



CHUGACH ELECTRIC ASSOCIATION, INC.  
ANCHORAGE, ALASKA

AUDIT AND FINANCE COMMITTEE MEETING

AGENDA

Harold Hollis, Chair  
Sam Cason, Vice Chair

James Henderson, Director  
Mark Wiggin, Director  
Rachel Morse, Director

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**May 18, 2022**

**4:00 p.m.**

**Chugach Board Room**

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- I. CALL TO ORDER (4:00 p.m.)
  - A. Roll Call
- II. APPROVAL OF THE AGENDA\*
- III. APPROVAL OF THE MINUTES\*
  - A. March 30, 2022 (Doyle)
- IV. PERSONS TO BE HEARD
  - A. Member Comments
- V. CEO REPORTS AND CORRESPONDENCE (4:10 p.m.)
  - A. 1<sup>st</sup> Quarter 2022 Capital Tracking Report (Sims/Griffin)
  - B. 1<sup>st</sup> Quarter 2022 Operating Budget Status Report (Sims/Griffin)
  - C. 1<sup>st</sup> Quarter 2022 Contract Status Report (Vecera)
- VI. NEW BUSINESS\*\* (scheduled) (4:30 p.m.)
  - A. BRU Quarterly Update and BRU Reserve Strategy Options\*\* (APCM)
  - B. 1<sup>st</sup> Quarter 2022 Financial Information and Variance Report (Griffin)
  - C. Annual Review of Board Policy 207 – Audit and Finance Committee (Committee)
- VII. EXECUTIVE SESSION\* (scheduled) (5:30 p.m.)
  - A. 1<sup>st</sup> Quarter 2022 Financial Statement Review (Sims/Griffin)
  - B. CEO Transition (Committee)
- VIII. NEW BUSINESS (none)
- IX. DIRECTOR COMMENTS (7:45 p.m.)
- X. ADJOURNMENT\* (8:00 p.m.)

\* Denotes Action Items

\*\* Denotes Possible Action Items

5/13/2022 2:08:08 PM

**CHUGACH ELECTRIC ASSOCIATION, INC.**  
**Anchorage, Alaska**

**March 30, 2022**  
**Wednesday**  
**4:00 p.m.**

**AUDIT AND FINANCE COMMITTEE MEETING**

Recording Secretary: Ashton Doyle

**I. CALL TO ORDER**

Chair Hollis called the Audit and Finance Committee meeting to order at 4:02 p.m. in the boardroom of Chugach Electric Association, Inc., 5601 Electron Drive, Anchorage, Alaska.

*A. Roll Call*

*Committee Members Present:*

Harold Hollis, Chair  
Sam Cason, Vice Chair  
James Henderson, Director  
Mark Wiggin, Director  
Rachel Morse, Director

*Board Members Present:*

Bettina Chastain, Director (*joined via teleconference at 4:07 p.m.*)

*Guests and Staff Attendance*

*Present:*

Sherri Highers	Lee Thibert	Matthew Clarkson
Arthur Miller	Brian Hickey	Mark Fouts
Karen Griffin	Julie Hasquet	Curtis Sims
Sandra Cacy	Arden Quezon	Ron Vecera
Kathy Harris		

*Via Teleconference:*

Connie Owens	Mike Hayhurst, KPMG	Blake Phillips, APCM
Nathan Golab	Melissa Beedle, KPMG	Brandy Niclai, APCM

**II. APPROVAL OF THE AGENDA**

Director Henderson moved and Director Morse seconded the motion to approve the agenda. The motion passed unanimously.

**III. APPROVAL OF THE MINUTES**

Director Wiggin moved and Director Henderson seconded the motion to approve the December 6, 2021, Audit and Finance Committee Meeting minutes. The motion passed unanimously.

*Director Chastain joined via teleconference at 4:07 p.m.*

#### **IV. PERSONS TO BE HEARD**

- A. *Member Comments*  
None.

#### **V. CEO REPORTS AND CORRESPONDENCE**

- A. *4<sup>th</sup> Quarter 2021 Capital Tracking Report (Sims)*  
The 4<sup>th</sup> Quarter 2021 Capital Tracking Report was provided in the meeting packet.
- B. *4<sup>th</sup> Quarter 2021 Operating Budget Status Report (Sims)*  
The 4<sup>th</sup> Quarter 2021 Operating Budget Status Report was provided in the meeting packet.
- C. *4<sup>th</sup> Quarter 2021 Contract Status Report (Vecera)*  
The 4<sup>th</sup> Quarter 2021 Contract Status Report was provided in the meeting packet.
- D. *2021 Year-End Financial Statements and Variance Report (Griffin)*  
The 2021 Year-End Financial Statements and Variance Report was provided in the meeting packet.
- E. *BRU ARO Investment Fund Review (APCM)*  
Blake Phillips, CFA, Vice President, Director of Institutional Solutions, and Brandy Niclai, CFA, Chief Investment Officer, Multi-Asset Strategies with Alaska Permanent Capital Management, gave a review of the BRU ARO fund and responded to questions from the Committee.

Lee Thibert, Chief Executive Officer (CEO), gave a summary of the CEO Reports and Correspondence items.

#### **VI. NEW BUSINESS**

- A. *2021 Year-End Financial Information (Griffin)*  
Sherri Highers, Chief Financial Officer (CFO) and Executive VP, Finance and Administration, Karin Griffin, Controller, General Accounting, and Curtis Sims, Senior Manager, Budget Finance Reporting discussed the 2021 Year-End Financial Information and responded to questions from the Committee.

Ms. Highers stated that Kathy Harris, outgoing Controller's retirement date is March 31, 2022.

#### **VII. EXECUTIVE SESSION**

- A. *2021 Year-End Financial Report*
- B. *Review the 2021 Independent Audited Financial Statements*
- C. *Board and Auditor Discussion*

At 4:40 p.m., Director Morse moved and Director Cason seconded the motion that pursuant to Alaska Statute 10.25.175(c)(1), the Board of Directors' Audit and Finance Committee go into executive session to discuss and receive reports regarding financial matters, the

immediate knowledge of which would clearly have an adverse effect on the finances of the cooperative. The motion passed unanimously.

*The meeting reconvened in open session at 5:36 p.m.*

**VIII. NEW BUSINESS**

None.

**IX. DIRECTOR COMMENTS**

Director comments were made at this time.

**X. ADJOURNMENT**

At 5:42 p.m., Director Cason moved and Director Wiggin seconded the motion to adjourn. The motion passed unanimously.

**CHUGACH ELECTRIC ASSOCIATION  
CAPITAL PROJECT TRACKING REPORT  
As of March 31, 2022**

CIP Ref #	Project Name <sup>1</sup>	Project Manager	BOD Project Approval Date	Estimate			Actuals			Variance		Project Completion	Comments
				Estimate	Revisions to Estimate	Revised Estimate	Spending to Date	Forecast to Completion	Total Estimated Completion Cost	Total Estimated Cost vs. Revised Estimate			
										Amount	%		

**SYSTEM IMPROVEMENT PROJECTS**

**Reliability**

02.0142	Daves Creek 352 Reliability Improvements Phase I E1913922	Miller, Mike	5/26/2021	\$1,600,000	\$0	\$1,600,000	\$1,422,264	\$177,736	\$1,600,000	\$0	100%	95%	The project is currently in closeout.
03.0485	O'Malley OH/UG: Rockridge Drive to Hillside Drive <sup>4</sup> E1813812, E1913870	Willis	4/28/2021	\$4,100,000	\$0	\$4,100,000	\$1,144,237	\$2,955,763	\$4,100,000	\$0	100%	28%	The project was bid and awarded to LineWorks in October. Construction is on going with substantial completion expected in August of 2022. This project is partially reimbursable through ADOT.
03.0810	Jewel Lake Road OH/UG: Strawberry Road to W. 84th Ave <sup>2</sup> E2013957	Miller, Mike	2/16/2022	\$3,300,000	\$0	\$3,300,000	\$155,679	\$3,144,321	\$3,300,000	\$0	100%	5%	The contract bid period ended 5/6/2022. Board approval for the contract is anticipated for the May 2022 regular board meeting. Planned construction starts in June 2022 with a completion goal of October 2022.
05.0300	Campbell Lake Substation Rebuild E1920057, E2114076, C2130007	Miller, Mike	2/16/2022	\$7,400,000	\$0	\$7,400,000	\$470,116	\$6,929,884	\$7,400,000	\$0	100%	6%	Design responsibility has moved from an in-house effort to EPS. A new baseline schedule has been developed with construction now slated for January of 2024. Switchgear procurement is planned for July 2022, with delivery projected in May 2024. Estimated energization date is October 2024.
12.1027	Battery Energy Storage System - BESS E1720056, E1720057, P2031027	Laughlin	12/15/2021	\$58,500,000	\$0	\$58,500,000	\$858,350	\$57,641,782	\$58,500,000	\$0	100%	1%	The civil site work contract was issued to Roger Hickel Contracting, the excavation is scheduled to start in mid-May when road restrictions are lifted and forecasted to be complete by mid-July. The BESS procurement RFP was issued on March 25th, the preproposal meeting was held on April 21st, and the bids are due on June 1st.
20.0252 20.0196	PS Replacement I2140001 I2140018 CIS - Upgrade I2140007	Travis, Joshua	1/19/2022	\$16,973,000	\$0	\$16,973,000	\$264,220	\$16,708,780	\$16,973,000	\$0	100%	1%	The ERP team, with support from all functional groups, met with Cayenta 19 times in March to continue developing the Statements of Work with Cayenta (CIS & ERP), SmartWorks (Meter Data management) and Invoice Cloud (payment processor). We have received all contractual documentation from Invoice Cloud and Cayenta (received April 20th). Additional project resources to help with business analysis, testing, and training are under review.

**Retirements & Replacements**

10.0207	East Cable Terminal Reactor Replacement E2120054	Laughlin	11/22/2021	\$3,200,000	\$0	\$3,200,000	\$120,987	\$3,079,013	\$3,200,000	\$0	100%	4%	Design is planned on being complete August 2022. Foundation construction is tentatively planned for late fall (2022). Project completion in spring 2023. The procurement contract for the HICO reactor has been completed, with delivery expected in Q1/ 2023. The reactor design approval process is ongoing and the design for the reactor replacement is about 65% to date.
10.0240	Retire INSS 138kV Facilities E1720055	Wendling	1/24/2018	\$2,700,000	\$0	\$2,700,000	\$2,266,258	\$0	\$2,266,258	(\$433,742)	84%	99%	The retirement portion of this project has been completed by the OELCC Time and Materials Contractor brought on the summer of 2020 for COVID mitigation. Due to high commodity pricing associated with the affects of COVID on supply chains, the moving of transformers to new foundations will be addressed in a future project. In late August / September, the T-2 Shoo-Fly was removed and the T-2 Transformer feed was restored to its permanent configuration. The retired lattice structure and miscellaneous retired material was also removed from the west storage yard to complete onsite project tasks. Project closeout is ongoing and estimate to complete is dependent upon labor resource availability. The project is functionally complete, but it is still going through the closeout process.
16.0000	Land Mobile Radio Replacement C1730001	Murray	11/26/2019 05/26/2021	\$1,995,169	\$428,075	\$2,423,244	\$2,560,998	\$196,610	\$2,757,608	\$334,364	114%	100%	Project is complete. Final punch list items have been completed by Contractor. Final invoice is being routed for signature.
20.0033 20.0035	Fuel Tank Replacement and Storm Drain Reconstruction A2040003, A2040004	Prior	2/24/2021	\$1,173,654	\$0	\$1,173,654	\$1,250,169	\$40,000	\$1,290,169	\$116,515	110%	99%	Fuel tanks and storm drains are installed. Construction took place over the Summer/Fall/Winter of 2021/2022 and is anticipated to be complete by April 15, 2022. The project costs are higher than expected due to additional electrical work because of inaccurate electrical drawings. Additionally, we encountered unexpected contaminated soil and an additional storm drain replacement, as well as unanticipated environmental charges.

CHUGACH ELECTRIC ASSOCIATION  
CAPITAL PROJECT TRACKING REPORT  
As of March 31, 2022

CIP Ref #	Project Name <sup>1</sup>	Project Manager	BOD Project Approval Date	Estimate			Actuals			Variance		Project Completion	Comments
				Estimate	Revisions to Estimate	Revised Estimate	Spending to Date	Forecast to Completion	Total Estimated Completion Cost	Total Estimated Cost vs. Revised Estimate			
										Amount	%		
Agency Mandated													
20.0304	Eklutna Fish & Wildlife <sup>5</sup> P1990277, P2000898	Brodie	11/26/2019 12/16/2020 12/15/2021	\$4,315,889	\$0	\$4,315,889	\$1,995,959	\$2,500,781	\$4,496,740	\$180,851	104%	50%	Eklutna F&W is a multi-year project with final completion of the program in late 2024. The 2021 budget was the first year of a 2-year study program on the Eklutna River, Lake, and plant facilities. The study plan has been approved and the year-one studies were accomplished in 2021. Development of year-two study plan (2022) was started in the 4th quarter of 2021 as well as review of the data collected through the first year of the study. Draft reports of year one studies are being drafted in the 1st quarter of 2022.

<b>Totals</b>	<b>\$105,257,712</b>	<b>\$428,075</b>	<b>\$105,685,787</b>	<b>\$12,509,239</b>	<b>\$93,374,669</b>	<b>\$105,883,776</b>	<b>\$197,989</b>	<b>100%</b>	<b>44%</b>
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<sup>1</sup> Report tracks projects with costs exceeding \$1M.

<sup>2</sup> Projects funded by the Undergrounding Ordinance.

<sup>3</sup> Represents Chugach's portion.

<sup>4</sup> Projects funded by a combination of the Undergrounding Ordinance and DOT.

<sup>5</sup> Represents Chugach's portion of this project. Estimate is based on the approved capital budgets for 2020-2021 and the budget included in the 2022-2026 CIP reviewed by the BOD on 12/15/2021.



**TO:** Sherri L. Highers, Chief Financial Officer

**THROUGH:** Karen Griffin, Vice President, Finance & Accounting

**FROM:** Curtis Sims, Sr. Manager, Budget & Financial Reporting

**DATE:** May 10, 2022

**SUBJECT:** *1<sup>st</sup> Quarter 2022 Operating Budget Status Report*

The Operating Budget Status Report on page 2 reflects the budget adjustment for the first quarter and is outlined below.

- Removing the revenue attributable to the decoupling rate increase due to our filing withdrawal and the removal of expense related to the Eklutna PPA and Secondary Regulatory Asset.



The foregoing budget adjustment resulted in a margin net increase of \$176,924 on the 2022 Operating Budget.

**CHUGACH ELECTRIC ASSOCIATION, INC.**  
**OPERATING BUDGET STATUS REPORT**  
**1st QUARTER 2022**

CATEGORY	2022 APPROVED BUDGET	2022 Q1 BUDGET REVISIONS	2022 Q1 AMENDED BUDGET
<b>Operating Revenue and Patronage Capital</b>	<b>\$ 353,756,696</b>	<b>\$ (8,696,115)</b>	<b>\$ 345,060,581</b>
Fuel and Purchased Power Expense	105,281,462	(2,539,706)	102,741,756
Power Production Expense	36,526,615	-	36,526,615
Transmission Expense	11,473,532	-	11,473,532
Distribution Expense	28,908,401	-	28,908,401
Customer Expense	11,510,953	-	11,510,953
Administrative, General & Other	52,462,820	(6,333,333)	46,129,487
Depreciation and Amortization Expense	61,413,835	-	61,413,835
Interest Expense, Net	38,424,734	-	38,424,734
<b>Total Cost of Electric Service</b>	<b>\$ 346,002,352</b>	<b>\$ (8,873,039)</b>	<b>\$ 337,129,313</b>
<b>Patronage Capital &amp; Operating Margins</b>	<b>\$ 7,754,344</b>	<b>\$ 176,924</b>	<b>\$ 7,931,268</b>
Non-Operating Margins - Interest	291,144	-	291,144
Allowance for Funds Used During Construction	301,074	-	301,074
Non-Operating Margins - Other	(145,180)	-	(145,180)
<b>Patronage Capital or Margins</b>	<b>\$ 8,201,382</b>	<b>\$ 176,924</b>	<b>\$ 8,378,306</b>
MFI/I	1.20		1.20
TIER	1.20		1.21



## BUDGET REVISION REQUEST

1.	Division: Various	Department: Various												
2.	Add: <input type="checkbox"/>	Delete: <input checked="" type="checkbox"/> Transfer: <input type="checkbox"/>												
3.	Full year amount (rounded to dollars):	\$ 176,924												
4.	Monthly amounts (rounded to dollars - should total to line 3 above)													
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">January \$</td> <td style="width: 33%;">May \$ 709,193</td> <td style="width: 33%;">September \$ 700,176</td> </tr> <tr> <td>February \$</td> <td>June \$ 679,111</td> <td>October \$ 909,486</td> </tr> <tr> <td>March \$ 1,579,797</td> <td>July \$ 705,638</td> <td>November \$ 965,497</td> </tr> <tr> <td>April \$ 713,556</td> <td>August \$ 703,075</td> <td>December \$ (7,842,453)</td> </tr> </table>	January \$	May \$ 709,193	September \$ 700,176	February \$	June \$ 679,111	October \$ 909,486	March \$ 1,579,797	July \$ 705,638	November \$ 965,497	April \$ 713,556	August \$ 703,075	December \$ (7,842,453)	
January \$	May \$ 709,193	September \$ 700,176												
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March \$ 1,579,797	July \$ 705,638	November \$ 965,497												
April \$ 713,556	August \$ 703,075	December \$ (7,842,453)												
5.	General Ledger Account Number (from): Various General Ledger Account Number (to): Various													
6.	General Ledger Account Name (from): Various General Ledger Account Name (to): Various													
7.	Explanation: To remove revenue attributable to decoupling rate increase and expense related to the Eklutna PPA and Secondary Regulatory Asset. Net impact to margins is an increase of \$176,924. Revenue reduction is spread between March and December. Eklutna PPA and Secondary Regulatory Asset adjustment is reflected in December.													
8.	Requested by: Curtis Sims	Date: 4/20/2022												
9.	<\$25,000 Approved by:  Division Director/Department Manager	Date: 4/20/22												
10.	\$25,000 - \$250,000 Approved by:  Executive Manager	Date: 4/20/2022												
11.	\$250,000 - \$1,000,000 Approved by: Chief Executive Officer	Date:												
12.	>\$1,000,000 Approved by: Board of Directors	Date:												
<b>Obtain necessary approval signatures, forward to the Manager of Budget &amp; Financial Reporting</b>														

# CHUGACH ELECTRIC ARO INVESTMENT FUND

## INVESTMENT REVIEW

*for the period ending March 31, 2022*

## *Agenda*

- 01 Market Review
- 02 Portfolio Review
- 03 Appendix



# Account Summary as of March 31, 2022

## *Chugach Electric ARO Investment Fund*

Account Inception		<b>October 2020</b>
Initial Contribution		<b>\$ 17,175,687</b>
Subsequent Contributions		<b>\$ 2,239,796</b>
Current Market Value		<b>\$ 20,804,640</b>
Annualized Account Return <i>Since Inception</i>		<b>+5.39%</b>
Current Allocation	Risk Assets	<b>52%</b>
	Risk Control	<b>27%</b>
	Alternatives	<b>21%</b>

Performance is gross of management fees, net of internal fund fees, and annualized for periods greater than one year.

# Asset Liability Summary as of March 31, 2022

## *Chugach Electric ARO Investment Fund*

Contributions to Date	<b>\$ 19,415,483</b>
Current Market Value	<b>\$ 20,804,640</b>
Anticipated Contributions	<b>\$ 10,340,082</b>
Total Liability <i>Due 1<sup>st</sup> Semester 2037</i>	<b>\$ 56,851,237</b>
Funded Status	<b>54.78%</b>

Anticipated Contributions based on deposit schedule provided by Chugach Electric Association. Contributions to Date calculated as the initial contribution plus subsequent deposits. Funded Status calculated as current market value plus anticipated contributions of approximately \$10.34MM divided by the ARO liability of \$56.85MM. As of 3/31/22, actual contributions have been approximately 63% of the anticipated contributions.

