rules. Under these NEB programs, the kWh basis upon which participating customers are billed by CMP are "net of" the kWh associated with the customer's facility or facility share. Stated another way, participating customers are billed on the basis of "net" or "billed" kWh rather than "metered" kWh.

To illustrate this, consider as a simple example a residential customer who is subscribed to a Community Solar project participating in the NEB program. In this

[41] As used in this Bench Analysis, the term "kWh Credits" refers to administratively-made reductions to a customer's kWh usage, *i.e.*, *not* kWh from NEB facilities that result in actual reductions in a customer's kWh usage "behind-the meter." The term "kWh Credits" include kWh associated with shared facilities as well as "banked" credits from a customer's rooftop facility.

example, the customer's actual metered consumption for a given month is 800 kWh, and during that same month the customer's share of the Community Solar project's output is 500 kWh. Pursuant to the NEB program, the customer receives a "kWh Credit" towards its CMP bill for that month equal to 500 kWh, resulting in a billed consumption of 300 kWh. The revenue associated with that "kWh Credit" amount, *i.e.,* 500 kWh in this example, is not billed to or recovered from that customer, resulting in what has become referred to as "lost revenue."

Recently, the Commission determined that lost distribution revenue associated with the NEB programs should be recovered in stranded cost rates and not through distribution rates. *See generally Maine Public Utilities Commission, Investigation of Rate Treatment of NEB Program Costs,* Docket No. 2021-00360. Given the Commission's decision in that case, the NEB-related "lost revenue" recovered through CMP's stranded cost rates must not also be recovered in distribution rates, such as in CMP's proposed Capital Adjustment Mechanism (should it be approved in some form) or the Revenue Decoupling Mechanism (RDM).

To ensure this double-recovery does not occur, distribution rates should be determined based on Billing Units that are ***not*** "net of" the NEB kWh Credits. As noted above, based on Staff's understanding of CMP's sales forecast, its Billing Units ***are*** net of these kWh Credits and, thus, would appear to result in the double-recovery described above. Making this adjustment to CMP's proposed Billing Units would increase kWh sales in the Rate Year by 1.6% and reduce its proposed residential Rate Year 1

increase by 3% from $0.042117/kWh to $0.040758. ODR-001-022, Attachment 1 at 1.[42] The variance between the sales forecast using Staff's approach and CMP's proposed netting of NEB credits will likely grow as a result of NEB program expansion in the coming years.

F. Revenue Decoupling Mechanism

1. Background

CMP's existing Revenue Decoupling Mechanism (RDM) was adopted pursuant to Commission approval of a stipulation in a prior CMP base rate case. *Central Maine Power Request for New Alternative Rate Plan*, Docket 2013-00168, Order Approving Stipulation (Aug. 25, 2014). In accordance with the RDM, revenue targets are established for two broad customer classes: (1) residential and (2) commercial/industrial. Actual revenues are then reconciled against these targets. Initial sales/revenue targets are established based on assumed rate year levels and, in subsequent years, are adjusted by 75% of the average annual customer growth rate, negative or positive, in each rate class. *Id.* The RDM adjustments occur annually at the same time as other one-time adjustments to CMP's distribution rates. *Id.*

Recent RDM adjustments have returned funds to ratepayers. For example, in 2021, the RDM involved a return to the ratepayers of $9,298,005.00. *Request for Approval of Annual Compliance Filing Pertaining to* CMP, No. 2022-00041, Attachment 11 at 1, RDM 2022-06-07 2022 Master Exhibits - June Update NEB (June 7, 2022).

[42] Staff notes that, to some extent, effects of the kWh Credits may be embedded in the sales forecast itself. Any such effects should be corrected by operation of the RDM.