# Market Review

Market Review

Portfolio Review

Appendix

# 2022 Developments and Market Volatility

- Long-term return expectations have not changed. The core of each client’s strategy is based on APCM’s reasonable forward-looking return projections, which are long-term and incorporate both up and down markets across 5,000 difference scenarios, as depicted in the Within Horizon Risk chart below.
- In the short-term, markets are pricing in higher risks of recession driven by the expectation that the Fed will need to raise rates aggressively to stifle inflation. This dynamic has led to both stock and bond prices falling.
- Equity valuations do not indicate they are too expensive. So, there is an equal chance that stocks go up or down from here. A reversal could occur if demand has already softened enough for the Fed to achieve its goals.
- To dampen exposure to near-term volatility while remaining on course to achieve long-term goals, we have defensively positioned equity exposure via low volatility and high-quality companies, decreased the sensitivity to rising interest rates, increased diversification by adding to alternative beta and cash.
- Remember that markets can turn quickly! As uncertainty fades, markets could reverse direction. During the pandemic, U.S. large company stocks fell precipitously in just 23 days – then recovered completely in a couple of months. Like pictured on the right, short-term losses do not mean goals can no longer be reached if you maintain the core strategy.

## Core

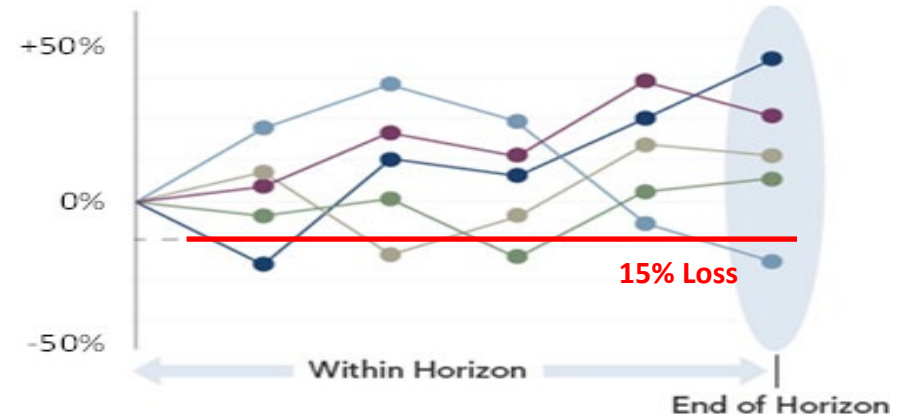
Portfolio designed to meet client specific goals utilizing strategic asset classes.

## Satellite

Return enhancement and risk control strategies deployed to **incrementally enhance the core**. Modest exposure, remain focused on the core.



## Within Horizon Probability of Loss



# 2022 Developments and Positioning

## Ukraine/Russia Conflict Was Not Expected

Although the direct economic effects on global growth should be modest (Ukraine/Russia represent less than 2% of global GDP), **indirect effects are more meaningful.**

Russia is a key player in the **global energy** (particularly the major supplier of natural gas to Europe) **and metals markets** while Ukraine is a **sizeable agricultural producer.**

1

2

## Total Impact Determined By Length

Ultimately, the **war's full impact on global growth will depend on how long it lasts.** High energy costs act like a tax on growth, low metals supplies further slow supply chains, and high agricultural commodities costs strain lower-income budgets.

Geopolitical strategists **expect the conflict to escalate further** in the coming weeks, warranting a somewhat cautious near-term stance.

## Global Growth Tailwinds Remain

We cannot predict when the conflict will deescalate, but **risk assets should begin to recover as the war winds down** and energy prices come off highs.

There are still many tailwinds supporting the global economy, most notably **business capex spending estimates continue to rise**, and **consumer spending estimates are now above pre-conflict levels** after revisions down at the onset of hostilities.

3

4

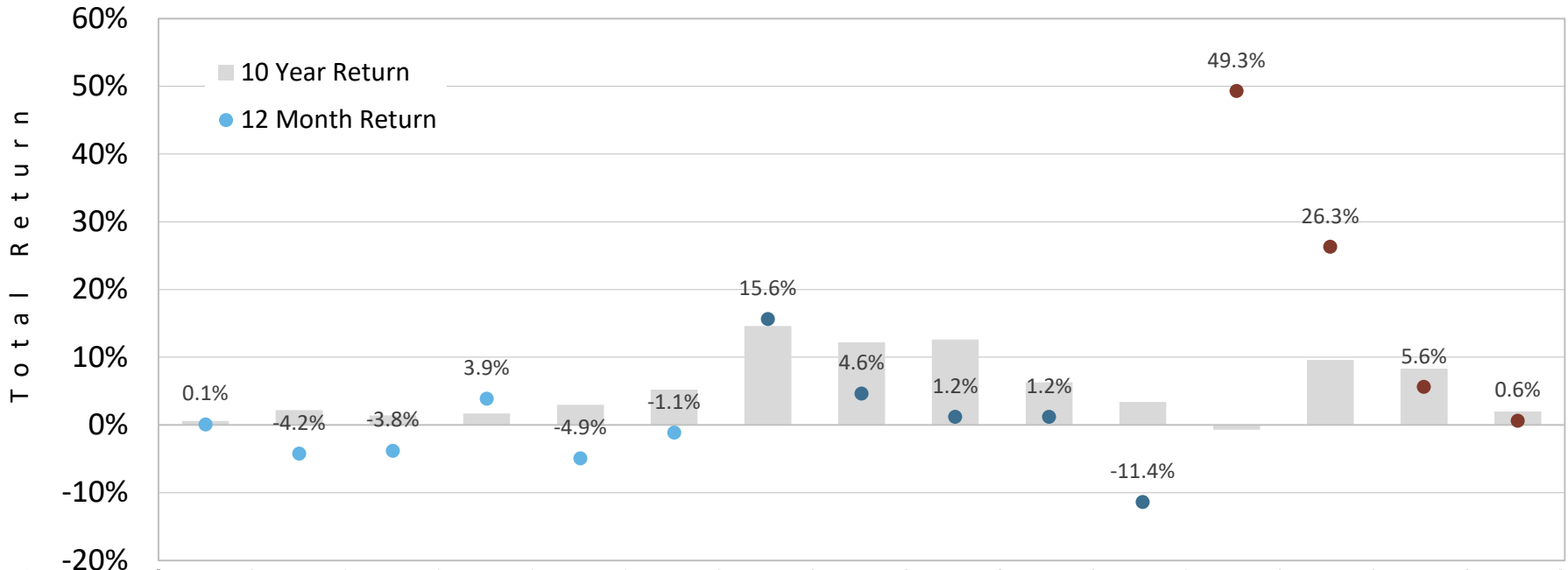
## Positioning

We expect global economic growth to slow but remain positive in 2022 while consistent inflationary pressures prompt the acceleration of monetary policy normalization. **Equities remain more attractive than risk control assets over the near-term**, but exposure has been tilted towards lower volatility and high-quality equity securities within the U.S. and developed markets which should provide better relative performance in this environment.

From a risk control perspective, **alternative beta and its cash/low volatility proxy remain to dampen risk.** In addition, below benchmark duration within global fixed income reduces sensitivity to rising interest rates.

# Asset Class Returns as of March 31, 2022

## Rolling 1 Year Returns



	RISK CONTROL						RISK ASSETS					ALTERNATIVES			
	FIXED INCOME						EQUITIES					ALTERNATIVES			
	Cash	U.S. Fixed Income	1-5 Gov. Credit	TIPS	Intl. Fixed Income	HY Fixed Income	U.S. Large Cap	U.S. Mid Cap	U.S. Small Cap	Dev. Ex-U.S.	Emerging Markets	Comm.	Real Estate	Infra.	Alt. Beta
2022 YTD	0.0	-5.9	-3.5	-0.3	-5.0	-4.8	-4.6	-4.9	-5.6	-5.9	-7.0	25.5	-4.0	0.7	-1.9
1 Year	0.1	-4.2	-3.8	3.9	-4.9	-1.1	15.6	4.6	1.2	1.2	-11.4	49.3	26.3	5.6	0.6
3 Year	0.8	1.7	1.1	4.4	0.7	3.9	18.9	14.1	13.6	7.8	4.9	16.1	10.9	7.8	3.1
5 Year	1.1	2.1	1.4	3.1	2.2	4.3	16.0	11.1	10.9	6.7	6.0	9.0	9.5	7.5	2.3
10 Year	0.6	2.2	1.4	1.7	3.0	5.2	14.6	12.2	12.6	6.3	3.4	-0.7	9.6	8.3	2.0

Data: Bloomberg. Asset class performance is represented by the stated index return. Returns annualized for periods greater than one year. Risk and return data from Windham Portfolio Advisor.



# Portfolio Review

*Chugach Electric ARO Investment Fund*

Market Review

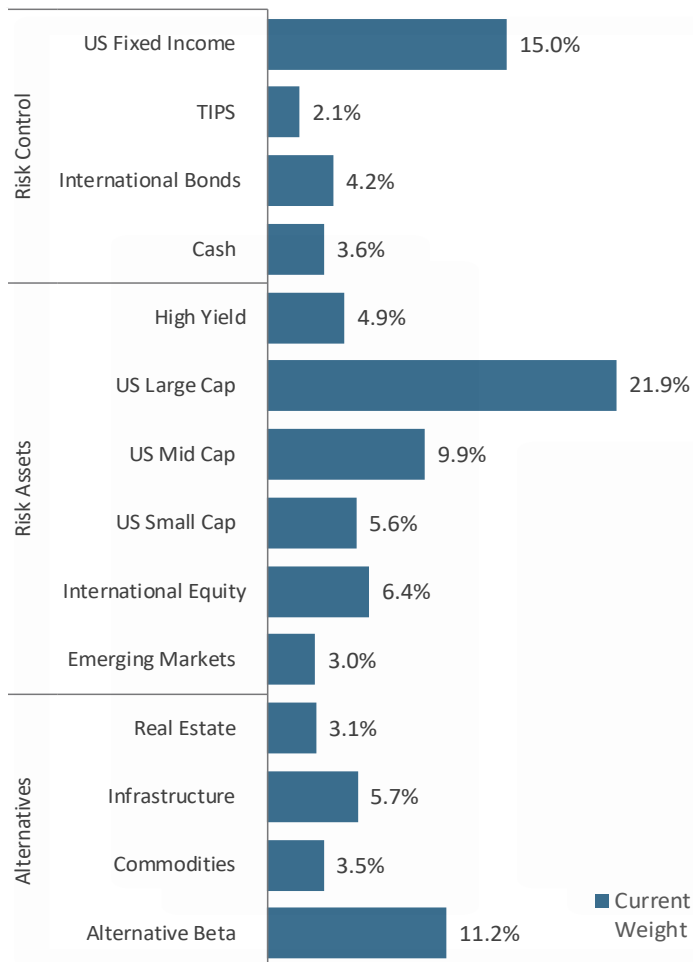
Portfolio Review

Appendix

**PORTFOLIO  
REVIEW**

# Asset Allocation as of March 31, 2022

## Chugach Electric ARO Investment Fund

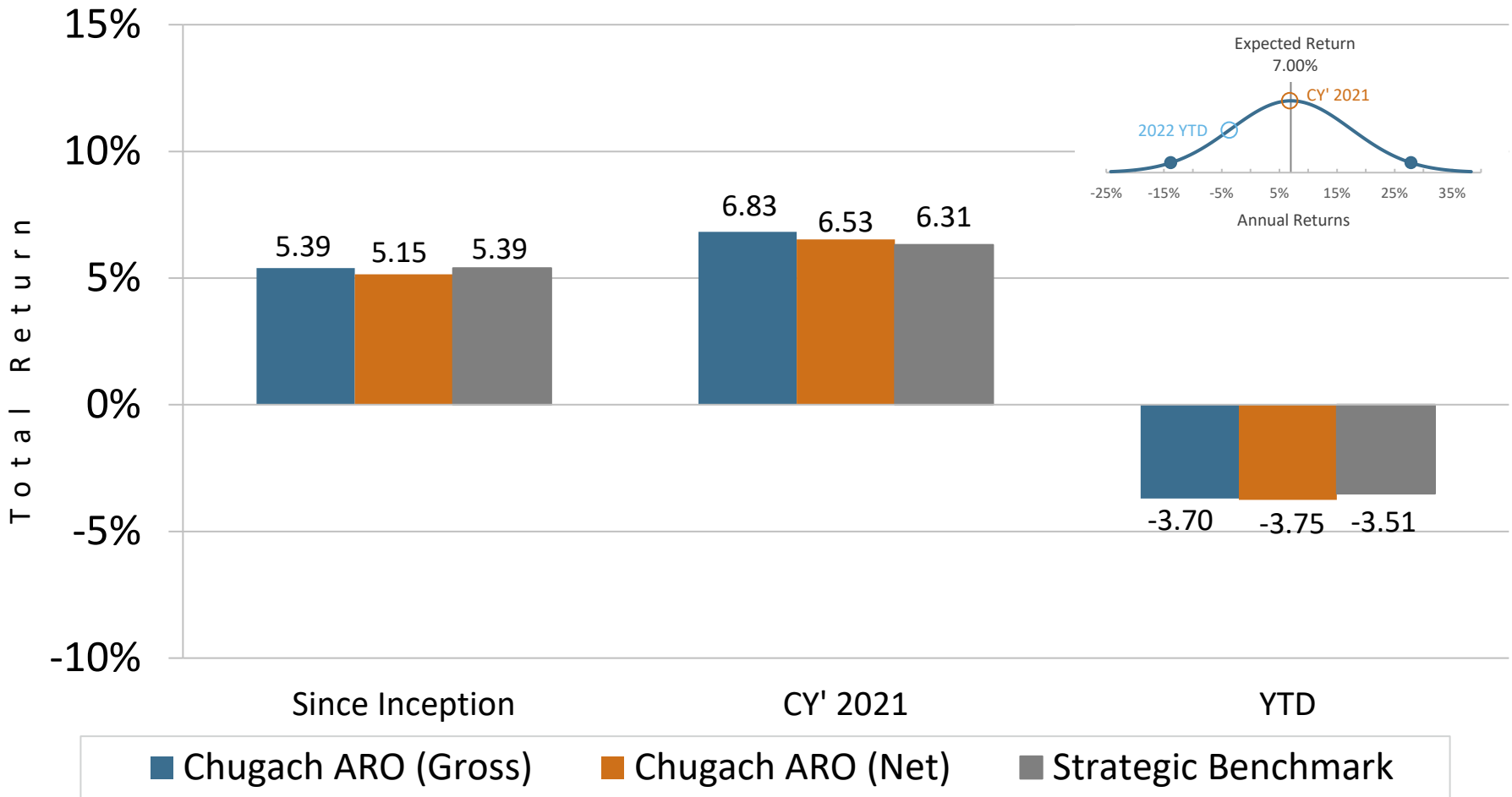


Asset Class	Strategic Weight	Overweight / Underweight	Range
<b>Risk Control</b>	<b>27%</b>	<b>-2.2%</b>	
US Fixed Income	18%	-3.0%	8 - 28%
TIPS	2%	0.1%	0 - 10%
International Bonds	5%	-0.8%	0 - 10%
Cash	2%	1.6%	0 - 10%
<b>Risk Assets</b>	<b>52%</b>	<b>-0.3%</b>	
High Yield	5%	-0.1%	0 - 10%
US Large Cap	22%	-0.1%	12 - 32%
US Mid Cap	10%	-0.1%	5 - 15%
US Small Cap	5%	0.6%	0 - 10%
International Equity	6%	0.4%	0 - 12%
Emerging Markets	4%	-1.0%	0 - 8%
<b>Alternatives</b>	<b>21%</b>	<b>2.5%</b>	
Real Estate	3%	0.1%	0 - 6%
Infrastructure	5%	0.7%	0 - 10%
Commodities	3%	0.5%	0 - 6%
Alternative Beta	10%	1.2%	0 - 15%

**PORTFOLIO  
REVIEW**

# Combined Account Performance as of March 31, 2022

## *Chugach Electric ARO Investment Fund*



Expected Risk and return data from Windham Portfolio Advisor. Performance is gross of management fees, net of internal fund fees, and annualized for periods greater than one year. Inception performance begins on October 31, 2020.

# U.S. Fixed Income Performance as of March 31, 2022

## *Chugach Electric ARO Investment Fund*

- Actively managed U.S. Fixed Income return QTD was **-5.76%** vs. **-5.93%** for the benchmark.
- Fixed income performance can be decomposed into three primary sources of return: **sector allocation, interest rate changes, and security selection.**
  - An underweight to portfolio duration and MBS selection effect were the relative contributors to outperformance compared to the benchmark.
  - The portfolio was set up for interest rates to rise and weakening (credit spreads widening) in corporate bonds.

### U.S. Fixed Income Summary Statistics as of March 31, 2022

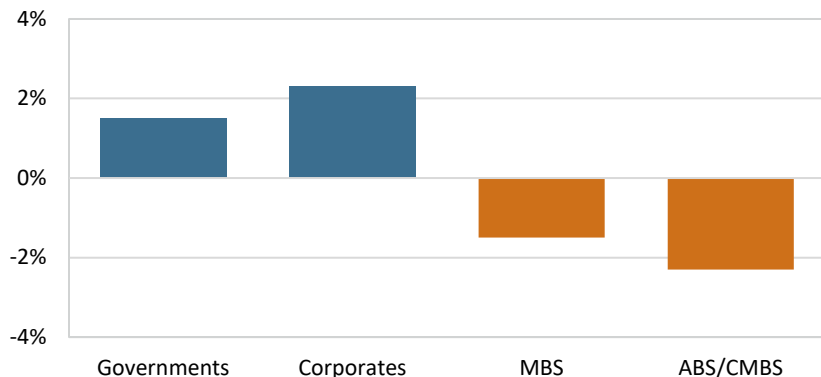
	ARO Investment Fund	Bloomberg Aggregate
Market Value	\$ 3,108,059	—
Yield to Maturity	3.02%	2.92%
Effective Duration	6.40	6.58

Source: Bloomberg

# PORTFOLIO REVIEW

# U.S. Fixed Income Positioning as of March 31, 2022 *Chugach Electric ARO Investment Fund*

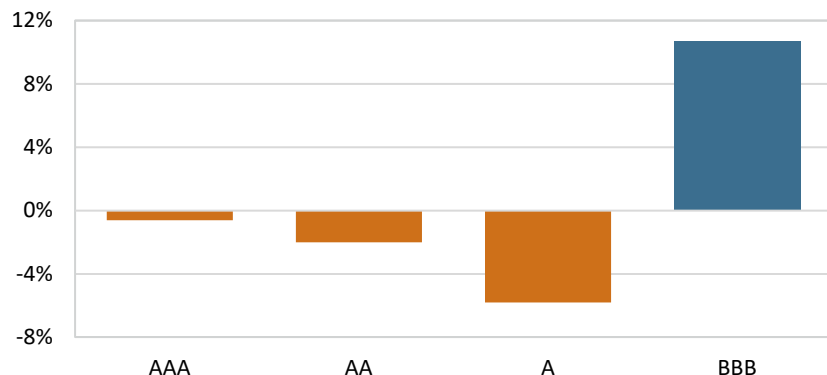
## Sector Under/Overweight



## Bond Sector Comparison

	Chugach	Bloomberg Agg
<b>Governments</b>	45.7%	44.2%
<b>Corporates</b>	28.1%	25.8%
<b>MBS</b>	26.2%	27.7%
<b>ABS/CMBS</b>	0.0%	2.3%
<b>Total</b>	<b>100%</b>	<b>100%</b>

## Quality Under/Overweight



## Corporate Credit Quality Comparison

	Chugach	Bloomberg Agg
<b>AAA</b>	0.0%	0.6%
<b>AA</b>	0.0%	2.0%
<b>A</b>	4.8%	10.6%
<b>BBB*</b>	23.3%	12.6%
<b>Total</b>	<b>28.1%</b>	<b>25.8%</b>

Source: Bloomberg

\* Portfolio holds **0.78%** BBB- vs. 3.62% in the bench

# Appendix

Market Review

Portfolio Review

Appendix

# Portfolio Appraisal

## CHUGACH ELECTRIC ASSOCIATION INC

### March 31, 2022



Quantity	Security	Average Cost	Total Average Cost	Price	Market Value	Pct. Assets	Annual Income	Accrued Interest	Yield to Maturity
<b>AGENCIES</b>									
125,000	FEDERAL HOME LOAN BANK 0.600% Due 08-27-25	99.90	124,875	93.50	116,881	0.56	750	71	2.60
125,000	FHLB 1.625% Due 03-12-27	104.27	130,335	96.03	120,042	0.58	2,031	107	2.48
125,000	FEDERAL FARM CREDIT BANK 2.125% Due 03-05-35 Accrued Interest	103.99	129,987	90.45	113,064	0.54	2,656	192	3.02
					370	0.00			
			385,197		350,357	1.68		370	
<b>ALTERNATIVE BETA</b>									
179,256	BLCKRCK SYST MULTI-STR-INST	10.52	1,884,918	10.15	1,819,452	8.75	NA		
16,841	IQ HEDGE MULTI-STRAT TRACKER	32.38	545,255	30.84	519,376	2.50	NA		
			2,430,174		2,338,829	11.24			
<b>CORPORATE BONDS</b>									
25,000	KELLOGG CO 2.750% Due 03-01-23	100.17	25,043	100.50	25,126	0.12	687	57	2.18
25,000	MORGAN STANLEY IND FINANCIAL SRV 3.875% Due 04-29-24	100.03	25,008	102.01	25,502	0.12	969	409	2.87
25,000	HCP INC 3.400% Due 02-01-25	102.12	25,529	100.38	25,096	0.12	850	142	3.25
25,000	CITIGROUP INC 3.700% Due 01-12-26	97.05	24,263	101.23	25,308	0.12	925	203	3.35
30,000	DARDEN RESTAURANTS INC 3.850% Due 05-01-27	110.59	33,176	101.39	30,418	0.15	1,155	481	3.55
25,000	CAPITAL ONE FINANCIAL CO 3.650% Due 05-11-27	110.46	27,616	100.12	25,031	0.12	912	355	3.62
20,000	CANADIAN NATL RESOURCES 3.850% Due 06-01-27	109.11	21,822	101.11	20,222	0.10	770	257	3.61
25,000	SOUTHWEST AIRLINES CO 5.125% Due 06-15-27	117.61	29,403	106.90	26,726	0.13	1,281	377	3.65
25,000	BORGWARNER INC 2.650% Due 07-01-27	107.15	26,787	96.56	24,141	0.12	662	166	3.37
25,000	ENBRIDGE INC 3.700% Due 07-15-27	109.79	27,448	101.30	25,326	0.12	925	195	3.43
20,000	NATIONAL RETAIL PROP INC 4.300% Due 10-15-28	113.05	22,609	102.79	20,558	0.10	860	397	3.81
20,000	ESSEX PORTFOLIO LP 4.000% Due 03-01-29	111.75	22,350	103.04	20,608	0.10	800	67	3.50

# Portfolio Appraisal

## CHUGACH ELECTRIC ASSOCIATION INC

### March 31, 2022



Quantity	Security	Average Cost	Total Average Cost	Price	Market Value	Pct. Assets	Annual Income	Accrued Interest	Yield to Maturity
25,000	CABOT CORP 4.000% Due 07-01-29	109.16	27,289	100.44	25,110	0.12	1,000	250	3.93
25,000	INTEL CORP 3.900% Due 03-25-30	113.48	28,371	105.12	26,280	0.13	975	16	3.17
25,000	CITIZENS FINANCIAL GROUP 3.250% Due 04-30-30	106.85	26,713	97.73	24,433	0.12	812	341	3.57
25,000	KOHL'S CORPORATION 3.375% Due 05-01-31	99.80	24,950	96.51	24,127	0.12	844	352	3.83
20,000	KIMCO REALTY CORP 3.200% Due 04-01-32	99.17	19,834	97.22	19,444	0.09	640	64	3.53
20,000	CVS HEALTH CORP 4.875% Due 07-20-35	120.76	24,151	109.78	21,957	0.11	975	192	3.92
25,000	ORACLE CORP 3.850% Due 07-15-36	104.24	26,061	92.05	23,011	0.11	962	203	4.61
25,000	BANK OF AMERICA NA 6.000% Due 10-15-36	127.62	31,905	121.89	30,472	0.15	1,500	692	4.00
30,000	JPMORGAN CHASE & CO 6.400% Due 05-15-38	123.61	37,084	130.36	39,109	0.19	1,920	725	3.85
25,000	DOMINION ENERGY INC 7.000% Due 06-15-38	145.11	36,278	130.09	32,523	0.16	1,750	515	4.38
25,000	SOUTHERN COPPER CORP 5.250% Due 11-08-42	123.17	30,793	113.15	28,287	0.14	1,312	521	4.28
25,000	VIACOMCBS INC 5.850% Due 09-01-43	128.78	32,194	115.22	28,804	0.14	1,462	122	4.71
25,000	PHILLIPS 66 4.875% Due 11-15-44	119.70	29,925	110.79	27,697	0.13	1,219	460	4.14
25,000	ENTERPRISE PRODUCTS OPER 5.100% Due 02-15-45	120.79	30,198	109.03	27,258	0.13	1,275	163	4.46
25,000	CARDINAL HEALTH 4.900% Due 09-15-45	111.47	27,867	103.33	25,832	0.12	1,225	54	4.66
25,000	Sysco Corporation 4.450% Due 03-15-48	120.54	30,134	103.70	25,926	0.12	1,112	49	4.21
25,000	AT&T INC 4.550% Due 03-09-49	92.65	23,163	104.70	26,176	0.13	1,137	70	4.25
25,000	ESSENTIAL UTILITIES INC 4.276% Due 05-01-49	115.73	28,933	104.32	26,081	0.13	1,069	445	4.01
45,000	TELUS CORP 4.300% Due 06-15-49	121.45	54,654	104.54	47,042	0.23	1,935	570	4.02
25,000	MAGELLAN MIDSTREAM PARTN 3.950% Due 03-01-50	109.07	27,267	94.59	23,648	0.11	987	82	4.28



# Portfolio Appraisal

## CHUGACH ELECTRIC ASSOCIATION INC

### March 31, 2022



Quantity	Security	Average Cost	Total Average Cost	Price	Market Value	Pct. Assets	Annual Income	Accrued Interest	Yield to Maturity
25,000	VERIZON COMMUNICATIONS 4.000% Due 03-22-50 Accrued Interest	109.34	27,334	101.47	25,367	0.12	1,000	25	3.91
					9,018	0.04			
			936,159		881,667	4.24		9,018	
<b>COMMODITIES</b>									
7,597	FLEXSHARES GLOBAL UPSTREAM N	41.86	317,979	46.83	355,768	1.71	NA		
10,787	INVESCO OPTIMUM YIELD DIVERSIFIED COMMODIT	17.06	184,063	17.64	190,283	0.91	NA		
3,088	ISHARES BB ROLL SELECT COMMODITY ETF	56.63	174,887	61.35	189,449	0.91	NA		
			676,929		735,499	3.54			
<b>DOMESTIC MID CAP EQUITY FUNDS/ETF</b>									
7,682	ISHARES CORE S&P MIDCAP 400 ETF	267.05	2,051,477	268.34	2,061,388	9.91	NA		
<b>EMERGING MARKET FUNDS/ETF</b>									
11,317	ISHARES ETF CORE MSCI EMERGING MKTS	62.42	706,405	55.55	628,659	3.02	NA		
<b>DOMESTIC FIXED INCOME FUNDS/ETF</b>									
8,342	VANGUARD SHORT-TERM TIPS ETF	49.80	415,417	51.21	427,194	2.05			
<b>FNMA &amp; FHLMC</b>									
22,933	FNMA POOL MA3588 3.500% Due 02-01-34	101.48	23,274	102.58	23,524	0.11	803	67	3.35
29,631	FR SB8503 Mtge 2.000% Due 08-01-35	102.81	30,464	97.24	28,814	0.14	593	10	3.36
26,703	FR SB8116 Mtge 2.500% Due 08-01-36	104.27	27,842	98.98	26,431	0.13	668	11	3.38
47,744	FNCL POOL 995373 4.500% Due 02-01-39	106.72	50,952	106.34	50,769	0.24	2,148	179	3.51
29,201	FN MA4475 Mtge 2.500% Due 11-01-41	103.58	30,246	96.67	28,228	0.14	730	12	3.78
29,165	FG G60661 4.000% Due 07-01-46	103.41	30,161	103.77	30,265	0.15	1,167	97	3.86
46,500	FNCL POOL AS7949 4.000% Due 09-01-46	105.20	48,919	103.83	48,283	0.23	1,860	155	3.85
56,405	FN AS8483 3.000% Due 12-01-46	102.95	58,071	99.68	56,224	0.27	1,692	141	3.69
74,040	FNCL POOL BM2001 3.500% Due 12-01-46	103.03	76,285	101.60	75,225	0.36	2,591	216	3.80

# Portfolio Appraisal

## CHUGACH ELECTRIC ASSOCIATION INC

### March 31, 2022



Quantity	Security	Average Cost	Total Average Cost	Price	Market Value	Pct. Assets	Annual Income	Accrued Interest	Yield to Maturity
34,753	FG G61893 3.000% Due 07-01-47	101.14	35,149	99.37	34,534	0.17	1,043	87	3.70
64,779	FGLMC POOL Q51967 3.500% Due 11-01-47	97.84	63,377	101.41	65,692	0.32	2,267	189	3.79
37,746	FNMA POOL MA3210 3.500% Due 12-01-47	99.05	37,389	100.87	38,073	0.18	1,321	110	3.79
31,520	FN MA3305 3.500% Due 03-01-48	103.02	32,471	101.14	31,878	0.15	1,103	92	3.82
8,191	FANNIE MAE POOL MA3384 4.000% Due 06-01-48	102.03	8,357	102.51	8,397	0.04	328	27	3.92
23,139	FNMA POOL MA3496 4.500% Due 10-01-48	103.57	23,965	103.98	24,060	0.12	1,041	87	4.01
31,684	FN MA3834 3.000% Due 11-01-49	101.90	32,285	98.12	31,087	0.15	951	79	3.75
33,986	FN MA3871 3.000% Due 12-01-49	101.91	34,634	98.05	33,325	0.16	1,020	85	3.75
55,008	FANNIE MAE POOL 2.500% Due 05-01-50	104.98	57,750	95.96	52,784	0.25	1,375	115	3.67
120,222	FR QC4235 Mtge 2.500% Due 07-01-51 Accrued Interest	102.31	123,003	95.54	114,861	0.55	3,006	50	3.64
					1,809	0.01			
			824,593		804,262	3.87		1,809	
<b>INTERNATIONAL FIXED INCOME FUNDS/ETF</b>									
16,529	VANGUARD TOTAL INTL BOND ETF	57.54	951,012	52.44	866,781	4.17	NA		
<b>HIGH YIELD FIXED INCOME</b>									
179,466	VANGUARD HI YLD CORP-ADM	6.00	1,076,882	5.64	1,012,189	4.87	0		
<b>INTERNATIONAL EQUITY FUNDS/ETF</b>									
17,089	ISHARES ETF CORE MSCI EAFE	71.00	1,213,402	69.51	1,187,856	5.71	NA		
2,374	ISHARES MSCI JAPAN ETF	66.21	157,176	61.61	146,262	0.70	NA		
			1,370,578		1,334,119	6.41			
<b>MUNICIPAL BONDS</b>									
30,000	SAN FRANCISCO CALIF CITY & CNTY ARPTS COMMN INTL ARPT REV 3.345% Due 05-01-51 Accrued Interest	100.00	30,000	87.98	26,393	0.13	1,003	418	4.05
					418	0.00			
			30,000		26,811	0.13		418	

# Portfolio Appraisal

## CHUGACH ELECTRIC ASSOCIATION INC

### March 31, 2022



Quantity	Security	Average Cost	Total Average Cost	Price	Market Value	Pct. Assets	Annual Income	Accrued Interest	Yield to Maturity
<b>DOMESTIC LARGE CAP EQUITY FUNDS/ETF</b>									
1,768	FLEXSHARES QUAL DIV ETF	49.06	86,738	59.28	104,807	0.50	NA		
9,855	SPDR S&P 500 ETF	348.46	3,434,111	451.64	4,450,912	21.39	NA		
			3,520,849		4,555,719	21.90			
<b>REAL ESTATE &amp; INFRASTRUCTURE</b>									
20,518	FLEXSHAR STX GLOBAL BROAD INF ETF	59.67	1,224,223	57.42	1,178,144	5.66	NA		
5,991	JPMORGAN BETABUILDERS MSCI US REIT ETF	79.51	476,366	106.40	637,442	3.06	NA		
			1,700,589		1,815,586	8.73			
<b>DOMESTIC SMALL CAP EQUITY FUNDS/ETF</b>									
10,792	ISHARES S&P SMALLCAP 600 INDEX ETF	105.55	1,139,145	107.88	1,164,241	5.60	NA		
<b>U.S. TREASURY</b>									
100,000	US TREASURY NOTE 0.125% Due 01-31-23	99.91	99,906	98.82	98,816	0.47	125	21	1.55
100,000	US TREASURY NOTES 1.500% Due 03-31-23	97.03	97,027	99.77	99,766	0.48	1,500	8	1.74
45,000	US TREASURY NOTES 2.875% Due 09-30-23	99.54	44,794	101.11	45,501	0.22	1,294	4	2.12
30,000	US TREASURY NOTES 0.250% Due 11-15-23	99.56	29,868	96.90	29,069	0.14	75	28	2.20
100,000	US TREASURY NOTES 0.125% Due 01-15-24	99.70	99,695	96.22	96,223	0.46	125	26	2.29
5,000	US TREASURY NOTE 0.875% Due 01-31-24	98.65	4,932	97.45	4,873	0.02	44	7	2.30
55,000	US TREASURY NOTES 2.250% Due 10-31-24	100.12	55,064	99.40	54,669	0.26	1,237	520	2.49
100,000	US TREASURY NOTES 2.125% Due 11-30-24	98.37	98,367	99.02	99,023	0.48	2,125	712	2.51
85,000	US TREASURY NOTE 1.125% Due 01-15-25	99.41	84,495	96.29	81,846	0.39	956	201	2.51
35,000	US TREASURY NOTES 0.375% Due 11-30-25	97.46	34,113	92.45	32,359	0.16	131	44	2.54
15,000	US TREASURY NOTES 0.875% Due 09-30-26	99.53	14,929	93.08	13,962	0.07	131	0	2.51
10,000	US TREASURY NOTES 2.250% Due 08-15-27	100.94	10,094	98.92	9,892	0.05	225	28	2.46

# Portfolio Appraisal

**CHUGACH ELECTRIC ASSOCIATION INC**  
*March 31, 2022*



Quantity	Security	Average Cost	Total Average Cost	Price	Market Value	Pct. Assets	Annual Income	Accrued Interest	Yield to Maturity
80,000	US TREASURY NOTES 1.250% Due 03-31-28	99.53	79,628	93.27	74,618	0.36	1,000	5	2.46
30,000	US TREASURY NOTES 1.250% Due 04-30-28	97.83	29,350	93.16	27,947	0.13	375	157	2.47
100,000	US TREASURY NOTES 1.250% Due 06-30-28	101.50	101,504	93.02	93,023	0.45	1,250	314	2.46
30,000	US TREASURY NOTE 1.375% Due 11-15-31	96.83	29,048	91.75	27,525	0.13	412	156	2.34
10,000	US TREASURY NOTE 2.375% Due 02-15-42	100.48	10,048	96.45	9,645	0.05	237	30	2.60
10,000	US TREASURY NOTES 2.750% Due 08-15-42	110.86	11,086	101.68	10,168	0.05	275	34	2.64
75,000	US TREASURY NOTES 2.750% Due 08-15-47	102.09	76,564	103.64	77,728	0.37	2,062	256	2.55
45,000	US TREASURY NOTES 2.250% Due 08-15-49	102.04	45,918	95.09	42,789	0.21	1,012	126	2.50
20,000	US TREASURY NOTE 1.875% Due 11-15-51	95.26	19,052	87.72	17,544	0.08	375	142	2.46
10,000	US TREASURY NOTE 2.250% Due 02-15-52	99.50	9,950	95.91	9,591	0.05	225	28	2.44
	Accrued Interest				2,848	0.01			
			1,085,434		1,059,425	5.09		2,848	
<b>CASH AND CASH EQUIVILENTS</b>									
	DIVIDEND ACCRUAL		17,394		17,394	0.08			
	WFB LARGE BALANCE PUBLIC INSTL DEP		724,521		724,521	3.48			
			741,915		741,915	3.57			
<b>TOTAL PORTFOLIO</b>			<b>20,042,754</b>		<b>20,804,640</b>	<b>100</b>	<b>83,252</b>	<b>14,463</b>	



ALASKA PERMANENT  
CAPITAL MANAGEMENT

Registered Investment Adviser

# PERFORMANCE HISTORY

## GROSS OF FEES

### CHUGACH ELECTRIC ASSOCIATION INC

Time Period	Percent Return																
	Per Period																
	Total Account	Blend	Fixed Income	BLOOMBERG AGG BENCH	Domestic Large Cap Equity	S&P 500 LARGE CAPS BENCH	Domestic Mid Cap Equity	S&P 400 MIDCAP BENCH	Domestic Small Cap Equity	S & P 600 SMALL CAPS BENCH	Int'l Equity	MSCI EAFE Index	Emerging Market Equity	MSCI EMERGING MARKET BENCH	Real Estate	S&P US REIT BENCH	Diversified Alternatives
03-31-21 to 04-30-21	2.00	1.90	0.84	0.79	5.29	5.34	4.41	4.50	1.85	2.04	3.19	3.01	1.72	2.49	8.15	8.04	0.00
04-30-21 to 05-31-21	0.64	0.61	0.42	0.33	0.70	0.70	0.28	0.20	2.09	2.08	3.35	3.26	1.80	2.32	0.77	0.93	0.00
05-31-21 to 06-30-21	0.85	0.85	0.63	0.70	2.20	2.33	-1.12	-1.02	0.77	0.33	-1.12	-1.13	1.48	0.17	2.39	2.66	0.00
06-30-21 to 07-31-21	1.38	1.35	1.12	1.12	2.43	2.38	0.36	0.34	-2.41	-2.39	0.92	0.75	-5.64	-6.73	4.91	4.87	0.00
07-31-21 to 08-31-21	0.48	0.50	-0.19	-0.19	2.91	3.04	2.00	1.95	1.91	2.02	1.62	1.76	1.41	2.62	1.81	1.87	0.00
08-31-21 to 09-30-21	-2.84	-2.84	-0.71	-0.87	-3.99	-4.65	-4.59	-3.97	-2.83	-2.43	-3.96	-2.90	-4.85	-3.97	-5.66	-5.48	3.37
09-30-21 to 10-31-21	3.08	3.01	-0.08	-0.03	4.89	7.01	5.92	5.89	3.54	3.43	3.04	2.46	1.08	0.99	5.00	7.74	2.57
10-31-21 to 11-30-21	-1.44	-1.49	0.10	0.30	-0.48	-0.69	-3.02	-2.94	-2.44	-2.29	-4.62	-4.65	-3.70	-4.08	-2.82	-0.67	-6.81
11-30-21 to 12-31-21	2.87	2.82	0.05	-0.26	3.64	4.48	5.11	5.08	4.48	4.53	4.21	5.12	1.85	1.88	6.06	8.77	3.08
12-31-21 to 01-31-22	-3.43	-3.39	-1.95	-2.15	-3.94	-5.17	-7.26	-7.21	-7.34	-7.27	-4.25	-4.83	-0.35	-1.89	-3.90	-6.92	5.52
01-31-22 to 02-28-22	-1.14	-1.03	-0.97	-1.12	-2.39	-2.99	1.21	1.11	1.37	1.40	-3.08	-1.77	-3.94	-2.99	-1.69	-3.18	6.55
02-28-22 to 03-31-22	0.88	0.91	-2.12	-2.78	2.29	3.71	1.30	1.38	0.32	0.37	0.05	0.64	-2.94	-2.26	4.55	6.54	7.90
<b>Date to Date</b>																	
03-31-21 to 03-31-22	3.12	3.01	-2.89	-4.15	13.77	15.65	3.80	4.59	0.70	1.23	-1.23	1.16	-11.87	-11.37	20.20	26.33	23.54

# CHUGACH ELECTRIC ASSOCIATION, INC.

## BRU RESERVE STRATEGY OPTIONS

APRIL 2022

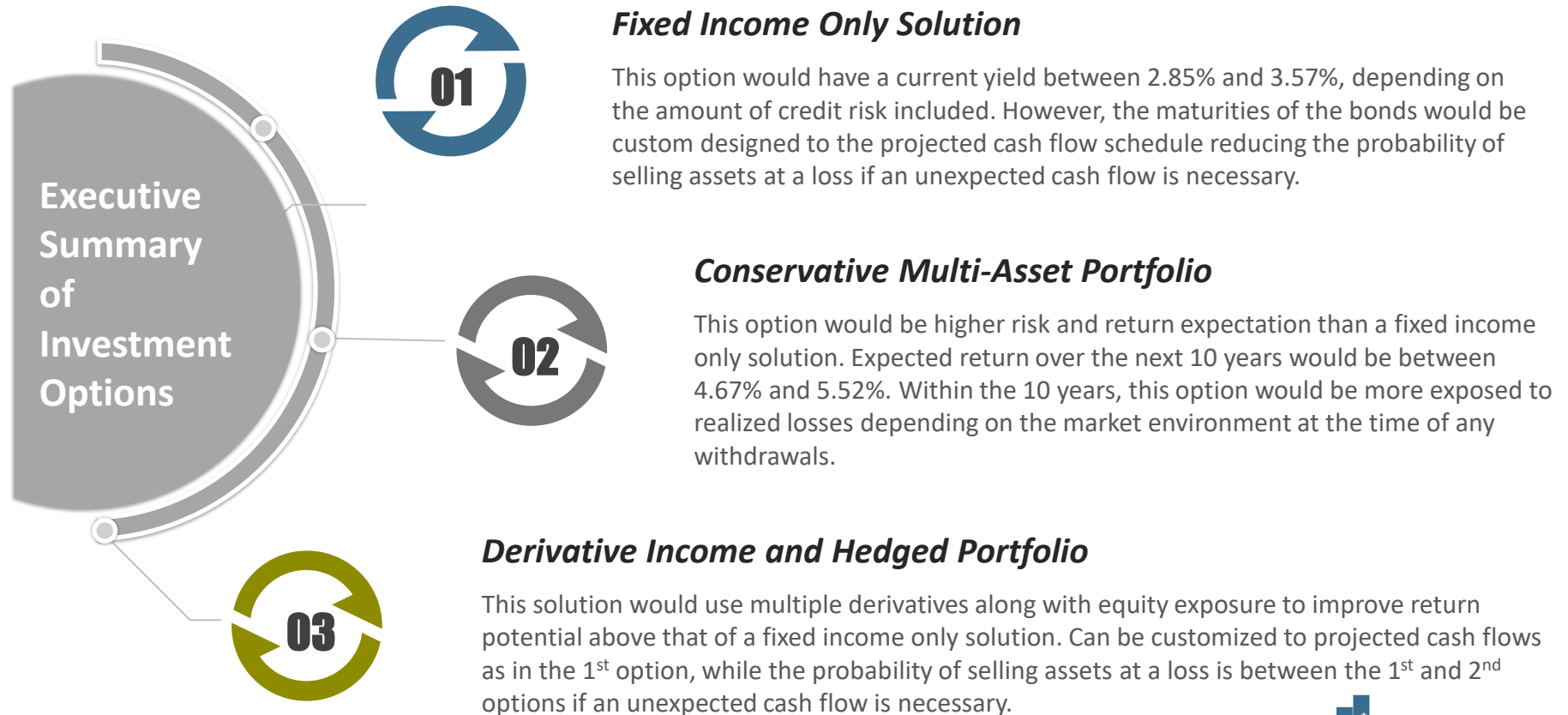


# Summary of Circumstances and Options

## Chugach Electric BRU Reserve

### Goals and Objectives:

- 1) losses would be undesirable given regulatory oversight, 2) the provided schedule of contributions and withdrawals,
- 3) the possibility of an unexpected withdrawal at any time, 4) a time horizon of 17 years.