2. Discussion

In its direct testimony in this proceeding, CMP proposes maintaining the existing RDM with one change to lag the customer count by one year. As explained by Mr. Purtell at the technical conference, this change would allow CMP to track and account for the operation of the RDM during the current calendar year rather than having to wait until year-end. Tr. 119:3-4 (Nov. 4, 2022). Other than the obvious lag this would create between the period used to escalate sales and the RDM period itself, Staff sees no inherent flaw or resulting bias from CMP's proposed change. EXM-007-0020, Att. 1 at 2-3.

G. Rate Design

The Company proposes several rate design changes including increasing the monthly fixed (customer) charges for both residential and C/I classes and implementing new time-of-use (TOU) periods for both optional and mandatory rates.[43] The Company also describes certain rates designed to be consistent with "the anticipated outcome of Docket No. 2021-00325." RD Test. RD-3-4, 20.

With respect to Docket No. 2021-00325, the Commission approved a stipulation in that proceeding on September 27, 2022. *Maine Public Utilities Commission Investigation into Transmission and Distribution Utility Rate Design to Promote State Policies*, Docket No. 2021-00325, Order Approving Stipulation (Sept. 27, 2022). Pursuant to the Stipulation, the following changes to certain CMP rates were made and

[43] Some of CMP's proposed changes, including the new TOU periods, would not be effective until Rate Year 2. RD Test. RD-13.

implemented to provide support for electrification, *i.e.,* heat pumps and EVs, as set forth in Figure 20:

Figure 20: Rate Design Changes

Rate	Changes
A-LM (for heat pumps; EVs)	- Remove technology specific restrictions to allow the rate to be used more broadly by residential and small non-residential customers - Continue to require a second meter for the A-LM load, but at no charge to the customer - Maintain current TOU hours
A-TOU-OPTS	- This rate will sunset 10/31/24. - This rate substantially increases the fixed charges and lowers the volumetric charges to a flat rate
B-DCFC (for EV charging; Level 2 and 3)	- Make this rate broadly available for EV charging stations. (Eligibility was formerly limited per the Pilot for Beneficial Electrification in the Transportation Sector, Docket No. 2019-00217, Order at 6 (Feb. 25, 2020)

In addition, the terms of the 2021-00325 Stipulation required CMP to make certain additional rate design changes, including changes to expand the availability of Rate B-DCFC for applications beyond EV charging. Order Approving Stipulation at 4. In its testimony, CMP describes these changes, as well as additional, optional rates for residential and small non-residential heat pump and EV charging.[44] In the current proceeding, it is not clear precisely what changes are being proposed to the rates from the stipulation. The Company is requested to identify what changes from the 2021-00325 docket will be maintained and which parts are proposed to be changed as part of this current ratemaking docket.

[44] For availability beginning in Rate Year 2.

H. TOU Period Analysis

1. CMP's Analysis

Pursuant to the 2021-00325 Stipulation, CMP agreed to re-examine its existing TOU periods. In this proceeding, CMP testifies that its TOU periods need to be modified to encourage customers to shift load away from the hours that drive the allocation of Regional Network Service (RNS) transmission expenses and thereby reduce the system's share of RNS costs, and to adapt to increased distributed energy resources (DERs) and beneficial electrification load on the distribution system. Updated RD Test. RD-13-14. The Company identifies the RNS peak as occurring within the three hours from 5pm to 8pm on weekdays with a similar but smaller pattern on weekends. Updated Exh. AN-3 at 8. Given that CMP's TOU periods apply to both distribution and transmission rates, Staff notes that CMP's Marginal Cost of Service Study (MCOSS) indicates that, for the distribution system, the highest hourly probabilities of peak occurred from 6:00 to 7:00 p.m. during the test year and are projected to stay the same in 2025. COMES-001-013, Attachment 3. The Company expects that beneficial electrification and DERs will slightly increase the probability that peak load will occur during winter months.