# Fixed Income Only Solutions

*Three fixed income portfolios with different risk profiles*

- The yields shown below assume that bonds are held to maturity. For shorter maturity bonds, reinvestment would occur at the prevailing short term interest rate at the time. Between purchase and maturity, bond prices will be affected by changes in interest rates. Longer maturity bonds will react more to those changes than shorter maturity bonds.
- A 100% U.S. Treasury portfolio, at current market rates, that is held to maturity would provide an annual yield of 2.85%.
- Holding a portfolio that consisted of 50% U.S. Treasury and 50% Investment Grade Credit that is held to maturity would provide a greater annual yield. The increase in credit risk would increase the portfolio yield to approximately 3.57%.
- An actively managed intermediate government credit portfolio would have a starting yield of 3.00%.

	100% Treasury	50% US TSY / 50% IG Credit	Intermediate Gov/Credit
Yield to Maturity	<b>2.85%</b>	<b>3.57%</b>	<b>3.00%</b>
Treasury	100%	50%	68%
Corporate	-	50%	32%
AA	-	-	3%
A	-	25%	14%
<u>BBB</u>	-	<u>25%</u>	<u>15%</u>
Total	100%	100%	100%
Strategy	Purchase securities that would mature in 2038 with a portion of the portfolio. The remainder of the portfolio would hold a basket of short Treasuries to cover annual liquidity needs.	The same strategy as the 100% Treasury portfolio. However, 50% of the portfolio would be invested in A and BBB rated corporate bonds to increase yield/return.	Purchase securities ranging from <u>one-to-ten years</u> in maturity. The portfolio would hold investment grade credit. The target duration of the portfolio would be four years.

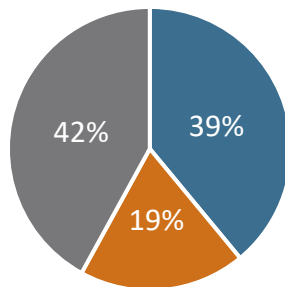
Note: All yields are market rates as of 4/11/2022.



# Conservative Multi-Asset Solutions

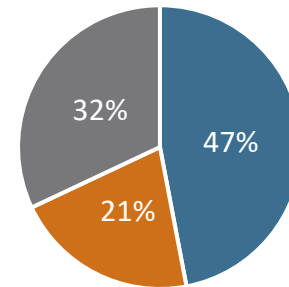
*A higher return option, but cash flows could occur at inopportune times*

Model 1



■ Risk Assets ■ Alternatives ■ Risk Control Assets

Model 2



■ Risk Assets ■ Alternatives ■ Risk Control Assets

Characteristics	Model 1		Model 2	
	Expected	Range*	Expected	Range*
Annual Return	4.82%	-6.2% to 15.8%	5.15%	-7.3% to 17.6%
Long-Term Return	4.67%	4.5% to 4.8%	4.97%	4.8% to 5.2%
Average Loss in Extreme Conditions <i>Within a 1-Year Horizon</i>	-13.7%		-15.4%	

\* Range denotes the 95% confidence interval. Risk and return data from Windham Portfolio Advisor.

# Derivative Income and Hedged Portfolio

*A hybrid portfolio that produces known income and hedges downside risk*

## What Are Derivatives

A derivative is a security that has a **payout that is based upon another investment** (the underlier).

Derivatives often provide different participation in positive or negative moves in the underlier than holding that underlying security itself.

## Types of Derivatives Used

This strategy would utilize two types of derivative securities: **options and structured notes**.

Options are very liquid and traded on exchanges. Structured notes have a maturity date and are not designed to be sold prior to that date, though they can be if needed.

## Portfolio Exposures

Exposure between using options to hedge some equity exposure and structured notes would be **constructed based upon projected cash flows and risk tolerance**.

**Understanding each strategy and its risks or having a trusted partner, like APCM, is key to successfully using derivatives in the long term.** The specific strategies recommended by APCM would be regulated structures that are transparent, easily valued, and easily marketable in secondary markets.

## Expected Return

The expected return and risk for this strategy would be **between that of the fixed income only solution (max. 3.57%) and the multi-asset solution (max. 4.67%)**.

The final expected return would be dependent on the final portfolio exposures.

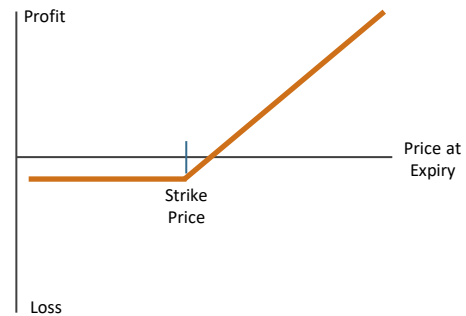
# Appendix

# Options Can Hedge Portfolios from Losses

*Common options strategies that reduce participation in losses*

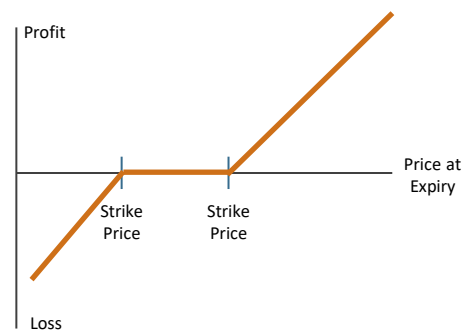
## Protective Put

A put option is purchased (the right to sell at a specific price) to create a known maximum loss. This type of strategy is often the most expensive but provides the strongest downside hedge. Participation in the upside is only reduced by the cost of the put.



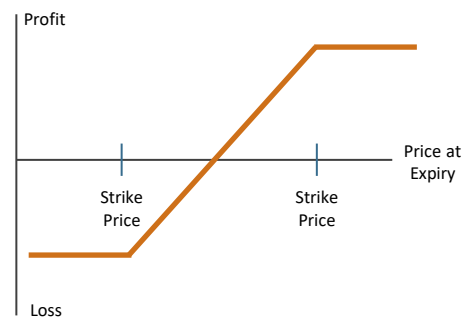
## Put Spread

A put option is purchased and another, at a lower strike price is sold. This insulates the portfolio from losses between the two strike prices while reducing the cost of the hedge by collecting a premium from the sold put. Participation in the upside is only reduced by the net cost of the put.



## Collar

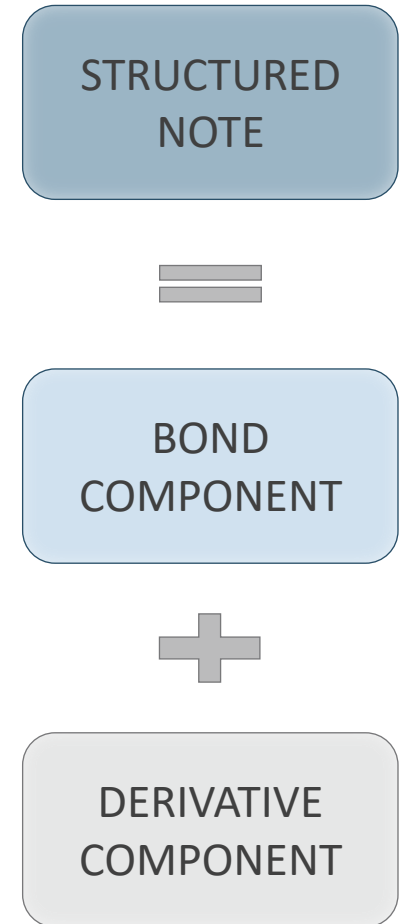
Similar to a protective put. However, to offset the cost of purchasing the put, a call is sold (the obligation to purchase at a specific price). This strategy results in a known maximum gain and maximum loss of the position.



# What Is A Structured Note?

*Structured notes are unique investments with customizable terms*

- Structured notes are debt securities issued by a financial institution such as an investment bank or insurance company.
- Structured notes are also derivatives in that they derive all or part of their value and return from one or more underlying asset(s).
- They can be customized to tailor the return and risk profile to meet investors' needs by utilizing a wide array of underlying assets and payout structures.
- To gain exposure to the underlying asset(s) and create the return and risk profile requested, the issuer takes positions in other derivatives.



# Main Risks of Structured Notes

*Structured notes are designed to be held until called or maturity*

Structured notes are exposed to the credit risk of the issuer.

**APCM's fixed income team has extensive experience assessing the creditworthiness of companies.**

Credit Risk



These are derivative securities, and are exposed to the risks of the underlying asset.

**APCM analyses risk across 15 different asset classes based on our long and short-term market outlooks.**

Market Risk



## Main Risks

Due to customization and underlying exposures, structured notes generally do not have large secondary markets.

**APCM's has experience working with clients' anticipated cash flows to ensure sufficient cash is available by matching maturities to cash flow schedules.**

Liquidity Risk



The rates paid on these types of structured notes are fixed, so rising interest rates could cause the note's value to fall prior to maturity.

**Part of APCM's long and short-term market outlooks assess the likely path of interest rates over the period.**

Interest Rate Risk



# Disclosures

## **Important Assumptions**

IMPORTANT: The projections or other information generated by Alaska Permanent Capital Management Company (APCM) regarding the likelihood of various outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. There can be no assurance that the projected or simulated results will be achieved or sustained. The charts and data only present a range of possible outcomes. Actual results will vary over time, and such results may be better or worse than the simulated scenarios. Clients should be aware that the potential for loss (or gain) may be greater than that demonstrated in the simulations. Please note that the analysis does not take into consideration all asset classes, and other asset classes not considered may have characteristics similar or superior to those being analyzed.

## **Important Legal Information**

These calculations are designed to be informational and educational only, and when used alone, do not constitute investment advice. APCM encourages investors to review their investment strategy periodically as financial circumstances do change.

Model results are provided as a rough approximation of future financial performance. Actual results could produce different outcomes (either better or worse) than those illustrated by the model, since it is not possible to anticipate every possible combination of financial market returns. APCM is not responsible for the consequences of any decisions or actions taken in reliance upon or as a result of the information provided by the results of the model.

## **Other Influences on Rates of Return**

Investment management fees: Returns are presented gross of management fees and include the reinvestment of all income. Actual returns will be reduced by investment advisory fees and other expenses that may be incurred in the management of the account. The collection of fees produces a compounding effect on the total rate of return net of management fees. As an example, the effect of investment management fees on the total value of a client's portfolio assuming (a) quarterly fee assessment, (b) \$1,000,000 investment, (c) portfolio return of 8% a year, and (d) 1.00% annual investment advisory fee would be \$10,416 in the first year, and cumulative effects of \$59,816 over five years and \$143,430 over ten years. Actual investment advisory fees incurred by clients may vary.

Taxes: Unless noted otherwise, model results have not been adjusted for any state or federal taxes or penalties.

Inflation: Unless noted otherwise, model results do not adjust any inputs or outcomes for inflation. Inflation is assumed to be constant over the investment horizon.

## **Limitations Inherent in Model Results**

Limitations include but are not restricted to the following:

Model results do not represent actual trading and may not reflect the impact that material economic and market factors might have had on APCM's decision making if the actual client money were being managed.

Extreme market movements may occur more frequently than represented in the model.

Some asset classes have relatively limited histories. While future results for all asset classes in the model may materially differ from those assumed in APCM's calculations, the future results for asset classes with limited histories may diverge to a greater extent than the future results of asset classes with longer track records.

Market crises can cause asset classes to perform similarly over time; reducing the accuracy of the projected portfolio volatility and returns. The model is based on the long-term behavior of the asset classes and therefore is less reliable for short-term periods. This means that the model does not reflect the average periods of "bull" and "bear" markets, which can be longer than those modeled.

The model represent APCM's best view of the next 7-10 years, but is unlikely to reflect actual investment returns worldwide over this period.

**CHUGACH ELECTRIC ASSOCIATION, INC.**  
**Anchorage, Alaska**

**AUDIT AND FINANCE COMMITTEE MEETING**  
**AGENDA ITEM SUMMARY**

**May 18, 2022**

**ACTION REQUIRED**

**AGENDA ITEM NO. VI.A.**

- Information Only
  - Motion
  - Resolution
  - Executive Session
  - Other
- 

**TOPIC**

BRU Reserve Strategy Options

**DISCUSSION**

The Audit and Finance Committee reviewed the BRU Reserve Strategy Options presented by Alaska Permanent Capital Management.

**MOTION**

Move that the Audit and Finance Committee recommend the Board of Directors approve the Fixed Income Only Solution option, as discussed and recommended by management, during the May 18, 2022 Audit and Finance Committee meeting.



# CHUGACH ELECTRIC ASSOCIATION, INC.

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March 2022 YTD Financial Information  
May 18, 2022



# March 2022 YTD Financial Information

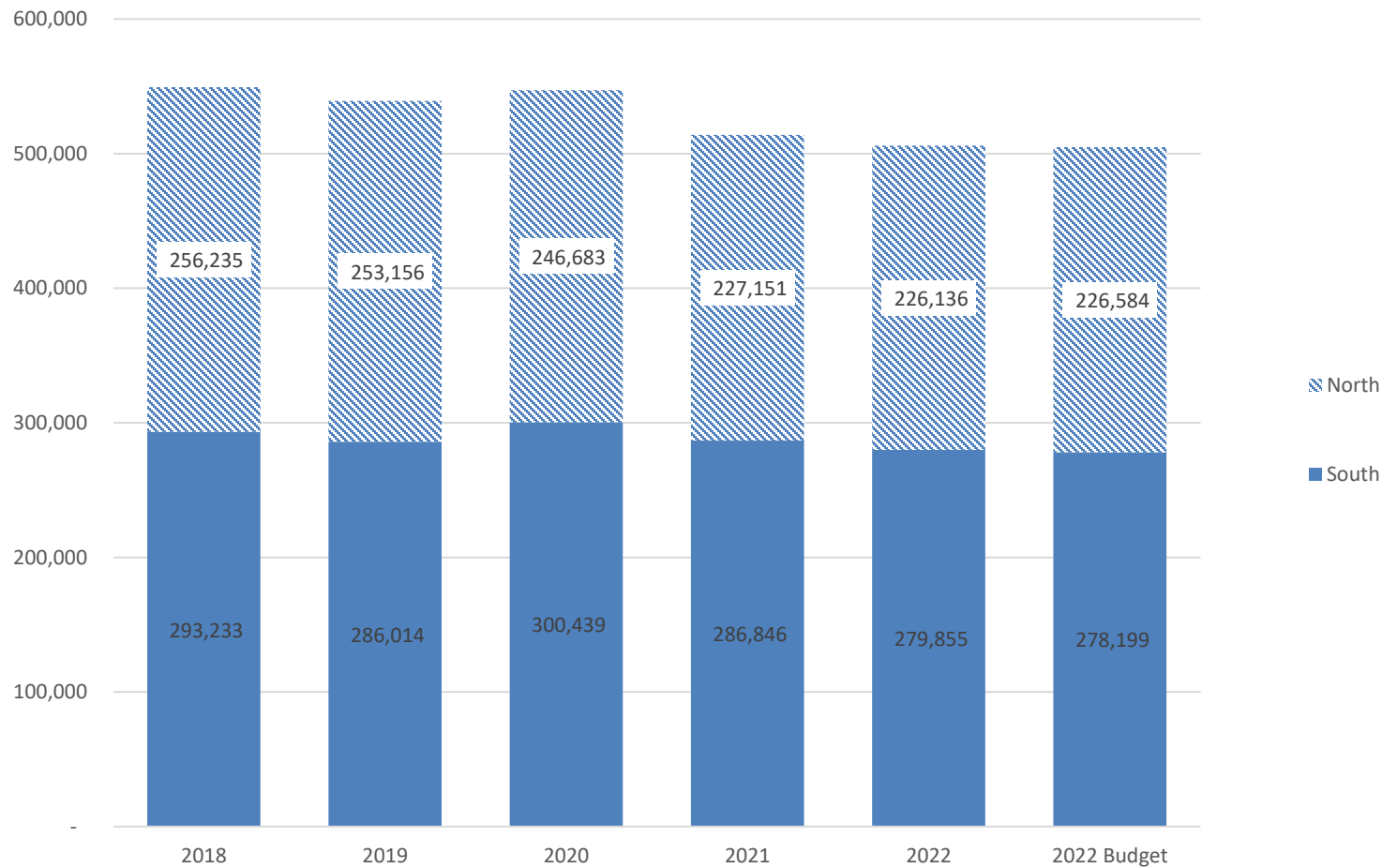
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- ▶ MWH Sales
- ▶ Statement of Operations
- ▶ Balance Sheet
- ▶ Statements of Cash Flows

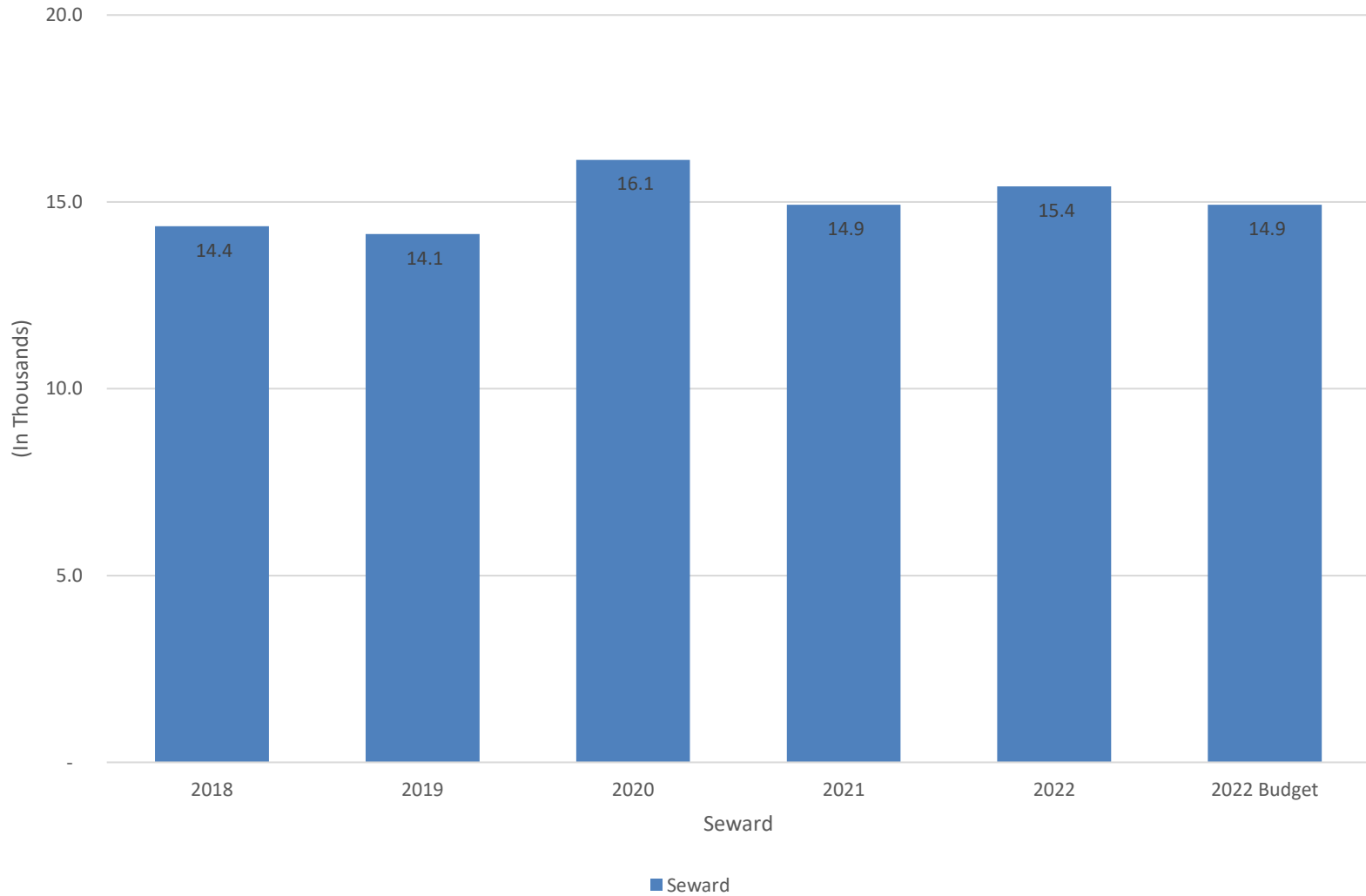
# March 2022 YTD Financial Information

## Retail MWh Sales Comparison



# March 2022 YTD Financial Information

## 5 Year Seward MWh Sales Comparison



# March 2022 YTD Financial Information

## Comparative Statement of Operations



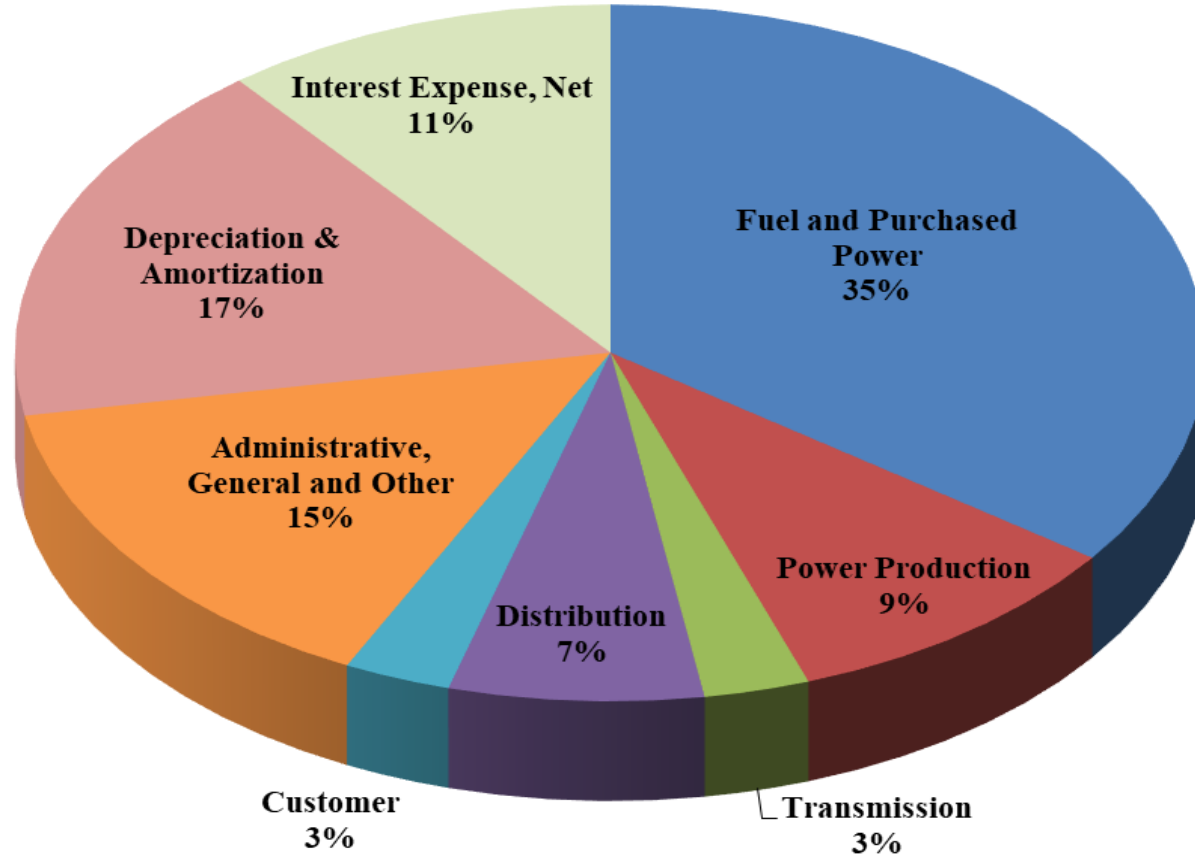
CATEGORY	ACTUAL	BUDGET <sup>1</sup>	VARIANCE
<b>Operating Revenue &amp; Patronage Capital</b>	<b>\$ 96,372,530</b>	<b>\$ 91,690,792</b>	<b>\$ 4,681,738</b>
Fuel and Purchased Power	32,086,846	27,558,866	4,527,980
Power Production	8,790,217	8,958,750	(168,533)
Transmission	2,625,070	2,977,767	(352,697)
Distribution	6,329,345	7,143,819	(814,474)
Customer	2,661,302	2,804,405	(143,103)
Administrative, General and Other	13,571,224	13,437,104	134,120
Depreciation & Amortization	15,734,455	15,327,973	406,482
Interest Expense, Net	9,832,011	9,787,212	44,799
<b>Total Cost of Electric Service</b>	<b>\$ 91,630,470</b>	<b>\$ 87,995,896</b>	<b>\$ 3,634,574</b>
<b>Patronage Capital &amp; Operating Margins</b>	<b>\$ 4,742,060</b>	<b>\$ 3,694,896</b>	<b>\$ 1,047,164</b>
Non-Operating Margins - Interest	78,958	72,786	6,172
Allowance for Funds Used During Construction	19,363	66,648	(47,285)
Non-Operating Margins - Other	(75,066)	(36,297)	(38,769)
<b>Patronage Capital or Margins</b>	<b>\$ 4,765,315</b>	<b>\$ 3,798,033</b>	<b>\$ 967,282</b>
<b>Adj. Patronage Capital or Margins<sup>2</sup></b>	<b>\$ 6,983,046</b>	<b>\$ 6,015,764</b>	<b>\$ 967,282</b>
<b>MFI/I</b>	<b>1.46</b>	<b>1.36</b>	
<b>TIER</b>	<b>1.46</b>	<b>1.37</b>	

<sup>1</sup>Amended budget

<sup>2</sup>Results if adjusted by secondary regulatory asset & Eklutna PPA

# March 2022 YTD Financial Information

## Total Operating and Interest Expense



# March 2022 YTD Financial Information

## Comparative Balance Sheet, Assets & Other Debits



ASSETS & OTHER DEBITS	3/31/2022	12/31/2021	CHANGE
Electric Plant in Service	2,096,525,088	2,085,567,712	10,957,376
Construction Work in Progress	29,515,786	34,253,304	(4,737,518)
<b>Total Utility Plant</b>	<b>\$ 2,126,040,874</b>	<b>\$ 2,119,821,016</b>	<b>6,219,858</b>
Accum. Prov. for Depreciation/Amortization	(656,341,629)	(640,729,478)	(15,612,151)
<b>Net Utility Plant</b>	<b>\$ 1,469,699,245</b>	<b>\$ 1,479,091,538</b>	<b>(9,392,293)</b>
Nonutility Property - Net	76,889	76,889	0
Financing & Operating Lease Right-of-Use Assets	4,028,640	4,126,967	(98,327)
Investment in Assoc. Organizations	6,996,364	7,280,936	(284,572)
Special Funds	42,268,170	43,016,636	(748,466)
Restricted Cash Equivalents & Other	64,310	64,310	0
Long-term Prepayments	225,953	291,846	(65,893)
<b>Total Other Property &amp; Investments</b>	<b>\$ 53,660,326</b>	<b>\$ 54,857,584</b>	<b>(1,197,258)</b>
Cash & Restricted Cash	30,226,342	37,590,723	(7,364,381)
Special Deposits and Marketable Securities	58,300	58,300	0
Accounts Receivable - Net	45,473,336	47,186,182	(1,712,846)
Materials and Supplies, Fuel Stock	54,506,903	59,371,225	(4,864,322)
Prepayments	6,305,254	4,917,095	1,388,159
Other Current & Accrued Assets	1,215,195	942,497	272,698
<b>Total Current &amp; Accrued Assets</b>	<b>\$ 137,785,330</b>	<b>\$ 150,066,022</b>	<b>(12,280,692)</b>
Deferred Debits	110,979,626	112,348,138	(1,368,512)
<b>Total Assets &amp; Other Debits</b>	<b>\$ 1,772,124,527</b>	<b>\$ 1,796,363,282</b>	<b>\$ (24,238,755)</b>

# March 2022 YTD Financial Information

## Comparative Balance Sheet, Liabilities & Other Credits

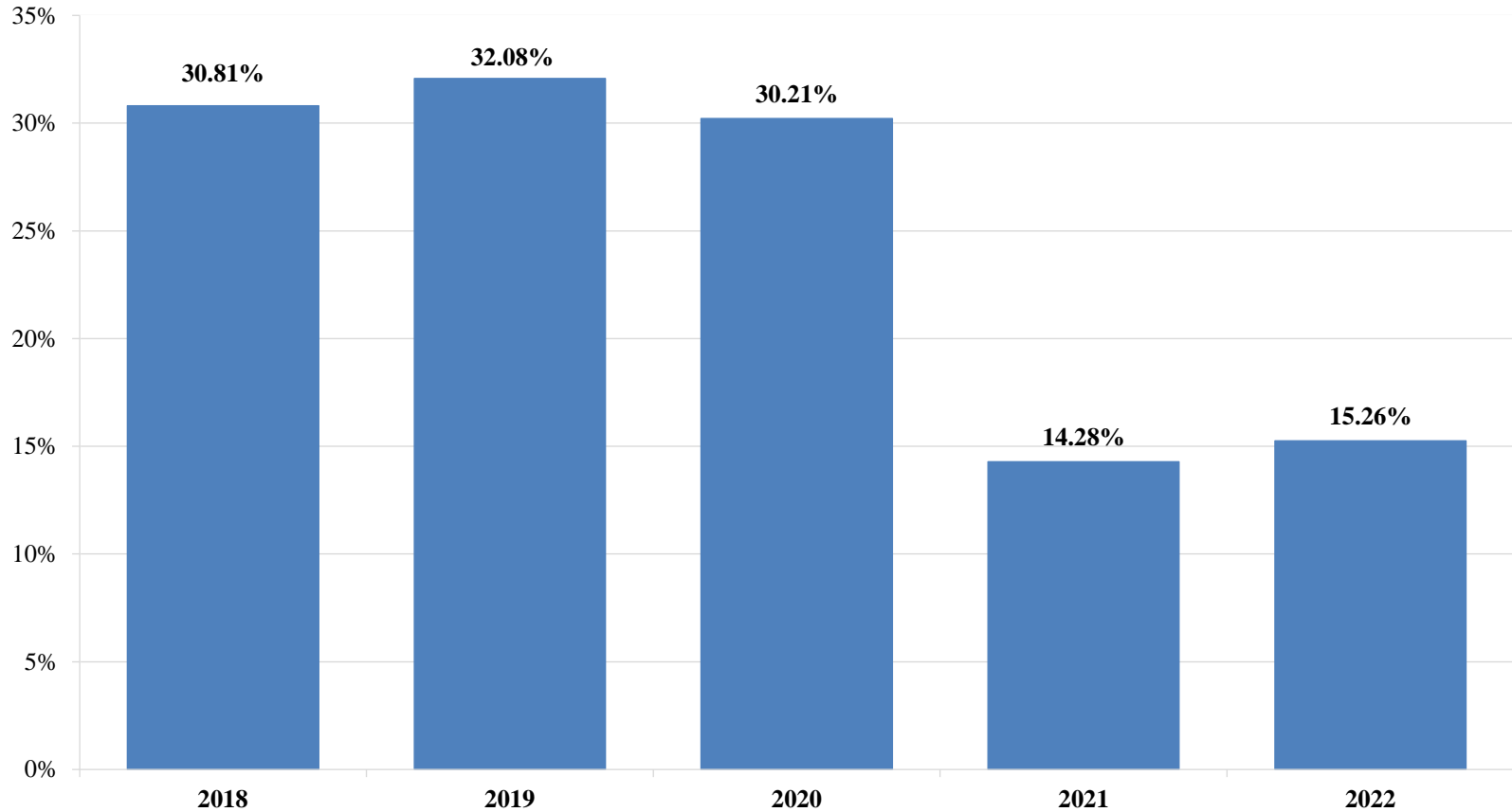


LIABILITIES & OTHER CREDITS	3/31/2022	12/31/2021	CHANGE
Memberships	1,957,196	1,949,262	7,934
Pat. Capital, Margins & Equities	208,779,482	204,051,676	4,727,806
<b>Total Margins &amp; Equities</b>	<b>\$ 210,736,678</b>	<b>\$ 206,000,938</b>	<b>\$ 4,735,740</b>
Long-Term Debt - Bonds	1,154,449,996	1,173,366,663	(18,916,667)
Long-Term Debt - Other	22,002,000	23,028,000	(1,026,000)
Unamortized Debt Issuance Costs	(6,044,678)	(6,072,373)	27,695
Operating Lease Liabilities	3,772,515	3,835,282	(62,767)
Finance Lease Liabilities	12,585	13,667	(1,082)
<b>Total Long-Term Debt</b>	<b>\$ 1,174,192,418</b>	<b>\$ 1,194,171,239</b>	<b>\$ (19,978,821)</b>
Notes Payable	57,050,844	64,473,838	(7,422,994)
Accounts Payable	13,030,337	14,878,065	(1,847,728)
Consumer Deposits	5,008,539	5,663,067	(654,528)
Other Current & Accrued Liabilities	57,851,622	52,236,502	5,615,120
<b>Total Current &amp; Accrued Liabilities</b>	<b>\$ 132,941,342</b>	<b>\$ 137,251,472</b>	<b>\$ (4,310,130)</b>
Deferred Compensation	1,937,248	2,115,229	(177,981)
Other Liabilities, Non-Current	835,319	741,387	93,932
Deferred Liabilities	20,880,886	24,724,119	(3,843,233)
BRU Regulatory Liability	104,913,232	107,364,906	(2,451,674)
Cost of Removal Obligation	125,687,404	123,993,992	1,693,412
<b>Total Liabilities &amp; Other Credits</b>	<b>\$ 1,772,124,527</b>	<b>\$ 1,796,363,282</b>	<b>\$ (24,238,755)</b>



## 5 Year Equity Ratio

Equity Ratio



# March 2022 YTD Financial Information

## Statements of Cash Flows



	March 31, 2022	March 31, 2021
<b>1. Cash flows from operating activities:</b>	<b>\$ 4,765,315</b>	<b>\$ 3,673,373</b>
Assignable margins		
Adjustments to reconcile assignment margins to net cash provided (used) by operating activities:		
Depreciation and amortization	18,933,022	19,129,732
Allowance for funds used during construction	(19,363)	(35,450)
Other non-cash charges	2,888,108	90,252
(Increase) decrease in assets	3,530,128	(114,228)
Increase (decrease) in liabilities	(4,260,222)	(5,002,865)
<b>Net cash provided by operating activities:</b>	<b>\$ 25,836,988</b>	<b>\$ 17,740,814</b>
<b>2. Cash flows from investing activities:</b>		
Return of capital from investment in associated organizations	284,572	308,646
Investment in special funds	570,485	(9,479,058)
Proceeds from capital grants	238,604	0
Extension and replacement of plant	(8,661,866)	(4,137,405)
<b>Net cash used in investing activities:</b>	<b>\$ (7,568,205)</b>	<b>\$ (13,307,817)</b>
<b>3. Cash flows from financing activities:</b>		
Payments for debt issue costs	0	(7,734)
Net increase (decrease) in short-term obligations	(10,000,000)	0
Net increase (decrease) in long-term obligations	(17,328,667)	(17,328,667)
Net increase (decrease) in consumer advances/retired patronage/other	1,695,503	1,607,972
<b>Net cash provided by (used in) financing activities:</b>	<b>\$ (25,633,164)</b>	<b>\$ (15,728,429)</b>
Net change in cash, cash equivalents & restricted cash	(7,364,381)	(11,295,432)
<b>4. <u>Cash, cash equivalents &amp; restricted cash at beginning of period</u></b>	<b>\$ 37,655,033</b>	<b>\$ 60,456,418</b>
<b>5. <u>Cash, cash equivalents and restricted cash at end of period</u></b>	<b>\$ 30,290,652</b>	<b>\$ 49,160,986</b>

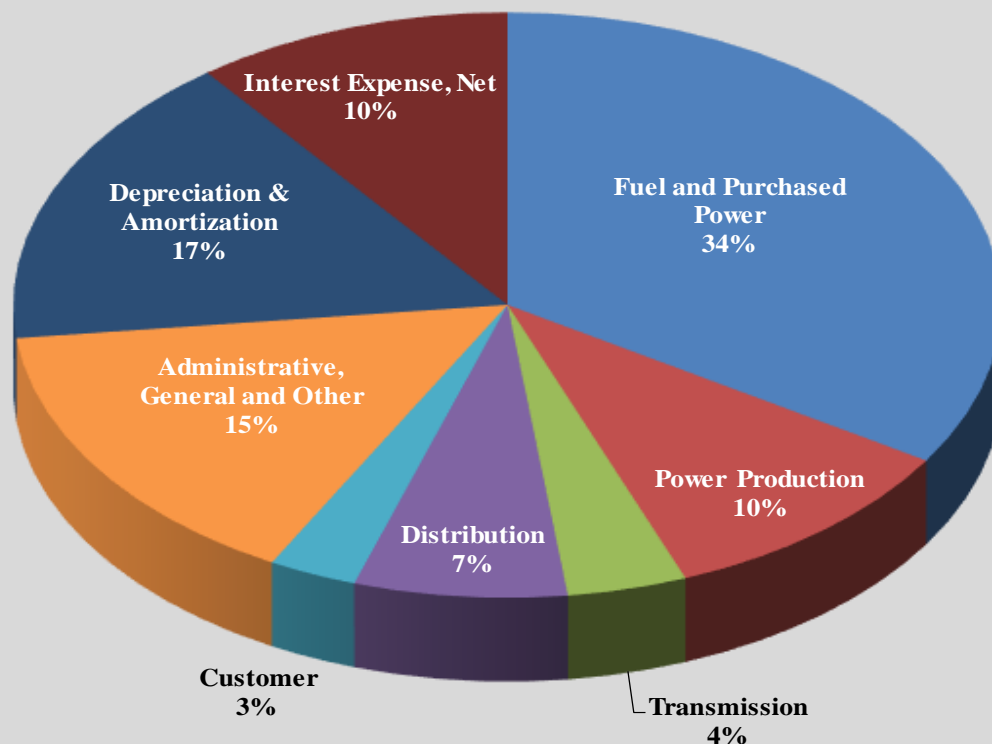
Questions?