The Company's proposed TOU schedule, presented in Figure 1 of the rate design testimony, sets three seasonal periods: Winter (December, January, February), Summer (July and August), and Shoulder (all other months). It also sets the peak period as weekdays from 4:00 to 9:00 p.m. for Summer and every day from 4:00 to 9:00 p.m. for Winter. During shoulder months, 4:00 to 9:00 p.m. is set as shoulder pricing every day. There is a morning shoulder period in Winter from 7:00 to 10:00 a.m. weekdays,

and an afternoon shoulder period in Summer from 2:00 to 4:00 p.m. weekdays. RD Test. RD-14.

The proposed TOU schedule is the result of the MCOSS performed by PA Consulting (PA). The TOU analysis selected a schedule of TOU hours which

> best balances efficiency improvements from new TOU periods with other important objectives, including: (a) avoidance of peak chasing by broadening the on-peak period with regard to Option A; (b) ensuring customer understanding, and (c) anticipating any large change in hourly load profiles that would be expected shortly after new TOU periods are implemented.

Exh. AN-3 at 10. Option A obtained the highest goodness of fit to marginal cost and had a narrower peak period but was ultimately rejected because it was more complicated and might have invited "peak chasing." PA justifies the use of three seasonal periods by stating, "[d]ue to the marked difference in load patterns across months, continuing with three seasons is appropriate. Three seasons will be necessary to avoid discouraging electrification in Spring and Fall months, where the distribution system can accommodate more load without straining the grid, even during the highest load hours." Exh. AN-3 at 5. PA also notes that the proposed schedule adheres to "CMP's preference of aligning the beginning of the on peak period across all three seasons, which enhances the ability of customers to more easily remember the higher cost hours relative to off peak hours." Exh. AN-3 at 10.

The TOU analysis uses a regression model to fit blocks of time defined as peak and shoulder periods to the hourly distribution marginal cost. How well the selected time blocks fit the hourly variation in marginal cost is measured by the R2 statistic. The proposed schedule improves the fit of the TOU periods to the distribution marginal cost compared to the existing schedule. Exh. AN-3, at 10, Table 2.

2. Staff's Analysis

CMP's proposed schedule aligns well with the RNS peak and distribution peak and simplifies the Company's current TOU schedule by using only one peak period per day and narrowing the shoulder period. However, it also creates more complication by changing days of the week included in peak for the three seasons and retains the use of shoulder periods. It is possible that this increased complexity will challenge the ability of residential ratepayers and even more sophisticated C&I customers to understand and respond to effectively. Staff therefore tested additional models which do not use daily shoulder periods and make days of the week uniform across seasons to make them as simple as possible. Staff uses the same marginal cost data and model structure that PA used in their analysis and provided in COMES-001-019, Attachment 1. Given that TOU rates are opt-in for residential customers and only a relatively small number of have in fact opted in, adoption may be increased by leaning further toward the customer understanding objective and therefore achieve more widespread load shifting. Additionally, as noted, even though TOU rates are the default for commercial and industrial (C&I) customers, those customers may be less likely or able to respond to TOU price signals when the schedule is overly complicated and changing throughout the year. The alternative time schedules Staff tested are (1) 4:00 p.m. to 9:00 p.m. weekdays, (2) 4:00 p.m. to 9:00 p.m. every day, and (3) 5:00 p.m. to 9:00 p.m. weekdays. None of the three alternative time schedules change throughout the year. The schedules which Staff tested, and CMP's proposed schedule are presented in Figure 21 for comparison.

Figure 21: Model TOU Periods

	Peak	Shoulder	Off-Peak
Winter			
CMP	4 PM - 9 PM (Mo-Sun)	7 AM - 10 AM (Mo-Fr)	Other
Alternative 1	4 PM - 9 PM (Mo-Fr)		Other
Alternative 2	4 PM - 9 PM (Mo-Sun)		Other
Alternative 3	5 PM - 9 PM (Mo-Fr)		Other
Summer			
CMP	4 PM - 9 PM (Mo-Fr)	2 PM - 4 PM (Mo-Fr)	Other
Alternative 1	4 PM - 9 PM (Mo-Fr)		Other
Alternative 2	4 PM - 9 PM (Mo-Sun)		Other
Alternative 3	5 PM - 9 PM (Mo-Fr)		Other
Shoulder			
CMP		4 PM - 9 PM (Mo-Sun)	Other
Alternative 1	4 PM - 9 PM (Mo-Fr)		Other
Alternative 2	4 PM - 9 PM (Mo-Sun)		Other
Alternative 3	5 PM - 9 PM (Mo-Fr)		Other