## COMPARATIVE FINANCIAL REPORT STATEMENT OF OPERATIONS 2022 MTD ACTUAL TO BUDGET

CATEGORY	ACTUAL	BUDGET <sup>1</sup>	VARIANCE
<b>Operating Revenue &amp; Patronage Capital</b>	<b>\$ 31,050,808</b>	<b>\$ 29,916,514</b>	<b>\$ 1,134,294</b>
Fuel and Purchased Power	10,641,734	9,552,544	1,089,190
Power Production	3,204,583	2,965,565	239,018
Transmission	1,226,405	1,020,138	206,267
Distribution	2,184,459	2,407,615	(223,156)
Customer	905,556	987,056	(81,500)
Administrative, General and Other	4,793,692	4,636,262	157,430
Depreciation & Amortization	5,148,819	5,111,418	37,401
Interest Expense, Net	3,264,674	3,246,034	18,640
<b>Total Cost of Electric Service</b>	<b>\$ 31,369,922</b>	<b>\$ 29,926,632</b>	<b>\$ 1,443,290</b>
<b>Patronage Capital &amp; Operating Margins</b>	<b>\$ (319,114)</b>	<b>\$ (10,118)</b>	<b>\$ (308,996)</b>
Non-Operating Margins - Interest	31,297	24,262	7,035
Allowance for Funds Used During Construction	6,650	21,596	(14,946)
Non-Operating Margins - Other	(33,249)	(12,099)	(21,150)
<b>Patronage Capital or Margins</b>	<b>\$ (314,416)</b>	<b>\$ 23,641</b>	<b>\$ (338,057)</b>
<b>Adj. Patronage Capital or Margins<sup>2</sup></b>	<b>\$ 424,827</b>	<b>\$ 762,884</b>	<b>\$ (338,057)</b>

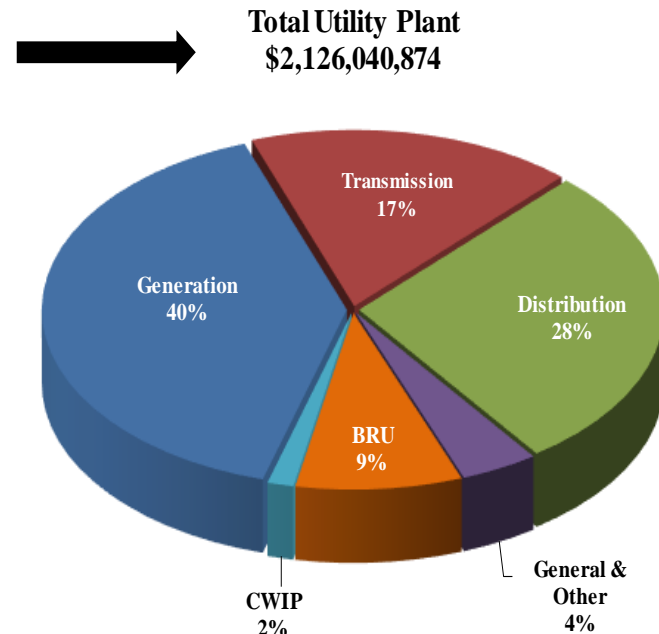
<sup>1</sup> Amended budget  
<sup>2</sup> Results if adjusted by secondary regulatory asset & Eklutna PPA

### Total Cost of Electric Service (MTD Actual)

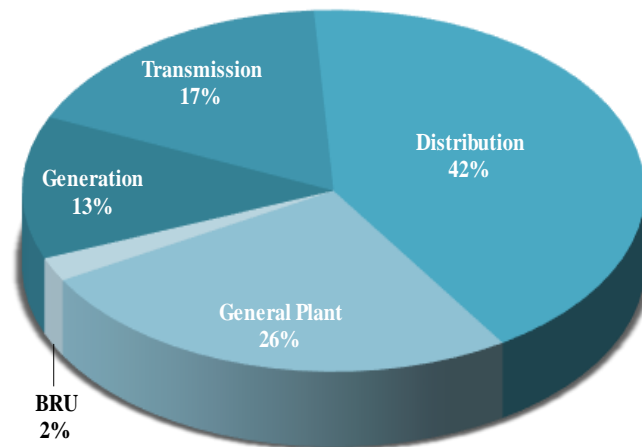


## BALANCE SHEET

ASSETS & OTHER DEBITS	3/31/2022	12/31/2021
Electric Plant in Service	2,096,525,088	2,085,567,712
Construction Work in Progress	29,515,786	34,253,304
<b>Total Utility Plant</b>	<b>\$ 2,126,040,874</b>	<b>\$ 2,119,821,016</b>
Accum. Prov. for Depreciation/Amortization	(656,341,629)	(640,729,478)
<b>Net Utility Plant</b>	<b>\$ 1,469,699,245</b>	<b>\$ 1,479,091,538</b>
Nonutility Property - Net	76,889	76,889
Financing & Operating Lease Right-of-Use Assets	4,028,640	4,126,967
Investment in Assoc. Organizations	6,996,364	7,280,936
Special Funds	42,268,170	43,016,636
Restricted Cash Equivalents & Other	64,310	64,310
Long-term Prepayments	225,953	291,846
<b>Total Other Property &amp; Investments</b>	<b>\$ 53,660,326</b>	<b>\$ 54,857,584</b>
Cash & Restricted Cash	30,226,342	37,590,723
Special Deposits and Marketable Securities	58,300	58,300
Accounts Receivable - Net	45,473,336	47,186,182
Materials and Supplies, Fuel Stock	54,506,903	59,371,225
Prepayments	6,305,254	4,917,095
Other Current & Accrued Assets	1,215,195	942,497
<b>Total Current &amp; Accrued Assets</b>	<b>\$ 137,785,330</b>	<b>\$ 150,066,022</b>
Deferred Debits	110,979,626	112,348,138
<b>Total Assets &amp; Other Debits</b>	<b>\$ 1,772,124,527</b>	<b>\$ 1,796,363,282</b>
<b>LIABILITIES &amp; OTHER CREDITS</b>	<b>3/31/2022</b>	<b>12/31/2021</b>
Memberships	1,957,196	1,949,262
Pat. Capital, Margins & Equities	208,779,482	204,051,676
<b>Total Margins &amp; Equities</b>	<b>\$ 210,736,678</b>	<b>\$ 206,000,938</b>
Long-Term Debt - Bonds	1,154,449,996	1,173,366,663
Long-Term Debt - Other	22,002,000	23,028,000
Unamortized Debt Issuance Costs	(6,044,678)	(6,072,373)
Operating Lease Liabilities	3,772,515	3,835,282
Finance Lease Liabilities	12,585	13,667
<b>Total Long-Term Debt</b>	<b>\$ 1,174,192,418</b>	<b>\$ 1,194,171,239</b>
Notes Payable	57,050,844	64,473,838
Accounts Payable	13,030,337	14,878,065
Consumer Deposits	5,008,539	5,663,067
Other Current & Accrued Liabilities	57,851,622	52,236,502
<b>Total Current &amp; Accrued Liabilities</b>	<b>\$ 132,941,342</b>	<b>\$ 137,251,472</b>
Deferred Compensation	1,937,248	2,115,229
Other Liabilities, Non-Current	835,319	741,387
Deferred Liabilities	20,880,886	24,724,119
BRU Regulatory Liability	104,913,232	107,364,906
Cost of Removal Obligation	125,687,404	123,993,992
<b>Total Liabilities &amp; Other Credits</b>	<b>\$ 1,772,124,527</b>	<b>\$ 1,796,363,282</b>



**Construction Work in Progress**  
**\$29,515,786**

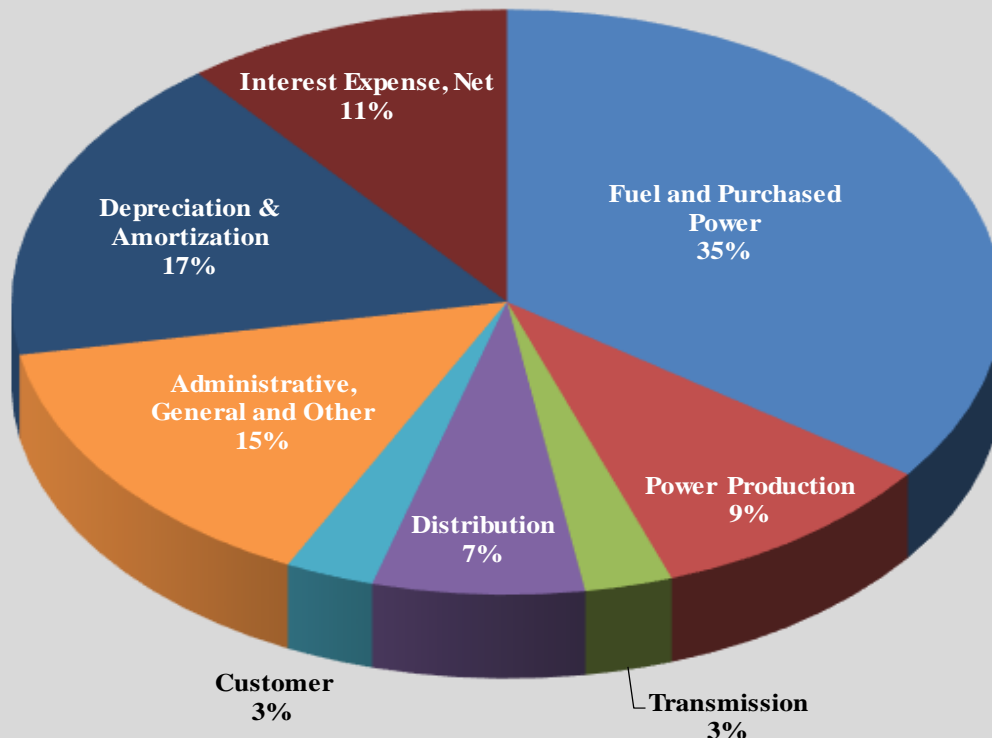


## COMPARATIVE FINANCIAL REPORT STATEMENT OF OPERATIONS 2022 YTD ACTUAL TO BUDGET

CATEGORY	ACTUAL	BUDGET <sup>1</sup>	VARIANCE
<b>Operating Revenue &amp; Patronage Capital</b>	<b>\$ 96,372,530</b>	<b>\$ 91,690,792</b>	<b>\$ 4,681,738</b>
Fuel and Purchased Power	32,086,846	27,558,866	4,527,980
Power Production	8,790,217	8,958,750	(168,533)
Transmission	2,625,070	2,977,767	(352,697)
Distribution	6,329,345	7,143,819	(814,474)
Customer	2,661,302	2,804,405	(143,103)
Administrative, General and Other	13,571,224	13,437,104	134,120
Depreciation & Amortization	15,734,455	15,327,973	406,482
Interest Expense, Net	9,832,011	9,787,212	44,799
<b>Total Cost of Electric Service</b>	<b>\$ 91,630,470</b>	<b>\$ 87,995,896</b>	<b>\$ 3,634,574</b>
<b>Patronage Capital &amp; Operating Margins</b>	<b>\$ 4,742,060</b>	<b>\$ 3,694,896</b>	<b>\$ 1,047,164</b>
Non-Operating Margins - Interest	78,958	72,786	6,172
Allowance for Funds Used During Construction	19,363	66,648	(47,285)
Non-Operating Margins - Other	(75,066)	(36,297)	(38,769)
<b>Patronage Capital or Margins</b>	<b>\$ 4,765,315</b>	<b>\$ 3,798,033</b>	<b>\$ 967,282</b>
<b>Adj. Patronage Capital or Margins<sup>2</sup></b>	<b>\$ 6,983,046</b>	<b>\$ 6,015,764</b>	<b>\$ 967,282</b>

<sup>1</sup>Amended budget  
<sup>2</sup>Results if adjusted by secondary regulatory asset & Eklutna PPA

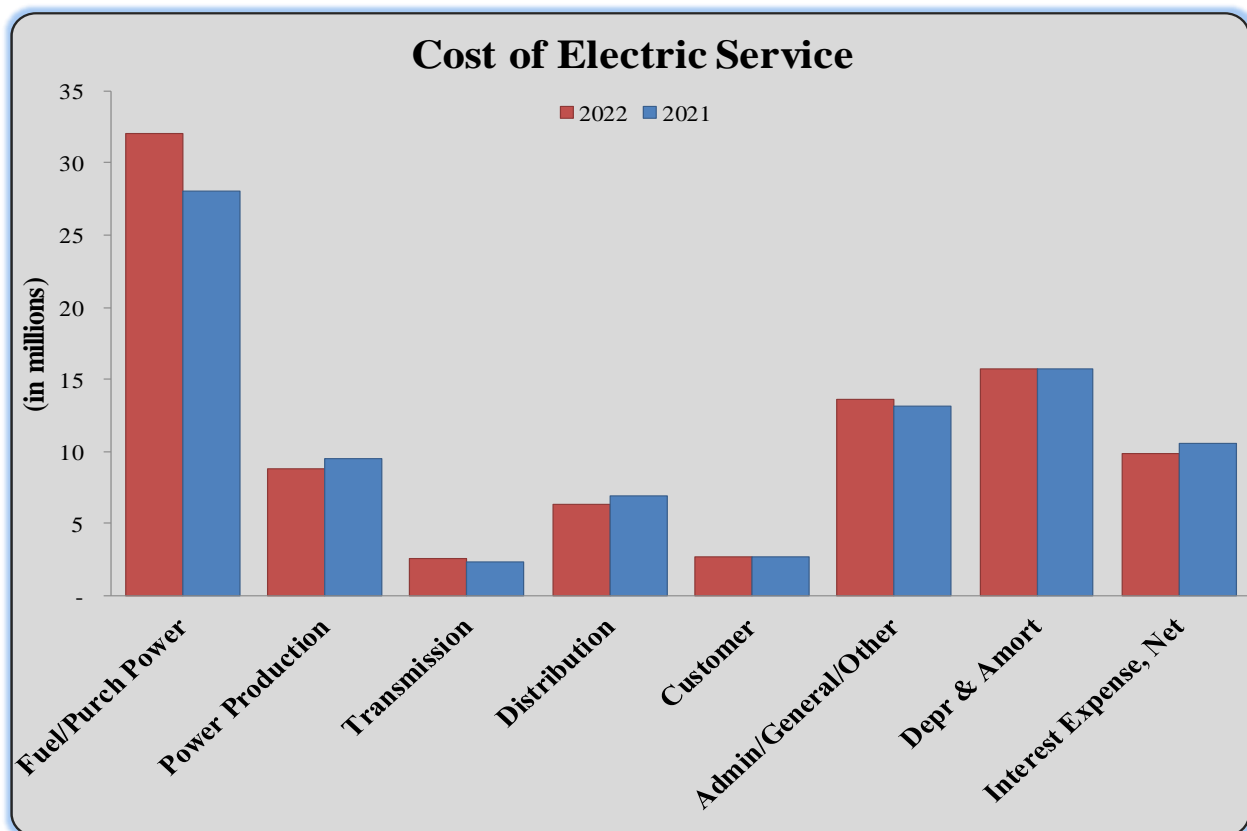
### Total Cost of Electric Service (YTD Actual)

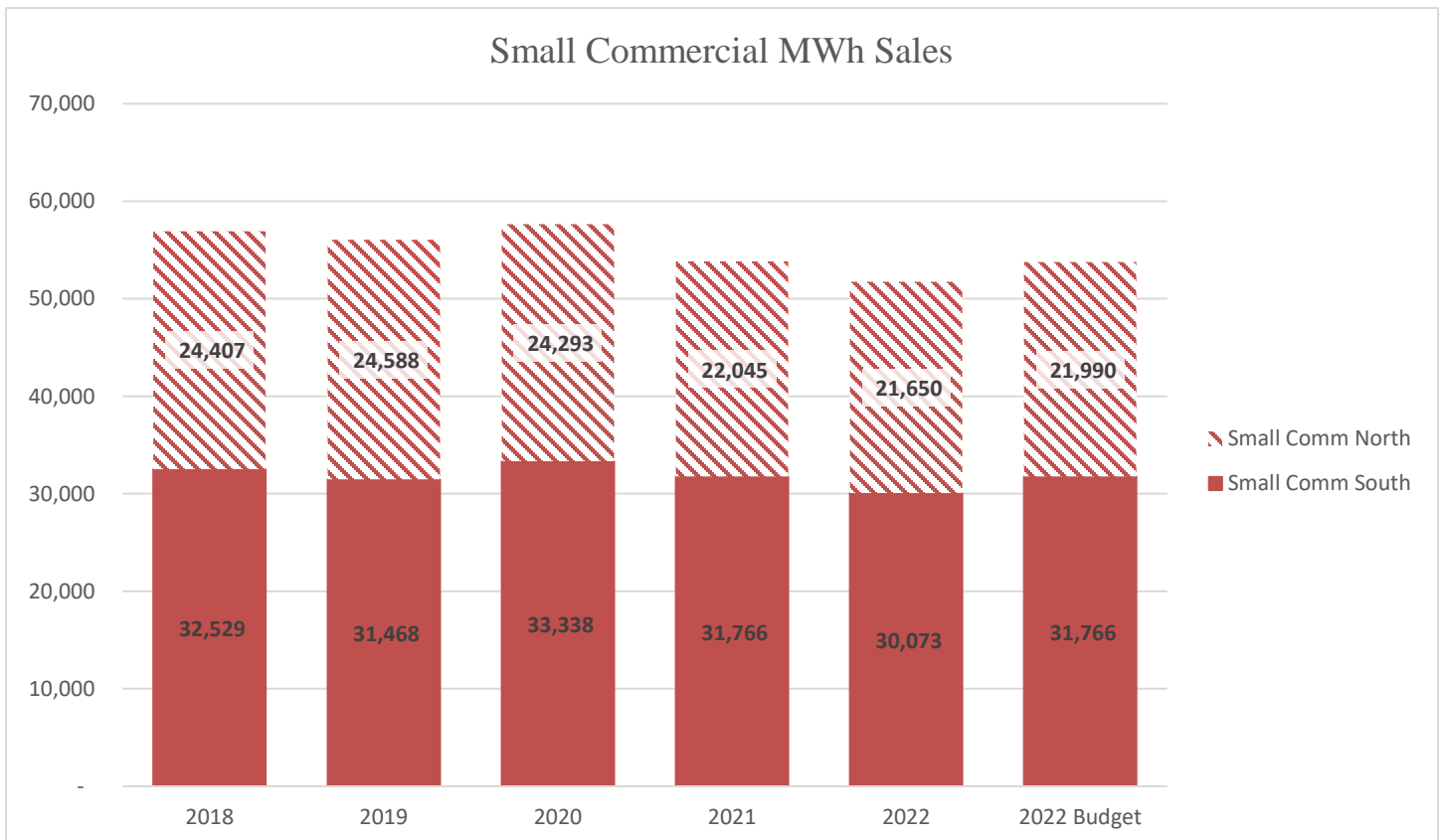
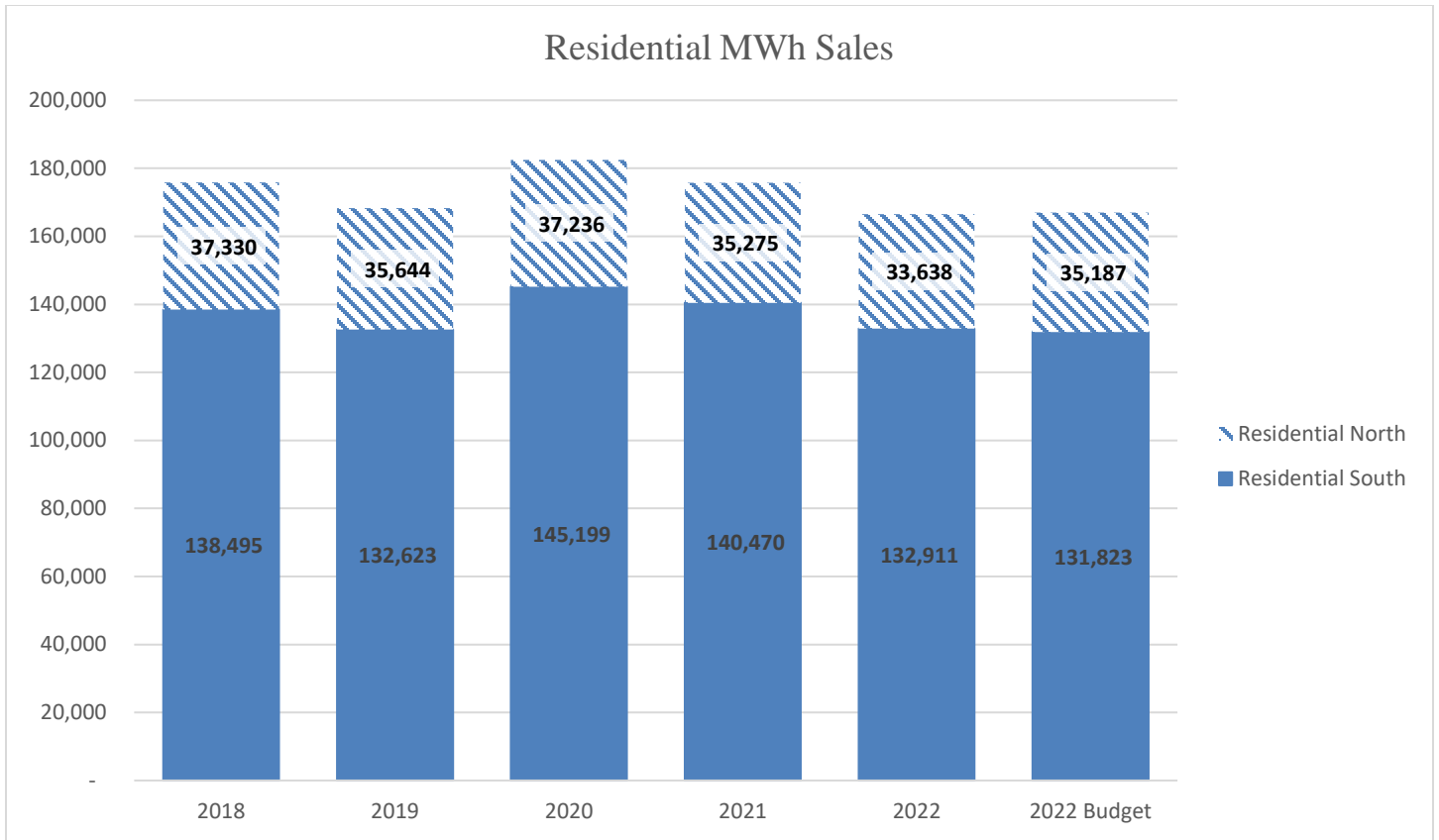


## COMPARATIVE FINANCIAL REPORT STATEMENT OF OPERATIONS CURRENT TO PRIOR YEAR

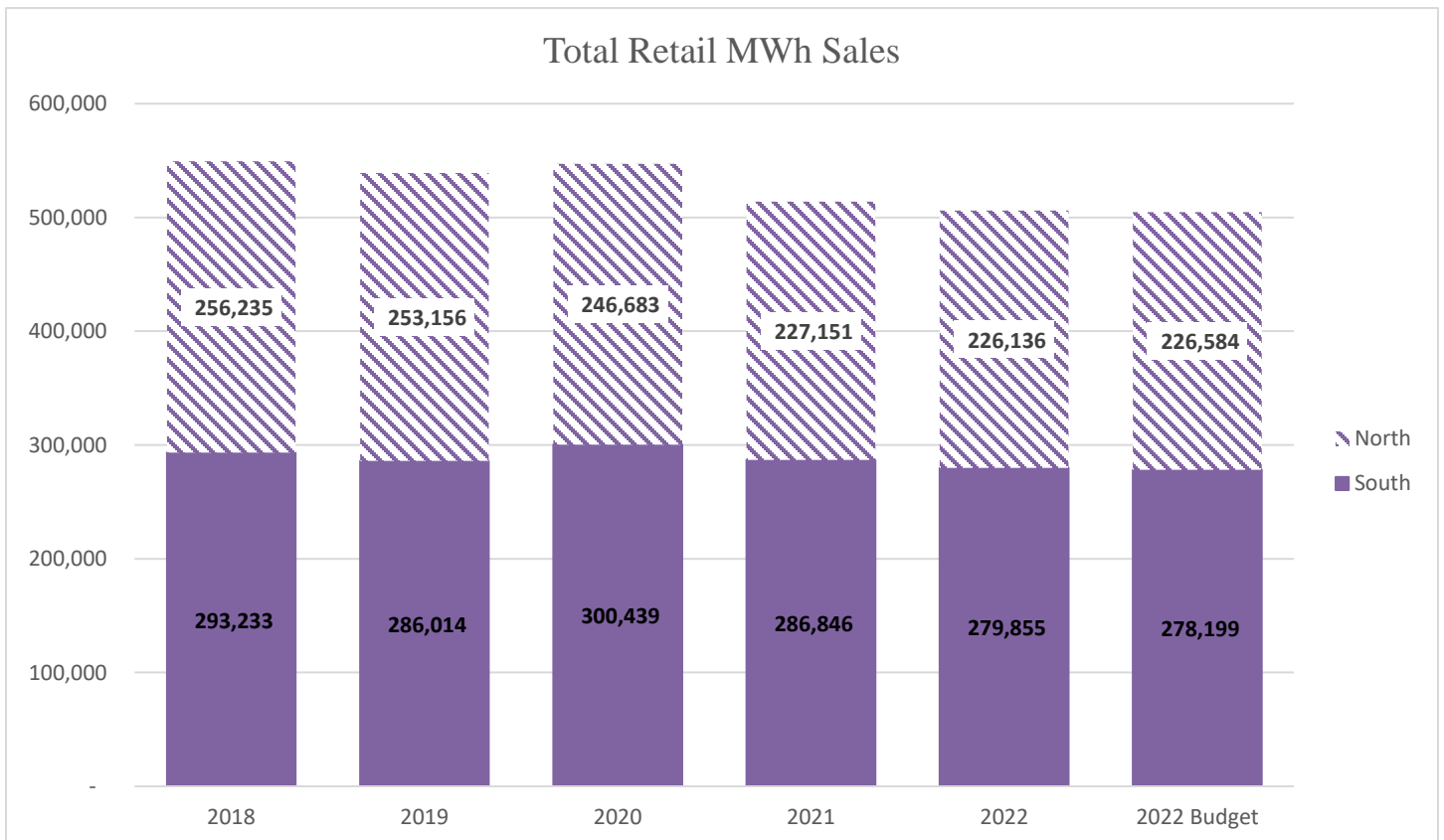
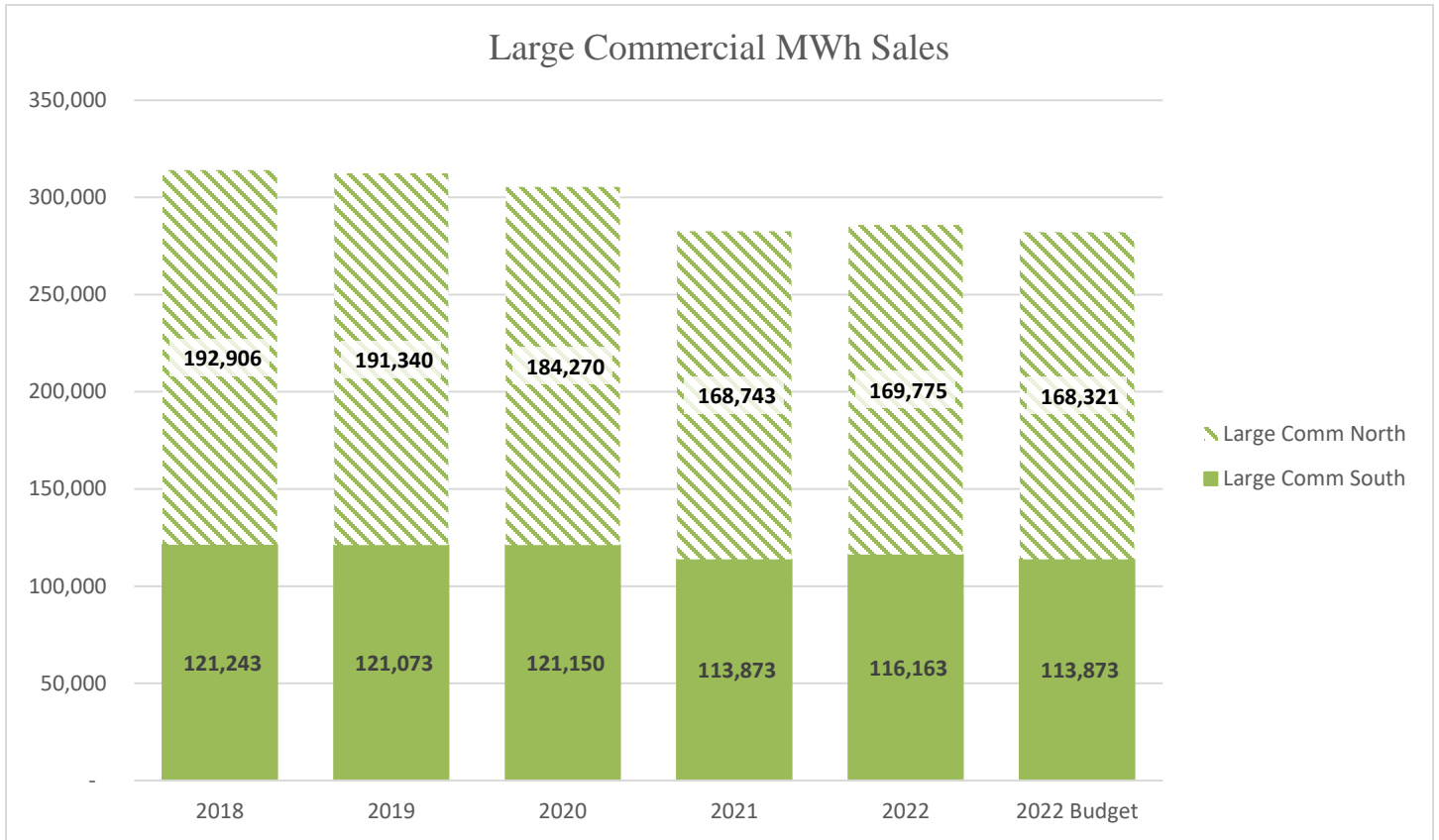
CATEGORY	2022 YTD ACTUAL	2021 YTD ACTUAL
<b>Operating Revenue &amp; Patronage Capital</b>	<b>\$ 96,372,530</b>	<b>\$ 92,540,163</b>
Fuel and Purchased Power	32,086,846	28,044,327
Power Production	8,790,217	9,490,185
Transmission	2,625,070	2,387,493
Distribution	6,329,345	6,935,168
Customer	2,661,302	2,727,914
Administrative, General and Other	13,571,224	13,091,033
Depreciation & Amortization	15,734,455	15,701,047
Interest Expense, Net	9,832,011	10,604,576
<b>Total Cost of Electric Service</b>	<b>\$ 91,630,470</b>	<b>\$ 88,981,743</b>
<b>Patronage Capital &amp; Operating Margins</b>	<b>\$ 4,742,060</b>	<b>\$ 3,558,420</b>
Non-Operating Margins - Interest	78,958	72,761
Allowance for Funds Used During Construction	19,363	35,450
Non-Operating Margins - Other	(75,066)	6,742
<b>Patronage Capital or Margins</b>	<b>\$ 4,765,315</b>	<b>\$ 3,673,373</b>
<b>Adj. Patronage Capital or Margins<sup>1</sup></b>	<b>\$ 6,983,046</b>	<b>N/A</b>
MFI/I	1.46	1.34
TIER	1.46	1.35

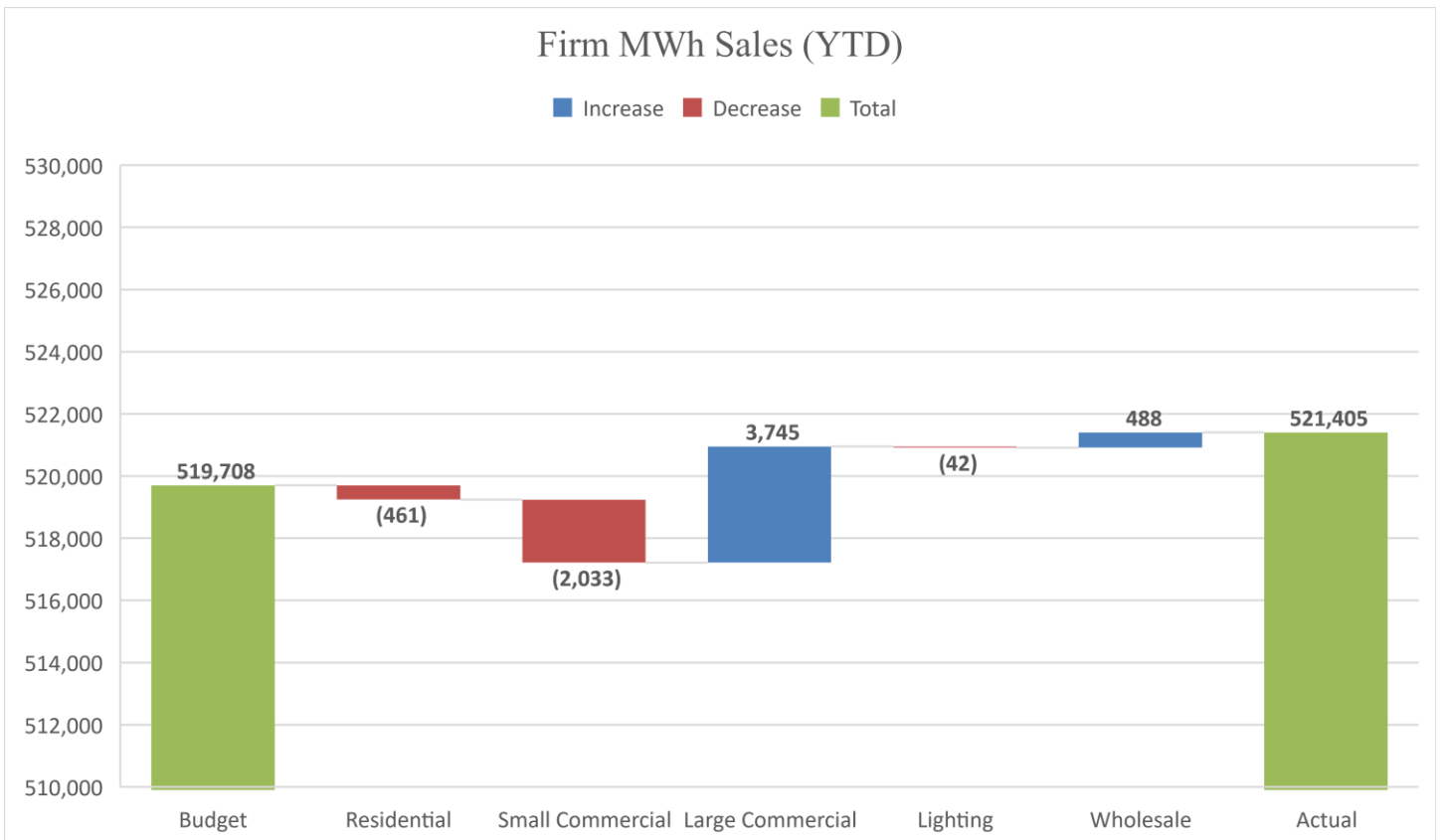
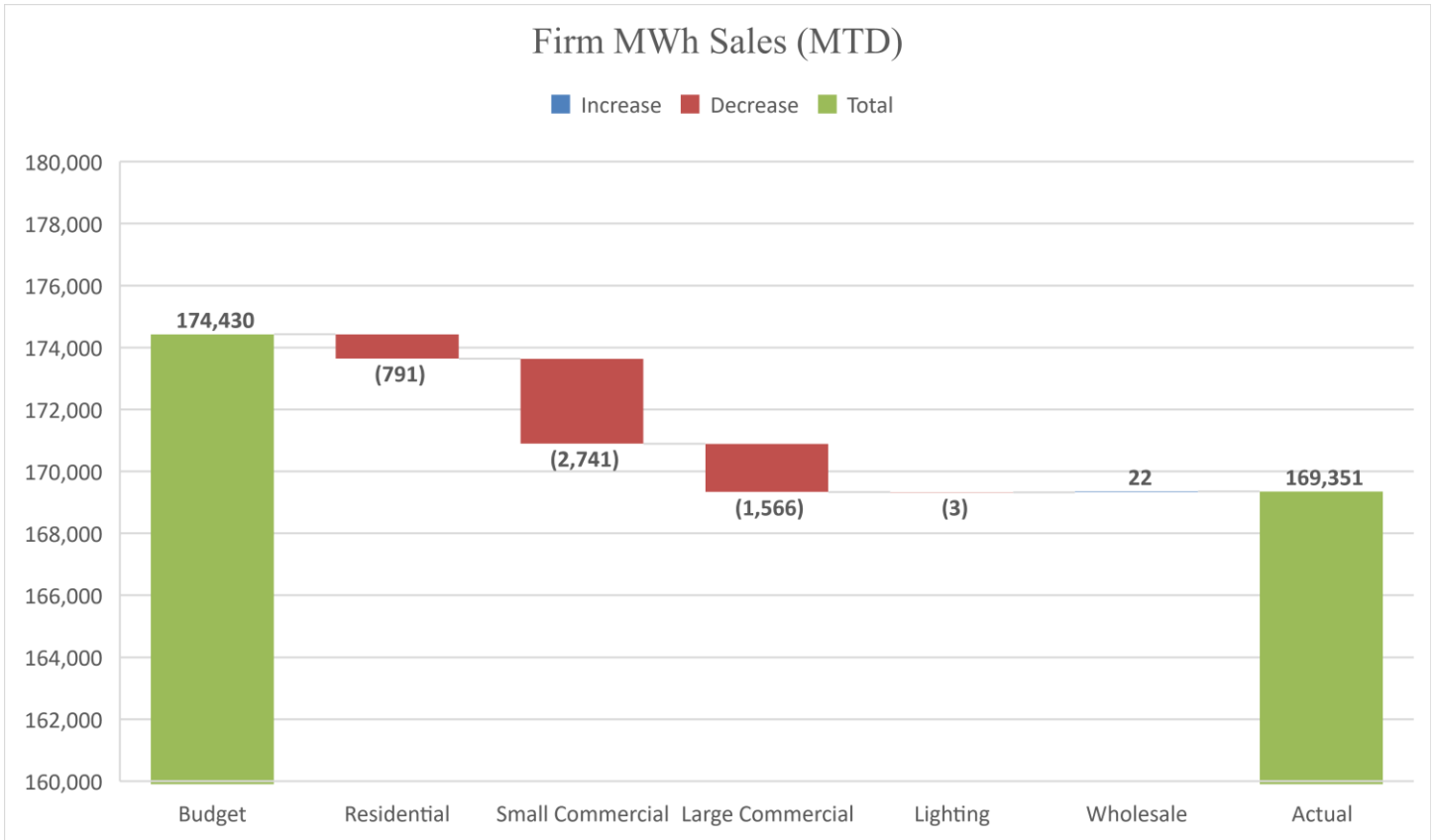
<sup>1</sup>Results if adjusted by secondary regulatory asset & Eklutna PPA