Staff's analysis shows the R2 statistics for each of the alternative schedules tested by Staff and CMP's proposed schedule in Figure 22 to compare their efficiency. All three of Staff's alternate schedules cover the RNS and distribution system peaks and they adhere to CMP's preference for peak periods of the chosen schedule to start at the same time throughout the year.

Figure 22: Model Goodness of Fit Comparison

Period	**CMP**	**Alternative 1**	**Alternative 2**	**Alternative 3**
Winter	0.3926	0.3830	0.3918	0.4360
Summer	0.7412	0.7381	0.6157	0.7713
Shoulder	0.4212	0.5113	0.4212	0.5872
Whole Year	0.4343	0.4926	0.4285	0.5493

Eliminating the morning shoulder period during winter reduces the goodness of fit by 0.0008 between CMP's schedule and Alternative 2. Eliminating the afternoon shoulder period during the summer reduces the goodness of fit by 0.0031, between

CMP and Alternative 1. Comparing Alternative 1 and Alternative 2 shows that including peak periods on weekends only slightly raises goodness of fit in the winter but rather significantly decreases it in both the summer and shoulder seasons. Finally, comparing Alternative 3 to all the other schedules shows that narrowing the peak period increases the goodness of fit in all seasons.

These results show that even simpler TOU schedules with only peak and off-peak periods that do not change throughout the year can achieve efficiency to CMP's proposed schedule and, in the case of Alternative 3, slightly greater efficiency. Detailed regression results are included in Bench Analysis Exhibit 4.

I. Fixed Charges

CMP testifies that monthly fixed charges should be increased and kWh rates decreased to better align rate design with the structure of its marginal costs. RD Test. RD-9-10. In CMP's proposal, monthly fixed charges would increase for all rate classes except A-LM and LGS-ST-TOU. For residential Rate A and A-TOU, CMP proposes increasing the monthly minimum charge by $5.00 in 2023 from the 2022 amount, and then further increasing it by $2.00 in both 2024 and 2025. RD Test. RD-24-25. CMP also proposed to increase to the C/I class customer charges.

The proposed changes for Year 1 are shown in Figure 23.

Figure 23. CMP's Proposed Changes to Fixed Charges by Class

Proposed Fixed Charges (RD-1)			
	2022	2023	% Change
Rate A (Minimum Charge)	$10.73	$15.80	47%
A-TOU	$10.73	$15.80	47%
A-LM 2/	$14.51	$10.90	25%
SGS - Single Phase	$16.09	$21.10	31%
MGS-S - Single Phase	$30.67	$37.45	22%
MGS-P - Single Phase	$85.76	$104.71	22%
IGS-S	$117.52	$143.49	22%
IGS-P	$171.06	$208.85	22%
LGS-S	$586.29	$715.81	22%
LGS-P	$621.56	$758.88	22%
LGS-ST-TOU	$612.55	$304.40	50%
LGS-T-TOU	$855.86	$1,010.97	18%
A-TOU-OPTS	$10.73	$15.80	47%
SGS-TOU - Single Phase	$16.13	$21.10	31%
MGS-S-TOU - Single Phase	$33.43	$37.45	12%
MGS-P-TOU - Single Phase	$92.38	$104.71	13%

Exh. RD-1.

The cost of service studies filed by CMP support increasing fixed charges. The MCOSS supports the conclusion that the vast majority of CMP's marginal distribution costs are "customer" or "fixed-facilities" costs. MCOSS Test. MCOS-21. Customer costs include the costs of metering, service drop, billing, and customer service. *Id.* at 19. Fixed-facilities costs include transformers and local conductors. *Id.* at 18.