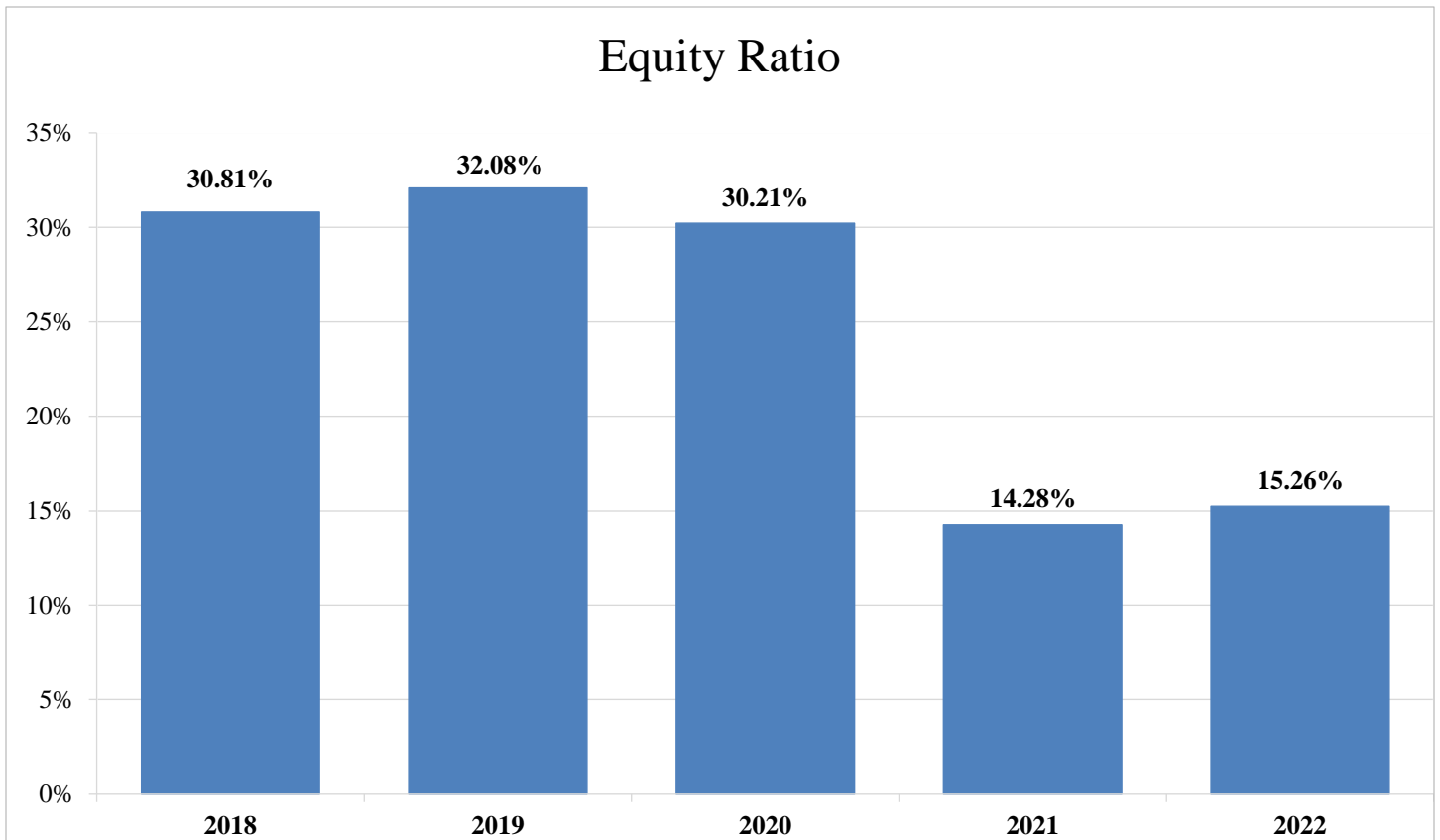
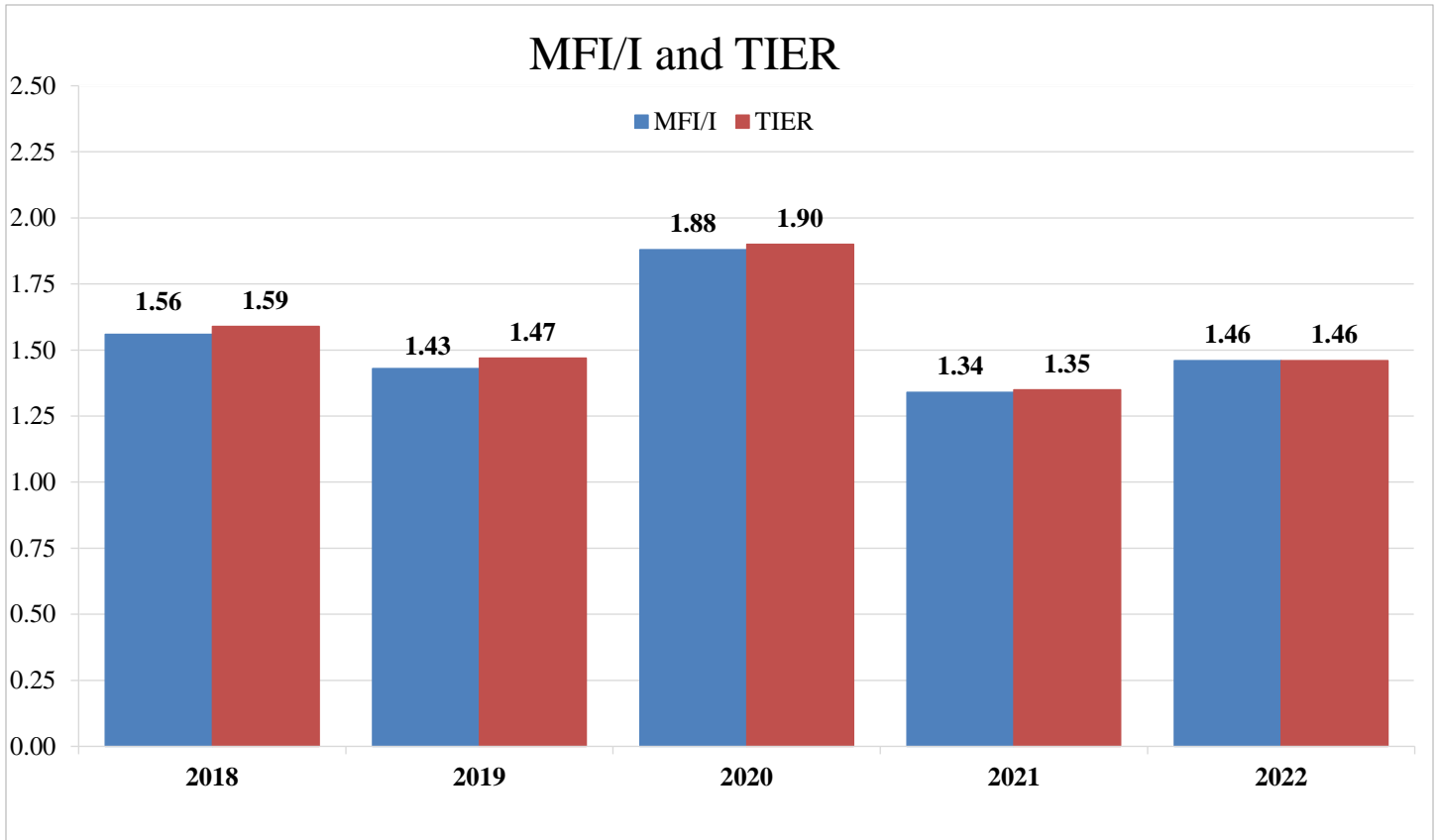












## ENERGY SALES (kWh)

	<u>2022 Actual</u>	<u>2022 Budget</u>
Retail Energy Sales	505,991,179	504,782,779
Wholesale Energy Sales	<u>15,413,399</u>	<u>14,925,394</u>
Total Firm Energy Sales	521,404,578	519,708,173
Economy Energy/Capacity	74,988,000	45,670,711
Power Pool Sales	<u>42,696,000</u>	<u>45,000,000</u>
Total Energy Sales	639,088,578	610,378,884

Firm energy sales totaled 521,404,578 kWh, which was a 0.3% favorable variance compared to budget. Retail energy sales were over budget 0.2% due primarily to favorability in commercial energy sales. This favorable variance was enhanced by higher than anticipated wholesale energy sales, which exceeded budget by 3.3%. Economy energy and capacity sales were over budget by 64.2% due to higher than anticipated economy sales to GVEA. Power pool sales with MEA totaled 42,696,000 kWh, which was below budget by 5.1%.

## ENERGY REVENUE (in millions)

	<u>2022 Actual</u>	<u>2022 Budget</u>
Retail Revenue	\$ 84.8	\$ 84.0
Wholesale Revenue	<u>1.2</u>	<u>1.4</u>
Total Firm Revenue	86.0	85.4
Economy Energy/Capacity Revenue	7.6	4.4
Power Pool Revenue	0.5	0.4
Other Operating Revenue	<u>2.3</u>	<u>1.5</u>
Total Revenue	\$ 96.4	\$ 91.7

Revenue from firm sales totaled \$86.0 million compared to \$85.4 million in the budget. Firm revenue was greater than expected due primarily to higher fuel cost recovered in revenue. Economy energy and capacity revenue was over budget by 74.2% due primarily to higher than anticipated economy sales to GVEA. Power pool sales with MEA were slightly below budget at \$441 thousand versus a budget of \$471 thousand. Other operating revenue includes late fees, pole rental, wheeling, microwave, BRU royalties, grants, AWWU revenue, miscellaneous service, and other electric revenue. Other operating revenue totaled \$2.3 million compared to \$1.5 million in the budget, due primarily to higher wheeling, gas exchange agreements, and adjustments to FEMA reimbursements for the 2018 earthquake damage.

## FUEL AND PURCHASED POWER (in millions)

	<u>2022 Actual</u>	<u>2022 Budget</u>
Fuel	\$ 26.6	\$ 21.9
Purchased Power	<u>5.5</u>	<u>5.7</u>
Total	\$ 32.1	\$ 27.6

Fuel expense includes fuel, storage, transportation, and BRU operating costs. Fuel expense was \$26.6 million compared to \$21.9 million in the budget. This unfavorable variance was due primarily to higher than anticipated BRU operating costs and additional fuel purchased to meet customer demand.

Fuel purchased or withdrawn from inventory for production was 2,509,816 Mcf compared to 2,023,541 Mcf in the budget.

Purchased power expense represents energy purchased from Bradley Lake, Fire Island, Eklutna, MEA through power pooling and other utilities as needed, as well as costs associated with dispatching. Purchased power expense was \$5.5 million compared to \$5.7 million in the budget, caused primarily by lower system control and dispatch labor, which was somewhat offset by higher than anticipated purchased power expense from power pool and wind sources.

Energy purchased was 56,249 MWh at an average effective price of 7.67 cents per kWh compared to 82,793 MWh budgeted at an average effective price of 4.93 cents per kWh. Water levels at the Bradley Lake reservoir were considerably lower than budget and led to a higher effective rate than planned.

## POWER PRODUCTION (in millions)

	<u>2022 Actual</u>	<u>2022 Budget</u>
Power Production	\$ 8.8	\$ 9.0

Power production expense was \$8.8 million compared to \$9.0 million in the budget. This favorable variance was due primarily to lower labor costs at the SPP, Sullivan, and Nikkels plants. This was somewhat offset by higher warehouse costs allocated to this financial category and the amortization of acquired ML&P regulatory assets.

## TRANSMISSION OPERATIONS AND MAINTENANCE (in millions)

	<u>2022 Actual</u>	<u>2022 Budget</u>
Transmission	\$ 2.6	\$ 3.0

Transmission operations and maintenance expense was \$2.6 million compared to \$3.0 million in the budget. This favorable variance was driven by labor and allocated costs, which was somewhat offset by higher tree clearing costs. The labor variance was due primarily to lower overtime. Other significant drivers included higher tree clearing and lower warehouse costs allocated to this financial category.

## DISTRIBUTION OPERATIONS AND MAINTENANCE (in millions)

	<u>2022 Actual</u>	<u>2022 Budget</u>
Distribution	\$ 6.3	\$ 7.1

Distribution operations and maintenance expense was \$6.3 million compared to \$7.1 million in the budget. This favorable variance was due primarily to lower labor and tree clearing.

## CONSUMER ACCOUNTS / CUSTOMER INFORMATION (in millions)

	<u>2022 Actual</u>	<u>2022 Budget</u>
Consumer/Customer Information	\$ 2.7	\$ 2.8

Consumer accounts and customer information expense was \$2.7 million compared to \$2.8 million in the budget. This favorable variance was due primarily to lower labor, which was somewhat offset by higher professional services related to collection and member communication costs.

## ADMINISTRATIVE, GENERAL AND OTHER (in millions)

	<u>2022 Actual</u>	<u>2022 Budget</u>
Administrative, General and Other	\$ 13.6	\$ 13.4

Administrative, general, and other expense includes tax, donations, other deductions associated with preliminary survey and investigation charges of projects, and obsolete inventory write-offs that are not attributable to operating or maintenance accounts. Administrative, general, and other expense was \$13.6 million compared to \$13.4 million in the budget. This unfavorable variance was due primarily to cancelled projects and additional snow removal services, which was somewhat offset by lower labor costs.

## SUMMARY

Depreciation, interest, and interest during construction expense totaled \$25.6 million compared to \$25.1 million in the budget. The unfavorable variance was due primarily to higher than anticipated depreciation expense related to BRU.

All the foregoing expenses resulted in total cost of electric service of \$91.6 million compared to \$88.0 million.

Non-operating margins include allowance for funds used during construction (AFUDC), capital credit and patronage capital allocations, extraordinary items, and interest and dividend income. Non-operating margins totaled \$23.3 thousand compared to \$103.1 thousand in the budget due primarily to lower than budgeted AFUDC.

The quarterly BRU ARO Investment Fund Review to the Audit and Finance Committee includes the market value and rate of return on that investment. The other investment associated with BRU, the future natural gas purchases investment account, had a balance of \$19.5 million on March 31, 2022, and a 30-day yield of 0.07%.

The net result of revenue and expenses was margins of \$4.8 million compared to projected margins of \$3.8 million in the budget. This resulted in an MFI/I of 1.46, a TIER of 1.46, and an equity-to-total capitalization of 15.26%. The current forecast projects year-end margins of \$8.1 million, an MFI/I of 1.20, and TIER of 1.20.

## COMPARATIVE FINANCIAL REPORT STATEMENT OF OPERATIONS YEAR-END FORECAST

CATEGORY	2022 APPROVED BUDGET	2022 AMENDED BUDGET	2022 YTD ACTUALS	2022 REVISED FORECAST
<b>Operating Revenue and Patronage Capital</b>	<b>\$353,756,696</b>	<b>\$345,060,581</b>	<b>\$ 96,372,530</b>	<b>351,999,266</b> <sup>1,2</sup>
Fuel and Purchased Power Expense	105,281,462	102,741,756	32,086,846	107,460,441 <sup>1</sup>
Power Production Expense	36,526,615	36,526,615	8,790,217	36,668,859 <sup>1,2</sup>
Transmission Expense	11,473,532	11,473,532	2,625,070	11,413,107 <sup>1</sup>
Distribution Expense	28,908,401	28,908,401	6,329,345	28,866,130 <sup>1,2</sup>
Customer Expense	11,510,953	11,510,953	2,661,302	11,396,153 <sup>1</sup>
Administrative, General & Other	52,462,820	46,129,486	13,571,224	46,002,384 <sup>1</sup>
Depreciation and Amortization Expense	61,413,835	61,413,835	15,734,455	64,148,161 <sup>2</sup>
Interest Expense, Net	38,424,734	38,424,735	9,832,011	38,424,735
<b>Total Cost of Electric Service</b>	<b>\$346,002,352</b>	<b>\$337,129,313</b>	<b>\$ 91,630,470</b>	<b>\$344,379,971</b>
<b>Patronage Capital &amp; Operating Margins</b>	<b>\$ 7,754,344</b>	<b>\$ 7,931,268</b>	<b>\$ 4,742,060</b>	<b>\$ 7,619,295</b>
Non-Operating Margins - Interest	291,144	291,144	78,958	291,144
Allowance for Funds Used During Construction	301,074	301,074	19,363	301,074
Non-Operating Margins - Other	(145,180)	(145,180)	(75,066)	(145,180)
<b>Patronage Capital or Margins</b>	<b>\$ 8,201,382</b>	<b>\$ 8,378,306</b>	<b>\$ 4,765,315</b>	<b>\$ 8,066,333</b>
MFI/I	1.20	1.20	1.46	1.20
TIER	1.20	1.21	1.46	1.20

<sup>1</sup> Forecast based on 3 month actual and 9 month forecast

<sup>2</sup> Forecast has been adjusted to reflect anticipated changes



## CHUGACH ELECTRIC ASSOCIATION, INC.

### BOARD POLICY: 207

#### AUDIT AND FINANCE COMMITTEE

##### I. PURPOSE

The purpose of the Audit and Finance Committee is to assist the Board of Directors in fulfilling its oversight responsibilities by reviewing the Association's systems of internal controls regarding finance, accounting, and legal compliance and the Association's auditing, accounting and financial reporting processes, results and reports. The Audit and Finance Committee's responsibilities are to:

- A. Act consistent with the Association's Board Policy 100, *Code of Ethics*, in particular to create, promote and maintain a culture of honesty and high ethical standards.
- B. Review and oversee the Association's financial reporting process, results and reports as they apply to internal controls to prevent, deter and detect fraud.
- C. Review the performance of the Association's independent registered public accounting firm ("independent auditor" or "auditor").
- D. Ensure open communication between the Association's independent auditor, management and the Board of Directors.

The Audit and Finance Committee shall also:

- A. Make recommendations to the Board regarding Section II. B. of Board Policy 103.
- B. Review annually, objectives and goals in areas assigned to this Committee and makes appropriate recommendations to the Board.
- C. Review and complete such other matters as may be specifically assigned to it by the Board.

The Audit and Finance Committee will fulfill these responsibilities as enumerated in Section III of this Policy.

## II. COMPOSITION

The Audit and Finance Committee shall be comprised of three or more directors as determined by the Board. Committee members may enhance their familiarity with finance and accounting by participating in educational programs conducted by the Association or an outside consultant or other programs. The Committee may also retain the services of a qualified accounting professional with auditing expertise to assist it in the performance of its responsibilities.

The Board Chair shall appoint the Board Treasurer as Audit and Finance Committee chairperson. The Audit and Finance Committee shall elect from its membership a vice chair and appoint a recording secretary as needed.


## III. RESPONSIBILITIES

The responsibilities of the Committee are to:

1. Recommend to the Board of Directors the selection of the independent auditor, it being understood that the Board of Directors has the ultimate authority and responsibility to select, evaluate and, where appropriate, replace the independent auditor.
2. Receive annually a report of, and review and discuss with the independent auditor, all significant relationships they have with the Association, including the fees and other compensation paid to them, to verify their independence.
3. Ensure the receipt of, and evaluate the written disclosures and the letter that the independent auditor submits to the Audit and Finance Committee regarding the auditor's independence in accordance with Independence Standards Board Standard No. 1, discuss such reports with the auditor and, if so determined by the Audit and Finance Committee in response to such reports, recommend that the Board of Directors take appropriate action to address issues raised by such evaluation.
4. Discuss with the independent auditor the matters required to be discussed by applicable auditing standards.
5. Instruct the independent auditor that the Committee expects to be advised if there are any areas that require special attention.
6. Meet with management and the independent auditor to discuss the annual financial statements and the report of the independent auditor thereon, and to discuss significant issues encountered in the course of the audit work, including restrictions on the scope of activities, access to required information and the adequacy of internal financial controls.

7. Review the management letter delivered by the independent auditor in connection with the audit.
8. Each year, confirm the level of financial information to include in the Association's annual report.
9. Meet quarterly with management to review and discuss the quarterly financial statements and meet annually with management and the independent auditor to review and discuss the annual financial statements.
10. At least annually, meet with the independent auditor out of the presence of management to discuss internal controls and to review the fullness and accuracy of the Association's financial statements.
11. When necessary, meet in separate executive sessions with management and the independent auditor to discuss matters the immediate knowledge of which would clearly have an adverse effect on the finances of the cooperative, or when such an executive session would otherwise be necessary to comply with the open meeting requirements of the Association.
12. Have such meetings with management, the independent auditor and the internal auditor, if applicable, as the Audit and Finance Committee deems appropriate, to discuss significant financial risk exposures facing the Association, and steps management has taken or should be taken to monitor and control such exposures.
13. Review the scope and results of internal audits, if applicable.
14. Evaluate the performance of the independent auditor and, if so determined by the Audit and Finance Committee, recommend to the Board of Directors replacement of the independent auditor.
15. At the request of Association counsel, review with Association counsel legal and regulatory procedures that may have a significant impact on the Association's financial statements, compliance policies or programs.
16. Conduct or authorize such inquiries into matters within the Committee's scope of responsibility as the Committee deems appropriate.
17. Provide minutes of Audit and Finance Committee meetings to the Board of Directors, and report to the Board of Directors on any significant matters arising from the Committee's work.
18. Review with the independent auditors and management the extent to which any changes or improvements in financial or accounting practices, as recommended by the independent auditors and approved by the Board, have been implemented.
19. At least annually, review and reassess this Policy and, if appropriate, recommend proposed changes to the Board of Directors.

Date Approved: May 26, 2021

Attested:   
James Henderson  
Secretary of the Board

*In the performance of its responsibilities, the Audit and Finance Committee is a representative of the members. However, it is not the responsibility of the Audit and Finance Committee to plan or conduct audits, or to determine whether the Association's financial statements are complete and accurate or in accordance with generally accepted accounting principles. It is not the responsibility of the Audit and Finance Committee to conduct inquiries, to resolve disagreements, if any, between management and the independent auditor, or to assure compliance with laws, regulations or any company compliance policies or programs.*