As indicated by the MCOSS, these types of costs do not meaningfully change with volumetric usage by individual customers. However, because much of CMP's distribution revenue is collected through volumetric charges, there is a misalignment between the rates customers are paying and the underlying cost of providing distribution service to them.

If one were to accept CMP's MCOSS as a given, the potential magnitude of this misalignment can be illustrated by Figure 24.

Figure 24. MCOSS Monthly Fixed Costs Estimates Relative to 2022 Fixed Charges

Fixed charges compared to MCOSS fixed costs (AN-2)			
All amounts in $ per customer-month			
Rate Class	2022 Actual Fixed Rates	MCOS Total Fixed Cost	% Change from 2022 Rates
A	$14.20	$30.92	118%
SGS-1P	$16.86	$51.32	204%
SGS-3P	$21.48	$27.17	26%
MGS-S-1P	$30.01	$159.99	433%
MGS-S-3P	$39.06	$132.08	238%
IGS-S	$123.10	$735.28	497%
IGS-P	$173.31	$742.66	329%
LGS-S	$614.11	$1,337.18	118%
LGS-P	$651.08	$1,826.37	181%
LGS-ST	$641.64	$272.28	-58%
LGS-T	$896.51	$1,321.71	47%

Exh. AN-2, 20-23.

In general, CMP is moving the larger part of the rate increase of a customer's bill into fixed charges rather than volumetric charges. This is generally consistent with its MCOSS, and the principles of beneficial electrification.

Specifically, in CMP's proposal, the increase in the fixed charge for Rate A is less than would be suggested by the MCOSS and absorbs a substantial portion of the increase in CMP's revenue requirement for this class over the three-year rate plan. As a result, the proposed residential volumetric charges increase by a significantly smaller percentage than the fixed charges over the rate plan, as shown in Figure 25.

Figure 25. CMP's Proposed Fixed and Volumetric Distribution Charge Increases

Rate A - Fixed and Volumetric (RD-1)				
	2022	2023	2024	2025
Minimum Charge	$10.73	$15.80	$17.80	$19.80
% Change		47%	13%	11%
kWh Charge (kWh>50)	$0.03577	$0.03636	$0.03789	$0.03844
% Change		2%	4%	1%

Exh. RD-1.

Given this, increases in the monthly fixed (or customer) charges appear to be consistent with moving CMP rates in the direction of its distribution cost of service.

In addition, increasing the amount of a customer's bill that is recovered through fixed rather than volumetric charges would appear to promote State policies related to electrification. For ratepayers considering whether to purchase a heat pump or electric vehicle, the attractiveness of this choice depends in part upon the operating cost of the electric alternative relative to a fossil-fueled heating appliance or vehicle. The "fuel cost" of electrified appliances is equal to the volumetric charge faced by the ratepayer. Therefore, all else equal, lower volumetric charges should improve incentives for electrification.

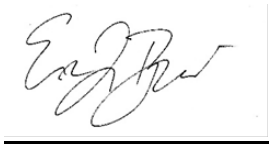
V. CONCLUSION

In conclusion, Staff has concerns about the overall level of spending proposed by CMP and pre-approving three years of rate increases without appropriate guardrails to ensure customers receive the benefits of increased spending. Staff requests that CMP provide in its rebuttal quantitative reliability and customer service metrics, as well as

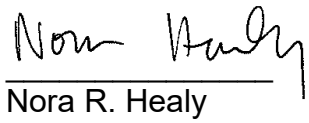
quantifiable means to verify that CMP spends the increased revenue requirement in the areas proposed and on projects that provide maximum value to customers.

Dated: December 5, 2022

Respectfully submitted by:



Eric J. Bryant



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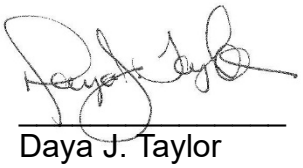

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